



## Sudan Team

Case study in progress from the KIX-EAP learning cycle “Teacher Professional Development at Scale (TPD@Scale)” held in collaboration with the TPD@Scale Coalition for the Global South, through the Foundation for Information Technology Education and Development, Inc. (FIT-ED)

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## About case studies in progress

This case study in progress was drafted by a national team that participated in the KIX EAP Learning Cycle on Teacher Professional Development at Scale (TPD@Scale). Case studies in progress are ongoing and incomplete studies. As such, the KIX EAP Hub/ NORRAG does not guarantee the quality of the work nor the accuracy of the data.

The KIX EAP Learning Cycles are supported by the Global Partnership for Education (GPE) Knowledge and Innovation Exchange (KIX), a joint endeavour with the International Development Research (IDRC), Canada. The findings, interpretations, and conclusions expressed in the Learning Cycle outputs do not necessarily reflect the views of the KIX EAP Hub, NORRAG, GPE, IDRC, its Board of Governors, or the governments they represent.

## About the KIX-EAP Hub

The Global Partnership for Education (GPE) Knowledge and Innovation Exchange (KIX) is a joint endeavour with the International Development Research Centre (IDRC) to connect expertise, innovation, and knowledge to help GPE partner countries build stronger education systems and accelerate progress toward SDG 4. There are globally four KIX hubs or Regional Learning Partners, overseen by IDRC. The hub functions as a regional forum within KIX. NORRAG (Network for International Policies and Cooperation in Education and Training) is the Regional Learning Partner for the KIX Europe Asia Pacific (EAP) hub.

The KIX EAP hub facilitates cross-country knowledge and innovation exchange and mobilisation, learning, synthesis, and collaboration among national education stakeholders in 21 GPE partner countries in the EAP region. The hub also offers opportunities for peer learning and exchange by means of professional development and inter-country visits.

## About the learning cycle on Teacher Professional Development at Scale (TPD@Scale)

This case study is a result of the KIX EAP Learning Cycle 'Teacher Professional Development at Scale (TPD@Scale)'. Organised by NORRAG in collaboration with the TPD@Scale Coalition for the Global South, through the Foundation for Information Technology Education and Development, Inc. (FIT-ED), this professional development course ran from 23 September to 5 December 2022. Across 10 weeks, this Learning Cycle enabled national experts to examine how ICT-mediated TPD programmes can be scaled through adaptation/localisation to improve students' learning outcomes. Thirteen national teams of educational sector experts from Bangladesh, Bhutan, Georgia, Kyrgyz Republic, Maldives, Moldova, Mongolia, Nepal, Sudan, Tajikistan, Uzbekistan, Vietnam, and Yemen took part in this Learning Cycle.



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# Part 1. Policy Brief

## Context and Background

Sudan's education system has been chronically affected by a combination of armed conflicts, a legacy of decades of international isolation, political instability, and weak institutions. Despite recent progress in student enrollments, the education sector suffers from multiple challenges from inputs to outcomes, including low and unequal levels of access and completion, low and stagnant student learning outcomes, poor education system management, inadequate learning environments, and low level of public spending on education with significant contributions from households. Faculties of education are responsible for providing pre-service teacher training and the MoE's National Centre for Teachers Training is responsible for the in-service teacher training programs, but there is a lack of coordination between these two bodies. Sudan is one of the countries facing serious challenges when it comes to ICT use in education, internet access is very low compared to African countries, only about 30% of the population with significant variation between urban and rural Sudan. The MoE, particularly during COVID-19, was faced with the limitation of internet services across Sudan and introduced the use of radios and TV broadcasting to support the revision of curricula before national certificates with limited success. Mobile messaging was also explored as 72% of the population is connected to telecommunication networks. Faced with such challenges the MoE realized that more efforts need to be conducted to: develop e-content; train teachers; improve the Education Management System and the use of ICT in education. A national committee of experts was established by the minister to advise and support the MoE in this work. In addition, the National Center for Curriculum and Educational Research (NCCER), doing a complete curriculum review will develop the new curriculum including digital platform systems as well as make developed TV and Radio materials that will be made available to the public through the MoE website for students in urban settings.

