TERMS OF REFERENCE
For WP3 Exploratory Case Study Research
EU Funded Project MC5.01/B15 Support to the Southern African States in Nuclear Safety and Safeguards

**Duration:** Until January 20, 2019

**Managed by:** Director of Research and Development at AFRICISIS

1. **Background**

The International Science and Technology Center (ISTC) and partners are implementing an EU Funded Project entitled *MC5.01/B15 Support to the Southern African States in Nuclear Safety and Safeguards*. The project is expected to strengthen and harmonize the nuclear regulatory framework in the participating countries for sustainable uranium mining, milling, processing, and associated transport. In addition, it is expected to support the development of a regional regulatory framework on uranium transport safety by strengthening the capacity of Southern African Development Community (SADC) to coordinate and serve its Member States with regard to nuclear safety, security and safeguards.

The African Center for Science and International Security (AFRICISIS) and the ISTC have signed a Memorandum of Understanding with the overall goal to partner in the implementation of the project. The MoU was developed through a comprehensive consultation process between the two organizations during May-July 2018. It is against this background that AFRICISIS and ISTC have signed a Contract Agreement for AFRICISIS to manage and implement the Project’s Work Packet 3 (WP3). The WP3 is an in-depth, detailed analysis of the states of affairs on nuclear safety and security in general and nuclear material transportation safety in particular in the four target countries and in the broader region.

The regional case study should be based on the findings of the country-specific reports. It should contain comparative analysis of the existing state of affairs in the entire region. Also, it should offer recommendation for possible approximation of the legal and normative frameworks, harmonization of the policies and standardization of the applied control procedures.

2. **Rationale**

The project stakeholders intend to use the evidence generated from the research to achieve an in-depth understanding of the existing safety and security frameworks, gaps, and opportunities for the strengthening and harmonization of nuclear regulatory frameworks in Malawi, Namibia, Tanzania, Zambia, and in the SADC region. Additionally, ISTC and partners will use the reports’ findings to make a case for re-vitalization of the SADC Nuclear Regulators’ Network and capacity – building of the SADC Secretariat, based in Gaborone, Botswana, to support a regionally harmonized system of accounting, control and transport of radiological and nuclear material. The harmonized regulatory system has the benefit to
improve interaction among uranium originating, transit, and destination countries in the region; and to prevent illicit trafficking of radioactive material.

It is hoped that recommendations from the reports will enhance nuclear safety, improve security policies, and effective implementation of international safeguards obligations in participating countries and; thus, increase national development through uranium export revenue. The research component of this project has the potential to inform on-going uranium development initiatives within these countries and across the continent if leveraged successfully.

3. Research

The project focus countries are Malawi, Namibia, Tanzania, and Zambia. These countries are currently involved in uranium extraction, are transiting states for uranium export, or plan to start uranium exploitation activities in the future. Uranium products are most vulnerable while in transit and therefore additional measures are required to mitigate against these risks. If uranium transportation safety and security measures are ignored, resources will be needed to handle the cascading problems, weak regulation could result in loss of revenue, and the global nuclear energy industry could be impacted adversely.

Various standards, practices, and guidelines exist that states can adopt to strengthen national nuclear regulatory capabilities to facilitate effective uranium mining, processing, transportation, and security. Whether via air, sea, road or rail, sharing methods to protect this material will help prevent uranium products from falling into the hands of terrorists, criminals and other unauthorized actors. Also, sharing best practices on radiological emergency preparedness and response measures will help minimize damage and loss in case an accident does occur, or an unauthorized actor succeeds to get access to a transporting vehicle.

In addition, international regulations for the transport of radioactive material have been published by the International Atomic Energy Agency (IAEA) since 1961. The IAEA has regularly issued revisions to the transport regulations in order to keep them up-to-date. The latest edition of its Regulations for the Safe Transport of Radioactive Material was released in 2012. The IAEA regulations have been widely adopted into national policies and organizations including by the International Civil Aviation Organisation (ICAO), the International Maritime Organization (IMO), and regional transport organisations. The objective of the regulations is to protect people and the environment from the effects of radiation during the transport of radioactive material, both routinely and when transport accidents occur. Moreover, each State Party to the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material bears the responsibility to protect and secure nuclear material in international transit.

Despite the plethora of international instruments on nuclear safety, safeguards, and security which have been ratified by a majority of African states at the African Union (AU) and United Nations (UN), the domestication and implementation of the standards espoused in these instruments has at best been slow. Thus, the proposed research aims to explore and analyze declared country’s nuclear regulatory needs, objectives and strategies, the existing legal and institutional frameworks, policy-elaboration mechanisms, and implementation capacities,
international and regional commitments, etc. On top of that, the research will offer propositional scenarios to guide the development of the EU technical assistance programs toward strengthening and harmonization of legal frameworks and policies at the regional level to address the challenges at border crossings and crucial nodal points.

4. Duties and Responsibilities

The consultant shall review national legal framework, national policy, and institutional mechanisms – established and in progress – on nuclear safety, safeguards, and security. Also, the consultant will analyze why gaps exist and how Project MC5.01/B15, with the support of SADC Secretariat, can strengthen the long term national and regional capabilities of responsible authorities and the administrative infrastructures. She/he will further analyze how Project MC5.01/B15 can facilitate the harmonization of the regional nuclear regulatory framework through durable cooperation, increased communication, and interaction among participating states.

The consultant may be expected to attend planning and project meetings at a chosen date and location as well as engage in regional travel when so required.

The consultant will work under the overall supervision of the Director, Research and Development, AFRICSIS and in collaboration with the Manager of Project MC5.01/B15, ISTC Secretariat, and designated national competent authority team, and SADC Secretariat Lead.

