German Financial Cooperation with Egypt

Project:
"Promotion of Technical and Vocational Education and Training (TVET)" in Egypt
BMZ No.: 2015 65 217 and 2014 68 552 and the EU Mandate

"Promotion of Sustainable Energy in TVET"
BMZ-IDs 3020 00 792 (ENI/2019/411-952)

REQUEST FOR PROPOSALS

I. Letter of Invitation
II. Conditions of Tender
III. Terms of Reference

Project Execution Agency (PEA):	**Ministry of Education and Technical Education (MoETE)**
Project Partners:	**Misr-el-Kheir Foundation (MEK)**
	General Authority of Educational Buildings (GAEB)
Funding through:	**KfW Entwicklungsbank**

Component 1: Centers of Competence in Technical and Vocational Education and Training

Component 2: Promotion of Technical and Vocational Education and Training

Final 30th April 2021

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PART 2 – TERMS OF REFERENCE

Section VII. Terms of Reference

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List of Definitions

Besides the definitions as listed in the General Conditions of the relevant FIDIC Conditions of Contract additionally the definitions below are applicable. Capitalized terms used in the Guidelines have the meaning ascribed to them in this Section

Appendix	Appendix to these Guidelines.
Applicant	Person who submitted an Application in a Pre-Qualification Phase of a Tender Process.
Application	Set of documents submitted by an Applicant in order to prove eligibility and qualification to perform the Contract.
Award of Contract	Legally binding signing of the Contract by the PEA and the Contractor or submission of a letter of formal acceptance of an Offer by the PEA, whichever is first.
Bid	Set of documents submitted by a Bidder in order to participate in a Tender Process for procurement of Non-Consulting Services, Works, Goods and Plant.
Bidder	Person who submitted an Offer in a Tender Process.
Consulting Services	Services of an advisory/professional nature, including in particular the provision of expert/strategic advice, management services, coaching, policy development, implementation and communication services as well as advisory and project-related services, e.g. feasibility studies, project management, engineering services, supervision of construction, finance and accounting services, as well as training and organisational development.
Funding Agreement	Agreement between (a) KfW and a borrower (in the case of a loan) or (b) KfW and a recipient (in the case of a grant), setting out the terms and conditions pursuant to which funding is made available by KfW.
Guidelines	KfW's Guidelines for the Procurement of Consulting Services, Works, Plant, Goods and Non Consulting Services in Financial Cooperation with Partner Countries.
Invitation to Bid ("ITB")	Set of documents inviting prequalified Applicants, interested or preselected Persons, as the case may be, to submit a Bid.
Joint Venture ("JV")	Joint Venture (JV) means an association with or without a legal personality distinct from that of its members, of more than one Person where one member has the authority to conduct all business for and on behalf of any and all the members of the JV, and where the members of the JV are jointly and severally liable to the PEA for the performance of the Contract.
Key Expert	A single individual professional whose skills, qualifications and expertise are critical to the performance of the Contract and whose CV is taken into account during the evaluation.
KfW Competence Center for Environmental and Social Sustainability (KCUS)	It provides services in the field of environmental and social sustainability for KfW. This includes inter alia the appraisal, implementation and monitoring of environmental and social sustainability in KfW Projects.
KfW Competence Center for Climate and Energy	It provides the services in the field of climate and energy for KfW.
Mandate	KfW may be given a Mandate to carry out project funding with financial means of a mandator (e.g. European Union) based on a mandate agreement.

Non-Consulting Services	Services which are not Consulting Services. Non-Consulting Services are normally bid and contracted on the basis of performance of measurable outputs, and for which performance standards can be clearly identified and consistently applied, e.g. topographical and geotechnical surveys, soil investigations, aerial surveys and remote sensing, drilling, aerial photography, satellite imagery, mapping and similar operations, transport and distribution of Goods.
Offer	General term for Proposals and Bids.
Partner Country	Country of the PEA, in which the KfW financed Project/ Programme is implemented.
Person	Any natural or legal person or an association of two or more of the foregoing.
Prequalification	First stage of a Two-Stage Selection to identify a number of eligible and qualified Applicants, who will then be invited to submit an Offer.
Procurement Plan	Document defined in Article 1.6.2 and set up by the PEA listing all Tender Processes for Contracts financed by KfW including key procurement related information.
Project Executing Agency ("PEA")	Entity in charge of implementing a Project, which directly or indirectly receives funds made available under the Funding Agreement.
Project Implementation Unit (PIU)	PEA's team in charge of implementing a Project, consisting of sector specific experts and commercial expert.
Proposal	Set of documents submitted by Bidders in order to participate in a Tender Process for procurement of Consulting Services.
Public Procurement Regulation	Law or legal regulation established by the state of the PEA for the public procurement of Consulting Services, Works, Goods, Plant, or Non-Consulting Services in the Partner Country.
Punch List	List of Deficiencies
Request for Application ("RfA")	Set of documents inviting potential Applicants to submit their evidence of qualification to perform the Contract.
Request for Proposal ("RfP")	Set of documents inviting prequalified Applicants, interested or preselected Persons, as the case may be, to submit a Proposal.
Single-Stage Selection	Tender Process in which Persons submit their evidence of qualification together with their technical and financial Offer.
Tender Document(s)	RfA, ITB and RfP, including Draft Contract as well as any clarification or amendment thereof during the Tender Process.
Tender Procedure	Type of procedure (e.g. ICB, NCB, LCB Direct Award) undertaken to approach Persons for the procurement of Consulting Services, Works, Goods, Plant, or Non-Consulting Services.
Tender Process	Process carried out to procure Consulting Services, Works, Goods, Plant or Non-Consulting Services, starting with the publication of a tender notice/invitation to submit an Offer, as the case may be, and ending with Award of Contract or cancelation of a Tender Process.
Terms of Reference ("ToR")	Description of the objectives, Scope of Work, activities, and tasks to be performed, respective responsibilities of the PEA and the Contractor, and expected results and deliverables of a Consulting Services Contract.
Two-Stage Selection	Tender Process which is divided into two consecutive stages with an upstream Prequalification.

1. PROJECT INFORMATION

1.1 Preliminary Notes

The Project “Promotion of Technical and Vocational Education and Training” (TVET) is composed of two main components:

- Component 1: “Centers of Competence in Technical and Vocational Education and Training”, which concerns the establishment of three existing technical schools into Applied Technology Schools (ATS) with a status of Centers of Competence (CoC) focusing on the fields of renewable energy and energy efficiency.
- Component 2: “Promotion of Technical and Vocational Education and Training”, which comprises upgrading of selected Technical Secondary Schools (TSS).

The two above mentioned components complement each other and are herewith referred to as “the Project”.

The Project activities will be financed by the German Financial Cooperation (FC) and the European Union (EU) through KfW via a so-called blending mechanism. That means the funding of project measures stem partially from FC-funds and partially from EU-funds. The FC contribution comprises a EUR 18 million grant (BMZ-No 2014 68 552) and a EUR 20 million loan (BMZ-No 2015 65 217). The EU contribution consists in a NIP-grant which amounts to EUR 13 million (BMZ-No 3020 00 792 / Agreement n° ENI/2019/411-952). This EU-Mandate directly supplements the project through additional Investment and Technical Assistance activities.

While the Financing Agreement and the respective Separate Agreement for the FC contribution between the Government of Egypt and KfW have been concluded, the conclusion of the Financing Agreement and of the Separate Agreement for the EU Mandate between the Government of Egypt and KfW is planned in the second quarter 2021.

One Consultant will be assigned for the Project (both components) and it is envisaged to conclude only one consulting contract. However, as the award of contract may occur before conclusion of the Separate Agreement for the EU Mandate, it may have to be necessary to include in the contract the consulting services connected with the EU Mandate as Optional Services.

The Employer of the Consultant will be the Ministry for Education and Technical Education (MoETE) as the Project Executing Agency (PEA). MoETE will delegate specific tasks in the implementation of the Project to the General Authority for Educational Buildings (GAEB) and Misr-El-Kheir Foundation (MEK) who will be Project Implementing Partner (PP).

All the services of the Consultant described in the following shall be performed in close coordination and cooperation with the PEA, the PPs and KfW.

It has been attempted to outline the Consultant's tasks required during execution of the services as precisely as possible. However, the Consultant shall bear in mind that the list of tasks and activities can by no means be considered as a complete and exhaustive description of the Consultant's duties. It is rather the Consultant's responsibility, in cooperation with and with the approval of PEA and KfW, to verify critically the scope of services indicated and adapt his concept accordingly wherever he deems necessary according to his own professional judgement and the knowledge he will acquire during preparation of his proposal. In case the Consultant considers indispensably necessary to amend the scope of services he shall offer these services in his technical and financial proposal; further additional services may be offered as optional.

In all parts of this ToR, wherever the term “Consultant”, “Implementation Consultant” or “IC” is mentioned, it shall be understood as the association or consortium formed between the International Consultant and its national consulting partners.

