



Terms of Reference

Service provider contract to conduct an assessment of agricultural, water and energy practices promoted under ZRBF

Languages Required: English

Expected workload: 90 days

Expected Date: May 2019 to 30 August 2019

A. Project Title: Zimbabwe Resilience Building Fund (ZRBF)

Project Description

A. Project Title: Zimbabwe Resilience Building Fund (ZRBF)

B. Project Description: The project rationale / background and the objectives of the project

As a key partner in the Resilience debate in Zimbabwe, UNDP has in partnership with a number of donors and Government of Zimbabwe developed the Zimbabwe Resilience Building Fund (ZRBF). ZRBF strives to ensure that at risk, households, communities and systems anticipate, cushion, adapt, bounce back better and move on from the effects of shocks and hazards in a manner that protects livelihoods and recovery gains and supports sustainable transformation. The overall objective of the Zimbabwe Resilience Building Fund is to contribute to increased capacities of communities to protect development gains and achieve improved well-being outcomes in the face of shocks and stresses. This will be achieved through three interlinked components:

- a) Creating a body of evidence and building capacity for increased application of evidence-based policy making;
- b) Improving the absorptive, adaptive and transformative capacities of at-risk communities; and
- c) Setting up a crisis modifier mechanism which will provide appropriate, predictable, coordinated and timely response to risk and shocks from a resilience perspective.

The problems Zimbabwe is facing in the agricultural sector largely stem from climate change. Climatologically, the country has an extremely variable rainfall distribution, which has been exacerbated by climate change. The frequency and length of dry spells during the rainy season have increased in recent years—the consequences of which include increased heat and water stress on natural ecosystems, agricultural crops and livestock, which result in low agricultural output and productivity, and food and nutrition insecurity¹. This poses a threat to agriculture, economic growth and development as the climate continues to change. Seventy percent of Zimbabweans reside in rural areas where they rely on rain-fed agriculture for their food and livelihoods², with only about 200,000 hectares of crop production under irrigation against a potential of five million hectares³, posing a serious threat to food and livestock production. It has been predicted that climate change and variability will accelerate food insecurity, which is gaining traction insidiously in Zimbabwe. Increasing temperatures will result in more frequent occurrences of heat stress and increased infestations of pests and outbreaks of diseases, thus eroding the productivity of crops and livestock, as well as increasing expenditure on pesticides, herbicides and veterinary drugs. In addition, there are likely to be shifts of the onset and cessation of the rainy season (Mugabe, 2013, Lesolle, 2012). This implies shifts in planting and harvesting dates, as well as changes to the length of the growing season and to the types of crops and livestock that are suitable to these changes.

Climate Smart Agriculture (CSA) was defined by the Food and Agriculture Organization (FAO) as agriculture that i) sustainably increases productivity and incomes, ii) enhances adaptation and resilience to climate change of livelihoods and ecosystems, iii) reduces and/or removes greenhouse gases (GHGs) and iv) enhances the achievement of national food security and

¹UN -FAO -<http://www.fao.org/climatechange/climatesmart/en/>

² UN -FAO -<http://www.fao.org/climatechange/climatesmart/en/>

³ Climate-Smart Agriculture Manual for Zimbabwe, Climate Technology Centre and Network, Denmark, 2017

development goals⁴. The CSA concept reflects the ambition of further integrating agricultural development and climate responsiveness. The concept is aimed at achieving food security and broader development goals in circumstances of a changing climate and increasing food demand. CSA strategies include, but are not limited to mulching, intercropping, conservation agriculture, production of high yielding short season drought tolerant varieties, crop rotation, integrated crop-livestock management, agroforestry, improved grazing and improved water management. CSA should not be seen as a set of practices but should be approached more systemically – agroecology, ecosystem and landscape approaches and integrated food-energy systems are useful tools. It also involves the introduction of innovative practices such as more dependable weather forecasting, early-warning systems, climate risk finance and many agricultural practices currently used by farmers in different parts of the country to cope with various production risks.

