





Scientific Review of Study Reports and STEM Toolkit (Short Term Consultancy)

1. Introduction

The Association for the Development of Education in Africa (ADEA) is the voice of education reform in Africa. ADEA's vision is to create "high-quality African education and training geared towards the promotion of critical skills for accelerated and sustainable development in Africa". The association plays a significant role in the education space as a convener, knowledge creator, and forum for policy dialogue that brings together ministers in charge of education and key stakeholders. As a pan-African knowledge hub for peer-to-peer learning, ADEA elevates the voice of Africa on education priorities through organizing or participating in high-level policy dialogue forums at continental and regional levels. Two strategic pillars underpin the implementation of the ADEA Strategic Plan 2028-2022: (1) the Continental Education Platform and (2) the country-based Advisory and Execution Support Services. Both pillars are aligned to the African Union's Continental Education Strategy for Africa 2016-2025 (CESA 16-25) and the Sustainable Development Goal No. 4 on Education (SDG4).

The two pillars position the ADEA's Inter-Country Quality Node (ICQN) network as the catalyst for collaboration and coordination of stakeholders through capacity building, peer learning, and the exchange of knowledge and experiences. ADEA in collaboration with the Ministry of Education (MoE) Kenya as the leader of the Inter-Country Quality Node on Mathematics and Science Education (ICQN-MSE) have conducted recent studies on the status of STEM education in Africa (2021-2024) at basic learning levels. The study findings informed the need to develop a STEM toolkit to guide the development of STEM education in Africa.

The ICQN-MSE promotes the peer learning, exchange, and experience sharing through research studies policy dialogue, and collaborative action among African Ministers of Education and strategic partners to advance quality STEM education in Africa. The collaborative approach and networking supports the exchange of knowledge on concepts, research findings, and capacity building to respond to the varying contexts in which STEM education programs are implemented.

2. The Consultancy

ADEA conducted two studies, one on the status of STEM education at secondary schools in Africa in 2020, and a study on the situational analysis of play-based STEM education at primary schools in African countries in 2023. The study findings established critical gaps in providing quality STEM education including lack of harmonized understanding of STEM education; inadequate resources and facilities; students lack of interest to pursue STEM careers; relevance of STEM curriculum; and insufficient number of STEM curriculum implementers. The findings informed the development of a toolkit to guide the development of STEM education in African countries.

In this regard, ADEA seeks to recruit short term consultants as scientific reviewers for the two study reports and the toolkit. One for each of the following:

- 1. Report on the status of STEM education at secondary school level in Africa.
- 2. Report on the status of play-based STEM education in primary school level in Africa.

3. The STEM toolkit for basic education in Africa.

3. Objectives

- 1. Validate the content in terms of accuracy, relevance and coherence.
- 2. Identify gaps, inconsistencies or areas of improvement.
- 3. Make recommendations for enhancing the overall quality of the documents.

4. Scope of work

- 1. Review the research reports / toolkit with a focus on scientific soundness and accuracy of content.
- 2. Identify gaps in information or areas for further development.
- 3. Assess coherence and logical flow of ideas.
- 4. Prepare the review report detailing critical feedback, recommendations and suggested edits/additions to improve the research report or toolkit.

5. Deliverables

- 1. A comprehensive review report addressing areas outlined in the scope of work.
- 2. Suggested revisions in track changes/comments.

6. Profile of candidate

- 1. A minimum university degree (PhD) in educational psychology, educational communication and technology, or pedagogical studies with specialization in Scientific fields or STEM education.
- 2. Minimum 10 years' experience in designing research projects, studies, evaluations, surveys, data analysis, report writing and managing teams in a diverse cultural environment.
- 3. Solid track record in scientific fields or STEM education and leadership development, and presenting results to a high-level audience.
- 4. Fluency in either English or French language (written and oral) and a working knowledge of the other language.
- 5. Excellent skills in working with computers and using applications such as MS Office (Word, Excel, PowerPoint), email, internet, communication, and social media.
- 6. Ability to thrive under pressure in a fast-paced, deadline-driven, multi-project environment.
- 7. Demonstrated track record of engagement with African governments and diversity of partners in the fields of STEM education.

7. Timeline

The reviews will commence in April 2024 and shall be completed within 2 weeks (5 days paid work) from the day of signing the contract. The outputs will be submitted to the ICQN-MSE Coordinator.

8. Submission of Applications

The application should include:

- 1. Technical and Financial Proposal.
- 2. Motivation letter expressing interest and comprehension of the assignment.
- 3. Personal CVs/resumes indicating education background/professional qualifications, experience in reviewing scientific studies, contact details (email and telephone number), and at least three professional references.

Applications must be sent by email to <u>adea-applications@afdb.org</u> no later than 22nd March 2024 at midnight GMT. The subject of the email should be "Scientific Review of Study Reports and Toolkit".

Due to the high volume of applications, only selected candidates will be contacted through formal correspondence via e-mail. Candidates are strongly advised not to contact ADEA or staff members to inquire about the status of the application.