1.2 Background

In Egypt, around 850.000 new job seekers are entering the labour market each year. As the formal economy is in its development phase, the labour market may be unable to absorb these numbers, and a high share of these young people ends up unemployed or underemployed in the informal economy. Despite an oversupply of vocational school graduates and academics, companies frequently complain about the lack of well-trained technicians which they would need to increase their productivity and growth. This applies in particular to complex technologies or processes as well as those in which new and further developments are constantly taking place (e.g. energy and environmental technology). To address these interlinked challenges in the technical education sector and to increase job opportunities on the formal market especially for young people, the Egyptian Ministry of Education and Technical Education (MoETE) has launched a comprehensive Reform of the Technical Education System, called Technical Education 2.0 with a 5-pillar based strategy:

(1) Transformed Quality of Technical Education

(2) Transformed Relevance of Technical Education by Transferring to Competency-based Curricula and the Extensive use of Digital Content

(3) Transformed Teachers through Training & Qualification

(4) Transformed Schools through Employer Engagement & Work-based Learning

(5) Transformed Image of Technical Education through Changing Social Perception

The German Government is committed to support the Egyptian Government in this reform and to strengthen the cooperation in the Technical Education area significantly. This has been underlined through the announcement of the German-Egyptian “New and Comprehensive Technical Education Initiative (NCTI)” in the end of 2018. The NCTI is conceptualized for a time frame of 10 years, aligns with the above-mentioned reform pillars and will specifically support in the following reform activities:

(1) Establishment of a Center for the Enhancement of Quality Assurance of Technical Education (CEQAT) in the MoETE and of an independent Egyptian TVET Quality Assurance and Accreditation National Authority (ETQAAN) (TC-support)

(2) Development of competency-based curricula for Dual System Schools (TC-support)

(3) Conceptual Development (TC-support) and Establishment of a central Technical and Vocational Teachers’ Academy (TVETA) and its branches (FC-support)

(4) Support in the expansion of the Egyptian Dual System from currently 2 % to 10 % of Technical Secondary Schools

(5) Promotion and upgrading of several TSSs into ATSs which will then become Centers of Competence (FC-support) and support in the development of their concept as accreditation standards (TC-support)

(6) For pillar 5, no concrete activities have been agreed upon, but aligned communication activities will be crucial during the implementation of any Project within the NCTI.

This Project will be the first FC project implemented under the frame of the NCTI. It directly contributes to Pillar 4 of the TE 2.0. The high political attention for TE 2.0 and the NCTI as well as a very close coordination with GIZ activities, the ongoing reform progress of MoETE and the activities of other development partners (mainly EU and USAID, who support the reform as well) will influence the implementation of the Project significantly.

1.3 Available Information

The design of the Project is based on the following documents available to the Consultant in the annexes:

- ANNEX 8: Fact-finding Study dated 27/03/2014
- ANNEX 9: Feasibility Study dated June 2018
- ANNEX 10: Minutes of Meetings dated 01/11/2018 between MoETE, MEK and KfW documenting the agreements made during the Project Appraisal.

1.4 Objectives

The objective of the Project is to improve the technical and human capacities of the promoted technical schools and Centers of Competence in order to offer labour-market-relevant, high-quality and practice-oriented vocational training in Egypt. The overall development goal (impact) is to improve the quality and quantity of employment for young adults in Egypt.
The indicators for reaching the Project objective (FC contribution only) are the following:

Indicator 1: Number of students who will benefit from newly equipped classrooms and workshops after the completion of the project (of them girls)

	Component 1	Component 2
Baseline value:	0 (0 girls)	0 (0 girls)
Target value:	1,300 students	12,000 students

Indicator 2: % of students completing practical training in companies

	Component 1	Component 2
Baseline value:	Share in 2019	0 (0 girls)
Target value:	70%	doubling the share from 2019

Indicator 3: % of employers who are satisfied with the qualifications of the students and % of employers who are satisfied with the qualifications of the graduates

	Component 1	Component 2
Baseline value:	Survey 2020	Survey 2019
Target value:	80%	doubling the share from 2019
Actual value:	n/a	

Expectation to be reached in runtime: n /a

In line with the contribution agreement dated 17.12.2019 between KfW and the European Union, the indicators for reaching the Project objective (EU contribution only) are the following:

Indicator 4: Students completing practical stays in companies

Baseline value:	0%
Target Value:	70%

Indicator 5: Employers who are satisfied with the qualification of the students

Baseline value:	0%
Target Value:	50%

Indicator 6: Number of beneficiaries living below the poverty line

Baseline value:	0%
Target Value:	32.5%

In addition, the EU contribution makes possible to build a third Center of Excellence, to equip all promoted primary and TSS schools with photovoltaic energy sources and to accompany this scale-up with the needed Technical Assistance.

1.5 Project Design

1.5.1 Introduction

The Project “Promotion of Technical and Vocational Education and Training” (TVET) is divided into two components:

- Component 1: “Centers of Competence in Technical and Vocational Education and Training”, which concerns the establishment of three existing technical schools into Applied Technology Schools (ATS) with a status of Centers of Competence (CoC) focusing on the fields of renewable energy and energy efficiency.
- Component 2: “Promotion of Technical and Vocational Education and Training”, which comprises upgrading of selected Technical Secondary Schools (TSS).

In both components, technical schools will be rehabilitated and expanded, if needed. This includes the rehabilitation of classrooms, workshops, sanitary facilities, and administrative offices, as well as the redesign of the school premises. KfW school-building standards will be applied in the sense of a youth-friendly, fully functional design (see Annex 6). In addition, special attention is paid to increasing energy efficiency in the school buildings. Depending on the need, additional facilities will be established within the school premises that will allow the school to interact with neighbouring companies, conduct competence-based education, a branch for TVETA for teacher training, and have enough space for the growing number of students.

Furthermore, the necessary technical equipment will be procured for the maintenance of the existing and the expansion of new teaching activities. This includes the replacement of outdated equipment as well as the acquisition of new modern machines which operate with innovative technologies and can be used meaningfully in the context of the curricula. In addition to that, training and further tutoring for the teachers will be carried out within the project.

1.5.2 Summary Approach in Component 1

The establishment of the Centers of Competence in Component 1 encompasses a fully-fledged upgrade of three technical schools in a specific field of expertise. CoC shall work along the dual system and offer specialized training and continuous learning on higher quality and qualification levels than “normal” TSS, they aim at providing demand-oriented technical education on high quality levels and according to state-of-the art technologies as well as at functioning as development networks for the local industry. Through the recently initiated reform of the Technical Education System in Egypt (Technical Education 2.0), the selected schools will be officially and legally converted by the MoETE into the new brand of Applied Technology Schools (ATS)[7] during the project implementation. The CoCs are expected to be Applied Technology Schools that have obtained an additional quality seal. CoCs aim at providing quality education and further training on relevant occupations that is in line with international standards and labour market demands, emphasizing the importance of work-based education. They further stand out due to their strong networking ties to interested research centers, universities, donors, and Non-Governmental Organizations (NGOs) that help the schools applying newest technologies and methodologies in daily teaching. CoCs furnish their students with relevant and up-to-date knowledge in sought-after occupations preparing them perfectly for successfully entering the labour market after graduation.

So far two technical schools have been identified during the conduction of the Feasibility Study, one in Hurghada, the “Hurghada Industrial School for Boys” in the specific field of renewable energy and another one in Aswan, the “Eneiba Agricultural School” in the field of energy efficiency. Although the two mentioned schools have been identified through a labour-market analysis and on-site assessments in the frame of the Feasibility Study, it shall be verified during the Inception Phase if new developments or findings arose, which could impede the execution of planned investments in the selected schools. In that case it may be necessary to replace them in mutual agreement between the parties by other schools.

The required – still to be identified – upgrading measures for these two technical schools shall be financed jointly through FC and EU grant funds. While the corresponding FC and EU grant funds are not tied to specific CoC, through the additional grant of the EU Mandate, a third CoC in the same field of expertise can

[7] ATS is a new brand of schools initiated by the Ministry of Education and Technical Education in partnership with leading private sector employers according to international quality standards.

be established. The location for this third CoC is not yet determined and shall be proposed and agreed during the Inception Phase of the Project. As the school in Hurghada is a boys' school, it would be favorable, in line with EU funding goals, to select a girls school. In addition, all three CoC will benefit from EU funding through additional investments in energy efficiency and renewable energy and respective technical assistance and thus, shall be branded accordingly.

1.5.3 Summary Approach in Component 2

Component 2 aims to improve the learning environment in selected existing Technical Secondary Schools (TSS) through investments in infrastructure, equipment, and cooperation models. It follows the approach of an "open programme", meaning that the project schools and related volume of project measures will be defined during the implementation period. Greater Cairo, the Alexandria region and Gharbiya have been identified as target regions after an extensive labour market analysis during the Feasibility Study.

A longlist of 28 schools has been compiled through the study, which already pre-identified schools with labour-market relevant trades as potential candidates for investments. This list shall be verified and if necessary, amended through the Inception Phase of the Project. Possible amendments might occur through the inclusion of newly established Applied Technology Schools upon proposition of MoETE or Dual Schools with a high potential for upgrading (possibly also to a CoC) upon recommendation from the German Technical Development Cooperation (GIZ). In particular regarding the Dual Schools, during the Inception Phase it is planned to fast-track max. 3 TSS schools, which could be selected, planned, and implemented in close cooperation with GIZ. For these schools, a complementary cooperation-approach with the GIZ is foreseen, which will apply a gradual training concept to these schools and support the upgrading to ATS and then to CoCs. These "Fast Track Schools" should however still remain within the selection criteria in terms of target area and labour-market relevance of the trade. The final list will then provide a starting point for eligible schools, which can then apply for the programme. One of the main criteria to conduct the final TSS selection process will be the sustainability of the investment (e.g. through proven good management capacity in the existing school) and the readiness to or viability of establishing cooperation with the industry.

Depending on the individual investment needs and based on available funds, it is estimated that approximately 15-20 schools can benefit from the Project under this component. Schools which have been identified by MoETE and GIZ as high potential schools for an ATS will be rehabilitated in a fast track procedure with the aim to first establish basic conditions for the implementation of Capacity Building Measures (i.e. renovation of one or two buildings) and then to gradually improve the infrastructure as is needed (i.e. replacement of buildings or construction of additional buildings). The required – still to be identified – rehabilitation and upgrade measures under this component shall be financed from FC loan funds. Through the EU Mandate, the rehabilitation works in the selected schools will also encompass a comprehensive upgrade for an increased application of energy efficiency measures in the building including the installation of roof top solar panels and further EE measures. Where applicable, the EU funds will allow to provide under this component training for a specialization in energy efficiency in the respective trades to teachers, staff and in-company trainers.