Agroecology in particular is a very relevant approach to smallholder farming and food systems in the current Zimbabwean context, in which farmers may find appropriate agrichemicals and hybrid seeds hard to obtain and have to deal with pests, weeds and challenging weather conditions with locally available resources.⁵

Part of CSA which is currently critical for Zimbabwe's rural farmers is Water-Smart Agriculture (WaSA). WaSA focusses on those innovations that specifically address water related aspects of climate smart agriculture, resilience building, and poor access to water (through lack of infrastructure and physical scarcity of water). It is an approach to efficiently harvest, store, access and utilize water throughout the year⁶. These approaches cover water management for agriculture in a broad sense, integrating soil and water conservation, conservation agriculture practices, rainwater harvesting, groundwater abstraction, and irrigation water to increase agricultural productivity⁷. WaSA brings agriculture and water sectors together to manage water for agriculture sustainably and more productively to enhance food security, countering the effects of dry spells, water scarcity, poor access to water for food production,

⁴ UN -FAO -<http://www.fao.org/climatechange/climatesmart/en/>

⁵ FAO has established a knowledge hub on agroecology (which includes information on the Shashe Agroecology School in Masvingo): see <http://www.fao.org/agroecology/home/en/>; while IIED has published a report on 'Agroecology – what it is and what it has to offer': see <http://pubs.iied.org/14629IIED/>.

⁶ http://www.care.org/sites/default/files/wasa_learning_brief_2017.pdf

⁷ http://www.care.org/sites/default/files/wasa_learning_brief_2017.pdf

and land degradation. It helps farmers optimize balance of rain-fed agriculture, irrigation, and soil moisture preservation via conservation agriculture for sustainably increased food production⁸.

Another part of CSA is 'energy-smart food'. This concept was developed by FAO and revolves around three objectives of improved energy access, energy efficiency and production and use of renewable energy in agri-food systems.⁹ It is also important to consider water and energy in an integrated fashion with agriculture/land use/food systems in the context of climate change: this notion is encapsulated in the food-energy-water, climate-land-energy-water and other 'nexus' approaches.

Climate change means that future weather/climate patterns and events will be increasingly volatile and extreme, with an increased risk of severe, pervasive and irreversible impacts (IPCC AR5, 2014). Since impacts of climate change are complex and far-reaching, especially for the agriculture sector, it can be extremely difficult to foresee exactly what the consequences will be, and how they will affect different contexts, regions and sectors (CCAFS). Hence the need to undertake regular assessments of agricultural, water management and energy practices.

In addition to climate risks, Zimbabwean farmers face a wide array of other risks, principally pests and diseases and market/economic shocks and stresses. Agriculture, water and energy practices must also be resilient to these risks, which are interlinked with climate risk.

The ZRBF consortia have been implementing different agricultural and water management practices, some of which are identified as CSA practices, across the 18 targeted districts with different levels of success since the last quarter of 2016. Since successful adaptation requires a continuous process of review, anticipation of uncertainty of the future climate, and flexibility to respond to changes as they occur, the United Nations Development Programme (UNDP), under the ZRBF would like to contract a service provider (e.g. team of consultants, research institute, NGO or consortium) to carry out an assessment of agricultural, water management and energy practices promoted across the 18 ZRBF targeted districts. The following are the objectives of the assessment:

⁸ http://www.care.org/sites/default/files/wasa_learning_brief_2017.pdf

⁹ See <http://www.fao.org/3/i2454e/i2454e00.pdf> and <http://www.fao.org/3/i2456e/i2456e00.pdf>

- i. Identify and provide an overview of agricultural, water management (for agriculture) and energy production and consumption practices being promoted across the 18 ZRBF targeted districts under ZRBF
- ii. Assess the contribution of these practices to the three core CSA objectives (sustainable increases in productivity and incomes, adaptation and resilience to climate change, and climate change mitigation), the broader food and nutrition security objective (focusing on stable access to food and dietary diversification), resilience to major non-climate risks, and, for energy practices, to the three dimensions of energy-smart food (energy access, energy efficiency, and renewable energy production and use)
- iii. Assess the appropriateness of the selected interventions to achieve the stated objectives in the local context
- iv. Analyse available evidence that each agricultural, water management and energy-related practice is effective or impactful and factors that are supporting and undermining adoption of promising options
- v. Assess the perception of sustainability of the practices by beneficiaries, government and implementers
- vi. Provide recommendations on how to ensure adoption of good agricultural, water management and energy practices for resilience building and CSA objectives based on findings to improve future interventions
- vii. Give recommendations to support up-scaling and institutionalisation of effective agricultural, water management and energy practices.