## Existing Issues and Challenges of TPD


There is an acute shortage of qualified teachers in Sudan with just over a quarter of teachers in primary schools meeting the minimum requirement for teaching. Moreover, the curricula followed in education studies gives priority to theory but remains weak in providing practical and pedagogical skills for instruction (UNICEF, 2020). The newly installed Minister of Education has made it a priority to revise curricula to be more suited to skill needs for the future. Many teachers in Sudan were found to be volunteers,<sup>1</sup> untrained, under-supervised and unequally distributed between rural and urban areas.<sup>2</sup> For instance, The Ministry of Education identified 3,692 unqualified teachers in South and East Darfur out of a total number of 7,315 employed teachers. Although teachers are required to upgrade their credentials to meet new education policy standards, digital skills are not included in the new minimum requirements for primary or secondary teachers, so using technology to scale TPD programs is still challenging.

Challenges of intermittent access to the internet and electricity were cited as major hindrances in conducting these trainings. Stakeholder consultations revealed how professors who attended the training were able to efficiently manage online classrooms more and were confident teaching online versus professors who did not attend the training. It is important to note that provision of such training is likely more evident, and possible, in cities with better digital literacy and digital skills utilization (like Khartoum). Universities in state cities such as El-Gedaref and El Fasher do not provide concrete teacher training programs inclusive of ICT modules. Another challenge facing the TPD programs is the lack of coordination between the MoE and faculties of

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<sup>1</sup> <https://www.globalpartnership.org/where-we-work/sudan>

<sup>2</sup> <https://www.unicef.org/sudan/education>



education at higher education institutions, this lead to increasing the gap between the pre-service programs and the needs of the school, and the absents of research-based plans in the in-service program.

### **Proposed Solutions and Policies**

The National Centre for Teachers Training, with the support of the MoE and partners is adopting number of programs for teachers' training:


(1) World Bank: Sudan Education COVID-19 Response, is very a comprehensive project aligned with the direct plans of the MoE and it shares the same pillars of the national plan and includes: Developing and broadcasting radio programs and newspaper columns in math and Arabic; Training teachers in using distance learning methods and grading student assignments (estimated 33,000 teachers trained) and Provision of radios and solar power banks to 60,000 disadvantaged households (bottom 20 per cent).

(2) UNICEF in Sudan received a GPE grant of US\$ 70,000 to support MoE with its COVID-19 response received a GPE grant of US\$ 70,000 to support MoE with its COVID-19 response, where they have recorded TV and radio lessons for review of Grades 8 and 11 subjects in preparation for the final exams; Develop an educational platform and links with social media accounts for wider coverage and easy access; Provide special support to students in rural areas and those who have no access to the internet, TV or smartphones by distributing paper-based reviews booklets for Grades 8 and 11 students in 18 states.

(3) The British Council has Developed audio material in English teaching for teachers with accompanying worksheets and the materials are available for broadcasting as per the World Bank project document. As well as developed Teacher training using phones as per the Sudanese COVID-19 national response plan.

(4) UNESCO invested in improving the knowledge and skills of the Sudanese teacher on how to use ICT in the education process, especially during the COVID-19 crisis, when it was becoming mandatory to ensure the continuity of the educational process. Starting from the current basic knowledge of the typical Sudanese teacher about the use of ICT in education, the UNESCO course has been contextualized to the Sudanese environment in close consultation with all national partners: the National Information Centre who provided local hosting and technical backup to the MoE; the National Centre for Teachers Training who has provided supervision and technical support for the teachers as well as endorsing the UNESCO certification and provided joint certification for teachers who will complete successfully the online course (this was the very first certified online training program for the MoE). Piloting the online course in the MoE was great awareness about online training and provide a concrete example that the MoE could build on future courses as well as enhance the quality of the online course through collected feedback and learned lessons from the pilot. The pilot would target teachers from the 18 states of Sudan nominated from state level MoE with knowledge of the use of computers and the internet (50% women). The pilot will be closely watched by the MoE and UNESCO Khartoum and evaluated by Education ICT national expert under the watchful eye of a National team that has been formed by the MoE, the evaluation report will be used to improve the online course and only then move to target 500 teachers in Khartoum and North Kordufan states. The course will then be officially adopted by the MoE and will be disseminated to all 18 states and shared through internet cafes in rural Sudan where teachers with no hardware can access and complete the course. By doing so the project anticipates that 10,000 teachers will complete the course in 2 years, and annual reports will be shared with the MoE about teachers registered and those who completed courses. The platform will be also promoted in higher education, students of the faculties of education at the university level will be encouraged to complete the course ahead of graduation.