1.6 Project Outputs

Outputs of the FC and EU contribution complement each other, and both jointly help achieving the Project objectives. Outputs of the EU contribution are thus in line with the outputs of the FC contribution. Through the EU contribution the scale of the Project outputs is increased significantly by one third in Component 1 and by a significant additional number of pupils with access to renewable energy installations in Component 2. In addition, the EU funds contribute to the Project outputs with additional technical assistance measures, which provide an enhanced and more comprehensive approach to the Project.

It is possible and desired to finance project measures by way of a so-called blending mechanism, i.e. using FC and EU funds in both project components. In fact, neither the FC nor the EU contribution will necessarily be channeled only to specific project schools. However, it is indispensable to follow the already agreed financial framework for specific activities and hence to keep track of the Project outputs and respective Project funds (FC loan, FC grant as well as EU grant) independent from each other.
In addition, due to special requirements of the European Commission it will be necessary to report on the results, outputs, and finances of the EU contribution separately.

Outputs of the FC contribution

Output A: Upgrading of school buildings, classrooms, and workshops of the CoCs and selected TSS

Component 1 contributes with the creation of Centers of Competences as lighthouses of the Egyptian TVET sector, which aims to improve the reputation of technical and vocational training at regional level. The CoCs address problem areas of the labour market in a concentrated form in order to supply qualified trainings and staff, especially in the field of renewable energies. The selection of schools takes place on the basis of an analysis of the labour market and needs of the industry including the proximity to potential partner companies, in particular in the field of renewable energies and through site visits. A concept of the CoCs is provided in Annex 7.

Component 2 aims at supporting existing TSS with good potential to meet the quality standards of MoETE with regards to Technical Education Reform 2.0 and to create incentives for increased cooperation with the private sector. The selection of schools is planned through an application process, following selection criteria based among others in: Willingness to cooperate with the private sector, management and commitment, local labour demand and maintenance practices.

Expected specific outputs:

- In Component 1 the FC grant funds allow to conduct necessary works to upgrade at least two existing technical schools into CoC. This number will be increased by one additional CoC through the EU contribution (see Output F). Success indicator: A total of XX classrooms and workshops (to be defined in the Inception Phase) have been upgraded in the CoC. This indicator shall be increased in approx. one third through the EU contribution (see Output F).
- In Component 2 the FC loan funds allow to conduct necessary rehabilitation and upgrade works in approx. 15-20 TSS pre-identified in Greater Cairo, the Alexandria region and Gharbiya. Success indicator: A total of "XX" classrooms and workshops (to be defined in the Inception Phase) have been rehabilitated or upgraded. This output benefits through the EU contribution from Output G by adding Energy Efficiency measures in the selected TSS.

Output B: Classrooms and workshops are adequately equipped with learning tools and needed learning material is available

The rehabilitated and upgraded school workshops shall be supplied with high quality, low-maintenance equipment, tools, and machines for technical and vocational training. The equipment shall offer opportunities for practical training of students in skill acquisition in their respective technical trade areas, especially in the field of renewable energies. Furthermore, the design of workshop facilities and specifications of tools, equipment and machines shall enhance student learning and their practical skills by allowing them to be involved in demonstrations and practice. Also, the equipment shall be adequate and relevant by meeting the needs of the labour market and the industry and shall be in line with the curricula of MoETE.

In addition, quality furniture for student-centered active learning shall be supplied for all rehabilitated and upgraded schools under the Project. Furniture has to be ergonomic, durable, cost efficient and of accepted quality standards.

Expected specific outputs:

- In Component 1 the FC grant funds together with Egyptian own contribution allow to furnish and equip at least two CoC. This number will be increased by one additional CoC through the EU contribution (see Output F). Success indicator: A total of "XX" classrooms and workshops (to be defined in the Inception Phase) have been furnished and equipped in the CoC. This indicator shall be increased by approx. one third through the EU contribution (see Output F).
- In Component 2 the FC loan funds allow to furnish and equip all selected TSS. Success indicator: A total of "XX" classrooms and workshops (to be defined in the Inception Phase) have been furnished and equipped.

Output C: Practical cooperation between technical schools and local public and private companies takes place.

The cooperation with companies in the public and private sector, as well as with the industry is seen as a crucial aspect to improve the skills of TVET graduates and to increase their chances in finding employment.

Through the proposed measures, the FC project contributes to training technically and socially competent employees in various fields that meet the requirements of the local and regional labour market. Their training is relevant for practical application and shall allow them to enter the labour market quickly and according to their qualification. Furthermore, local private and public companies can secure or expand their business by hiring qualified young adults. The Project thus aims to secure and create jobs in the local labour markets while making an effective contribution to reducing (youth) unemployment and poverty.

Expected specific outputs:

- In Component 1 close cooperation with private companies, neighboring schools, other TSSs in the same sector, and higher education institutions (e.g. in Hurghada: TU Berlin campus in El Gouna; in Aswan: Energy College of Aswan University) are established, including close networking in the community. In addition, establishment of a public-private partnership (PPP) for the management of the CoCs between MoETE and MEK utilizing the ATS model. Furthermore, private sector companies shall be identified for the long-term joint management of the CoCs.
- In Component 2: Targeted promotion of co-operations with private companies shall be established. In the long term, the supported TSS should be able to generate incomes through cooperation with the private sector (e.g. contributions/donations in return for trainees providing support in their company) and through income-generating measures (e.g. renting premises for company fairs, offering training services or workshop capacities for surrounding Small and Medium-sized Enterprises – SMEs). Where possible, a formal integration into the Egyptian Dual System or ATS model or a gradual approximation to its key features should be aimed at.

Output D: A maintenance concept is developed for the schools and is being applied.

MoETE (ATS Unit, school administration, Muderiyas, Governorates), teachers and students can plan, use, administer and maintain their schools more effectively, efficiently and sustainably. In order to reach this output, the consultant shall verify existing maintenance concepts available at MoETE, especially also from previous FC projects (QESP and NILE), and develop a realistic maintenance approach. Relevant personnel/ members of the target group shall be trained in their respective roles and responsibilities.

Where practicable, the Maintenance Concept shall make use of existing capacity building programmes carried out by other donors or NGOs.

Expected specific outputs:

- A maintenance concept is developed for the schools and is being applied in the Project through FC grant funds. Success indicator: Number of successfully trained teaching and administrative staff (in three CoCs, number of staff to be confirmed in the Inception Phase)

Output E: New training programs in the field of renewable energy/energy efficiency are offered in the CoCs.

The Project shall address the issue of lack of practical industry experience of many TVET teachers in Egypt. Often, the teaching staff of Egyptian public TVET institutions consists of teachers without any practical experience in their field of profession.

In order to ensure sustainability in the pedagogical use, operation, maintenance and repair of the newly financed TVET equipment, the Project provides training courses and advanced pedagogical and practical training for teachers through a branch in each school for TVETA.

Expected specific outputs:

- Under Component 1 extensive advance training of teachers in the fields of Energy Efficiencies and Renewable Energies, shall be provided, including application of dual and competence-based concepts and use of new equipment, tools and machines. This output is expanded also to Component 2 of the Project through the EU contribution by Output H.

Outputs of the EU contribution

Note: Outputs of the EU contribution have already been agreed between KfW and the European Commission. However, as the Financial Agreement and its Separate Agreement between KfW and the Egyptian Partners are still under negotiations the specific Project Outputs and especially the corresponding Indicators concerning the EU funds may slightly vary.

Output F: Increasing the number of CoCs and access of female students in Component 1

While the EU contribution will not necessarily be channeled only to one specific Center of Competence, the additional EU-funds shall make possible the construction, equipping and furnishing of the third CoC under Component 1, the location of which shall be identified during the Inception Phase of the Project.

Hence, the EU contribution through the additional CoC significantly increases the access of students in Output A, especially of female students, which is highly desired given the low presence of girls in technical trades and the low participation of women in the Egyptian labour market. Thus, the selection process of the third CoC shall follow the criteria as for the selection of the previously identified schools in Hurghada and Aswan, but with a stronger focus on gender aspects.

Accordingly Output F will directly improve the indicators of Output A – E in Component 1.

Expected specific outputs:

- The number of CoC in Component 1 is increased by one, and thus, EU funds allow for the upgrade, equipping and furnishing of three CoC under Component 1 in total.
- The number of female students in Component 1 is increased by XX % in the respective catchment areas of the CoC. Baseline and target indicators shall be defined in the Inception Phase.
- Outputs A - E benefit from one additional CoC and the corresponding targeted Success Indicators (log frame: Project Objectives and Outputs) are increased by approx. one third in each case.

Output G: Upgrading promoted TSS schools with Energy Efficiency Measures

This output is complementary to outputs A and B related to Component 2 as it greatly increases the energy efficiency and renewable energy aspects of the Project by scaling-up Energy Efficiency measures in all TSS under Component 2.

Expected specific outputs:

- The upgrading approach for Component 2 is improved by adding Energy Efficiency (EE) measures and renewable energy (RE) appliances. Success indicators: all selected TSS under Component 2 are equipped with photovoltaic energy production systems, which helps reduce the cost of electricity the individual school is facing.

Output H: provision of Technical Assistance by expanding training programs in the field of renewable energy/energy efficiency to Component 2

This output is complementary to Output E as it will scale-up the required Technical Assistance measures by expanding trainings for the Energy Efficiencies and Renewable Energies in the selected TSS under Component 2.

Expected specific outputs:

- Under Component 2 extensive advance training of teachers in the fields of Energy Efficiencies and Renewable Energies, shall be provided in the selected TSS, including application of dual and competence-based concepts and use of new equipment, tools and machines.

1.7 Partner Structure

The Recipient of the Project funds (FC and EU) will be the Arab Republic of Egypt, represented by the Central Bank of Egypt (CBE), which will channel the funds to the Project Executing Agency (PEA) respectively. Hence, the respective financing agreements have been signed between KfW and CBE, with the PEA as “read and agreed”.

