Darwin Initiative Main and Post Project Annual Report

To be completed with reference to the "Writing a Darwin Report" guidance: (http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2020

Darwin Project Information

Project reference	26-023
Project title	Bridging agriculture and environment: Southern African crop-wild-relative regional network
Country/ies	Malawi, Tanzania, Zambia
Lead organisation	Bioversity International (now Alliance Bioversity International and CIAT)
Partner institution(s)	University of Birmingham (UoB); Southern African Developing Community (SADC) Plant Genetic Resources Centre (SPGRC), Lusaka, Zambia; Malawi Plant Genetic Resources Centre (MPGRC), Lilongwe, Malawi; National Plant Genetic Resources Centre (NPGRC) Tropical Pesticides Research Institute (TPRI), Arusha, Tanzania; Zambia Agricultural Research Institute (ZARI), Lusaka, Zambia.
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Reporting period (e.g. Apr 2019 – Mar 2020) and number (e.g. Annual Report 1, 2, 3)	Apr 2019 – Mar 2020 [Annual Report 1]
Project Leader name	Mohammad Ehsan Dulloo
Project website/blog/social media	Website: http://www.cropwildrelatives.org/sadc-cwr-net/ Blog post: https://www.bioversityinternational.org/news/detail/bridging-agriculture-and-environment-southern-african-crop-wild-relative-regional-network/
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1. Project summary

Crop Wild Relatives (CWR) are wild plant species related to crops offering trait diversity for crop improvement. Globally, CWR contribute about US$120 billion annually to crop improvement that sustains food production and mitigates climate change impact, enhancing long-term food/nutrition security and poverty alleviation. CWR trait diversity is increasingly used in breeding programmes especially for novel cultivar development. However, breeders have limited access to such diversity, as CWR are poorly represented in genebanks and poorly supported by Access and Benefit Sharing policies. CWR are rarely used by farmers, but evidence exists that local farmers play a vital role in maintaining the interaction between CWR and their domesticates. Yet farmers are neither recognised nor rewarded for the public-good conservation service they provide and have no incentives to continue to maintain them. CWR face similar threats to wild biodiversity from climate change, habitat degradation, invasive species, overexploitation, and pollution. In a recent SADC-CWR project funded by ACP/EU, these drivers were also recognised by the partner countries when developing their National Strategic Action Plans. Loss of their genetic diversity, and especially useful climate-change adaptive traits will impact capacity for breeders to find long-term solutions to mitigate impact to climate change and ensuring long term food security.CWR species are often neglected due to inadequate appreciation and knowledge of their agricultural/nutritional value by policymakers and wild habitat (including non-protected areas) managers. The SADC-CWR project showed that limited coordination between agricultural and environmental stakeholders and lack of any regional network with an enabling governance structure, resulted in poor representation of more than 1,900 reported priority CWR species in genebanks and scant *in situ* conservation activity. There is little capacity among national-level scientists to effectively conserve/use CWR due to lack of tools to assess CWR distribution, identify potential novel traits for breeding, and design mechanisms to ensure that farmers can benefit more directly from CWR.The Darwin SADC CWR Network project spans three years and is enabling CWR conservation, both in their wild habitats (*in situ*) in southern Africa, especially in Malawi, Tanzania and Zambia and in genebanks (*ex situ*) to facilitate their use. The objectives of the project are to a) establish strategic partnership and networks of protected areas for *in situ* conservation of CWR and use, b) design mechanisms to enhance the benefits to farmers from conserving CWR, c) increase access to and use of CWR germplasm and finally d) build and begin to apply gender-equitable capacity in southern Africa for *in situ* conservation and use of CWR. Malawi and Tanzania have created their national CWR checklist and identified their national priority CWR lists (e.g. wild relatives of rice, sorghum, beans and groundnuts). Identification of the hotspots hosting the priority CWR species have been initiated for implementation of *in situ* conservation measures.

2. Project partnerships

Bioversity International (now the Alliance of Bioversity International and CIAT - henceforth referred to as the Alliance) leads the project in close collaboration with the six project partners mentioned above in the project information table. In order to kick start the project, the first step in partnership building was to develop Letters of Agreement with the partners to define the scope of work and articulate the required financial resources to implement agreed project activities (see section 3.1- activity 7). During the first year of the project, all partners worked hard to develop a solid project team for effective implementation of the project. At the start, the Alliance established a Project Coordination Committee (PCC) in which representatives of all partners were invited to participate. Nine virtual PCC meetings were held using GoToMeeting (Annex 2). The PCC's key function is to establish a dialogue among all partners and exchange information, but it also serves as a project planning platform where activities and tasks are discussed, and decisions made. The PCC also provides the mechanism for monitoring progress of activities. The partnership generally functioned well, despite a lot of communication constraints relating to poor internet connections with country partners which made virtual PCC meeting often difficult. A two-day inception workshop was organised in August 2019 which helped clarify the roles and responsibilities of project partners and develop strong partnerships (Annex 7.1). The project also established a steering committee which represents an independent team that provides guidance and advice on any adjustments needed to address the project's objective and monitor the coherence between the project and sector development. The SC members were invited to attend the inception meeting, which helped a lot in bringing all the partners together and get their buy-in. Project partners including ZARI, UOB, the Alliance and SPGRC attended a side event at Eighth Session of the Governing Body of the International Treaty on PGRFA held on 14 November 2019

in Rome. The Alliance delegate, Suzanne Ngo-Eyok and project partner from Zambia gave a presentation on the project and its objectives, to generate interest in potential members of the network who were in attendance.

Given the nature of this project in developing a network across the SADC region, there are also other partners that are not formally part of the project, but which are also benefiting from it. At the country level in Malawi, Tanzania and Zambia, a national multi-stakeholder committee was established (see section 3.1- Annexes 2.1 (i), (ii) and (iii)) which brought together different stakeholders from protected areas managers, breeders, farmers to contribute to the objectives of the project. Partnership with these stakeholders is critical to the success of the project. In Malawi, the Malawi Plant Genetic Resources Centre (MPGRC) worked with experts from the National Herbarium and the Botanic Garden of Malawi during field work for ground truthing selected sites containing CWR. They also carried out sensitization campaigns with local farmers (see output 5) with a view of establishing strategic partnerships with them for the project implementation. Tanzania is also working in close collaboration with its national herbarium to generate their national CWR checklist. In Zambia, the national partner is working closely with other stakeholders, especially with their Department of National Parks and Wildlife and Forestry authorities to revise the existing National Strategy and Action Plan on *in situ* conservation of crop wild relatives. The project also established a mentoring programme (see section 3.1- Annex 6.3) linked to the country partners, as well as in other countries in SADC region, to extend partnerships across the entire region for creating region-wide awareness of the project, and to develop capacity for other countries to join the partnership that the SADC CWR network is creating.

3. Project progress

3.1 Progress in carrying out project Activities

The table below provides the progress of all the activities scheduled during the first year.

Activities	Progress made
Activity 1- Establishment of Regional SADC CWR Network	Two tasks had been scheduled to be initiated in the second half of year one, namely (a) the drafting of a concept paper on the governance structure, functions and funding mechanism of the proposed regional SADC CWR network and (b) preparations for developing a set of guidelines to harmonise access and benefit sharing of *in situ* genetic resources within the CWR network. Under (a) a draft concept note (Annex 1.1) was written and shared with the project partners and members of the steering committee for comments and inputs. It will soon be (within the first three months of year two) circulated to SADC member states. Progress made as scheduled. Under (b) a meeting was held with SPGRC to discuss the design of the survey instrument that will be administered to national focal points of Nagoya Protocol and ITPGRFA. [Due in year two, under progress]
Activity 2- Enhanced SADC *in situ* CWR conservation in Malawi, Tanzania and Zambia	All three countries have constituted their national multi-stakeholder's committees for validation of their checklists, priority CWR species and conservation sites. Malawi and Zambia have already established their national checklists and priority lists. Tanzania having received technical support from UoB and the Alliance in March 2020, is yet to finalise theirs. Conservation planning for the priority sites in Malawi has been done. The National Strategy Action Plan (NSAP) for *in situ* conservation of CWR of Zambia has been reviewed by a team of experts and is awaiting validation from their national multi-stakeholders' committee. A regional 'SADC Strategic Action Plan for the Conservation and Use of CWR' is still under development. Zambia conducted field visits in three priority conservation sites within three national parks where they recorded occurrences and geographical locations of CWR of rice (*Oryza longistaminata*, *O. barthii*), sweet potato (*Ipomoea* spp.), cowpea (*Vigna* spp.) and pearl millet (*Pennisetum* spp.). Herbarium specimens were collected, and photographic images were taken for identification of one unknown CWR of rice. In Malawi preliminary field survey in 5 districts identified the occurrence of 2 CWR species of rice (*Oryza longistaminata*, *O. barthi*), bush bean (*Micropitilium atropurpureum*), cowpea (*Vigna* sp.) and perennial soybean (*Glycine wightii*) in 18 sites. Progress made as scheduled.
Activity 3 – Enhanced SADC *ex situ* CWR conservation	Plans for strengthening the *ex situ* facilities at SPGRC were discussed at the inception meeting. Aluminium foil bags were purchased for the conservation of CWR species at SPGRC, but the delivery has been delayed due to impacts of the COVID-19 virus on the flights to Zambia. In Malawi, a preliminary field survey was undertaken from 24-25 February 2020 in five districts for collecting priority crop wild relatives (CWR) for gap filling collecting mission which will be conducted between May and July 2020 when most of the CWR are mature. Baseline information on the number of accessions conserved in SPGRC as well as from the national genebanks of the partner countries was established. During the period of review, no distribution of CWR accessions was made from national genebank of Malawi and Zambia, nor from the SPGRC regional genebank. The main reasons reported by partners are (i) low number of seeds' duplicates available since multiplication is costly and (ii) no active requests from breeders for CWR materials, mostly attributed to a lack of awareness on CWR genetic materials available and the traits they can confer. A total of 117 accessions were distributed from Tanzanian National genebank to ICRISAT (60) and IITA (57) of cowpea (*Vigna unguiculata*), finger millet (*Eleusine coracana*) and *Pennisetum* for conservation and use in breeding programs.