(5) Expertise France, the Education Quality Improvement Program (EQUIP 2) is a €20M EU-funded program that contributes to fulfilling the right to education, ensuring the improvement of learning outcomes and the increased completion rates in the quality education of children in Sudan, with particular attention to groups living in vulnerable situations, especially girls, through the improvement of equitable access to quality primary/intermediary education The program is implemented by Save the Children, EF and SOFRECO. EF is



responsible for the 2nd component, pre-service and in-service teacher training activities (Teacher training is enhanced through institutional and human capacity building). it is a pre-service and in-service teacher training focusing on professional skills. The program was implemented in three phases (Phase 1, for 130 master trainers, Phase 2 for 600 trainers, and Phase 3 for 6000 intermediate level school teachers).

### **Prioritized Area for Scaling TPD**

Education is one of the key priorities for Sudan's transitional government. The MoE announced the need for educational reform, to gradually increase public expenditure on education to 15–20 per cent and adopt the '2-6-3-3' school year ladder (i.e. two years of pre-school, six years of primary, three years of lower secondary (intermediate) and three years of upper secondary). One of the main challenges is the lack of new intermediate-level teachers, there is no specific program, whether at the faculties of education at universities or at the teacher training institutes. The National Centre for Teachers Training is working currently to adopt the Expertise France program, which provides teachers training programs for primary school teachers to work at the intermediate level, and many university's faculty of education have started to reform their programs to provide pre-service intermediate-level teachers preparation.



## Part 2. Project Proposal: Upgrading Primary School Teachers to Middle School: In-service Teacher Training Project

### Summary

Education is one of the key priorities for Sudan's transitional government. The Ministry of Education (MoE) announced the need for educational reform, to gradually increase public expenditure on education to 15–20 per cent and adopt the '2-6-3-3' school year ladder. One of the main challenges is the zero number of middle school teachers, there is no specific program, whether at the faculties of education at universities or at the teacher training institutes/centres. The purpose of this project is to develop an in-service teacher training program for primary school teachers to upgrade them to work in middle schools. Considering the equity, quality and efficiency, the project will be implemented in three phases, in phase 1; a number of about 6300 teachers will be trained in six subjects, science math, Arabic, English, history and geography and upgraded to work in middle schools. In phase 2, EdTech solutions for scaling will be developed and implemented through digital media such as (Radio, TV, Online platforms, Mobile apps,...) to reach more teachers. And phase 3 is for the evaluation of the project which will be conducted for all the project interventions using the RCT approach.

### Context

Sudan's education system has been chronically affected by a combination of armed conflicts, a legacy of decades of international isolation, political instability, and weak institutions. Despite recent progress in student enrollments, the education sector suffers from multiple challenges from inputs to outcomes, including low and unequal levels of access and completion, low and stagnant student learning outcomes, poor education system management, inadequate learning environments, and low level of public spending on education with significant contributions from households. In Sudan, poverty is deeply entrenched and is highly widespread and deeper in rural areas and in areas affected by conflicts, drought and famine. The incidence of poverty varies considerably according to state, in part because economic growth has been very unevenly distributed, but also because of the social devastation and economic caused by the conflicts in certain parts of the country. There are severe inequalities in terms of going to school, clean water and sanitation, infrastructure and natural resources, justice and political protection, and income opportunities. The incidence of a high poverty rate seems to be the most important factor that limits the demand and enrolment, notably, in basic education. Despite these challenges, in Sudan, there are many efforts for improving the quality of education, consequently, teacher education colleges became affiliated with universities to offer B.Ed. courses as pre-service teacher education UKNARIC (2007). This shift set Sudan apart from other countries in the countries; 20 years later a certificate or diploma remains the minimum qualification for teaching at the primary level across much of Sub-Saharan Africa (Freda & Alison. 2013). Better-trained teachers – whether they are male or female – are more likely to have the ability to create a learning environment in which students are willing to voice their concerns about the obstacles they face. The National Teacher Training Center (NTTC) in the Sudanese MoE is responsible for overseeing the qualifying and preparation of educators and teaching personnel for service in the teaching profession in the country. Designing training programs and curriculum system, and qualifying professionals for the educational training process are regarded among the directorate's mandates. Teachers and supervisors for primary and secondary schools, school headmasters, directors' supervisors, and holders of the Sudan's certificate of higher education, are enrolled for both short-and long-term training courses in faculties of education in Sudan. In Sudan, high-quality professional development is critical in providing teachers with the necessary knowledge and skills to meet students' educational needs and rural teachers are facing many challenges for professional development.