In Egypt, the Ministry of Education and Technical Education (MoETE) is responsible for pre-university education. MoETE is not only responsible for sectoral policy making, but also manages personnel and administrative matters as well as the budget distribution down the line of authorities and all the way to the school level. In the TVET area, MoETE operates mainly Technical Secondary Schools (TSS) of which there are approximately 2.500 all over Egypt.

Accordingly, MoETE signed the separate agreements to the financing agreements and will be responsible for the implementation of the Project as PEA. Within MoETE, the Technical Education Sector shall be the responsible unit for the implementation of the Project. Besides, MoETE will delegate specific tasks in the implementation of the Project to the “Project Implementing Partner” (PP), namely, the General Authority for Educational Buildings (GAEB) and Misr El-Kheir Foundation (MEK).

For implementation of Component 1: MoETE will delegate defined responsibilities to Misr El-Kheir Foundation (MEK) to develop the selected TSS into full-fledged CoC according to the concept presented in Annex 7.

MEK is a non-profit and non-governmental organization with strong linkages with industry, fundraising and marketing experience. MEK was established in 2007 and it mainly works in six different areas: health, education, scientific research, social solidarity, aspects of life and integrated development. The mission of MEK is to contribute to the development of individuals and to assist on eliminating unemployment, illiteracy, poverty and disease. MEK has been involved in TVET sector by consulting, supporting and in an implementing role, responsible for implementation and rehabilitation works, furnishing, equipping and teacher training in several projects.

It is envisaged that MEK and MoETE will enter into a Public Private Partnership (PPP) or other kind of agreement that determines the division of responsibilities for the operation of two Centers of Competence before the upgrade process is completed. If a private sector company or a group of companies can already be identified for the joint management of the school through the ATS transformation, they shall be part of such agreement as well. For the third CoC a different management partner shall be identified as part of the project implementation.

In addition, under Component 1, GAEB will assist MoETE by assuming defined responsibilities in their function of supervision and quality assurance for public educational buildings in Egypt.

For implementation of component 2: GAEB will assume responsibilities in managing the rehabilitation process of existing TVET schools already pre-identified in selected Governorates.

GAEB is one of the largest governmental organizations in Egypt with approx. 6.800 employees, out of which nearly 50% are engineers and 700 are architects. GAEB was established in 1998 in order to assist MoETE in providing the physical infrastructure required for the educational system in the country. Thus, GAEB is responsible for planning, building and rehabilitating educational buildings for MoETE for basic, secondary and technical education. GAEB has built approx. 25,000 schools including 1,400 TVET schools in Egypt. Besides planning, GAEB is responsible for developing the design specifications and standards, tendering, awarding, supervising and furnishing of school infrastructures throughout the country.

A general concept of the planned partner structure for the Project is illustrated in the following figure:

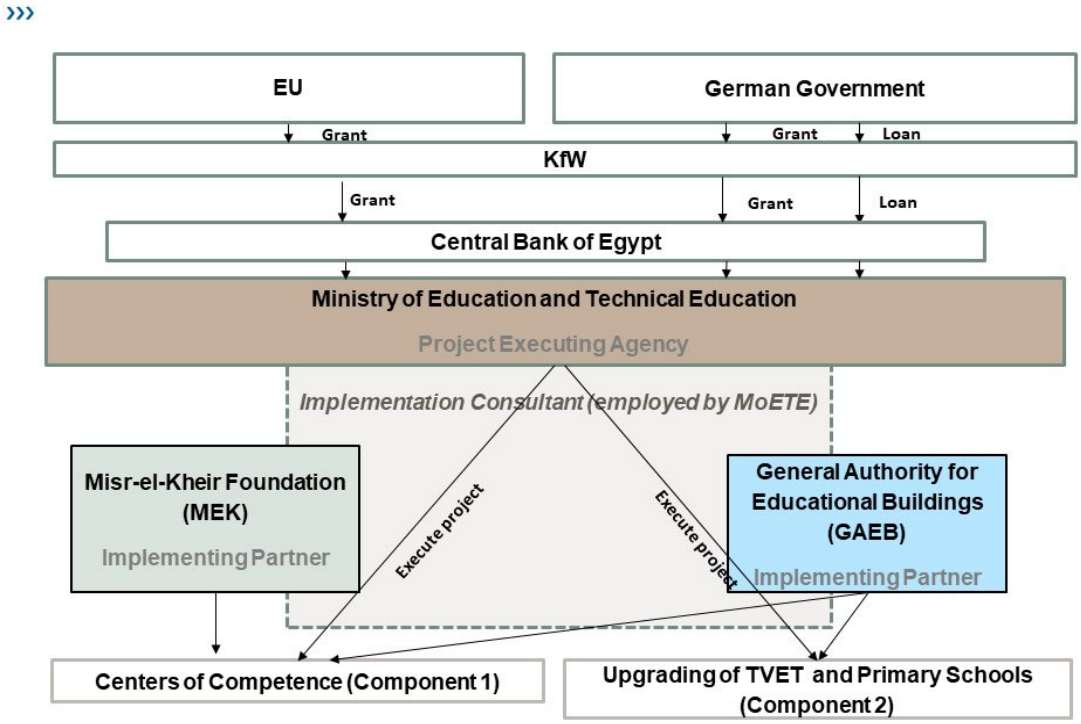


Figure 1: Planned Partner Structure for the Project

The organisational set-up and division of responsibilities follows the needs of the project and the established governmental structures in Egypt. MoETE will be in the driver's seat, having the authority over the promoted schools and the mandate to develop the TVET sector strategically.

1.8 Target Group

The main target group of the Project are students of the upgraded and rehabilitated technical schools and Centers of Competence who, through high-quality and practice-oriented technical and vocational training, acquire the qualifications they need to successfully enter into the labour market after completion of their training. The students, as well as the teachers and the school management, benefit from the new investments, as well as from the training and education measures, which will be reflected in improved pedagogically practice-oriented lessons. Indirect target groups are public and private companies that will benefit from the increased qualifications and employability of graduates and thus be able to secure and expand their business activities.

1.9 Cooperation with other Stakeholders

The activities of the Project will benefit from the lessons learnt and the planning and design innovations of previous German FC Projects in Egypt, especially the ongoing primary school construction programs QESP I and II, but also from other donors' experiences (such as the EU, JICA and USAID).

The EU has agreed with Egypt in the 'EU-Egypt Partnership Priorities' to modernize education including technical and vocational training. In the same document, the EU and Egypt agreed to cooperate in the diversification of energy sources, with a particular focus on renewable energy applications (supply side approach), and in energy efficiency measures (demand side approach).

The Priority on technical and vocational training can be seen very well in the programme "TVET Egypt", which has a volume of EUR 117 million, co-financed by the EU (EUR 50 million) and the Government of Egypt (EUR 67 million). The programme aims at enhancing Egypt's socio-economic conditions through the reform and development of human capital across all 27 governorates.

Furthermore, the Project is complementary with the project **Promotion of TVET, Phase II**, a EUR 12.5 million grant (BMZ-No 2017 67 417) dedicated to the establishment of a Teacher Training Academy (TVETA) – the headquarter with regional branches in the Centers of Competence. The project is envisaged to be appraised during 2021 and the financial agreement is also scheduled for 2021.

This Project will be the first FC project implemented under the frame of NCTI. It directly contributes to Pillar 4 of the comprehensive Reform of the Technical Educational System 2.0 (see also 1.2.). With reference to Pillar 4, the promotion of selected TSS schools and the establishment of several CoCs are the focus of the FC support, the German Technical Cooperation via GIZ supports the development of the concept of CoCs as accreditation standard. Both German development institutions support the NCTI in a complementary way and therefore close coordination and cooperation is required and essential.

Cooperation with other stakeholders is explicitly encouraged where it is applicable and feasible. The Consultant shall actively pursue such cooperation opportunities and suggest to MoETE and KfW feasible activities and a suitable framework for such cooperation.

1.10 Contributions and Commitments of the PEA and the PPs

MoETE, GAEB and MEK will provide an adequate number of staff to facilitate the implementation of the Project at Central, Governorate, Municipal and school levels. Furthermore, they will name a key counterpart for the Consultant in their respective institution, which will be the focal points for the project.

They will cover the cost of logistics and travel allowances of their own staff that participate in Project activities at local levels (planning, training, supervision, monitoring and evaluation) and they will make sure that their relevant regional and local staffs are administratively and financially enabled to fulfil the functions foreseen under the Project.

In addition, MoETE, GAEB and MEK will provide adequate permanent office space to the consulting team prior to the start of Consulting Services, which shall be equipped with furniture and have access to internet. The Consultant does not have the right to ask for special arrangements; rather the existing connections (telephone, internet) shall be used. Whenever considered necessary, the Consultant can arrange for additional connectivity at his own cost.

Furthermore, MoETE and GAEB will:

- Make sure that the property and legal documentation of necessary land plots for newly built or extended Project schools is in place, demolition decrees are carried out where necessary and construction permits are granted.
- Ensure that identified land plots are being connected to the water and electricity grid prior to the Initial Acceptance of works at Project schools.

MoETE will:

- Allocate sufficient teaching and non-teaching staff for the proper operation of the schools immediately after completion and handing-over.
- Provide teaching and learning materials for Project schools, etc. - in adequate quantities and quality within one month of Initial Acceptance of Project schools.
- Present the list of tentative schools to be considered for upgrade, update the list when required

2. SCOPE OF CONSULTING SERVICES

A Consultant will be appointed (subject of this tender) to manage the overall Project in support of MoETE, GAEB and MEK. The Consultant shall be based in Cairo and will have staff in each Project Governorate. The core activities and responsibilities of the Consultant during management and implementation of the Project are summarized in the following table.