Activities	Progress made
Activity 4: Enhanced SADC CWR use in crop improvement	During period under review, a SWOT analysis on the use of crop wild relatives in breeding programmes was conducted in mid-February 2020 and a report was completed as scheduled (Annex 4.1). The survey showed that breeders acknowledge and value the contribution of CWR in breeding programmes. However, the main constraints highlighted were lack personnel, infrastructure, tools and financial resources and reluctance to introduce CWR materials in the stations as it may contaminate other breeding materials. Possible solutions include enhanced capacity building, provision of adequate equipment, dedicated financial support for collection, pre-breeding and breeding programmes, collaborative research and easier access to existing or novel germplasm.
Activity 5 – Enhanced farmers benefits from CWR conservation and use	A desk review of a set of four different mechanisms (direct farmer's support, enhanced direct use, improved access and national access and benefit sharing fund establishment) for enhancing farmer's benefits from the conservation and use of CWR was completed (Annex 5.1). A plan of action has now been initiated to explore the testing of these four mechanisms (Annex 5.3 (i,ii). A preliminary visit by the staff of the Alliance was undertaken to Malawi and Tanzania in December to support national partner review of an agreement regarding the proposed Output 5 benefit mechanisms to be explored, as well as elaboration of a plan of action, including field work. The latter was scheduled to take place in April 2020 but in the light of COVID-19 pandemic travel restrictions, the field trips have been postponed (to later in the year or even year 3, if necessary). Potential CWR to be the focus of this work were identified and include those related to rice, yam, cowpea, sorghum, sesame, banana and *Eleusine* (goosegrass family, including finger millets). Regarding the benefit sharing fund establishment mechanism modelling, consultation with experts from the University of Napoli (associated with the 2013 FAO Treaty Benefit Sharing Fund financial scenario modelling work) was realised (Annex 5.1). Similar consultations have been undertaken with the Alliance Seeds4Needs and GIS experts regarding the improved access mechanism modelling. In Malawi, sensitization campaigns were carried out among 354 farmers (143 males and 211 females) in agricultural Extension Planning Areas (EPAs) in six districts namely Uke in Lilongwe, Mkanda in Mchinji, Chulu in Kasungu, Linga in NKhotakota, Chipoka in Salima and Tsangano in Ntcheu, with a view of establishing strategic partnerships/network of protected areas for CWR conservation and use and design mechanisms to enhance benefits of farmers of conserving CWR, increase use of CWR and build gendered capacity (Annex 5.3 (i)).
Activity 6 - Capacity building	Following a needs' assessment survey in August 2019 by UoB, a needs' assessment report was developed based on the training requirements of the project partners (Annex 6.1 (i)). Technical backstopping support was provided to Tanzania team from 2-6 March 2020 by UoB and the Alliance on creation of national checklist, prioritisation and steps involved in conservation planning. A training workshop programme has been prepared by UoB, the Alliance and SPGRC in view to organise the training workshop on diversity analyses in the second year of the project. The one-to-one mentoring programme of two members per partner countries is on-going. Eight other SADC countries are also being mentored and their progress is being followed.
Activity 7 - Management and Coordination	As the lead organization, the Alliance managed and coordinated all the aspects of the project. As a first step, the Alliance organises yearly Letters of Agreements (LoAs) with all partners. LoAs are specific legal contracts with partners and is the instrument used by the Alliance for transfer of funds to the partner. The signature of the LoA with several partners took a very long time and needed a lot of discussions and negotiations about the scope of work for some and on the terms and conditions of the LoA for others. This process considerably delayed the start of the project. Due to administrative and financial procedures at the SADC secretariat under which SPGRC falls, SPGRC could not enter into agreement with the Alliance to receive funds. A special letter of collaboration was drafted and is still under study at the secretariat. In order not to impede the project, the Alliance withheld and managed their funds and paid directly for all their project costs. A Project Steering Committee (SC) was established and Terms of Reference (ToR) for the Steering committee defining the mandate and scope of work, composition, specific tasks and working procedures of the SC was developed. Five members accepted to serve on the SC and includes Dr Lefulesele Lebesa (Leostho, chair of SPGRC technical Committee), Dr Chikelu Mba (FAO), Dr Hannes Dempewolf (Crop Trust) and Dr Ehsan Dulloo (Project coordinator, ex-officio member). The SC members were invited to attend the project inception meeting,

Activities	Progress made
	and the first SC meeting was held during the inception meeting on 8th August 2019. Dr Lefulesele Lebesa was elected as Chairperson and Dr Chikelu Mba as Deputy Chairperson. Following the recommendation of SC at its first meeting, efforts were made to recruit some potential members from the environment sector and Domitilla Raimondi from South Africa National Biodiversity Institute was invited as the fifth member in August 2019. **Inception meeting:** The project's inception meeting was organized jointly by the Alliance and SPGRC and held at the Holiday Inn Airport, Johannesburg, South Africa from the 7-8 August 2019 and was attended by 29 participants. It was held back to back with the SPGRC curators' meeting to maximize participation with all the 16 SADC countries members, which constitute the key stakeholders of the project. The report of the inception meeting is annexed (Annex 7.1). **A Communication and Visibility Plan** for the project was developed and finalised (Annex 7.2). Branding of the project was done with the creation of a logo, banner and the project's website. A leaflet about the project was produced and copies distributed to project partners at the inception meeting. A blog post was released after the inception meeting held in South Africa on the website of the Alliance and SPGRC for media coverage and to promote the project. A policy brief was produced to raise awareness of the project among project's stakeholder. Partners participated in several different meetings and made presentations on the project. SPGRC and the Alliance organised a side event at the Eighth Session of the Governing Body of the ITPGFA where several of the project partners including ZARI, UOB, the Alliance and SPGRC made presentations. The Darwin project coordinator, Ehsan Dulloo and Head of SPGRC, Justify Shava, both participated in a workshop organized by SADC secretariat with its international Cooperation Partners. This was a huge opportunity to raise awareness of the project to the secretariat and other stakeholders in the region. At the national level Malawi conducted sensitisation campaign meeting with local farmers in targeted EPAs for raising awareness (refer to section 3.2, Annex 2.6 (i)). The project also organised multi-stakeholder meetings in all three countries where they were briefed about the project (refer to section 3.2, Annexes 2.1 (i,ii,iii)). **A draft Data Management Plan** has been developed and shared with project partners for inputs (Annex 7.3). It provides guidelines to ensure proper storage and licensed sharing of the data collated during the project to comply with GDPR rules. A **Monitoring and Evaluation Plan** has been prepared by the project (Annex 7.4) which details all the expected result chain, deliverables (Indicators), deliverable due date, methodology on how the deliverables will be produced, data source(s) and the person responsible for the delivery. This tool is used in project coordination meeting to track progress on activities. All documents produced under the project are placed in Microsoft TEAMS used as a repository tool and all the key deliverables of the project are deposited in DATAVERSE.

3.2 Progress towards project Outputs (Note that rows highlighted in grey are not due in first year, but progress indicated)

OUTPUT 1: SADC CWR *in situ* network established as part of existing SADC plant genetic resource network

Output	Baseline	Progress made by March 2020	Source of evidence
Indicator 1.1: A Draft document on the governance structure, functions and funding mechanism prepared and circulate to all SADC state members for inputs by end of year 1.	None	A draft concept note has been written and shared with the project partners and members of the steering committee for comments and inputs. Feedback was received from UoB, SPGRC and 3 members of steering committee. The draft is currently being reviewed for submission to the SPGRC Technical review committee, representing the different members states of SADC.	Annex 1.1 Draft concept note on SADC CWR network creation.

Output	Baseline	Progress made by March 2020	Source of evidence
Indicator 1.2: Draft document on harmonisation of the access and benefit sharing of *in situ* genetic resources within the CWR network prepared by Month 24.	No regional ABS document exists at SADC level.	Due in year 2: On track. Plans for initiating this work were discussed in depth at the inception meeting and a survey form is being developed and will sent to focal points for the Nagoya protocol and International Treaty on Plant Genetic Resources for Food and Agriculture of SADC member states. Our partner SPGRC is facilitating contacts with SADC member states.	
Indicator 1.3: An ABS workshop for in situ genetic materials attended by National focal points of ITPGRFA, Nagoya protocol and CDB of 16 member countries held by Month 24.	None	Due in year 2.	
Indicator 1.4: Draft SADC regional CWR network Policy White paper on governance structure, function and funding mechanism including ABS of in situ genetic materials as well as a draft edict paper prepared by Month 30 of the project.	None	Due in Year 3	
Indicator 1.5: A validation network foundation workshop for endorsement of SADC regional CWR network Policy White paper on SADC CWR in situ network governance functionality, structure, management and post-project financing and draft edict paper held by Month 30 of the project.	None	Due in Year 3	
Indicator 1.6: Finalised SADC regional CWR network Policy White paper and Draft Edict paper submitted to the SADC Council of Ministers by Month 36 of project.	None	Due in Year 3.	

OUTPUT 2: Enhanced *in situ* CWR conservation in SADC region with emphasis on Malawi, Tanzania, and Zambia

Output	Baseline	Progress made by March 2020	Source of evidence
Indicator 2.1: A National participative multi-stakeholder committee on CWR established to oversee development of national and regional strategies for CWR conservation and use, by project month 4 and holds bi-annual meetings over the project period.	Neither countries had a national multi-stakeholders' committee dedicated to *in situ* CWR conservation.	National Multi-stakeholder committees have been constituted in Malawi, Tanzania and Zambia comprising of 16, 26 and 18 members respectively from different sectors of conservation and breeding. The first meetings were held as follows: 4th July 2019 for Zambia, 16 December 2019 for Malawi and 23-24 March 2020 in Tanzania.	Reports of the national multi-stakeholder's workshops: Annex 2.1(i) Zambia, Annex 2.1(ii) Tanzania, Annex 2.1 (iii) Malawi
Indicator 2.2: National checklists and inventories of CWR in Malawi and Tanzania published and made available on project website within the first 6 months of the project. (Already available for Zambia under previous ACP-EU SADC-CWR project).	Templates of the checklist, inventory and priority list are available from the previous ACP-EU SADC-CWR project.	Malawi has already created their national checklist and priority lists (Annex 2.2 (i) which was validated by their national multi-stakeholders' committee. Tanzania received technical backstopping in CWR checklist development, prioritization, collation of occurrence data by UoB and the Alliance between the 2 and 6 March 2020 (Annex 2.2. (ii)). Their national checklists and priority lists are yet to be finalised.	Annex 2.2 (i) Malawi Annex 2.2. (ii) - Tanzania technical backstopping report
Indicator 2.3: Conservation planning of CWR *in situ* sites/population in Malawi and Tanzania completed with distribution maps and priority sites for reserve establishment by Month 24.	Interactive Toolkit for Crop Wild Relative Conservation Planning	Due in year 2, Preliminary work has been done in Malawi to identify the potential priority sites for *in situ* conservation and UoB has provided support in drafting a paper about the identification of the sites for *in situ* conservation of CWR in Malawi (Annex 2.3). The project partners in Tanzania were introduced to the conservation planning concept which follows up with Indicator 2.2. using the toolkit during the technical backstopping meeting.	Annex 2.3 (Malawi) - List of priority sites
Indicator 2.4: Two National CWR Conservation Strategic Action Plans covering *in situ* sites, *ex situ* genebanks and stakeholder priorities endorsed by respective governments of Malawi and Tanzania by Month 36.	Template for the National Strategic Action Plan (NSAP) is available from the previous ACP-EU SADC- CWR project.	Due in Year 3 UoB and the Alliance provided technical support on the writing of NSAP to the Tanzania team during the technical backstopping meeting that took place between 2 and 6 March 2020. Zambia has updated the NSAP on CWR which was developed under the previous ACP-EU SADC CWR project.	Annex 2.2 (ii) - Technical backstopping report.
Indicator 2.5: Regional Strategy for the establishment of SADC-CWR network prepared and published on project website by Month 18	No regional strategy exists in the SADC region.	Due in Year 2. The regional strategy is under development. A paper 'Integrating diversity and climate change analyses in conservation planning of crop wild relatives in Southern Africa' (draft title), which includes the results obtained in the CWR *in situ* and *ex situ* conservation planning in the SADC region, is currently being prepared.	

Output	Baseline	Progress made by March 2020	Source of evidence
Indicator 2.6: Ground-truthing of selected sites to assess CWR presence in GIS predicted sites and site climate viability assessment of initial identified potential CWR *in situ* sites by Month 30	Existing information on geo-referenced locations; previously collected germplasm	Due in year 3. Some preliminary surveys were carried out in Zambia and Malawi (see activity report above).	Annex 2.6 (i) Field report Malawi Annex 2.6 (ii) Field report Zambia
Indicator 2.7: Nomination of at least existing 9 protected areas and 3 newly established, less formal sites associated with farming communities for network membership (3 protected areas and 1 less formal site in each of Malawi, Tanzania and Zambia, plus additional sites from other SADC countries by Month 30	None	Due in Year 3	
Indicator 2.8: Revision of management plans for 9 protected areas / genetic reserves and writing of management agreements for 3 newly established, less formal sites by Month 36	Existing management plans	Due in Year 3.	

