



TERMS OF REFERENCE FOR A DIRECTED WRC PROJECT

KEY STRATEGIC AREA (KSA): International Cooperation and Partnerships

TITLE: Climate Change and Water Security: Developmental Perspectives for Water-Linked Sectors in a Future Climate for Africa (Bi-National Assessment)

1. Objectives

The general aim of the projects is to conduct a comparative analysis of climate change impacts to future development and economic growth for priority water-linked sectors in the African continent.

2. Goals

The specific goals are to:

- (a) Characterize and assess the impact of the projected future climate on water security.
- (b) Provide an analysis of expected changes in extreme climate and weather events.
- (c) Conduct a comparative analysis of associated developmental impacts on the priority water-linked sectors.
- (d) Assess risks/threats and opportunities that are likely to arise from the changing climate.
- (e) Recommend appropriate short, medium- and long-term adaptation strategies for developmental response.
- (f) Recommend appropriate policy actions that will address the identified impacts.

3. Rationale

Water is critical for development, economic growth and a better life. It is a key factor for inter-sectoral linkages. Climate change and climate variability have emerged as important challenges that humanity will face for many years to come, with the impact extending to water resources; ecological and biodiversity systems; food security; socio-economic stability, human health, human settlement and migration (IPCC, 2007). Climate change is a complex cross-cutting issue which is associated with consequences that threatens modern day development and sustainability of growth in modern society. Actions and interventions responding to development challenges in a changing climate require an in-depth diagnosis of the likely impacts while crafting strategies and positioning the sectors to respond to identified risks while examining options and opportunities. The African continent is particularly vulnerable due to its low adaptive capacity. Climate change impacts on water resources and development cannot be undermined. Increased occurrence of extreme climatic events brings about negative implications for infrastructure, health, production and economic growth, amongst others. Investment is required on measures that will increase the resilience of the water-linked sectors and also evaluation of alternative land use options in order to improve and sustain the water sector's adaptive capacity to deal with the future climate.

More often than not, warnings of climate change and expected consequences are given well in advance. Determining how important climatic variables will change, quantifying their natural

variability on multi-decadal or longer timescales, provides an opportunity for better risk management, reduce the cost of managing the impacts of climate change, and enable exploration of potential opportunities. Detecting and demystifying future changes in the climate will enable development sectors' informed decisions and planning for climate change response and a resilient approach for tackling the challenges in order to sustain economic growth. This proposed work brings to attention a focus on measures that will increase the resilience of the water-linked sectors in light of a changing climate and also requires to evaluate alternative development options in order to improve and sustain the water sector's adaptive capacity to deal with the future climate.

Focus in South Africa should be prioritized to Strategic Water Source Areas while encouraging a cross-cutting emphasis on overlapping areas of mutual interest with potential collaborating partners from other countries in the continent.

4. Deliverables Guidelines:

- (a) A report on the projected future climate (different scenarios) and anticipated impacts on water security.
- (b) An account of the resultant extreme climate and weather events.
- (c) A report on the comparative analysis of projected impacts on the priority water-linked sectors which has a significant bearing on rural/urban and regional development.
- (d) A report on options for developmental response considering socio-economic drivers.
- (e) Report on the strategies for adaptive response and to address reduction of impacts.
- (f) Recommendations for policy.
- (g) Final report.

5. Alignment to the WRC Knowledge tree objectives

The project should also include one or more of the WRC Knowledge tree objectives of:

- Informing policy and decision making.
- Developing new products for economic development.
- Empowering local communities.
- Driving sustainable development solutions.
- Enhancing human capital development.

6. Time Frame: R 36 months

- 7. Budget:** A maximum of R2 000 000. 00 per project over a period of three years. This is for the whole project and not only for the SA partners. The proposal must reflect the overall project budget and a breakdown for each partner as per contribution in the project.

8. Eligibility criteria

8.1 Eligible institutions from South Africa and other African countries

- (a) Universities;
- (b) Science Councils/Research Institution; and
- (c) Private sector/companies conducting research and development.

8.2 Eligible applicants

A South African lead partner from any of the above-mentioned institutions and the project should also include at least one additional partner/s from any other African country also from the above-mentioned or equivalent institutions. All projects proposals must be coordinated by a South African

partner who will also be responsible to submit the proposal to the WRC by the due date and ensure that all project deliverables are met including those implemented by the non-SA partners.

8.1 Eligible cost

Direct project related cost - personnel, project activities and procurement of equipment.

Other direct costs: consumables and travel costs to participate in the project related meetings.

All projects that do not comply with any of the eligibility criterion will be disqualified.

There must be a clear distinction of new elements and value addition to projects that have been previously funded by the WRC through national calls. Failure to clearly distinguish the new elements will lead to the project being rejected.

9. Application process

All proposals must be submitted by the SA partner/Coordinator on behalf of the consortium to the WRC through our new and improved project management system, ***“the BMS portal”*** <https://wrc.microsoftcrmportals.com/> by the deadline of 31 May 2019 at 16:00 SA time. Applicants that have not submitted proposal using the previous system (FMS) will be required to register first before they can upload their proposal. The WRC will further enter into contract with the SA partner on behalf of the consortium. The SA partner will be expected to establish a consortium agreement with all partners which further reflect the budget breakdown per partner deliverables and transfer timetable.

Portal link to register and apply: <https://wrc.microsoftcrmportals.com/>

System Support Requests should be directed to: bms-support@wrc.org.za

Call related questions and requests should be addressed to **Mr Tiyani Chauke** at E-mail: TiyaniC@wrc.org.za or Telephone: +27 12 761 9304.