Project Components	Core Activities of the Consultant					
	Overall Project Management	**Infrastructure & Equipment**	**Renewable Energies / Energy Efficiency**	**Educational Planning**	**Cooperation w. public and private sector**	**Communication (EU Mandate)**
Both Components	Plan and Coordinate all activities Stakeholder Coordination Provide Technical Assistance Conduct reporting Quality Assurance	Assist on Design of TVET facilities & Procurement of works Identify needs of TVET equipment and assist on procurement. Conduct Supervision of Construction and Installation Monitor Defects Liability Period Prepare O&M plans Prepare ESHS documents	Prepare designs & Supervise construction and installation of EE & RE elements Identify lack of experience in teacher staff. Prepare corresponding training program Prepare O&M Plans	Conduct educational needs assessments Develop training plans Conduct trainings of teachers Coordinate with ongoing curricula adaptations	Identify labour market needs in the project areas Prepare a plan of cooperation with private companies Assist on the preparation of training plans that increase chances in finding employment	Develop and Implement Communication Plan coherent with EU Visibility Requirements
Component 1	Manage Finances with MEK as authorized party (simplified direct disbursement)	Verify two selected locations for CoCs in Hurghada and Aswan (FC) Identify a 3rd CoC Project (EU) Ensure compliance of ESHS during implementation of works	Conceptualize trainings in Energy Efficiency & Renewable Energies for students, teachers and company employees	Assist in Creation of Strategic Partnerships with Private Sector and academic institutions Assist in preparation and signing of PPP between PEA & PPs Prepare an operational concept for CoCs	Facilitate cooperation between private sector and CoCs Assits MoETE on establishment of PPPs for operation of the CoCs	Promotion of CoC as a brand and quality seal of TE 2.0 Support in Communication Efforts to attract Private Sector Partnerships Promote Energy Efficiency & Renewable Energies Measures
Component 2	Manage Finances with GAEB as authorized party (Disposition Fund)	Assess and shortlist facilities to upgrade Monitor compliance and provide assistance on ESHS	Conceptualize trainings for the introduction of Energy Efficiency & Renewable Energies content in suitable trades	Conceptualize and conduct selection process Advise in integration of private sector partners	Facilitate cooperation between private sector and TSS. Prepare a plan for long term income generation.	Promote Energy Efficiency & Renewable Energies Measures

Table 1: Summary Overview of the Consultant's Scope of Services

2.1 Objective of the Assignment

The objective of the Consultant's assignment is to perform a project implementation function on behalf of MoETE and to support all project partners in the execution of their tasks towards achievement of the Project objectives and fulfilment of Project indicators.

2.2 Scope Related to Overall Project Management

The Consultant will have the overall management responsibility until completion of the Project and shall generally be prepared to take up as much responsibility as is needed to guarantee the implementation of the Project in scope, time and budget.

To fulfil this role, the Consultant shall acquaint himself with the specific conditions and adversities of the Egyptian political and physical context, and the requirements of the Project Design with focus on the Project context. The major duties of the Consultant are to continuously support the PEA and project partners, drive forward the Project activities, follow-up on pending issues, report on and assess the Project's conformity to reach its objectives and priorities.

2.3 Scope Related to Infrastructure & Equipment

Based on a needs-based assessment and applying comprehensive selection criteria, individual school Projects and necessary investment measures shall be identified by the Consultant in both project components.

In Component 1 the Consultant shall work closely with MEK and, in agreement with MoETE, will determine the individual investment needs of the three existing technical schools (in Hurghada, in Aswan and one still to be identified) in order to upgrade them into Centers of Competence. In addition, GAEB will give technical advice and will provide necessary technical information about the existing school buildings. The Consultant shall assist on elaboration of design of TVET facilities & procurement of works.

It is envisaged that MEK will be the tendering agency for all tender processes under this component in coordination with MoETE, which will be divided in lots for design, works and supply of equipment. MEK shall sign and monitor the respective service and supply contracts on behalf of MoETE following KfW Guidelines. During the tender processes, GAEB will act as advisor.

As the Centers of Competence will include innovative features in design, networking, teaching and management and follow up-to-date standards in green and energy efficient buildings the possibility of an architectural competition shall be considered for the design services of the CoCs. If such a competition is deemed by MoETE and MEK to be feasible and of added value for the project, the Consultant will assist MEK in preparing and coordinating such competition. In any case, the procurement of the design services under this component will be conducted by way of an international and competitive bidding process. The Consultant will conduct the selection process, while an Evaluation Committee (MoETE, GAEB, MEK with No Objection from KfW) will make the final decision for a design company for the new CoCs.

Construction works will be undertaken by local contractors. Supervision of construction works as well as of delivery and installation of equipment shall be performed by the Consultant. GAEB will also conduct regular monitoring of construction and will ensure adherence to related construction standards and local regulations. The Consultant will perform and coordinate Initial Acceptance & Handing-over of TVET facilities and related equipment. During the Defects Liability Period the Consultant will conduct regular monitoring.

In Component 2 the Consultant shall work closely with GAEB. It is expected that interested schools from the longlist presented in Annex 11 (this longlist may be expanded during the inception phase to include Applied Technology Schools as a model of PPP) shall apply for funds based on pre-agreed selection criteria and application process. The application process and respective application methods, as well as the selection criteria shall be elaborated and managed by the Consultant. All stakeholders (MoETE, GAEB and KfW) shall have the opportunity to evaluate the applications based on common selection criteria. GAEB will bring in its expertise regarding the technical conditions of the schools. The Consultant will compile the final list of selected schools and submit it to MoETE for approval and KfW for non-objection.

Once the schools are selected, the Consultant will be responsible for determining the specific rehabilitation and equipment needs of each school. It is planned that GAEB will elaborate the corresponding designs under this component with assistance of the Consultant.

The Consultant will assist GAEB in the implementation of the tender processes for the necessary rehabilitation works and for supply of furniture by way of national competitive bidding. GAEB shall sign the respective contracts for works supply and services.

In addition, the Consultant will assist MoETE, in particular its Department of Equipment and Furniture, in conducting the procurement of special TVET equipment (i.e. machinery for practical training) through an international bidding process. For the delivery of internationally procured goods or services, MoETE shall be responsible for obtaining all necessary approvals according Egyptian Law and the exemption from taxes and customs according to the agreements regarding German-Egyptian Financial Cooperation.

In this component GAEB will be responsible for supervising the construction works and installation of equipment on permanent basis. The Consultant will provide monitoring of construction and of invoicing of contractors and service providers. After works have been completed the Consultant will assist GAEB during Preliminary and Final Acceptance of the rehabilitated school facilities.

In both components, the Consultant shall develop an operation and maintenance concept of the Centers of Competences in Component 1, as well a specific concept for the ATS schools in Component 2.

2.4 Scope Related to Energy Efficiency and Renewable Energies

The three CoCs in Component 1 should be linked to Renewable Energy/Energy Efficiency (RE/EE). While Hurghada shall focus on wind, Aswan will focus on solar energy, and both will provide content related to energy efficiency. The exact focus and location of the third CoC has not been identified yet. Thus, curricula development (see below), planning of respective didactical material, including e-learning modules are part of the consultant's tasks. For the underlying basic trades like electricity, electronics etc., cooperation with GIZ might be sought. For RE/EE subjects, curricula already exist (e.g. elaborated by USAID) that would need to be screened for suitability.

One of the main goals of the EU contribution corresponds to improve the energy efficiency (EE) as well as to promote the use of renewable energies (RE) solutions in the existing school buildings through specific Project measures. The Project aims to create buildings that will operate more efficiently, and which will achieve a reduction in energy demand as well as supply of RE.

In addition, school management, teachers, and instructors of the selected CoCs, ATSs and TSS will benefit from RE/EE-related trainings measures as a comprehensive model of ownership-building of the new facilities and sectoral profiling.

This process shall be managed by the Consultant starting from the school assessment and planning phases until implementation and completion of the identified measures. For this purpose, the Consultant will appoint one or two experienced international expert(s) in Energy Efficiency for buildings (RE and EE) and a TVET Expert, all of them with profound experience in technical assistance. These experts shall be supported by national experts in these fields.

2.5 Scope related to Educational Planning

CoCs are sector-specific "lighthouses" in technical teaching and at the same time development hubs for the schools serving the same sector and the local business community. In their teaching function they offer training at the 3+2 level, i.e., based on a high quality, practice-oriented 3-year technical training, they offer a specific specialization, which in case of the three CoC under the project is RE/EE. The specialization levels will serve trainees but also TVET teacher upgrading and continuous learning for company employees. The educational concept is based on the dual system, i.e. providing parts of the training in companies. I.e. the scope of educational planning and the elaboration of respective curricula comprises a wider range of tasks, including those mentioned under section 2.4 (RE/EE).

Accordingly the Consultant will be responsible for developing an educational concept of the Centers of Competence, in line with MoETE requirements and building on and improving the current ATS model, ensuring that the current reform efforts regarding competency-based curricula, high involvement of private sector and newly developed standards will be reflected in the educational concept. MEK will advise on this task and provide additional input if required.

Teaching in the CoC shall be practice-oriented with a spirit of duality, relevant to the labor market, and of high pedagogic quality. To achieve this, the Consultant will have to conduct extensive training of teachers and in-company trainers.

The Consultant shall verify ongoing strategies of KfW, GIZ and MoETE, who are currently also exploring possibilities to establish continuous training structures through upcoming projects. In the field of Renewable Energies and Energy Efficiency, the Consultant shall verify the curricula which are currently being elaborated by the EU TVET II Programme and USAID, which shall provide an appropriate framework and also seek coordination and cooperation with GIZ.

2.6 Cooperation with public and private sector

The CoCs are not only providing highly relevant and qualitative technical educational training but shall also serve as development hubs for technical education provision in the sector as well as for the local businesses (See concept in Annex 7). In order to cope with their dual education principle as well as with their development hub function, the CoCs shall establish a network with a number of different partners and offer various services. The CoCs will liaise with companies of different size located in the surrounding area and introduce training of the students in the companies. There should be a continuous exchange and win-win situation between the school and the private sector, making the education more relevant for real work situations and offering the companies at the same time a platform for recruitment, fairs or even workshop space. Furthermore, cooperation shall be assessed with research organizations - the TU Berlin Campus El Ghouna (Hurghada) and the Energy College from Aswan University (Aswan). The third important partner of the CoCs will be the community including surrounding schools. In that sense, cooperation with neighbouring technical schools and schools serving the same sector in other parts of the country are foreseen and the active participation of the community in the program offered by the CoC, thus improving the reputation of Technical Education in Egypt. MEK will be an important partner with the necessary connections and experience to establish this network.