OUTPUT 3: Enhanced SADC *ex situ* CWR conservation

Output	Baseline	Progress made by March 2020	Source of evidence
Indicator 3.1: A new cold room facility established at the Regional SADC genebank for *ex situ* conservation of CWR established by end of the Month 24.	Freezers	Due in Year 2	
Indicator 3.2: Representative CWR *ex situ* gaps filling of 450 populations identified in National CWR Conservation Strategies and Action Plans and Regional Assessment of CWR across SADC region in active collections of national and regional genebanks, in two collecting missions held in Month 24 and 36.	Number of CWR accessions already in each partner country's respective gene banks	Due in Year 2	
Indicator 3.3: Safety backup of SADC regional CWR network CWR *in situ* sites/populations 'black box' stored in national and regional genebanks, and appropriate CGIAR centres, by Month 36.	Existing accessions of CWR	Due in Year 3	
Indicator 3.4: Trends in the number of accessions of CWR conserved in *ex situ* collection monitored annually. Annually in Month 12, 24 and 36.	Number of CWR accessions already in each partner country's respective gene banks	Baseline information on the number of accessions conserved in SPGRC as well as from the national genebanks of the partner countries were established. An assessment of number of accessions (meaning entries) of CWR species already	Annex 3.4 – List of accessions from regional genebank of

Output	Baseline	Progress made by March 2020	Source of evidence
		conserved in SPGRC regional bank and national genebanks revealed a total number of 376 accessions of 63 CWR species out of total collection of 15,015 accessions in SPGRC. At national level, 45 accessions in Malawi, 159 accessions in Tanzania and 395 accessions in Zambia were retrieved (Annex 3.4). Furthermore, the SADC Information System (SDIS) database list of CWR has been updated to include species occurring in the region. This now forms the baseline for monitoring the future collection of CWR that will be undertaken in the second and third year of the project.	SPRGC and national genebanks.
Indicator 3.5: Trends in the number of accessions of CWR distributed to end users annually, annually in Month 12, 24 and 36.	Information on CWR germplasm already accessed by farmers	An analysis of the distribution of the accessions of CWR listed within the SDIS to breeders has been made and there has been no distribution of CWR to breeders, except in Tanzania, where the National Plant Genetic Resources Centre has distributed 117 CWR accessions to ICRISAT (60) and IITA (57) of cowpea (*Vigna unguiculata*), finger millet (*Eleusine coracana*) and *Pennisetum* for conservation and use in breeding programs.	

OUTPUT 4: Enhanced SADC *ex situ* CWR conservation

Output	Baseline	Progress made by March 2020	Source of evidence
Indicator 4.1: SWOT analysis report on the potential use of CWR in breeding programmes at the national and SADC regional level submitted by the Month12	No baseline information was available on the potential use of CWR in the SADC region.	The SWOT analysis on strengths, weaknesses, opportunities and threats of using CWR in breeding programmes was conducted among the breeders of the partner countries as well as in the SADC region in mid-February 2020. Respondents confirmed the importance and the role that wild relatives play in crop improvement and are keen to use of them in their crop breeding programs but face some major constraints including: i) lack of funds, ii) pre-breeding capacity iii) identification of traits, especially in nutrient profiling and iv) lack of taxonomists for field identification of wild relatives. Possible solutions include enhanced capacity building, provision of adequate equipment, dedicated financial support for collection, pre-breeding and breeding programmes, collaborative research and easier access to existing or novel germplasm.	Annex 4.1 - SWOT analysis report
Indicator 4.2: Data on farmer trait priorities for crop improvement of 4	None	Due in Year 2.	

Output	Baseline	Progress made by March 2020	Source of evidence
major priority SADC crops produced and published on project website by Month 24.			
Indicator 4.3: Maps of SADC region showing populations of CWR with priority traits produced, made available to SADC and CGIAR breeders and published on project website by Month 24	None	Due in Year 3.	
Indicator 4.4: Number of accessions of CWR being used by national and international breeding institutions in pre-breeding programmes reported by Month 24 and 36.	Number of CWR accessions already in use in pre-breeding programmes	Due in Year 2	
Indicator 4.5: Quantity of seeds of novel cultivar and improved local landrace material improved with CWR made available to SADC farmers by end of Month 36.	None	Due in Year 3.	

OUTPUT 5: Enhanced farmer benefits from CWR conservation and use

Output	Baseline	Progress made by March 2020	Source of evidence
Indicator 5.1: A set of mechanisms for enhancing farmers' benefits from the conservation and use of CWR defined, together with assessment criteria, by end of Month 9 of the project.	Zambia case study on PACS (Payment/Reward for Agrobiodiversity Conservation Services)	Completed. Country visits were undertaken in Malawi and Tanzania to support national partner review and agreement regarding the proposed Output 5 benefit mechanism, namely a PACS direct support and an enhanced use mechanism, to be explored for implementation under activity 5.3.	Annex 5.1- Report on set of mechanisms
Indicator 5.2: A Tool Kit "How To" manual for informing mechanism design and assessment developed and published by end of Month 18.	Zambia case study on PACS (Payment/Reward for Agrobiodiversity Conservation Services); FAO International Treaty Benefit Sharing Fund financial flow scenario modelling	Due in Year 2	
Indicator 5.3: Two field surveys conducted involving at least 1500 farmers (65%males and 35% females) in Malawi and Tanzania to document	Existing (Zambia) survey instrument	Due in Year 3 Preliminary field visits undertaken in Malawi and in Tanzania remain planned to explore community-level perspectives regarding CWR and elaboration of a plan of action; and	Annex 5.3 - Travel Report ("Notes from Field")

and/or model the benefits that farmers derive or could derive from CWR conservation by end of Month 34.		identification of specific team members. This will enable them to inform the further development (adaptation to Malawi/Tanzania circumstances and extension to address issues related to the enhanced use mechanism) of the existing survey instrument for field work in years 2 and 3.	

OUTPUT 6: Enhanced Capacity of SADC CWR stakeholder in conservation and use of CWR

Output	Baseline	Progress made by March 2020	Source of evidence
Indicator 6.1: Needs assessment report on the trainings for capacity of SADC key stakeholders for the implementation of the regional network for *in situ* conservation of CWR and use finalised by the end of Month 6.	List of activities and skills/ capacity needed to implement them	The training needs of the project countries and the remaining SADC countries were assessed at the inception meeting in August 2019, where specific topics for training were identified through a training needs survey among the SADC countries. A capacity building plan was developed by UoB.	Annexes 2.2. and 6.1 – Needs Assessment Report
Indicator 6.2: A training workshop provide CWR conservation and use for at least 15 SADC CWR network stakeholders. Held back to back with network foundation workshop by the end of Month 24.	The workshop will focus on training the participants on various diversity and gap analyses techniques, using their own occurrence data set prepared prior to the workshop, and using various tools (e.g. CAPFITOGEN). Subjects that will be covered may include: (i) complementarity analysis, (ii) species distribution modelling, (iii) recommending sites for *in situ* and *ex situ* conservation, (iv) writing NSAP for the conservation and use of CWR. Materials are already available for these training from the previous SADC CWR project.	Due in Year 2: UoB together with the Alliance has prepared a document outlining the structure of the training programme and the prerequisites for attending the training workshop. This training programme is composed of three main elements, namely a) preparatory phase which aims at preparing the data needed for the subsequent training workshop, b) training workshop on CWR conservation planning: a technical face-to-face training workshop to be held in November 2020 (dates to be determined) and c) post-training workshop support. A committee has been established together with SPGRC to start the organisation of the training workshop.	Annex 6.2 - Training programme document and minutes of meeting available.
Indicator 6.3: Two research staff per participating country receive one-to-one mentoring technical support by peers in UoB and Bioversity on the conservation and use of CWR during lifetime of the project.	The long-distance mentoring programme is a new approach under trial.	All SADC countries were contacted to participate in this mentorship programme for one-to-one technical support via SPGRC. Out of the 16 SADC countries, Botswana, Comoros, DRC, Eswatini, Lesotho, Seychelles, South Africa, and Zimbabwe (8 countries) are currently active in engaging in the development of CWR checklists. The progress is being followed via regular meetings and interactions between the mentees and mentors.	Annex 6.3 - List of mentees.

Output	Baseline	Progress made by March 2020	Source of evidence
Indicator 6.4: Conference on PGR conservation and use held at the end of the project (Month 35).	None	Due in Year 3.	

3.3 Progress towards the project Outcome

Outcome: Establish SADC CWR network of *in situ* sites/populations, *ex situ* genebanks and stakeholders (farmers, environmentalists, breeders and policy makers) resulting in 70% improved CWR conservation and use for crop improvement

	Baseline	Progress made by March 2020	Source of evidence
Indicator 0.1: SADC Council of Ministers by 2022 issue an edict establishing the SADC regional CWR network among SADC member states.	There is no network in place for *in-situ* conservation and use of CWR in SADC region. However, there is an existing *ex-situ* regional plant genetic resources network in the SADC with a regional network based in Lusaka and a National Plant Genetic Resources Centre in each member state.	An informal meeting was held with the Director of Food, Agriculture and Natural Resources (FANR) Directorate of the SADC secretariat in Gaborone, Botswana and a road map towards establishing the CWR network was discussed. A policy brief aimed at achieving the intended goal was developed and shared with the Director of FANR at SADC secretariat. A draft concept note for the establishment of the network has been developed.	Annex 0.1 Policy brief
Indicator 0.2: Trends in number of CWR genetic reserves established and nominated by countries to be part of the SADC-CWR network, measured annually and reported to the Council of Ministers.	No CWR genetic reserves have yet been established. It is not expected that any genetic reserves would be established until after the network has been put in place.	Project is making good progress is the prioritization of sites for eventual inclusion within the network. In Malawi sites have been prioritised (see indicator 2.3 in previous section). Zambia has already identified 2 sites from a previous project. Tanzania is finalising its national checklist and inventory and the next step now is undertaking conservation planning for site prioritisation.	Annex 2.3 (Malawi) Annex 2.6(ii) (Zambia)
Indicator 0.3: Trends in the number of CWR conserved in National plant genetic resources centres and regional SADC genebank, measured annually and reported to the Council of Ministers.	Number of CWR accessions already in each partner country's respective genebanks and regional genebank	The current number of species and accessions of CWR conserved in the regional genebank were assessed to serve as a baseline to measure the progress in conserving CWR in genebanks (see indicator 3.4 in previous section).	Annex 3.4 List of CWR accessions in regional genebank at SPGRC and national genebanks of partner countries
Indicator 0.4: Trends in the number of CWR distributed	Information on CWR germplasm already accessed by farmers	There has been no distribution of CWR materials to either farmers or to breeders, except in Tanzania NPGRC (reported under Section	Annex 4.1 SWOT report

	Baseline	Progress made by March 2020	Source of evidence
to users, measured annually and reported to the Council of Ministers.		3.2 for Indicator 3.5). A SWOT analysis was carried out with breeders in the countries in the region to examine the extent to which breeders are successfully using CWR in their breeding programmes. The analysis showed that there are many constraints to the use of CWR and in getting access to them. The main constraints highlighted were lack personnel, infrastructure, tools and financial resources and reluctance to introduce CWR materials in the stations as it may contaminate other breeding materials. Possible solutions include enhanced capacity building, provision of adequate equipment, dedicated financial support for collection, pre-breeding and breeding programmes, collaborative research and easier access to existing or novel germplasm.	