## The framework and objectives of the project

There are many issues and challenges facing the training system of teachers in Sudan, some of these issues are linked to the lack of policy, plans and strategies for teacher training, most of the teachers are not qualified to teach at basic school, so they are not capable to teach in intermediate school, the new change in education ladder needed to the upgrading of the number of primary school teachers, these process would be greatly implemented when the scaling strategies are defined and supported, the scaling needs a very powerful implementation of ICT in education generally and in teacher training specifically. The Sudanese government established the National Telecommunications Commission, and the National Information Center, and prepared a complete strategy to make use of information technology in education and other different states. But this strategy was based on several themes, the most important of which was the establishment of the legislative, institutional, and regulatory framework which would achieve an open and transparent structure so as to enhance competition, innovation, skills, capacity building, and develop human resources that are capable of responding and interacting with the requirements of the information age. This would be achieved through continued education, training and development of the infrastructures necessary to create information networks that guarantee easy access through a free competitive market using modern technology with its services and applications.


The executive organizations for teacher training according to the Sudanese five years plan (2007-2011) are training departments, colleges and institutions of education, but all these organizations are not eligible to meet this role of teacher training. The Sudanese government made great efforts to increase access to basic education, particularly in all areas previously affected by conflict. The five-year (2007-2011) Education Sector Strategic Plan (ESSP) furthermore prioritized the country's Commitment to the Education for All goals and outlined Activities to meet the MDG of educational targets. Because of the above-mentioned challenges, and rehabilitations of teachers, teacher education and educational college need a new policy considering the informatization of education and the needs of a new generation.

In Sudan, training issues and poor distribution of teachers to underserved and hard-to-reach communities may hamper the supply of ICT in education resources - even traditional training activities - and the expansion of the system. Moreover, data management systems policy within the teacher education college edifice as a whole remains weak, with poor forward and backward linkages between the federal government and the states government, as well as across the evidence collection, implementation, planning, and monitoring and oversight processes, and all these issues have much negative impact for TPD. Pre-service program for Basic education teachers in Sudan faces some difficulties, Faisal and Alsiddig (2017) conclude that "there is a lack of coordination between the Ministry of general education and the colleges of education in preparing and executing the current program of teacher education, as the Faculties of Education designed it alone". The program is based on preparing the student teacher to teach single subjects only, whereas the reality of basic schools in Sudan is that teaching in primary education is done based on teaching more than two subjects. Teaching practice is insufficient to prepare the student teacher for teaching in all school grades, and the educational environment is very poor, in terms of good laboratory, well-equipped lecture rooms, modern library and instructional technology.

In Sudan, rural and urban schools, economic and socio-political factors and teacher migration are very considerable issues. The Sudanese teacher had developed a long history of good instructional practice, a thing that was reflected in being demanded in the petrodollar Arab states where the best teaching salaries were recruited as contractors with good pay compared to their status in Sudan. This foreign recruitment of our best teaching force caused great harm to Sudan's economic, social and cultural domains. Many qualified teachers deserted Sudan due to economic, social and political factors which were/ are behind this severe brain drain, and the government still cannot make any kind of policy that helps in teachers' retention.