Furthermore, MEK and MoETE shall agree upon a Public Private Partnership (PPP) based on the ATS partnership model for the operation and management of these schools before completion of the upgrade process. This agreement might include a company or a group of companies if such partners can be identified until then. If no company can be identified, the agreement with MEK will also serve to identify such partners for the long-term operation of the school. GIZ is currently engaging an organizational consultant to propose institutional structures and procedures for the CoCs.

Offering technical education at a continuously high quality and relevance level is a rather costly undertaking. It needs sufficient operational budget to pay for teaching materials, maintain buildings and equipment, utilities and qualified teachers and management staff. Due to the competition on the market for qualified technical experts, teachers in the CoC should expect a competitive salary, in order to stay on. The consultant is expected to design a set of offers for the CoC attractive for the private sector and a pricing for these offers. The entire operations of the CoCs are to be laid down in a business plan, to be elaborated by the consultant in cooperation with MoETE and MEK.

2.7 Scope related to Communication and Visibility

As the Centers of Competence require a professional communication strategy in order to fully fulfill their functions and aims, with assistance of the Consultant, MEK will conduct the marketing and communication jointly with MoETE by using the existing marketing channels and experience at MEK.

Through the EU contribution, specific requirements regarding communication and visibility of the overall project apply. The Consultant need to ensure that the EU Contribution to the Action will be acknowledged publicly whenever appropriate, including in official publications, through media coverage, official notices and press releases, reports and publications referring to the Project.

In addition, the Consultant will elaborate a project-specific communication and visibility concept in line with the Communication and Visibility Requirements for EU External Actions[8] and support MoETE, GAEB and MEK in the implementation of these measures, ensuring that the German FC and EU's supports will be visible to all target groups within the Communication Plan.

[8] See: https://ec.europa.eu/international-partnerships/system/files/communication-visibility-requirements-2018_en.pdf

2.8 Scope Related to ESHS

The Consultant shall perform the detailed tasks related to managing Environmental, Social, Health and Safety (ESHS) impacts and risks as described below according to national regulations, requirements of KfW in line with the World Bank Environmental and Social Standards. This shall consider ESHS related analysis of documentation which has been prepared for the Project in the preparatory stages. In particular, the Consultant shall:

- adhere to the provisions as presented in the already available Environmental and Social Management Framework (ESMF) from February 2018, including its tools for environmental and social screening of individual projects, the proposed Stakeholder Engagement Plan (SEP), and make sure that these provisions are put forward to contractors, subcontractors, and to suppliers, in particular those for major supply items;
- ensure that the project documents are in compliance with the Fundamental Conventions of the International Labour Organization (ILO);
- ensure that the measures and actions as set required in the standards and project documents to be prepared are implemented diligently and completely.

The Project is categorised in line with KfW Development Bank's Sustainability Guideline **as category "B"** according to its associated environmental and social impacts and risks, irrespective of the anticipated mitigation measures. During implementation phase environmental and social impacts and risks of individual project components and specific contracts shall be categorized by the Consultant according to the existing ESMF. Thus, particular Contracts may differ from the overall categorisation of the Project. For details refer to Annex 1 of the Terms of Reference.

3. DESCRIPTION OF TASKS

3.1 Tasks Related to Overall Project Management

The Consultant shall develop an appropriate management, monitoring and evaluation system and apply it during the entire implementation of the Project, including among others, the following responsibilities:

- Assess, verify, and validate planned activities and outputs/outcomes.
- Advice on improvement and enhancement of planned activities with clear and concise proposals
- Ensure that planned results are being achieved at scale; to agreed quality standards (including environmental, social, health and safety – ESHS - safeguards) and that the target group receives the benefits of the Project.
- Ensure that partners and entities cooperate closely and that the aspects of the Project that are essential for its completion and operation are determined by a common agreement.
- Ensure that project measures are implemented efficiently, timely, and are relevant and appropriate for the context they shall operate within.
- Conduct training measures (EU) directed towards PEA and/or other Stakeholders.
- Conduct financial management managing a disposition fund according to the Separate Agreement on behalf of the Employer and assisting the PEA on the simplified direct disbursement and simplified reimbursement procedure.
- Establishment of Stakeholder Coordination Mechanisms.
- Design and conduct Visibility Measures.
- Always maintain an updated time schedule displaying activities, interlinkages, and consulting man-months (on- and off-site).
- Always maintain an updated Cost and Finance Schedule.
- Assist the PEA and other stakeholders in obtaining necessary approvals and non-objections.
- Keep track of and direct efforts towards achievement of the project goals and indicators.
- Identify and inform about any major changes in the Project Design and accordingly, propose solutions and improvements.

The Consultant shall be aware that the Project Language is English but that stakeholders often do not speak, read, or write English. The Consultant may be required to translate project documents to/ from Arabic/ English to obtain approvals if this is required by the local authorities. In addition, KfW may require translations of documents from Arabic to English language.

3.2 Inception Phase

3.2.1 Project Kick-off

Upon commencement of the consulting services a joint Kick-off Meeting among the MoETE, GAEB, MEK, the Consultant, KfW and other stakeholders shall be held (preferably) in Cairo.

The services of the Consultant shall start with a thorough evaluation of available data, information and planning documents as well as with a critical review of the Feasibility Study from 2018 and the current status of the educational reform process in Egypt (see § 3.2.2).

This analysis together with the ToR and the Consultant's proposal shall provide a reliable basis for a planning of the Inception Phase including updates of the implementation schedule, the work plan and staffing schedule based on the schedules included in the Consulting Contract.

Tasks:

- Organise the Project Kick-off meeting and make sure that all relevant stakeholders are available.
- Before the meeting conduct a review of Project data and clarify open questions and issues with the partners. Identify the additional data fields which will be required to start the implementation of the Project.
- Prepare an agenda for the meeting and moderate the discussions.
- Encourage a dialogue within the Project stakeholders, to help align expectations and to tackle barriers.
- Support Egyptian partners in achieving consensus about priorities to be addressed during the Inception Phase.
- Sensitize all stakeholders about the rationale and justification of the Project.

Key deliverables:

- MoM Kick-off Meeting

3.2.2 Status-Quo of Reform Process - Technical Education 2.0

The current Technical Education 2.0 (TE 2.0) in Egypt is a participatory reform process led by MoETE and developed by the Government of Egypt in consultation with partners operating in the country such as the EU, GIZ, KfW, USAID and the private sector.

In particular, GIZ is providing close support to MoETE through ongoing technical assistance with regard to dual system schools and the formalization of crucial aspects of the reform process. This assistance involves tasks such as definition of CoC field of activities, CoC business model, model PPP agreements building on the ATS model, curricula assessment and promotion of CoCs, within others.

Hence, the Consultant shall be aware that the TE 2.0 is an already on-going, very dynamic, and intense transformation process. Presently there are on-going discussions between the relevant parties about setting plans, goals and outputs, including the private sector on what the final concept of a CoC should be and on how to achieve the goals set through TE 2.0 in Egypt.

It is expected that significant milestones will be achieved in these negotiation process by the beginning of 2021. This Project is set in the framework of TE 2.0 and shall contribute to achieve TE 2.0 goals.

Accordingly, it will be a crucial task of the Consultant at the beginning of his assignment to assess the current status of TE 2.0, to create an effective networking within the stakeholders and to catch-up as fast as possible on the newer development of this living reform process.

Tasks:

- Obtain first-hand knowledge about the **status quo** of TE 2.0. Approach the relevant stakeholders to seek their perspectives on the status quo, the next steps, current priorities, and main barriers.
- Assess the progress and agreements made in the framework of TE 2.0 towards the objectives of the reform. If necessary, propose adjustments to the Project Design.
- Develop rapidly the faculty to communicate with TE 2.0-stakeholders about the on-going reform process. Share knowledge and experience with the stakeholders with the aim of aligning the Project into a common strategy.
- Follow-up on the reform process, assist to discussions, represent the vision of this Project, assess the stakeholder's proposals, their involvement in the reform process and their potential to support further the process.
- Keep the Project partners informed about TE 2.0, especially MoETE and KfW about needs, barriers, opportunities, and synergies resulting from these processes.

Key deliverables:

- Relevant input about the on-going TE 2.0 in the progress reports.
- Active and continuous feedback to the Project partners

3.2.3 Verification and Final Selection of CoCs

In Component 1, the EU grant will contribute to the construction cost, the equipment and furniture of all planned CoCs and thereby allow the establishment of the third CoC. Accordingly, it will be a main task of the Consultant during the Inception Phase to analyze potential locations for a third CoC and to come up with a concrete project proposal for all planned CoCs in line with the Project goals and MoETE reform process.

Tasks:

- Conduct a review and verification of the two pre-identified project schools, "Hurghada Industrial School for Boys" and the "Eneiba Agricultural School", verify if conditions encountered in the feasibility stage are still applicable and in line with the updated Project goals.
- Evaluate alternative locations in case serious issues are found in the project schools, which could impede the development of the Project.
- Support MoETE in the identification and selection of a third TSS to be rehabilitated and upgraded into CoC. Review with MoETE potential locations and verify if the sites proposed by MoETE are in line with the Project goals and indicators.
- Conduct assessment and selection of CoC using a Selection Criteria coherent with the Project goals and indicators, following previous criteria: potential of providing target-oriented trainings in the field of renewable energies, energy efficiency and in line with labour market needs, possibilities of cooperation with the private sector, initiative and engagement of the school administrations, institutional support of the local government as well as technical and financial feasibility. As one of the two pre-identified schools is a boys' school, the Consultant shall give preference in the selection of a third school to girls' schools.
- For the selection of the new CoC the consultant shall take in consideration the available market analysis, the long-list and the Roadmap prepared for the Feasibility Study.
- Conduct site visits and interviews in potential locations, assess technical conditions of the facilities (infrastructure and equipment) as well as potential for expansions, rehabilitation, and upgrade, including related costs.
- Verify that the proposed CoC is not included in other planned school construction projects by MoETE or other donors.