3.4 Monitoring of assumptions

Assumption 1 (Outcome): Willingness of the SADC member states to commit to establishment of regional CWR network as a contribution to the global efforts in biodiversity conservation and access to genetic materials as called forth by the Convention on Biological Diversity and Nagoya protocol.
Comment: All member states are currently fully engaged in the negotiations of the new Post2020 Global Biodiversity framework, where both the importance of CWR and ABS issues are high in the agenda. This augurs well for the project and may help in raising the awareness of member states about these issues and would help in supporting the regional CWR network.

Assumption 2 (Outcome): No logistical barriers to the smooth operation/ implementation and communications between countries and stakeholders involved in SADC CWR network.
Comments: This will be dependent on the SADC Secretariat willingness to host and facilitate the implementation of regional CWR network. Discussions have been held with director of Food, Agriculture and Natural Resources of SADC Secretariat and he is fully supportive of the idea. The steps to follow for an edict paper for the creation of the network was discussed. However, the COVID-19 pandemic is bound to affect smooth operation of the project and we will need to be proactive to find alternative solutions to achieve the project objectives.

Assumptions (Output 1): Full participation of the member states of the SADC region; Representatives of countries attending the regional workshop have the credentials to discuss and negotiate the draft protocol on the establishment of the SADC CWR network; SADC Council of Ministers willing to support establishment of SADC CWR *in situ* network.
Comments: If the representatives of countries attending the validation workshop for the establishment of network do not have the credentials to endorse protocol, then this can be a problem. Invitations to the workshop will be made through the official channels of SADC through the foreign affairs of each member state to ensure full participation of the member states and to augment the chance of these assumptions to hold true.

Assumptions (Output 2): Different stakeholders especially agriculture, forestry and environment are willing to work in a collaborative way; Community support for *in situ* conservation management of CWR in their neighbourhoods; Full support from policy makers are provided.
Comments: The project has organised National multi-stakeholder meetings in each country bringing together stakeholders from the above-mentioned sectors (see Annex 2.1- country multi-stakeholder reports). Countries reports show that awareness among these stakeholders have been created and they are all happy to collaborate effectively with our local lead partners.

Assumptions (Output 3): Genebanks willing to hold safety backup of CWR *in situ* populations.
Comments: There exists a functioning plant genetic resources genebank network in the region through which genetic resources materials (including CWR) are collected at national level and sent to regional safety back up collection based in Lusaka, Zambia for safety duplication.

Assumptions (Output 4): Users are aware of Nagoya Protocol and ABS policy process and make application for germplasm use; CGIAR able to supply pre-bred CWR trait lines to SADC breeders and farmers for crops of interest; SADC breeders and farmers willing to work with pre-bred CWR trait lines to generate climate smart material for SADC farmers.
Comment: While most countries have procedures in place for application for use of germplasm, the actual use of CWR in breeding programmes may be quite challenging as was revealed in our SWOT analysis report (see Annex 4.1). Public breeding institutions have challenges on their own to carry out their work and using CWR may be difficult. However, most breeders responded that they value the use of CWR in providing novel traits, especially for coping with climate change. The project will ensure that through the network, more materials be brought into the genebanks to facilitate access to them, enhance capacity building in terms of predictive characterisation of useful traits, encourage collaborative research and provide incentives for breeders and farmers to find dedicated financial support for collection, pre-breeding and breeding programmes and to invest in adequate equipment.

Assumptions (Output 5): Farmers willing to participate in CWR conservation and use activities; Appropriate existing CWR derived materials can be identified and access provided to farmers; Security concerns/civil strife does not impede farmer field visits in project sites.
Comment: Sensitisation campaigns are being done with farmers to increase their awareness about CWRs and their willingness to conserve these resources on farm and in surrounding adjacent areas. What is more challenging is the access to CWR derived materials by farmers. This will be dependent on the outcomes of outputs 4 above. An immediate strategy though would be to promote the conservation and use of existing CWR with access to the farmers in localities. There are currently security concerns linked to the COVID-19 pandemic which could potentially impede the project staff to undertake farmer field visits. Field visits planned in beginning of year are being postponed to later in the year.

Assumptions (Output 6): Willingness among protected areas managers and local communities to engage in the *in situ* conservation of CWR species; capacities for wild population management of CWR in partner countries are lacking; There is sufficient interest among young male and female research scientists in the partner countries to embark on research activities within the scope of this of this project.
Comment: Countries are reporting that there is good collaboration from the forestry and nature protection authorities to work together for identifying sites and for *in situ* conservation of CWR. The needs assessment report [Annex 6.1] identified lack of capacities for specific areas and these will be addressed by the project in the second year through a training and capacity building programme. Furthermore, the mentoring programme is proving to have mixed results. For some it is working well, but there is a general lack of proactiveness from nominated mentees to engage with their assigned mentors. Hopefully, the fully paid participation to the training workshop on diversity analysis will encourage the mentees to be more active, as for participation, a complete dataset of CWR occurrences is mandatory.

3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation

The project's intended impact is to increase the adaptive capacity and to reduce socio-economic vulnerability to enhance food security of 130 million people in southern Africa through improved conservation and use of CWR in breeding. The project is thus both linked to the biodiversity (CWR) conservation and contributes to the food security of the human populations within the SADC region. Essentially, the project aims at ensuring the *in situ* conservation of CWR in the region through the development of National Strategy Action Plans and establishment of genetic reserves. The project also promotes the safety back up of the genetic materials of CWR in national and regional genebanks to enable the genetic material to be accessible to breeders. This in turn will ensure sustainability of crop production to ensure food security of human population. At this stage, the project is establishing critical partnerships with the key stakeholders that will eventually allow the intended impact to be achieved.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

The project contributes directly to the achievement of SDG 2 - Zero hunger and food security. More specifically, it contributes to the SDG2 target 2.5 " *By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species*" So far the project is collating information for developing conservation strategies and policy interventions for the safeguarding and improving the accessibility and use of genetic diversity of CWR both *ex situ* and *in situ*. The project also contributed to Goal 5 on gender equality by supporting female participation in inception meeting, members in project SC, membership in national stakeholder committee and mentoring programme. Awareness campaign done in Malawi and Tanzania, under the Indicator 5.1, ensured balanced participation of both male and female farmers. In addition to the above, the project contributed indirectly to other SDG goals. For example, under Goal 13 (Climate action) is being addressed by the indicators 2.3, 2.6 and 4.3 related to conservation planning, ground-truthing and mapping of priority CWR occurrences to detect the projected impacts of climate change in the priority conservation sites to enable development of effective mitigation measures. The project addresses Goal 15 (Life on land) by establishing baseline information on the CWR diversity in Malawi and Tanzania, and Zambia and other countries in SADC region through the mentoring programmes. This information will be used to develop national strategies that would conserve not only the CWR but also their habitats and

promote their sustainable use, thus addressing some of the targets under Goal 15. Under Goal 17 (Global partnership), the project is strengthening partnerships among the project partners and enhancing capacity building through the needs' assessment, technical backstopping and one to one mentoring programme. Important institutional partnerships have also been established to implement the project, thus contributing to some of the SDGs. The draft concept note on the SADC CWR network is also a way forward to mobilise regional efforts in the conservation and sustainable use of CWR in the SADC region and beyond.

5. Project support to the Conventions, Treaties or Agreements

The project is contributing to directly to CBD Aichi Target 13 in, maintaining and developing strategies for safeguarding CWRs' genetic diversity. It also addresses several Priority Areas (PA) of FAO Second Global Plan of Action (GPA), such as : PA1 – surveying and inventorying CWR and establishing specific sites for their *in situ* conservation; PA 4 - in promoting the *in situ* conservation and management of CWR; PA 5 - in supporting targeted collection of CWR to enrich the national genebanks; PA 6 – expanding *ex situ* conservation of CWR; and PA 8: enhancing the use of CWR in genebank and identifying germplasm of potential value in crop improvement. The survey being planned among national focal points of the Nagoya Protocol and ITPGRFA to harmonize protocols for Access and Benefit Sharing, for *in situ* conserved materials relates directly to Nagoya Protocol as well as articles 5.1 (d) of ITPGRFA in promoting *in situ* conservation of CWR including in protected areas and article 6.2 (d) in broadening the genetic base of crops.

6. Project support to poverty alleviation

The ultimate beneficiaries of the project are hundreds of thousands of local communities, male and female farmers who depend on local food production for their food security and livelihoods. Climate change is affecting crop production at local levels at an accelerating rate and favouring new pest and diseases to appear and changes in the environmental conditions making local varieties no longer productive. These farmers require access to new and more adapted varieties to be able to cope with these impacts of climate change. CWR can provide part of a solution as a provider of resistance genes and adaptive traits diversity for crop improvement. In fact, globally CWR contribute more than US$120 billion annually to crop improvement that sustains food production and mitigates climate change impact, enhancing long-term food/nutrition security and poverty alleviation. The project will not provide immediate direct benefits to farmers and alleviate poverty but will maintain the capacity of breeders and support developing infrastructures to have access to the much-needed raw genetic materials and continue to produce resilient varieties for the benefits of local farmers.

7. Consideration of gender equality issues

Given the commitment towards maintaining gender equality of all the institutions involved in the project, efforts are being made to ensure that the gender disparity is addressed and is minimal as far as possible at different levels.

Management level: The Steering Committee (SC) of the project, which was constituted in August 2019, comprises of two female and three male members. The SC is being chaired by Dr (Mrs) Lefulesele Lebesa from Leostho. At the country levels, all three have constituted their national stakeholder committees and ensured that there is adequate representation of each gender: Malawi [12 males, 4 females], Tanzania [19 males, 7 females] and Zambia [14 males, 4 females].

Project coordination and implementation: The project leader has recruited two part-time research assistants, both females to provide technical, coordination and administrative support. Four female staffs from the UoB [one] and the Alliance [three] are acting as resource persons and leading or supporting Indicators 1.2, 2.1-2.5, 4.3, 5.1-5.3 and 6.1-6.3. In partner institutions, project coordinators also have representative number of female staff conducting the tasks in Output 2.1, 2.2 and 2.3.

Capacity building: The project is placing emphasis on increasing the participation of women in capacity building of project partners as well as in the SADC region. For instance, in the technical backstopping held in Tanzania in March 2020, five out of 11 participants were female. The one-to-one mentoring programme given to the eight SADC countries so far consists of a single female, however for the training programme the respective countries are encouraged to nominate more female staff for training.

Awareness and project promotion: The inception workshop conducted in Johannesburg in August 2019 saw the participation ten women of which three were resources persons and seven were from the SADC region. The communication and visibility plan devised under the project (Annex 7.2) is gender inclusive and aims at raising awareness of the stakeholders (in particular women stakeholders) to better appreciate and harness wider trait diversity present in CWR and benefits that can be derived from CWRs for farmers. In this light, Malawi had carried out sensitisation campaigns on use of CWR in farming and this activity targeted 143 male and 211 female farmers in December last.