The development of an ICT system and educational management information system (EMIS) projects have essential purposes in Sudanese schools which is "to connect schools with each other and with the ministry of education for the Sudanese exams certificate, whose process is to distribute exams, correct, and show the





result on-line". While these projects have only implemented partly in the process of showing the result of exams, it's easy for students to get their results from the website or mobile SMS, but the most of parts are still depending on the traditional methods, especially in rural areas. Although the Sudanese Ministry of general education pointed out that the education goal that modern ICT is needed to integrate into teaching and learning but the obstacles prevented it. Owing to the lack of definite scientific planning and the lots of difficulties, the educational institutions in Sudan benefit poorly from information technology. And other specific challenges and political issues regarding the integration of information technology in education and teacher professional development are the following:

#### 1. Financial and technical obstacles:

Most of the activities in the MOE are implemented by the education partners in Sudan because of the absent government funds allocated. These financial and other technical issues lead to many obstacles in the system:

- First: Poor physical infrastructure of information technology in educational institutions generally, especially in rural areas, such as equipment, technical programs, standard classrooms, and learning resource centres.
- Second: low introduction of ICT classes in school curricula. It limits the spread of computers and Internet use. There is even no allocation of budgets for the integration of information technology in teaching and learning. Third, the lack of partnership between ICT companies and educational institutions for the implementation of projects. Fourth; the lack of education policy, plans and strategies, especially for teacher training and scaling programs.

#### 2. Human Obstacles:

- Lack of qualified teachers, in terms of education degree, most of the primary school teachers, especially in the rural and disabled area are not graduated from faculties of education, some have no bachelor's degree, they worked with their high school certificate only; other issues are related to scaling, and because ICT or digital skills are essential for any scaling and sustainable programs, a teacher is required to use computers or any other devices and Internet for training.
- The lack of computer technicians at computer labs in schools and training institutions, networking and learning technologies in educational institutions, and
- Low level of ICT in education and the high rate of computer illiteracy with lack of treatment.

#### 3. Regulatory and administrative obstacles:

- The absence of coordination between organizations, the Ministry of Telecommunication, the National Information Center (NIT), the Ministry of Finance, the Ministry of Higher Education, information technology companies and educational institutions. Especially the lack of coordination between educational colleges, research institutions, and MOE bodies, such as The National Teacher Training Center (NTTC), the National Curriculum and Educational Research Center (NCERC) and the National Center for Literacy and Adult Education (NCLAE).
- There is a lack of definite scientific plans for ICT in education and an operational measure which follows scientific and technical progress (current and future) in the curriculum,
- The weak administrative authority, supervision, implementation, monitoring, evaluation and delays in decision-making.

Based on the above discussion, the general objectives of the project could be summarized in the following points.



### ***The objectives of the project***

The general objective of this project is to upgrade primary school teachers to work in middle school, this can be achieved through many sub-objectives:

1. To develop middle school teacher training materials and identify teacher selection criteria.
2. Conducting TOT for 216 teachers training for 18 states in six subjects, science, math, Arabic, English, history and geography to work in middle school.
3. At the State level, to train a number of 2160 teachers in six subjects, science math, Arabic, English, history and geography.
4. At the locality level, across the country, to train a number of 4800 teachers in six subjects to work in middle school.
5. To develop and implement ICT solutions for scaling through digital media such as (Radio, TV, Online platforms, Mobile apps,..).
6. To conduct evaluation research for the interventions.

### **The model and strategies to be employed to achieve the proposed objectives**

There is an acute shortage of qualified teachers in Sudan with just over a quarter of teachers in primary schools meeting the minimum requirement for teaching. Moreover, the curricula followed in education studies give priority to theory but remain weak in providing practical and pedagogical skills for instruction (UNICEF, 2020). The newly installed Minister of Education has made it a priority to revise curricula to be more suited to skill needs for the future. Many teachers in Sudan were found to be volunteers, untrained, under-supervised and unequally distributed between rural and urban areas. For instance, The Ministry of Education identified 3,692 unqualified teachers in South and East Darfur out of a total number of 7,315 employed teachers. Although teachers are required to upgrade their credentials to meet new education policy standards, digital skills are not included in the new minimum requirements for primary or secondary teachers, so using technology to scale TPD programs is still challenging.