C. Scope of Work

ZRBF is implementing resilience projects across 18 districts (Nkayi, Mbire, Umzingwane, Bubi, Chiredzi, Mwenezi, Kariba, Binga, Mbire, Zvishavane, Mberengwa, Mudzi, Mutoko, Beitbridge, Nyanga, Insiza, Lupane and Matobo) and the assessment should cover all the districts. The study will focus on the agricultural, water management (for agriculture) and energy practices selected and implemented by the different consortia, categorising if they were done under the main ZRBF projects or Crisis Modifier.

Water management practices and approaches should include *in situ* and *ex situ* water harvesting technologies and address farm, watershed and administrative area levels. The scope does not include water for domestic use, but only for agriculture and associated value chain activities.

Energy practices have not been prioritised in ZRBF: the assessment should look at practices that are being implemented or that could usefully be implemented with regard to decentralised renewable energy production for and from agriculture, as well as for food processing, storage and preparation at domestic and enterprise levels.

The study should address the objectives set out in Part B above, exploring the success of the implementation of agricultural, water management and energy practices in a range of selected contexts and by different actors, the variations made in the process, and reasons for these variations/similarities in order to assess the critical components/good practices and success factors. The assessment should unravel what is working well and what is not working well with regard to agricultural, water management and energy practices, technologies and approaches that aim to contribute to resilience building and CSA. What are the success factors and barriers in different contexts? It should show the evidence of the contribution to resilience building and CSA of the implemented practices in different places/contexts; the extent to which the different practices contribute to sustainably, increased production and productivity and income gains, adaptation and resilience of communities and their livelihoods to climate change and resilience to other major risks (e.g. market/economic shocks and stresses, pests and diseases), improvements in water, energy and other natural resource management in the face of climate variability and change; evidence of sustainability of practices in different places/contexts, level of uptake and adoption (or progress along an adoption pathway); the key learning points and what is emerging as new and innovative. For learning purposes important in this regard to highlight when and how good practices and lessons learned from different Consortia can be applied and further disseminated among other ZRBF partners and beyond.

Given the timeframe for this assessment, primary data on the contribution of the practices to the stated objectives is not expected for all of the objectives (e.g. climate change mitigation). Where such data cannot be obtained, activity data relating to the specific practices being

promoted or implemented in each study area should be combined with context-relevant data from the literature to provide estimates of such impacts. For example, activity data could be combined with emissions factors from the literature to assess mitigation impacts.

Evidence of differentiated impacts of implemented practices with respect to gender, location (agroecological and socioeconomic context) and geographic scale (e.g. farm, community, watershed) considerations, should be well illustrated. The assessment should culminate in empirically based recommendations on the best individual or combinations of practices, technologies and approaches to use in different contexts, to inform further innovation and development of farmer-friendly practices for resilience and CSA.

The assessment will be jointly supervised by the ZRBF PMU, The Resilience Knowledge Hub (RKH) and the Ministry of Agriculture, Lands, Water, Climate and Rural Resettlement.

D. Expected Outputs

Deliverables

The service provider deliverables will include:

- a) An inception report including an overview of agricultural, water management (for agriculture) and energy practices promoted across the 18 ZRBF targeted districts under ZRBF and the potential resilience building and CSA objectives or benefits of these practices, an assessment framework, detailed methodology (including proposals for stakeholder engagement and assessment of gender responsiveness of practices and approaches), work plan, and outline of draft report. The methodology should clarify the assessment method to be used and the work plan should include a breakdown of the time and budget for the following major components of the study, including traveling costs;
 - Desk work
 - Field Work
 - Report Writing
- b) Presentation of initial findings to be shared for validation
- c) Draft report
- d) Final report to include:
 - i. standalone executive summary
 - ii. the assessment method and analytical tools

- iii. findings by district and in line with TOR purpose, objectives and scope of work
- iv. brief case studies which illustrate the findings and their meaning
- v. comparative analysis of good practices and lessons learnt developed in all 18 Districts for further recommendation and dissemination purposes;
- vi. recommendations for successful agricultural, water management (for agriculture) and energy practices and approaches for resilience building and CSA, as well as associated plans (e.g. watershed or district level water management plans) and policies, opportunities to pursue
- vii. suggestions for overcoming barriers and
- viii. framework for participatory monitoring of progress towards adoption of agricultural, water management (for agriculture) and energy practices that contribute to resilience building and CSA.
- ix. Annexes including: final itinerary, evaluation framework and methodology used (including any manuals, models, research tools used), list of persons met/interviews made, list of documents reviewed, further information gathered, visuals and other material produced.
- x. The final outline of the report will be agreed by the service provider team and the ZRBF PMU