8. Monitoring and evaluation

At the outset of the project, a project coordination committee was established with a key role for partners to meet and discuss progress of activities, identify challenges and find solutions to their problems. Meetings of the PCC are held virtually using the GoToMeeting teleconference system hosted by the lead organization. The PCC was thus used as a mechanism for monitoring and evaluating the progress of project activities among the project partners. This mechanism generally works well, but the key challenge is getting all partners to contribute equitably. The system suffers from internet connectivity and communication is very difficult; often partners are discouraged or are unavailable to attend these virtual meetings. The partners have been added to a WhatsApp group for communication, when they cannot attend virtual meetings. To help in this task, an M&E plan (Annex 7.4) was prepared using a modified template of the Darwin Initiative M&E plan to suit the project and a M&E tracking tool in the form of a table was used to gather inputs from partners. The M&E tracking tool is sent to all partners prior to PCC meetings and are requested to fill in the table so that the progress and challenges are discussed at the meeting. This provides a mechanism for partners to share their progress or problems. The tool is used correctly by some partners while others are not always forthcoming in filling the information. Often, specific emails must be sent, or WhatsApp calls must be made to gather information on progress made for those partners. In addition, the steering committee will also be used for evaluating progress and recommending corrective measures to keep the project on track. This is written in the terms of reference of the SC. In the first year, the SC attended the inception meeting and during the second SC meeting they will review the progress made in the project and make recommendations. The M&E plan is based on the logical framework and the same log frame indicators are used in M&E plan to measure progress in activities.

9. Lessons learnt

The strategic partnership between the Alliance, as the lead organization, and UoB in providing technical support to other project partners worked very well and enabled the project to progress. There was also a great commitment from SPGRC in supporting the project at the regional level and making the liaison with the SADC Secretariat; but progress is often slow considering lengthy administrative procedures in place at the secretariat. Individual country partner focal points are also key in ensuring that project activities are implemented in a timely fashion and are reported back to the project management. The project experienced serious delays at the start of the project because of lengthy administrative processes in the different partner organizations and the letters of agreement could not be signed on time and thus funds could not be transferred to the partner organizations promptly. The reasons for these varied from one organization to another. One lesson learnt was that it is important to understand the administrative procedures for each partner early on so that once project is approved, LoAs can be processed rapidly and signed. Extensive administrative negotiations were required to sort out queries before LoA were signed. In the case of SPGRC, it was only after the project was approved that they realised that the project was not included in the SADC programme of work and thus SPGRC could not enter in to a LoA with lead organisation and receive funding. The process of getting the project endorsed through administration of SADC Secretariat is a lengthy process, requiring approval at different levels and units and final endorsement letter is still pending. However, SPGRC is still allowed to fully participate in the project. If we were to do it again, a due diligence of all partners would be recommended to understand their mode of operation for a more effective project management. The project also suffered from slow responses from country project partners which limited our progress. The mentorship programme did not work as expected. Only a few countries took advantage of the offer. However only a few mentees responded well and are actively asking for guidance, while others not very proactive/responsive.

10. Actions taken in response to previous reviews (if applicable)

NOT APPLICABLE

11. Other comments on progress not covered elsewhere

While the first year of the project progressed well with all activities scheduled satisfactorily completed, it is expected that the project will face some risks related to the uncertain evolution of the COVID-19 pandemic in the second year of the project. So far Africa has been less impacted compared than other parts of the world. Our national partners in Malawi, Tanzania and Zambia are still able to go to their offices and carry out their work, although physically meetings are limited. Bioversity is facilitating meeting with them via GoToMeetings and WhatsApp to discuss project activities and guide the partners. In second year of the project, it is very uncertain how the pandemic will evolve, and this can affect implementation of some activities. There are four events that need to be organised, i.e. training workshop, ABS workshop, project steering committee and annual project meeting. While we could run the steering committee virtually, the other workshops/meeting would need to be done face to face. It is envisaged to explore different virtual platform such Zoom, TEAMS etc. for running these workshops, but the internet connectivity in SADC region is poor and not reliable for these means to work. At this stage, we are planning for these meeting towards the end of the year or early next year and hope that the situation with the pandemic will improve. We can only wait and see how things go and in the worst case scenario, we will re-evaluate the situation in October 2020 when we submit the half-yearly report on progress and discuss with LTS any actions that will need to be rescheduled and submit a change request.

12. Sustainability and legacy

The planned exit strategy remains valid. Countries are much committed to the goals of the project and will be developing National Strategy and Action Plans for the *in situ* conservation of CWR in their respective countries and be committed to join the regional SADC CWR network, which the project aims to create. In fact, the project goes beyond the boundaries of the participating countries and has a regional scope. The project will use the existing regional network for *ex situ* conservation of plant genetic resources managed by SPGRC to support the SADCCWR network under the SADC Secretariat and ensure its sustainability and legacy. The SADC CWR network will establish a collaborative strategic partnership with SADC members states. This will provide a framework for a lasting collaboration between conservers and users of genetic resources at both national and regional, making accessible germplasm for breeding climate-smart varieties, which contribute to food security and poverty alleviation in the region.

13. Darwin identity

For the purpose of the project branding, the full project title was shortened in SADC CWR and a logo was created (Annex13(i)). A project webpage has also been launched which is embedded in the CWR Portal where information about the project activities, partners, different workshops, trainings and other events conducted under the scope of this study can be all accessed (http://www.cropwildrelatives.org/sadc-cwr-net/). The Darwin Initiative logo and the UK Government's logo, both have been and are being promoted in the various documents prepared under the project. The inception meeting in August 2019, in Johannesburg, South Africa, with all the representatives of the SADC countries provided significant visibility for Darwin Initiative with logo placement on leaflet (see Annex 13(ii)) and agendas, presentations including recognition of support from the UK Government. A two-pages leaflet was designed, hard and soft copies were shared with country project partners and SPGRC to promote the project among their stakeholders (Annex 13(ii)). Following the inception workshop, a blog post was released to share the experience with at a larger audience. The blog post can be accessed here: https://www.bioversityinternational.org/news/detail/bridging-agriculture-and-environment-southern-african-crop-wild-relative-regional-network/). Technical backstopping meeting as well as in national stakeholders' meetings at the partner countries level have acknowledged the Darwin Initiative funding in their presentations. A side event at Eighth Session of the Governing Body of the International Treaty on PGRFA was held on 14 November 2019 in Rome, where several of the project partners including ZARI, UOB, the Alliance and SPGRC were provided an opportunity to promote the Darwin Initiative, especially by the Alliance delegate, Suzanne Ngo-Eyok and representative of Zambia, who gave a presentation describing the project, its objectives and modus operandi. The Darwin project leader Dr Ehsan Dulloo and the Head of SPGRC, Justify

Shava both participated in a workshop organized by SADC Secretariat in Gaborone, Botswana with its international Cooperation Partners, where they both raised awareness of the project to the secretariat and other stakeholders in the region.

14. Safeguarding

When developing the project's proposal, the lead organisation had contacted the local partners in Malawi, Tanzania and Zambia, as well as the respective UK embassies in these countries to get clearance of the security issues in the participating countries. We have received a letter of affirmation from Malawi on the state of security in implementation of project in the country. We have also checked the websites of the UK Foreign and Commonwealth Office about security issues in these countries and they were all clear. Further the project complies with CGIAR Guiding Principles for Management of intellectual assets especially to article 3 (farmers' rights). In striving to protect indigenous knowledge, and locally sourced germplasm, The Alliance has pioneered mutual recognition of traditional and scientific knowledge, respecting knowledge-stewards' rights and the ownership of local populations and landraces. The project will promote awareness of indigenous peoples' and local communities' rights, regarding prior informed consent (PIC) for engaging in research activities and providing germplasm and related information subject to the CBD, Nagoya Protocol and ITPGRFA. Project stakeholders have been briefed so that they gain an understanding of the project goals, roles, rights to participate (or not), and how project outputs will be shared (only under acceptable conditions). Work will develop capacity and mechanisms to support access seekers' compliance with ethical standards for PIC and mutual agreement of terms. A data management plan which embodies these ethical conditions has been prepared.

15. Project expenditure

Table 1: Project expenditure <u>during the reporting period</u> (1 April 2019 – 31 March 2020)

Project spend (indicative) since last annual report	**2019/20 Grant (£)**	**2019/20 Total Darwin Costs (£)**	**Variance %**	**Comments (please explain significant variances)**
Staff costs (see below)	[redacted]	[redacted]	5%	Additional staff time was required for the management of the project
Consultancy costs				
Overhead Costs	[redacted]	[redacted]	-1%	
Travel and subsistence	[redacted]	[redacted]	5%	Variation in flight tickets
Operating Costs	[redacted]	[redacted]	-6%	Variation due to organization of the meetings in countries
Capital items (see below)	[redacted]	[redacted]	-32%	Low quotations on prices of capital items (computers)
Monitoring & Evaluation (M&E)	[redacted]	[redacted]	12%	Research and Support Service Cos complimenting staff time
Others (see below)				
TOTAL	[redacted]	[redacted]	**0%**	

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2019-2020

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
Impact Increased adaptive capacity and reduce socio-economic vulnerability to enhance food security of 130 million people in southern Africa through improved conservation and use of CWR in breeding.		Progress has been made in increasing the awareness of stakeholders in the region about benefits that conservation and use of CWR can bring through the preparation of policy brief and developing concept paper for network establishment.	
Outcome Establish SADC CWR network of *in situ* sites/populations, *ex situ* genebanks and stakeholders (farmers, environmentalists, breeders and policy makers) resulting in 70% improved CWR conservation and use for crop improvement	**Indicator 0.1:** SADC Council of Ministers by 2022 issue an edict establishing the SADC regional CWR network among SADC member states.	An informal meeting was held with the Director of Food, Agriculture and Natural Resources Directorate of the SADC Secretariat in Gaborone, Botswana and a road map towards establishing the CWR network was discussed. A policy brief aimed at achieving the intended goal was developed and shared with the Director of FANR at SADC Secretariat. A draft concept note for the establishment of the network has been developed.	
	Indicator 0.2: Trends in number of CWR genetic reserves established and nominated by countries to be part of the SADC-CWR network, measured annually and reported to the Council of Ministers	Project is making good progress is the prioritization of sites for eventual inclusion within the network. In Malawi six sites has been prioritised. Zambia has already identified 2 sites from a previous project. Tanzania has completed development of their national checklist and inventory and the next step now is undertaking conservation planning for site prioritisation.	
	Indicator 0.3: Trends in the number of CWR conserved in National plant genetic resources centres and regional SADC genebank, measured annually and reported to the Council of Ministers	The current number of species and accessions of CWR conserved in the regional genebank were assessed to serve as a baseline to measure the progress in conserving CWR in genebanks.	
	Indicator 0.4: Trends in the number of CWR distributed to users, measured annually and reported to the Council of Ministers	117 CWR accessions from the Tanzania genebank have been distributed to breeders for use in breeding programmes. But there has been no distribution of CWR materials to either farmers or to breeders from other partner genebanks. A SWOT analysis was carried out with breeders in the countries in the region to examine the extent to which breeders are successfully using CWR in their breeding programmes. The analysis	

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
		showed that there are a lot of constraints in the use of CWR and in getting access to them.	
Output 1. SADC CWR *in situ* network established as part of existing SADC plant genetic resource network	**Indicator 1.1:** A Draft document on the governance structure, functions and funding mechanism prepared and circulate to all SADC state members for inputs by end of year	A draft concept note has been written and shared with the project partners and members of the steering committee for comments and inputs. Evidence provided in section 3.2 of report and Annex 1.1.	
	Indicator 1.2: Draft document on harmonisation of the access and benefit sharing of in situ genetic resources within the CWR network prepared by Month 24.	A first meeting was held with SPGRC to discuss the design of survey that will be administered to national focal points of Nagoya Protocol and ITPGRFA and will be implemented in second year of the project.	
	Indicator 1.3: An ABS workshop for in situ genetic materials attended by National focal points of ITPGRFA, Nagoya protocol and CDB of 16 member countries held by Month 24.	Due in Year 2	
	Indicator 1.4: Draft SADC regional CWR network Policy White paper on governance structure, function and funding mechanism including ABS of in situ genetic materials as well as a draft edict paper prepared by Month 30 of the project.	Due in Year 3	
	Indicator 1.5: A validation network foundation workshop for endorsement of SADC regional CWR network Policy White paper on SADC CWR in situ network governance functionality, structure, management and post-project financing and draft edict paper held by Month 30 of the project.	Due in Year 3	