Faculties of Education are responsible for providing pre-service teacher training and the MoE's National Centre for Teachers Training is responsible for the in-service teacher training programs with a very lack of coordination between these two bodies. Sudan is one of the countries facing serious challenges when it comes to ICT use in education, internet access is very low compared to African countries, only about 30% of the population with significant variation between urban and rural Sudan. The MoE, particularly during COVID-19, was faced with the limitation of internet services across Sudan and introduced the use of radios and TV broadcasting to support the revision of curricula before national certificates with limited success. Mobile messaging was also explored as 72% of the population is connected to telecommunication networks. Faced with such challenges the MoE realized that more efforts need to be conducted to: develop e-content; train teachers; improve the Education Management System and the use of ICT in education. A national committee of experts was established by the minister to advise and support the MoE in this work. In addition, the National Center for Curriculum and Educational Research (NCCER), doing a complete curriculum review will develop the new curriculum including digital platform systems as well as make developed TV and Radio materials that will be made available to the public through the MoE website for students in urban settings.

Challenges of intermittent access to the internet and electricity were cited as major hindrances in conducting these trainings. Stakeholder consultations revealed how professors who attended the training were able to efficiently manage online classrooms more and were confident teaching online versus professors who did not attend the training. It is important to note that provision of such training is likely more evident, and possible,

in cities with better digital literacy and digital skills utilization (like Khartoum). The main points for the strategies include:

1. A national team for developing training material and evaluation will be selected.
2. The project will start with F2F traditional training at the federal MOE and state MOEs will be asked to nominate 2 teachers in each of the six subjects, those teachers will participate first TOT workshop as master trainers.
3. The master trainer will go back to their states and each 2 teachers will conduct a TOT workshop for teachers at their states and from different localities.
4. The trained teacher will conduct teacher training workshops at their localities to reach a greater number of primary school teachers who are qualified to work in middle school.
5. EdTech solution for scaling will be developed and implemented through digital media such as (Rdio, TV, Online platforms, Mobile apps,..). A national team for developing digital content and media will be initiated.
6. Evaluation research will be conducted at different 50 clusters at state levels using randomized control trials (RCT).

### **Target Participants**

The target participants of this project are primary school teachers who have the criteria to be upgraded to work in middle school.

### **Project Duration**

This project duration is from January 2023 to December 2024.

*Table 1. Project duration*

		2023				2024			
	Items	Jan-March	April-Jun	July-Sept	Oct-Dec	Jan-March	April-Jun	July-Sept	Oct-Dec
Phase 1	The development of training materials								
	Selection process								
	TOT for Master trainer (federal) 36*6=216								
	TOT for Master trainer (States) 20*6*18= 2160								
	Teacher Training (Localities) 20*6*40= 4800								
Phase 2	Development and implementation of EdTech programs for scaling (Rdio, TV, Online platforms, Mobile apps,..								

Phase 3	Evaluation of the project								
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### **Estimated Project Costs**

The estimated project cost is 410,000 \$ for the two phases.