E. Institutional Arrangements

Logistics

- The service provider will conduct work in the above mentioned 18 districts and therefore is expected to submit a travel cost proposal as part of the financial proposal.
- The service provider is expected to undertake the tasks as laid out and all inputs should be included in the financial proposal.
- UNDP ZRBF PMU through the RKH will provide overall direction to the consultant, conduct quality checks and monitor the progression of the analysis at different levels.
- The service provider will be responsible for arranging any other meetings as identified during the course of the work.
- The service provider will be required to make its own payment arrangements for any hired equipment or work sub-contracted.
- The service provider is expected to make field logistical arrangements, (for stakeholder meetings and community meetings during the assessments) in liaison with the respective consortia partners team leaders and Agritex district heads for the targeted districts

Management Arrangements:

The service provider will be directly supervised by the ZRBF Resilience Knowledge Hub in collaboration with ZRBF PMU and the Ministry of Agriculture, Land, Water, Climate and Rural Resettlement. Progress reports will be required monthly to feed into the ZRBF PMU monthly update and may occasionally be required to report on infrequent ad hoc requests as the need arises. The service provider will work closely with ZRBF Project Management Unit, ZRBF Resilience Knowledge Hub, ZRBF Consortia partners team leaders, district heads for Agritex. ZRBF PMU will link the service provider to the consortia partner team leaders. Other logistical arrangements will be the responsibility of the service provider.

F. Duration of the Work

The service provider is expected to start work on the 15th of May 2019 and complete the assessment by the 30th August 2019. The assignment should be completed within the stipulated time frame. Therefore, demonstrated capacity to complete the assessment within the contracted timeframes will be a critical selection criterion.

G. Duty Station

The assessment will be conducted in the districts in which ZRBF projects are being implemented hence there will be travel to Binga, Kariba, Mbire, Umguza, Bubi, Nkayi, Umzingwane, Mwenezi, Chiredzi, Lupane, Matopo, Insiza, Nyanga, Beitbridge, Mberengwa, Zvishavane, Mutoko and Mudzi.

F. Qualifications of the Successful Contractor

Team Composition & Required Competencies

Team Leader

- A Masters in Climate change adaptation, Geography, Agriculture, Agricultural or rural Development.
- At least 5 years of relevant experience and proven expertise with delivering and researching in climate change adaptation, resilience, sustainable or climate-smart agriculture training, project implementation or evaluations
- Proven technical expertise in climate change adaption/climate agriculture issues
- Proven experience and excellent networking and partnership skills with government departments in Zimbabwe.

- An understanding of and ability to abide by the core values of the United Nations.

Team Members

The team should have demonstrated ability to conduct a credible assessment

- The team (the size of which will be determined by the methodology used) should consist of specialists in climate change adaptation and agriculture with expertise in practices and approaches that build resilience and advance CSA for both crops and livestock as well as water, energy, forestry and natural resource management.
- Each of the team members should have at least a BSC or BA in Agriculture, Geography, Agriculture, or Rural Development and a Master's degree in the specified fields will be an added advantage. CVs of at least three team members should be submitted for evaluation
- Demonstrable academic and practical experience in resilience, CSA, sustainability or similar assessments in the agricultural sector
- Proven ability to collaborate with the relevant government departments at different levels in delivering trainings
- Practical experience of working with smallholders to support adoption of agricultural, water management, energy as well as good food security and nutrition practices for resilience building, climate change adaptation and sustainable development in rural Zimbabwe
- Key members of the team with Zimbabwe languages (Shona, Ndebele, Tonga, Vhenda and Shangani) proficiency a must.
- Excellent interpersonal skills, teamwork and adept at working with people of diverse cultural and social backgrounds

I. Scope of Bid Price and Schedule of Payments

The Contract price is a fixed output-based price regardless of extension of the herein specific duration. The consultant must include in the computation of contract price pure professional fee, venue, and the travel and subsistence cost of the team.

- A deliverable based payment system will be used, where payments will be processed based on the achievement and approval of agreed milestones, which provisionally will see the first tranche, 10% of the total cost of the work, being paid upon the production of the inception report, 20% of the total cost will be paid after approval of the assessment method and, 50%

of the proposed cost, being paid upon submission of the draft report and the last tranche , 20% upon the submission and approval of the full report.

- UNDP ZRBF PMU will assess, discuss and agree the appropriateness of the proposed milestones before the contract is signed-off.
-