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
	Indicator 1.6: Finalised SADC regional CWR network Policy White paper and Draft Edict paper submitted to the SADC Council of Ministers by Month 36 of project.	Due in Year 3	
Activity 1.1 Preparation of documents on the governance structure, functions and funding mechanism		A draft concept note has been written and shared with the project partners and members of the steering committee for comments and inputs.	The draft concept note will be finalised and shared with members of the member states representative to the SPGRC Technical committee to have their feedback and the document will be revised and used to produce a draft of the network white paper for endorsement by the secretariat
Activity 1.2 Preparation of guidelines to harmonise the access and benefit sharing of in situ genetic resources within the CWR network		A preparatory meeting was held with SPGRC to discuss the design of survey that will be administered to national focal points of Nagoya Protocol and ITPGRFA.	The survey on ABS harmonisation will be conducted and the results will used to prepare an ABS guidelines document and circulated for feedback to partners and will be validated in the second half of year two at the ABS workshop.
Activity 1.3 Hold Access and benefit Sharing (ABS) workshop with representative set of National focal points to Nagoya protocol, ITPGRFA and CBD of the SADC region to discuss harmonisation of Access and benefit sharing of in situ conserved materials		Due in Year 2	The ABS workshop will be organised around October/November to discuss and validate the ABS harmonisation document.
Activity 1.4 Preparation of network policy white paper and Ministerial edict for the establishment of regional CWR network in the SADC region for endorsement /ratification by SADC Member states		Due in year 3	
Activity 1.5 Hold validation network foundation for endorsement of network policy white paper and ministerial edict by SADC stakeholders		Due in year 3	

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
Activity 1.6 Finalised SADC regional CWR network Policy White paper and Draft Edict paper submitted to the SADC Council of Ministers by 36 of project		Due in year 3	
Output 2. Enhanced in situ CWR conservation in SADC region with emphasis on Malawi, Tanzania, and Zambia	**Indicator 2.1** A National participative multi-stakeholder committee on CWR established to oversee development of national and regional strategies for CWR conservation and use, by project month 4 and holds bi-annual meetings over the project period.	All three partner countries have constituted their national multi-stakeholders' committee and have had their first meeting to present the project to them and to discuss about the national checklists and priority lists. Annexes 2.1 (i), (ii), (iii).	
	Indicator 2.2 National checklists and inventories of CWR in Malawi and Tanzania published and made available on project website within the first 6 months of the project. (Already available for Zambia under previous ACP-EU SADC-CWR project).	Malawi has already created their national checklist and priority lists (Annex 2.2 (i) which was validated by their national multi-stakeholders' committee. Tanzania received technical backstopping in CWR checklist development, prioritization, collation of occurrence data by UoB and the Alliance between the 2 and 6 March 2020 (Annex 2.2. (ii)). Their national checklists and priority lists are yet to be finalised.	
	Indicator 2.3 Conservation planning of CWR in situ sites/population in Malawi and Tanzania completed with distribution maps and priority sites for reserve establishment by Month 24.	Due in year 2, but preliminary works have been done. Malawi has already identified the potential priority sites for *in situ* conservation and UoB has provided support in drafting a paper about the identification of the sites for *in situ* conservation of CWR in Malawi (Annex 2.3). The project partners in Tanzania were introduced to the conservation planning concept which follows up with Indicator 2.2. using the toolkit during the technical backstopping meeting. Further support regarding the creation of distribution maps of priority sites will be given at the training workshop.	
	Indicator 2.4 Two National CWR Conservation Strategic Action Plans covering *in situ* sites, *ex situ* genebanks and stakeholder priorities endorsed by respective governments of Malawi and Tanzania by Month 36.	In addition to the topics covered by outputs 2.2 and 2.3, UoB and the Alliance provided technical support on the writing of NSAP to the Tanzania team during the technical backstopping meeting that took place between 2 and 6 March 2020.	

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
	Indicator 2.5 Regional Strategy for the establishment of SADC-CWR network prepared and published on project website by Month 18	The 'SADC Strategic Action Plan for the Conservation and Use of CWR' is under development.	
	Indicator 2.6 Ground-truthing of selected sites to assess CWR presence in GIS predicted sites and site climate viability assessment of initial identified potential CWR *in situ* sites by Month 30	Due in year 3. Some preliminary surveys were carried out in three priority conservation sites in Zambia and in six priority sites in Malawi, to verify the occurrence of CWRs in these sites (section 3.1, Annex 2.6(i), (ii)).	
	Indicator 2.7 Nomination of at least existing 9 protected areas and 3 newly established, less formal sites associated with farming communities for network membership (3 protected areas and 1 less formal site in each of Malawi, Tanzania and Zambia, plus additional sites from other SADC countries by Month 30	Due in Year 3	
	Indicator 2.8 Revision of management plans for 9 protected areas / genetic reserves and writing of management agreements for 3 newly established, less formal sites by Month 36	Due in Year 3.	
Activity 2.1. Establish a National participative multi-stakeholder committee on CWR to serve as the collaborative stakeholder platform in each country		Multi-stakeholders' committee have been constituted.	Regular bi-annual meetings of the committee will be carried out.
Activity 2.2 Undertake conservation planning for CWR Conservation in Malawi and Tanzania		Malawi has already identified its national priority CWR species. Tanzania is still under progress.	Tanzania will finalise its list of priority CWR species. Occurrence data of the respective priority species for diversity analyses will be collated.

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
Activity 2.3 Prepare National Strategic Action Plans for CWR Conservation in Malawi and Tanzania		Due in Year 3. Training was provided to Tanzania during the technical backstopping mission in March 2020 on the preparation of the NSAP.	Preparation of NSAP will be initiated in collaboration with the National Multi-Stakeholder committee in Malawi and Tanzania.
Activity 2.4 In depth studies validating priority conservation sites of CWR population for inclusion in the SADC Regional CWR network.		Malawi has already identified priority conservation sites.	Tanzania will identify its priority conservation sites. Malawi is more advanced in this task has the competences for prioritizing the conservation sites. Training will be given to other partner countries to carry out diversity analyses and identify priority conservation sites.
Activity 2.5 Preparation of a Regional Strategic Action Plan for CWR Conservation for the SADC region based on the previous regional CWR assessment made in SADC-CWR project.		The SADC regional strategy is under development.	The regional strategy document will be finalised by second half of the year 2.
Activity 2.6 Revision of 14 management plans of selected protected areas sites and writing of management agreements for 7 newly established, less formal sites to be part of the regional SADC in situ.		Due in Year 3	
Output 3. Enhanced SADC *ex situ* CWR conservation	**Indicator 3.1:** A new cold room facility established at the Regional SADC genebank for ex situ conservation of CWR established by end of the Month 24.	Due in Year 2	

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
	Indicator 3.2: Representative CWR ex situ gaps filling of 450 populations identified in National CWR Conservation Strategies and Action Plans and Regional Assessment of CWR across SADC region in active collections of national and regional genebanks, in two collecting missions held in Month 24 and 36.	Due in Year 2 and 3 Preliminary field surveys were carried out in Malawi and Zambia to identify populations of CWR and target collection.	
	Indicator 3.3: Safety backup of SADC regional CWR network CWR in situ sites/populations 'black box' stored in national and regional genebanks, and appropriate CGIAR centres, by Month 36.	Due in Year 2	
	Indicator 3.4: Trends in the number of accessions of CWR conserved in ex situ collection monitored annually. annually in Month 12, 24 and 36.	Baseline information about the number of accessions available in the collections of SPRGC and the national genebanks of the partner countries have been obtained for future comparisons. Evidence provided in section 3.2 of report and Annex 3.4.	
	Indicator 3.5: Trends in the number of accessions of CWR distributed to end users annually, annually in Month 12, 24 and 36.	No distribution of accessions has been done by Zambia and Malawi. Tanzania has distributed 117 accessions.	
Activity 3.1 Strengthen the *ex situ* conservation facilities and personnel at the SPGRC regional genebank in Lusaka to receive CWR samples for conservation.		Due in Year 2 – Plans are under way for strengthening the regional genebank in Lusaka. Aluminium foils for the conservation of CWR accessions have been purchased	In second year, the cold room facility or new freezers will be established to house a CWR collection within the genebank.
Activity 3.2 Gap filling collecting of CWR genetic resources and local knowledge from in situ sites and their conservation in national and regional genebanks.		Due in year 2: Preliminary field surveys were carried out in Malawi and Zambia to	Collecting missions will be organized in partner countries for collection of priority CWR species and conserve in genebanks.

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
		identify populations of CWR and target collection.	
Activity 3.3 Back up of germplasm for safety duplication in regional and international genebanks		Due in year 3	
Activity 3.4 Enrich SADC Documentation Information System (SDIS) to provide information on CWR such as passport data, identified traits and other useful information that facilitates use of CWR genetic resources		SDIS data base has been updated with new information.	Database will be updated annually as new accessions are added to the collection.
Activity 3.5 Distribution of CWR accessions to breeders at national regional and international breeding centres		Collected baseline information on the number of CWR accessions collected and distributed by the regional and national genebanks	To monitor the number of new accessions collected and distributed to end-users.
Output 4: Enhanced SADC CWR use in crop improvement	**Indicator 4.1:** SWOT analysis report on the potential use of CWR in breeding programmes at the national and SADC regional level submitted by the Month12	A SWOT analysis on the use of crop wild relatives in breeding programmes was conducted among the breeders of the partner countries as well as in the SADC region in mid-February 2020 by the Bioversity. The breeders from the partner countries and other SADC countries were requested to fill in a set of four open-ended questions relating to the strengths, weaknesses, opportunities and threats of using CWR in their breeding programmes. The SWOT report is annexed (Annex 4.1).	
	Indicator 4.2: Data on farmer trait priorities for crop improvement of 4 major priority SADC crops produced and published on project website by Month 24.	Due in Year 2.	
	Indicator 4.3: Maps of SADC region showing populations of CWR with priority traits produced, made available to SADC and CGIAR breeders and published on project website by Month 24	Due in Year 3.	

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
	Indicator 4.4: Number of accessions of CWR being used by national and international breeding institutions in pre-breeding programmes reported by Month 24 and 36.	Due in Year 2 and 3	
	Indicator 4.5: Quantity of seeds of novel cultivar and improved local landrace material improved with CWR made available to SADC farmers by end of Month 36.	Due in Year 3	
Activity 4.1 Feasibility study on the potential use of CWR in breeding programmes at the national and SADC regional level (SWOT analysis).		The SWOT analysis has been completed.	
Activity 4.2 Establishment of functional procedures on the potential use of CWR in breeding programmes at the national and SADC regional level		Due in Year 2	Information on how to access CWR from genebank and on the use of CWR in breeding programme. The priority traits for farmers will be documented through farmer's field surveys.
Activity 4.3 Predictive characterisation study on the potential use of CWR in breeding programmes at the national and SADC regional level		Due in Year 2	Activity will be dependent on the information gather under activity 4.2 and a predictive characterisation exercise will be undertaken to identify potential sites for CWR collection with desirable traits.
Activity 4.4 Engage and establish links with national and international breeders for specific crops for facilitating the exchange and distribution of CWR accessions and pre-bred material arising from the use of CWR to national programmes and novel varieties provided to farmers		Due in year2 and 3: Contacts have been established with breeders in the SADC and Africa region during the SWOT analysis exercise. A database of breeders has been established.	Information will be exchanged, and guides provided to breeders to address the constraints reported in SWOT analysis where possible.