5. Scope of Work

The tasks to be carried out by the Consultant will include the following:

a) Study the uranium industry sector and prospects.

b) Review the state’s status of the international legal frameworks and regimes governing uranium mining, processing, reclamation, long-term stewardship, transportation, and security and its implementation to date. In this regard, highlight key achievements and factors contributing to these successes. In addition, the consultant should identify the key challenges encountered in implementation.

c) Describe the enacted laws, promulgated regulations, and established policies that are applicable to uranium mining, processing, reclamation, long-term stewardship, transportation, and security. To that end, the Consultant should identify and describe the government agencies that are charged with their implementation.

d) Identify gaps in legal and regulatory coverage activities involved in uranium mining, processing, reclamation, long term stewardship, transportation, and security. The Consultant should also identify gaps in the way that current legal and regulatory frameworks are applied. Additionally, the Consultant should describe options for addressing these gaps and develop a roadmap how the SADC Secretariat and other partners may work to strengthen and harmonize the regional regulatory framework.

e) Assess the uranium transportation security architecture (requirements, plans, measures, and best practices) in terms of existing institutional capacity (Financial, Technical, Human resources, Legal). In that regards, the Consultant should identify needed technical, financial and cooperation opportunities to empowering regulatory
agencies with strong information-gathering, enforcement, and inspection authorities.

f) Fully engage the Competent Authority’s working team appointed for the assignment to develop the case study report.

6. Research Methods

This is a qualitative study that will rely primarily on qualitative research methods, which include but are not limited to literature review, key informant interviews, focus group discussions and case study collection. It is also expected that quantitative data will also be collected and analysed but will be buttressed with qualitative data.

7. The Research Team

AFRICSIS seeks to obtain the services of individual consultants who can conduct exploratory case study research and produce reports. It is intended that the reports will be narrowly focused, provides high level detail, and are able to combine both objective and subjective data.

This exploratory case study research will shape the situational analysis in the context of uranium development, processing, transportation, and security. The Consultant:

- should exhibit capacity to conduct research at both country and SADC levels
- will lead in designing and developing research tools, methodology, and approaches
- will ensure quality control by developing mechanisms and tools to track country research processes and standardize approaches as far as is possible
- will ensure timelines for research delivery
- will coordinate and participate in the research validation processes at national and regional levels

Research participants during the data collection phase should ideally be the beneficiaries of Project MC5.01/B15 and targets for Competent Authority’s working team i.e. informants who are duty bearers e.g. Regulatory Authorities, Atomic Commissions; identify also informants among e.g. mining agencies; identify also informants from the communities where the proposed beneficiaries are from.

8. Deliverables and Reporting Deadlines

It is expected that the consultants will develop the following

- Inception report: To be the first output following the awarding of the contract. This inception report will refine the terms of reference, detail a draft work plan with a summary of the primary information needs, the methodology to be used, and a work plan/schedule and major deadlines. With respect to methodology, the research team will provide a description of how data will be collected and a sampling framework, data sources, and drafts of suggested data collection tools such as questionnaires and interview guides.
- **Draft reports**: for each of the four country studies, draft reports will be developed and submitted to the Research Reference Group and Country Teams who will review the drafts and provide feedback to the Consultant.

- **Final reports**: The final reports should each include an executive summary that summarizes the key findings and recommendations including best practices identified by the research.

The final research deliverables are five reports (as abridged and full reports) as follows;

  - Country report for Malawi
  - Country report for Namibia
  - Country report for Tanzania
  - Country report for Zambia
  - SADC level report (based on the country reports) to be elaborated at a second stage and after the completion of the country specific reports

It is expected that the Consultant will present the research findings as follows:

  - Draft findings to be presented at stakeholders’ validation meetings (country researches to be presented at country level and SADC findings at a SADC regional meeting)

**Indicators to evaluate the consultant’s performance**

Performance indicators are:

1. The quality and timely delivery of all required tasks as provided for in this Terms of Reference so as to ensure the successful development of the country specific report for the participating countries namely Malawi, Namibia, Tanzania, and Zambia; and a SADC level report;

2. The submission of monthly progress report summarizing the services provided and progress made; and

3. The submission of all reports including the final comprehensive report as provided for in this term of reference.

**9. Contract Timeline**

It is expected that the work will start shortly after the signing of the contract, potentially by October 5, 2018. It is envisaged that the country-specific reports will be completed within a period of four (04) months.

**10. Remunerations**

The consultant will be paid in three tranches of equal amounts. The first payment amounting to 20% of the contract amount will be made after the delivery of the Inception report. The second payment (30%) will be made after the delivery of the Draft report. The third and final payment (50%) will be after the delivery of the Final report.
11. Application Requirements

Application Process and Requirements: All expressions of interest should include:

1. **A Technical Proposal**: including the following amongst other things; understanding of the assignment, methodology, the task to be accomplished as well as base line analysis framework and plan; a brief profile of the Consultant highlighting experience in relevant/similar work. The Consultant will be expected to provide a suggested timeline and work plan for the assignment based on these scheduling parameters and in keeping with the scope of the research questions and assessment criteria. It is expected that all four (04) reports will be finalised by January 20, 2019, while the regional study by 1 September 2019. It is possible to place a bid for one or several reports, not necessarily the entire list of research studies.

2. **A Financial Proposal**: The financial proposal should provide cost estimates for carrying out the research.

Please quote "Project MC5.01/B15: WP3 Case Study Research" on the subject line.

**Deadline:** Please send your expression of interest as soon as possible, but not after September 28, 2018 to:

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