*Table 2. Estimated project budget*

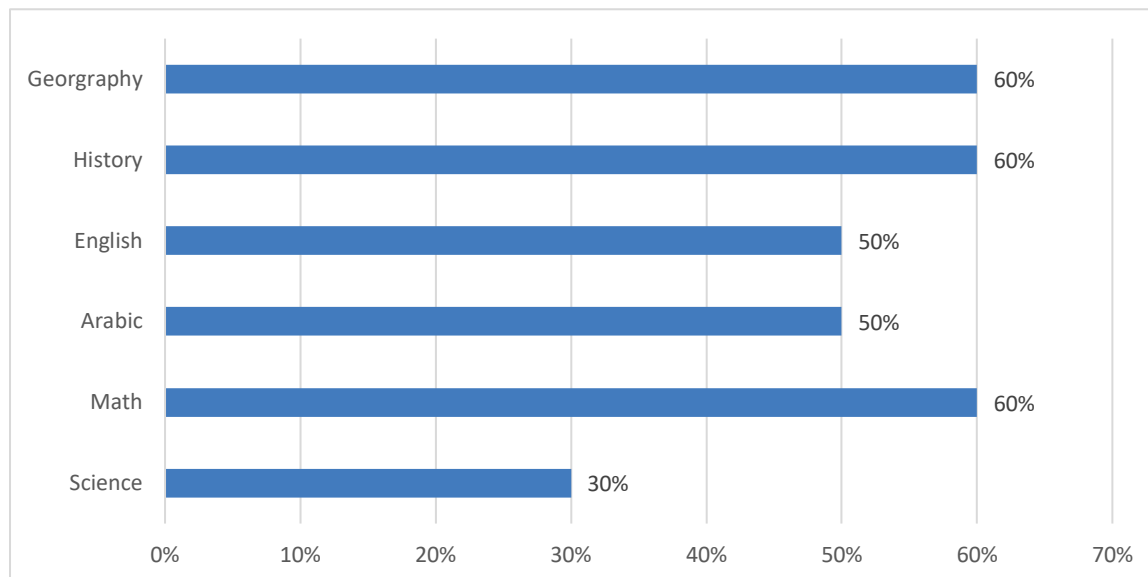
	Budget Items	Amount (\$)	Subtotal	Remark
3	Phase 1 budget		180,000	
	Development of training materials	10,000		
	6 workshops at the federal level	30,000		6 weeks
	108 workshops at States level	40,000		10 days
	240 workshops at localities level	100,000		10 days
4	Phase 2 budget		150,000	
	Development of EdTech materials	100,000		
	Platforms	30,000		
	Implementation	20,000		
5	Project evaluation		30,000	
	1. Data collection	50,000		
	2. Data analysis			
	3. Reporting			
	Unexpected associated Cost		50,000	
6	Total		410,000	

### **Project Group Members and Partners**

Federal Ministry of Education, state Ministries of Education, Ministry of Finance, Ministry of Communication, and Ministry of Higher Education.

### ***Covering of teachers per subject by 2024***

*Figure 1. Covering of teachers per subject by 2024*



### ***Expected Results***

1. Middle school teacher training material will be developed, teacher selection criteria will be identified, and 216 teachers will be targeted from 18 states for TOT.
2. At the State level, a number of 2160 teachers will be trained in six subjects, science math, Arabic, English, history, and geography.
3. At the locality level, across the country, 4800 teachers will be trained in six subjects to work in middle school.
4. EdTech solution for scaling will be developed and implemented through digital media such as (Radio, TV, Online platforms, Mobile apps,...).
5. Evaluation research is conducted.

### ***Evaluation plan and methods***

There are three kinds of evaluation plans for this project, formative, summative and impact evaluation. The formative evaluation is what the trainer uses during the training to assess the master training achieving of a specific objective, using small kinds of quizzes, discussions, and any other tasks that lead to the MT understanding. The summative evaluation is the process of assessing and evaluating each phase of the project, base and endline questionnaires, focused group discussions, interviews and tests are tools used for these evaluations. This kind of evaluation can be done with each cluster independently. And finally, RCT will be used for the project impact evaluation which is going to be implemented in different clusters and for all phases of the projects at the end.

*Table 3. Evaluation plan and methods*

<i>Data collection</i>	<i>Based and endline data will be collected through questionnaires, interviews, observations and FGD.</i>
<i>Data Analysis</i>	<i>Different data analysis forms will be used.</i>
<i>Reporting</i>	<i>Writing the evaluation report</i>

*Figure 2. Evaluation plan and methods*





## References

Faisal. M & Alsiddig I. An Evaluative Study for the Program of Preparing a Basic Education Teacher: The Case of Faculty of Education at University of Khartoum. Research Journal in Organizational Psychology & Educational Studies 2013, 2(4) 210-217.

Freda Wolfenden, Alison Buckler. Capturing changes in Sudanese teachers' teaching using reflective photography, Teaching and Teacher Education 34 (2013) 189-197.

UKNARIC. (2007). Analysis report on teacher training system in Sudan. Refugees into Teaching Project.

UNICEF Country Report <https://www.unicef.org/sudan/stories/sudan-cant-wait-learn>.