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
Output 5: Enhanced farmer benefits from CWR conservation and use	**Indicator 5.1**: A set of mechanisms for enhancing farmers' benefits from the conservation and use of CWR defined, together with assessment criteria, by end of Month 9 of the project.	Completed. Country visits were undertaken in Malawi and Tanzania to support national partner review and agreement regarding the proposed Output 5 benefit mechanism to be explored; elaboration of a plan of action; and identification of specific team members.	
	Indicator 5.2: A Tool Kit "How To" manual for informing mechanism design and assessment developed and published by end of Month 18.	Due in Year 2	
	Indicator 5.3: Two field surveys conducted involving at least 1500 farmers (65%males and 35% females) in Malawi and Tanzania to document and/or model the benefits that farmers derive or could derive from CWR conservation by end of Month 34.	Due in Year 3 Field survey questionnaires have been developed. Preliminary field visits were undertaken in Malawi and Tanzania to plan the farmers field surveys that will be carried out in year 2.	
Activity 5.1 Desk review and expert consultation to identify potential range of mechanisms for enhancing farmer benefits,		Desk review and consultation were completed and two benefit mechanism namely direct support and enhance use mechanisms were identified for testing with farmers under activity 5.3	Completed
Activity 5.2 A Tool Kit/" How To" manual for informing farmer benefit mechanism design and assessment developed.		Due in Year 2	Tool kit and "how to" manual will be drafted in year 2.
Activity 5.3 Pilot testing and/or modelling of mechanisms for CWR-derived farmers' benefits in 2 sites in partner countries		Due in Year 3: Preliminary field visits were undertaken in Malawi and in Tanzania remain planned to explore community level perspectives regarding CWR and elaboration of a plan of action; and identification of specific team members.	The existing survey instrument for field work in year 2 will be refined and adapted to special circumstance in Malawi and Tanzania. Farmer's field surveys will be implemented in year 2 and 3.

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
Output 6: Enhanced Capacity of SADC CWR stakeholder in conservation and use of CWR.	**Indicator 6.1**: Needs assessment report on the trainings for capacity of SADC key stakeholders for the implementation of the regional network for *in situ* conservation of CWR and use finalised by the end of Month 6.	The training needs of the project countries and the remaining SADC countries were assessed at the inception meeting in August 2019, where specific topics for training were identified through a training needs survey among the SADC countries. A capacity building plan was developed by UoB (Annex 6.1).	
	Indicator 6.2: A training workshop provide CWR conservation and use for at least 15 SADC CWR network stakeholders. Held back to back with network foundation workshop by the end of Month 24.	UoB together with Bioversity has prepared a document outlining the structure of the training programme and the prerequisites for attending the training workshop. A committee has been established together with SPGRC to start the organisation of the training workshop.	
	Indicator 6.3: Two research staff per participating country receive one to one mentoring technical support by peers in UoB and Bioversity on the conservation and use of CWR during lifetime of the project.	All SADC countries were contacted to participate in this mentorship programme for one to one technical support via SPGRC. Out of the 16 SADC countries, Botswana, Comoros, DRC, Eswatini, Lesotho, Seychelles, South Africa, and Zimbabwe are currently active in engaging in the development of CWR checklists. The progress is being followed via regular meetings and interactions between the mentees and mentors.	
	Indicator 6.4: Conference on PGR conservation and use held at the end of the project (Month 35).	Due in Year 3.	
Activity 6.1 Carry out a needs assessment at the first kick off meeting of the project to define training needs		The training needs of the project countries was done in August 2019 and a capacity building plan was developed by UoB (Annex 6.1).	Completed
Activity 6.2 Hold a training workshop to strengthen capacity for the implementation of the regional network		Due in Year 2: The training programme has been prepared and a committee has been set up for the training workshop organisation.	Participants from the 16 SADC countries, including partner countries will be solicited and will undergo the preparatory phase of the training. The training will be

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
			organised around third quarter of the year 2.
Activity 6.3 Run a mentorship programme for reinforcing capacity building efforts for effective conservation and use of CWR in SADC region		Eight countries, other than the partner countries are engaged in the mentoring programme and their progress is being monitored.	Regular follow up of the mentees through virtual meetings.
Activity 6.4 Supervise research assistants and students working hands-on the project		Technical backstopping support is provided to project partners virtually through emails. In first year, one technical backstopping mission was organised in Tanzania	Technical support and support will be continued through the project and progress monitored using the M&E tracking tool.
Activity 6.5 Organise and hold end of project conference on conservation and use of PGRFA in year 3		Due in Year 3	

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
Impact: (Max 30 words) Increased adaptive capacity and reduce socio-economic vulnerability to enhance food security of 130 million people in southern Africa through improved conservation and use of CWR in breeding.			
Outcome (Max 30 words)**:** Establish SADC CWR network of *in situ* sites/populations, *ex situ* genebanks and stakeholders (farmers, environmentalists, breeders and policy makers) resulting in 70% improved CWR conservation and use for crop improvement	0.1 SADC Council of Ministers by 2022 issue an edict establishing the SADC regional CWR network among SADC member states. 0.2 Trends in number of CWR genetic reserves established and nominated by countries to be part of the SADC-CWR network, measured annually and reported to the Council of Ministers 0.3 Trends in the number of CWR conserved in National plant genetic resources centres and regional SADC genebank, measured annually and reported to the Council of Ministers 0.4 Trends in the number of CWR distributed to users, measured annually and reported to the Council of Ministers	0.1 SADC Council of Ministers edict launched at SADC Summit. 0.2 (a) Minutes of the Council of Minister meetings; (b) government gazettes of SADC member states 0.3 (a) Minutes of the Council of Minister meetings; (b) SADC Genebank documentation system (SDIS) 0.4 (a) Minutes of the Council of Minister meetings;(b) Genebank records	Willingness of the SADC member states to commit to establishment of regional CWR network as a contribution to the global efforts in biodiversity conservation and access to genetic materials as called forth by the Convention on Biological Diversity and Nagoya protocol. No logistical barriers to the smooth operation/ implementation and communications between countries and stakeholders involved in SADC CWR network
OUTPUTS:			
Output 1: SADC CWR in situ network established as part of existing SADC plant genetic resource network	1.1 A Draft document on the governance structure, functions and funding mechanism prepared and circulate to all SADC state members for inputs by end of year 1 1.2 Draft document on harmonisation of the access and benefit sharing of in situ	1.1 Draft Report on governance structure, function and funding mechanism published on Data repository of the project DATAVERSE. 1.2 Draft Report on harmonisation of the access and benefit sharing of in situ genetic resources within	Full participation of the member states of the SADC region. Representatives of countries attending the regional workshop have the credentials to discuss and negotiate the draft protocol

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
	genetic resources within the CWR network prepared by Month 24. 1.3 An ABS workshop for in situ genetic materials attended by National focal points of ITPGRFA, Nagoya protocol and CDB of 16 member countries held by Month 24 1.4 Draft SADC regional CWR network Policy White paper on governance structure, function and funding mechanism including ABS of in situ genetic materials as well as a draft edict paper prepared by Month 30 of the project 1.5 A validation network foundation workshop for endorsement of SADC regional CWR network Policy White paper on SADC CWR *in situ* network governance functionality, structure, management and post-project financing and draft edict paper held by Month 30 of the project. 1.6 Finalised SADC regional CWR network Policy White paper and Draft Edict paper submitted to the SADC Council of Ministers by Month 36 of project	the CWR network, published on Data repository of the project DATAVERSE 1.3 . Workshop reports with participant lists disaggregated by gender and countries, published on Data repository of the project DATAVERSE 1.4 Draft SADC regional CWR network Policy White paper, published on Data repository of the project DATAVERSE 1.5 Workshop reports with participant lists disaggregated by gender and countries, published on Data repository of the project DATAVERSE 1.6 Finalised SADC regional CWR network Policy White paper and Draft Edict paper, tabled at the SADC Council of Ministers	on the establishment of the SADC CWR network. SADC Council of Ministers willing to support establishment of SADC CWR *in situ* network.
Output 2: Enhanced *in situ* CWR conservation in SADC region with emphasis on Malawi, Tanzania, and Zambia	2.1 A National participative multi-stakeholder committee on CWR established to oversee development of national and regional strategies for CWR conservation and use, by project month 4 and holds bi-annual meetings over the project period. 2.2 National checklists and inventories of CWR in Malawi and Tanzania published and	2.1 Minutes of National participative multi-stakeholder committee on CWR, published on Data repository of the project DATAVERSE 2.2 National CWR checklist and inventory for uploaded on project web site., published on Data	Different stakeholders especially agriculture, forestry and environment are willing to work in a collaborative way. Community support for *in situ* conservation

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
	made available on project website within the first 6 months of the project. (Already available for Zambia under previous ACP-EU SADC-CWR project). 2.3 Conservation planning of CWR in situ sites/population in Malawi and Tanzania completed with distribution maps and priority sites for reserve establishment by Month 24. 2.4 Two National CWR Conservation Strategic Action Plans covering *in situ* sites, *ex situ* genebanks and stakeholder priorities endorsed by respective governments of Malawi and Tanzania by Month 36. 2.5 Regional Strategy for the establishment of SADC-CWR network prepared and published on project website by Month 18 2.6 Ground-truthing of selected sites to assess CWR presence in GIS predicted sites and site climate viability assessment of initial identified potential CWR *in situ* sites by Month 30 2.7 Nomination of at least existing 9 protected areas and 3 newly established, less formal sites associated with farming communities for network membership (3 protected areas and 1 less formal sites in each of Malawi, Tanzania and Zambia, plus additional sites from other SADC countries by Month 30 2.8 Revision of management plans for 9 protected areas / genetic reserves and writing of management agreements for 3 newly established, less formal sites by Month 36	repository of the project DATAVERSE 2.3 (a) Distribution map(s) showing CWR hotspots areas. (b) project progress reports, published on Data repository of the project DATAVERSE 2.4 National Strategic Action Plan; published on Data repository of the project DATAVERSE 2.5 Regional Strategic Action Plan, published on Data repository of the project DATAVERSE 2.6 (a) Map(s) of potential network CWR *in situ* genetic reserves and community managed *in situ* sites / populations in SADC region (c) SADC CWR *in situ* network conservation planning scientific peer review paper submitted to journals {Peer review publication} published on Data repository of the project DATAVERSE 2.7 Letters of nominations from Governments of SADC members states; Publication on project web site of 14 protected areas and 7 newly established sites, 2.8 Management Plans amended or written, published on Data repository of the project DATAVERSE	management of CWR in their neighbourhoods. Full support from policy makers are provided.