Key deliverables:

- Short Project Selection Report for Component 1 with a clear and concise proposal on where and how to upgrade three existing TSS into three new Applied Technology Schools (ATS) with a status of Centers of Competence (CoC).
- A justification for the selection of the project schools in line with the project goals and indicators, including clear statements about the potential of trainings in renewable energy and energy efficiency.
- For each proposed CoC, a list of baseline data and of investment activities (i.e. new/extension classrooms, incl. preliminary investment and technical assistance measures.
- Further elaboration of the final scope of design competition (see § 3.2.2.) incl. discussion / presentation
- Preliminary cost estimations.

The final selection of CoC projects and corresponding plan for investment and training measures will be presented in the Inception Workshop. Results will be submitted to MoETE for approval and to KfW for non-objection with the Inception Report, or separately if they are ready beforehand.

3.2.4 Update of TSS Long List, TSS Selection Criteria and Application Forms

The areas of Greater Cairo, Alexandria Region and Gharbiya Governorate have been selected under Component 2 for the development of project measures as high priority regions according to the conducted labour market analysis during the feasibility phase. Within these areas, a long list of 28 tentative project Technical Secondary Schools (TSS) has been compiled (Annex 11).

It is envisaged that final selection of TSS will be conducted on the basis of an application-based selection process, i.e. schools administrations shall apply to the Project using standard application forms and following a pre-established Selection Criteria, which has already been prepared in the feasibility phase. In their application forms school administrations shall formulate a vision for the development of their institution, addressing issues, suggesting solutions, and providing evidence of cooperation with the private sector. This information shall help assessing their level of commitment and engagement, and thus, shall help identifying the chances for sustainability of the investments in those schools.

This list provides an overview of the tentative locations identified so far. The Consultant shall read this list as an important source of information, but it shall assume that to some extent, parts of information of this list might already be outdated and thus, further review in consideration of the Project goals is required. Component 2 follows the approach of an open program, i.e. the final number of schools to be selected is not fixed. Though, in consideration of the available Project funds (FC loan), it is expected that some 15 to 20 project schools can be financed through the Project. Some of the existing ATSs could also be added to the list during the inception phase.

Tasks:

- Together with MoETE, conduct a review and verification of the proposed long-list of TSS project schools, in particular, verify if conditions encountered in the feasibility stage are still applicable and in line with the updated Project goals and the progress of TE 2.0. If necessary, conduct an update of the long list based on new information and to include some of the newly established ATSs if suggested by the MoETE.
- Conduct a revision of the proposed Application Forms and TSS Selection Criteria based on the Project goals and indicators. Verify that the following criteria are considered in the documents and/or amend if needed: gender-balance aspects, sustainability of the investments through good management capacity of the school's administrations, readiness to and viability of establishing cooperation with the private sector. Put emphasis on criteria to determine level of engagement and motivation of the school administrations to improve their schools and sustainability of the investment.
- Make sure that the criteria also foresee the selection of schools based on best absorption potential for the TSS graduates in the labour market, employment patterns and renewable energy potential.
- The updated set of documents shall help assess trainings offered, quality of industry linkage, quality of current TVET management, proven/minimum capacity for cooperation, competencies of teaching staff, within others. This information shall later be crucial to determine the soft investments needed in those schools.
- Conduct a revision of the Evaluation Matrix for final selection, taking in consideration - besides assessment of school administrations and potential with the private sector -, also technical and financial aspects. Apart from envisaged technical assistance, the investment measures under Component 2 will rather be focused on rehabilitation of existing school infrastructure (i.e. existing laboratories, workshops, classrooms, and sanitary facilities) and upgrading of machines and tools. Depending on the trades and curricula, in some cases simple machines and tools would suffice to achieve a significant impact. In general, no expansion of schools or new construction are pursued under this component.
- Consult GAEB regarding the technical suitability of the suggested TSS selection criteria.
- Conduct random site visits to approx. 6 - 10 TSS of the long-list to verify suitability of the updated documents and of the selection approach. During the site visits the Consultant shall also verify the approach against the technical conditions on-site to assess if the selection process will be suitable to achieve the Project goals and indicators.

Key deliverables:

- Updated TSS project long-list, including updated Application Forms and Selection Criteria to be applied under Component 2 of the Project as annexes to the Inception Report.

The Application Forms and Selection Criteria shall be submitted as part of the Inception Report, or earlier if available, depending on the work plan for each component. These documents will be subject to approval by MoETE and non-objection by KfW.

3.2.5 Fast-track TSS schools

The rehabilitation and upgrade measures of a certain share of the Project schools under Component 2 (max. 3 schools), i.e. the so called fast-track schools, shall be planned and designed while the process of elaboration of selection criteria and application documents is still ongoing (see chapter 3.2.4.). This is to ensure a first ease to the pressure on the Egyptian education system as soon as possible. In addition, this will enable to pilot the first approach of the Consultant regarding rehabilitation and upgrade measures. For this purpose, the Consultant will cooperate closely with GIZ, as GIZ is already preparing the implementation of technical assistance projects in areas covered under Component 2 of the Project. In addition, GIZ has conducted a preliminary appraisal of the long list of TSS schools under Component 2 and has proposed two schools, which could be eligible for rapid intervention under the Project.

Tasks:

- Approach to GIZ regarding the pre-selection of the 2 schools already proposed for rehabilitation and upgrading under Component 2 and at the first place, verify if the schools proposed are still relevant for the Project. If the proposed schools are not any more relevant the Consultant will initiate discussions with MoETE, with the support of GIZ, regarding alternative selection for the fast-track schools.
- Review the selection criteria applied by GIZ to identify the fast-track schools and verify if this criterion is in general aligned with the Project goals.
- Conduct a rapid assessment of the proposed fast-track schools, including site visits, determining needs for rehabilitation and upgrade of infrastructure and equipment.
- Coordinate activities with GAEB and MoETE regarding rehabilitation and upgrade measures.
- Potential private companies have already been identified, which have expressed willingness to cooperate with these schools, accordingly the Consultant will approach to these companies and make sure that rehabilitation and upgrade measures of the fast-track schools are in line with the requirements of the private sector.
- Come-up with a concise plan for rehabilitation and upgrade measures for the finally selected fast-track schools.

Key deliverables:

- Fast-track short report, including the list of school proposed for fast-track (max. 2 – 3 schools), corresponding rehabilitation and upgrade plans for infrastructure and equipment, preliminary concept-designs (sketches), preliminary cost estimations, concept for cooperation with and involvement of the pre-identified private companies and a schedule for final design and tendering of construction works and equipment.

The selection of fast-track schools and corresponding plan for rehabilitation and measures will be presented in the Inception Workshop. Results will be submitted to MoETE for approval and to KfW for non-objection with the Inception Report, or separately if they are ready beforehand.

In order to allow for a rapid implementation, the preliminary designs for the fast-track schools shall be finalized by the Consultant immediately after approval of the relevant report. The final designs shall be elaborated by GAEB with assistance of the Consultant. As the fast-track schools will be the first schools planned under the Project, it may be necessary that the Consultant puts additional efforts to facilitate the finalization of the preliminary and final designs, taking in some cases if needed more responsibilities.

3.2.6 Baseline for Tracer Study and Mid-term Review

After the operation of project schools has started and first graduates have emerged from the promoted schools, a Tracer Study shall be conducted which analyses the transition to work of the graduates, thereby assessing the effectivity of the conducted measures. This study is not planned to be executed under this assignment. However, the Consultant shall conduct a survey to establish the baseline for the future main survey. In addition, this baseline will be used as basis to evaluate the Project development during a planned mid-term review (also to be conducted by an independent Consultant / not subject of this tender).

Tasks:

- Conduct a baseline study to set a context for the main Tracer Study, which will be conducted after Project completion.
- Assess current labour market outcomes of graduate students in the selected project areas.
- Provide information to help understand how currently the transition from the completion of training to the labour market functions.
- Assess current labour force participation, on-the-job trainings and further education experiences, job changes and promotions, female persistency in jobs, self-employment situation, and unemployment situation.
- Recommend a tracer method and the study instruments for the main Tracer Study
- Elaborate a report based on findings

While the above-mentioned tasks may be supported largely on existing studies (desktop review) it is expected that the Consultant will conduct local interviews in the project areas. Accordingly, the results shall be focused in these areas.

The above-mentioned tasks represent a preliminary outline, which shall be further elaborated by the Consultant in his/her Technical Proposal and which will be later reviewed during the Inception Phase.

Key deliverables:

- Baseline Study Report.

The above-mentioned report can be submitted as an annex to the Inception Report.