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
Output 3: Enhanced SADC *ex situ* CWR conservation	3.1 A new cold room facility established at the Regional SADC genebank for ex situ conservation of CWR established by end of the Month 24 3.2 Representative CWR *ex situ* gaps filling of 450 populations identified in National CWR Conservation Strategies and Action Plans and Regional Assessment of CWR across SADC region in active collections of national and regional genebanks, in two collecting missions held in Month 24 and 36. 3.3 Safety backup of SADC regional CWR network CWR *in situ* sites/populations 'black box' stored in national and regional genebanks, and appropriate CGIAR centres, by Month 36. 3.4 Trends in the number of accessions of CWR conserved in ex situ collection monitored annually. annually in Month 12, 24 and 36 3.5 Trends in the number of accessions of CWR distributed to end users annually, annually in Month 12, 24 and 36	3.1 Genebank facility Cold room at SPGRC Regional Genebank 3.2 (a) Collecting mission reports published on project web site; (b) Genebank documentation system at NPGRCs and SADC Information and Documentation system (SDIS) records additional collections, all published on Data repository of the project DATAVERSE 3.3 (a) country report to FAO Monitoring of implementation Global plan of action for PGRFA; (b) National, regional and international genebank information systems 3.4 (a) National genebank information systems, (b) SADC Documentation Information System. 3.5 (a) National genebank information systems, (b) SADC Documentation Information System.	Genebanks willing to hold safety backup of CWR *in situ* populations
Output 4: Enhanced SADC CWR use in crop improvement	4.1 SWOT analysis report on the potential use of CWR in breeding programmes at the national and SADC regional level submitted by the Month12 4.2 Data on farmer trait priorities for crop improvement of 4 major priority SADC crops produced and published on project website by Month 24.	4.1 SWOT analysis report, published on Data repository of the project DATAVERSE 4.2 Farmers trait priorities, published on Data repository of the project DATAVERSE	Users are aware of Nagoya Protocol and ABS policy process and make application for germplasm use. CGIAR able to supply pre-bred CWR trait lines to

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
	4.3 Maps of SADC region showing populations of CWR with priority traits produced, made available to SADC and CGIAR breeders and published on project website by Month 24 4.4 Number of accessions of CWR being used by national and international breeding institutions in pre-breeding programmes reported by Month 24 and 26. 4.5 Quantity of seeds of novel cultivar and improved local landrace material improved with CWR made available to SADC farmers by end of Month 36.	4.3 Maps published on Data repository of the project DATAVERSE 4.4 Genebank documentation Information system 4.5 Genebank documentation Information system	SADC breeders and farmers for crops of interest. SADC breeders and farmers willing to work with pre-bred CWR trait lines to generate climate smart material for SADC farmers.
Output 5: Enhanced farmers benefits from CWR conservation and use	5.1 A set of mechanisms for enhancing farmers' benefits from the conservation and use of CWR defined, together with assessment criteria, by end of Month 9 of the project; 5.2 A Tool Kit "How To" manual for informing mechanism design and assessment developed and published by end of Month 18; 5.3 Two field surveys conducted involving at least 1500 farmers (65%males and 35% females) in Malawi and Tanzania to document and/or model the benefits that farmers derive or could derive from CWR conservation by end of Month 34.	5.1 Report on mechanisms for enhancing farmers' benefits from the conservation and use of CWR, published on Data repository of the project DATAVERSE 5.2 Methodology publications, published on Data repository of the project DATAVERSE 5.3 (a)Travel reports; b) "How To" manual; c) briefs and (d) conference paper or journal articles, published on Data repository of the project DATAVERSE	Farmers willing to participate in CWR conservation and use activities Appropriate existing CWR derived materials can be identified and access provided to farmers Security concerns/civil strife does not impede farmer field visits in project sites
Output 6: Enhanced Capacity of SADC CWR stakeholder in	6.1 Needs assessment report on the trainings for capacity of SADC key stakeholders for the implementation of the regional network	6.1 Needs Assessment report, published on Data repository of the project DATAVERSE	Willingness among protected areas managers and local communities to engage in the *in situ* conservation of CWR

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
conservation and use of CWR.	for in situ conservation of CWR and use finalised by the end of Month 6. 6.2 A training workshop provide CWR conservation and use for at least 15 SADC CWR network stakeholders. Held back to back with network foundation workshop by the end of Month 24. 6.3 Two research staff per participating country receive one to one mentoring technical support by peers in UoB and Bioversity on the conservation and use of CWR during lifetime of the project. 6.3 Conference on PGR conservation and use held at the end of the project (Month 35)	6.2 Training workshop reports with participant lists disaggregated by gender and countries, published on Data repository of the project DATAVERSE 6.3 (a) Travel reports (b) Progress project report (c) 3 peered reviewed publications in open access journals. 6.4 Conference report, published on Data repository of the project DATAVERSE	species; capacities for wild population management of CWR in partner countries are lacking. There is sufficient interest among young male and female research scientists in the partner countries to embark on research activities within the scope of this of this project.

ACTIVITIES

Activity 1- ESTABLISHMENT OF REGIONAL SADC CWR NETWORK

1.1 Preparation of documents on the governance structure, functions and funding mechanism. (Led by UOB/ BIOVERSITY/SPGRC)
1.2 Preparation of guidelines to harmonise the access and benefit sharing of *in situ* genetic resources within the CWR network. (led by BIOVERSITY/SPGRC)
1.3 Hold Access and benefit Sharing (ABS) workshop with representative set of National focal points to Nagoya protocols, ITPGRFA and CBD of the SADC region to discuss harmonisation of Access and benefit sharing of in situ conserved materials. (led by SPGRC/Bioversity)
1.4 Preparation of network policy white paper and Ministerial edict for the establishment of regional CWR network in the SADC region for endorsement /ratification by SADC Member states. (led by BIOVERSITY/UOB)
1.5 Hold validation network foundation for endorsement of network policy white paper and ministerial edict by SADC stakeholders. (led by SPGRC/ BIOVERSITY).
1.6 Finalisation of the SADC regional CWR network Policy white paper and draft Edict paper and submission to SADC Council of Ministers for approval

Activity 2 ENHANCED SADC *IN SITU* CWR CONSERVATION MALAWI, TANZANIA AND ZAMBIA,

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions

2.1 Establish a National participative multi-stakeholder committee on CWR to serve as the collaborative stakeholder platform in each country (led by NATIONAL PARTNERS)

2.2 Undertake conservation planning for CWR Conservation in Malawi and Tanzania (led by NATIONAL PARTNERS with technical support from UOB/BIOVERSITY)

2.3 Prepare National Strategic Action Plans for CWR Conservation in Malawi and Tanzania (led by NATIONAL PARTNERS with technical support from UOB/BIOVERSITY)

2.4 In depth studies validating priority conservation sites of CWR population for inclusion in the SADC Regional CWR network. (led by NATIONAL PARTNERS with technical support from UOB/BIOVERSITY)

2.5 Preparation of a Regional Strategic Action Plan for CWR Conservation for the SADC region based on the previous regional CWR assessment made in SADC-CWR project. (Led by UOB/BIOVERSITY)

2.6 Revision of management plans of selected protected areas sites and writing of management agreements for 7 newly established, less formal sites to be part of the regional SADC in situ. (led by NATIONAL PARTNERS with technical support from UOB/BIOVERSITY)

Activity 3 – Enhanced SADC *EX SITU* CWR CONSERVATION

3.1 Strengthen the *ex situ* conservation facilities and personnel at the SPGRC regional genebank in Lusaka to receive CWR samples for conservation. (led by BIOVERSITY/SPGRC)

3.2 Gap filling collecting of CWR genetic resources and local knowledge from *in situ* sites and their conservation in national and regional genebanks. (led by NATIONAL PARTNERS/SPGRC)

3.3 Back up of germplasm for safety duplication in regional and international genebanks (led by NATIONAL PARTNERS/SPGRC)

3.4 Enrich SADC Documentation Information System (SDIS) to provide information on CWR such as passport data, identified traits and other useful information that facilitates use of CWR genetic resources (led by SPGRC/NATIONAL PARTNERS)

3.5 Distribution of CWR accessions to breeders at national regional and international breeding centres (led by NATIONAL PARTNERS/SPGRC)

Activity 4: Enhanced SADC CWR use in crop improvement

4.1 Feasibility study on the potential use of CWR in breeding programmes at the national and SADC regional level (SWOT analysis) (led by UOB/Bioversity/ National partners)

4.2 Establishment of functional procedures on the potential use of CWR in breeding programmes at the national and SADC regional level. (led by SPGRC/BIOVERSITY)

4.3 Predictive characterisation study on the potential use of CWR in breeding programmes at the national and SADC regional level (led by UOB/BIOVERSITY)

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions

4.4 Engage and establish links with national and international breeders for specific crops for facilitating the exchange and distribution of CWR accessions and pre-bred material arising from the use of CWR to national programmes and novel varieties provided to farmers. (led by NATIONAL PARTNERS AND BIODIVERSITY).

Activity 5 – Enhanced farmers benefits from CWR conservation and use

5.1 Desk review and expert consultation to identify potential range of mechanisms for enhancing farmer benefits, such as: i) direct farmer support for public good conservation and monitoring service provision, ii) enhanced direct use of CWR, iii) improved access to a) existing and b) future CWR-derived materials, and iv) the establishment of a potential benefit-sharing fund related to any future materials developed from SADC CWR).

5.2 A Tool Kit/"How To" manual for informing farmer benefit mechanism design and assessment developed. Assessment criteria to inter alia consider: a) magnitude, b) level (national/regional/international) and c) time-scale over which potential benefits may be generated for farmers (differentiated by gender), d) implementation costs and e) long-term funding source potential

5.3 Pilot testing and/or modelling of mechanisms for CWR-derived farmers' benefits in 2 sites in partner countries.

Activity 6 - Capacity building -

6.1 Carry out a needs assessment at the first kick off meeting of the project to define training needs (led by UoB)

6.2 Hold a training workshop to strengthen capacity for the implementation of the regional network (led by UOB/BIOVERSITY)

6.3 Run a mentorship programme for reinforcing capacity building efforts for effective conservation and use of CWR in SADC region (led by UOB /BIOVERSITY)

6.4 Supervise research assistants and students working hands-on the project (UOB/ BIOVERSITY)

6.5 Organise and hold end of project conference on conservation and use of PGRFA in year 3 (UOB/Bioversity/SPGRC)

Activity 7 - Management and Coordination

1.1 Coordinate and manage all aspects of project implementation (led by Bioversity)

1.2 Establish project Steering Committee – composed of representatives of the partners and representatives of SADC secretariat and ITPGRFA, Global Crop Diversity Trust, FAO commission, and CIRAD.

1.3 Organise and hold kick-off meeting with partners and hold first steering committee (led by SPGRC/BIOVERSITY)

1.4 Prepare a communications plan for dissemination of the project to targeted stakeholders (led by Bioversity and SPGRC)

1.5 Prepare a data management strategy for the project at the outset of the project to ensure access and sharing of project outputs under agreed terms. BIOVERSITY

1.6 Prepare policy briefs on the conservation and use of CWR (led by SPGRC and Bioversity)

1.7 Hold regular on-line meetings with project partners for coordinating the project activities (led by Bioversity)

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
1.8 Monitor project progress by holding annual partner and steering committee meetings involving all the partners (led by Bioversity) 1.9 Ensure gender integration in all the project activities where feasible (led by Bioversity)			

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
6A	Number of people to receive other forms of education/training			22	22	22	14	22
9	Regional Strategic Action Plan					1	Draft	1
9	National Strategic Action Plans					2	0	2
9	Management plans (9 revised for existing sites [3 per partner country] and 3 new sites [one per partner country])					12	0	12
14A	Conference on PGR conservation and use					1	0	1
22	Number of permanent field plots and sites to be established during the project and continued after Darwin funding has ceased				9	9	3	9

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	x
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	x
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	
Have you involved your partners in preparation of the report and named the main contributors	x
Have you completed the Project Expenditure table fully?	x
Do not include claim forms or other communications with this report.	