3.2.7 Preparation of Gender Strategy for the Project

Tasks:

- Identify the needs and priorities of marginalized groups in the TVET educational sector, especially women, but also other groups such as people with disability, youths, unemployed, etc.
- Identify key entry points and strategic approaches to address gender issues.
- Develop targeted gender initiatives, encouraging that gender issues are mainstreamed in in the planned project measures
- Conduct an analysis on the gender implications and potentials for gender equality and empowerment of women through the overall project: For the CoC in Hurghada, assess potential risks linked to promoting a boy's school, incl. with regards to negative implications on gender equality and girls' empowerment and educational opportunities; and identify opportunities for mitigating negative implications and strengthening opportunities for gender equality/girls' empowerment, such as granting girls from other local schools access to technical facilities and learning including introductory and interest raising activities for girls other local schools.
- For the CoC in Aswan, assess the possibilities to attract a higher share of female students and any required adaptations (e.g., with regards to the curriculum, the school environment, communication from the school/education sector, existing gender norms, attitudes and behavior in society, incl. at the family level, etc.) in order to create a safe and empowering environment for them.
- For the promoted schools in component 2, assess the expected share of female students, investigate possibilities to increase it (e.g., with regards to the adapting the curriculum, the school environment, through targeted communication from the school/education sector to encourage girls' education in technical sectors, addressing existing gender norms, attitudes and behavior in society, incl. at the family level, etc.) and incorporate the measures in the training programme, school communication and organisational culture where applicable.
- For all components, identify what is necessary to increase female graduates' chances to find suitable and safe employment.
- For all components, also consider potential backlash and how to mitigate it (with regards to Do No Harm principles).

Identifying role models and influential, respected "champions" (both male and female) early on who can speak on behalf of girl's education in those sectors and who can mitigate should tensions arise.

Key deliverables:

- Report with concise Gender Strategy as part of the Inception Report to be applied during the implementation of the Project.

3.2.8 ESHS Screening of individual Projects

First the Consultant will conduct a thorough analysis of the available ESHS related information, especially the existing project-specific Environmental Social Management Framework (ESMF) from year 2018 and the therein contained Gap Analysis, Screening Tools and Exclusion List. In addition, the Consultant will revise documentation and lessons learned regarding ESHS management in the ongoing primary school construction projects financed by the German FC (QESP). With this initial step it is not expected that the Consultant will conduct new detailed investigations about project ESHS standards, but rather to get familiar with the existing project ESHS requirements as well as expected risks during the Project implementation. If during the review and verification of the existing data any missing data or critical gaps are identified, in line with World Bank and KfW Sustainability Guidelines, the Consultant will propose respective solutions and conduct an update of the documents and respective ESHS tools.

In a second step the Consultant the (updated) environmental and social site/project screening tool for screening of the proposed projects before its final selection. The Consultant shall follow a holistic approach during the project assessment, in a way that no individual projects are proposed for final selection, which have not passed the corresponding Project ESHS screening requirements.

Tasks:

- Review and get familiar with all project specific ESHS Standards, especially the available ESMF
- Review and if necessary, update criteria to screen each individual project / each site to identify potential environmental and social risks
- If individual projects are proposed in environmentally sensitive areas (e.g. protectorates, Nile banks and branches, coastlines of the sea, lakes, wetlands, archaeological areas) the Consultant will inform MoETE, MEK, GAEB and KfW accordingly in order to determine whether additional in-depth studies are necessary (e.g. Environmental Impact Assessment) or whether the relevant individual project, due to its complexity, shall be rejected.
- Conduct screening of all individual projects in line with the Project ESHS Standards. In the Inception Phase this task is in particular of major importance for the selection of the three CoCs (Component 1) and fast-track TSS schools (Component 2), but in general, this task apply to all further individual projects to be identified and selected during the subsequent Project implementation phases.
- Make sure that all individual projects proposed/selected for financing comply with the ESHS screening criteria and exclusion lists. If major risks are identified, propose corresponding mitigation actions or if the individual project, due to its high risks and/or complexity, shall be rejected.

By all means, the Consultant shall make sure that the final selection of school projects is subject to this screening process.

Key deliverables:

- Available ESHS screening tools of the existing ESMF are revised and, if necessary, updated.
- Individual projects under Component 1 as well as fast-track schools under Component 2 are screened in line with the Project ESHS Standards
- Report on ESHS Screening results.

The Report on ESHS Screening results can be submitted together as an annex to the School Selection Report.

3.2.9 Inception Workshop

Towards the end of the Inception Phase the Consultant shall organize the “Inception Workshop”, in Cairo and with the presence of all relevant project partners, project donors and relevant stakeholders of the Project in Egypt.

Tasks and goals of the Inception Workshop:

- Present the results of Inception Phase, in particular the selection of CoCs including its rationale.
- Obtain consensus within the parties about the main results, in particular the selection of CoCs (Component 1) and further selection process for the TSS (Component 2).
- Present an update of the Project goals and indicators, Project costs and finances and Project time schedule, making emphasis in expected deviations from the original plan.
- Discuss the way forward for the implementation of the next project phases.
- Present an update of the Consultant’s workplan, making emphasis in deviations from the original plan.

Key deliverables:

- Inception Report, including all annexes.

3.3 Main Tasks Related to Infrastructure & Equipment

3.3.1 Assistance in the Application and Final Selection Process of TSS

Before the final selection of school projects under Component 2 takes place, each long-listed TSS will have to apply formally to the project and get evaluated through the updated application forms, selection criteria and evaluation matrix.

Thus, immediately after approval of the Inception Report (or of the School Selection Report for Component 2 if available first) the Consultant will approach all long-listed TSS’ administrations in order to introduce to them the application and selection procedures. Subsequently, the Consultant will assess the proposed TSS facilities and conduct the final selection process based on the input of the TSS administrations and the on-site assessment using the agreed evaluation matrix.

Some TSS administrations may be able to complete and submit their applications sooner than others. In case that some TSS can be assessed more quickly than others, the assessment of the facilities can be split into groups of school projects, to speed up implementation.

Upon completion of all the requirements, subsequent positive assessment through the Consultant and corresponding approvals and non-objection of MoETE, GAEB and KfW, the TSS will be formally shortlisted as selected project school, eligible for financing.

Tasks:

- Introduce the Selection Criteria, Application Forms and Evaluation Matrix to relevant staff and school administrations of all long-listed project schools, including their local governments at Muderiya and Governorate level. Make sure that the documents are presented to TSS in a culturally appropriate manner. Application documents shall be translated to the Arabic Language.
- Cooperate with school administrations and to some extent assist them in filling-out their applications by answering questions, clarifying the content of the documents, explaining the goals of the Project and vision of the reform process TE 2.0. However, the Consultant shall not take over the responsibility of completing the application forms, as this is a crucial task to be assumed by the school administrations themselves and ultimately, this should help assess their level of interest and commitment. Thus, the Consultant shall ensure neutrality and transparency by providing assistance in this process.
- After reception and acceptable completion of the applications by the school administrations, conduct site visits and on-site assessments of the TSS, inspect infrastructure, equipment, and tools available at their premises. Explore the urban context, visit, and conduct interviews with the local administration to assess their commitment to support the school and verify potential cooperation with the private sectors in the area.

- Amongst others, assess on-site: accessibility to the school, technical suitability (e.g. topography, geotechnics), and viability that rehabilitation and upgrade measures can be executed within the Project timeframe and within the Project budget. Conduct a risk assessment and identify any knockout aspects.
- Assess on-site specific needs and potentials of RE and EE measures and corresponding need of trainings.
- Assess on-site ESHS related issues, especially the screening process; identify potential environmental social risks and requirements for further studies during implementation in case the visited TSS is selected.
- As a result of the on-site assessment and the applications submitted, prepare a list of investment measures for rehabilitation and upgrading the infrastructure and equipment of the proposed TSS: incl. details of required investment activities, i.e. number of classrooms, laboratories, workshops and ancillary rooms to be rehabilitated, sanitary facilities, number and type of equipment, machines and tools to be ordered and installed, etc. This list shall be accompanied with preliminary cost and time estimations.
- Based on the applications and local interviews prepare a list of training measures for the proposed TSS such as: trainings on RE and EE, teachers and staff trainings, student trainings.
- Plan investment and training measures such that the allocated Project funds are matched while the Project goals are achieved, i.e. considering the optimized distribution of Project funds and investment priorities under the Project.
- Conduct the agreed evaluation of TSS project, provide in the final assessment a sort of scoring system in line with the agreed Evaluation Matrix. The TSS projects ranked with the highest score and available options for fund absorption shall be financed by Project.
- Communicate to MoETE the schools with lower ranking, so that MoETE can incorporate these schools into their own national school planning process.
- Ensure that the final selection is discussed with the relevant partners MoETE and GAEB, which need to give (after further discussion) their approval.
- The result of this exercise is a prioritized list of all eligible TSS under Component 2 and their necessary investment and training measures.

Key deliverables:

- Short Project Selection Report for Component 2 with a clear and concise proposal on where and how to rehabilitate and upgrade TSS.
- A justification for the selection of the project schools in line with the project goals and indicators, including clear statements about the potential of trainings in renewable energy and energy efficiency.
- For each proposed TSS for Component 2, a list of baseline data and of investment activities (i.e. new/extension classrooms, incl. preliminary investment and technical assistance measures.
- Preliminary cost estimations.

The final selection of TSS projects and corresponding plan for investment and training measures will be presented in form of a Project Selection Report for Component 2, which will require MoETE's approval and KfW's non-objection.

3.3.2 Assistance on preparation of Designs

Based on the list of Programme schools and identified investment activities, the required technical designs will be conducted by architectural design firms in Component 1 and by GAEB in Component 2.

3.3.2.1 Selection and assistance to Design Consultants for CoCs

In Component 1 it is envisaged that measures required to transform existing TSS into new CoCs will be designed by private architectural firms (Design Consultant) with international experience and preferably with experience in the design of TVET facilities. Thus, in this component the actual task of preparation of all preliminary and final designs required will essentially be the task of the Design Consultant.

However, the Consultant is expected to give a crucial input in the co-development of the designs – especially through the International Architectural Advisor, the TVET Experts, the Energy Efficiency Expert and Renewable Energies Expert - in the field of educational architecture and design of TVET facilities. The Consultant will focus on co-developing, together with the Design Consultant, site-specific preliminary designs in accordance with the Project's requirements.

It is expected that the Consultant will develop during the Inception Phase rehabilitation and upgrade plans for each selected CoC in form of a master plan-type approach. This rehabilitation and upgrade plan shall be used as the first outline for the development of the existing TSS into CoCs and shall constitute the framework in which the Design Consultant will propose his/her own architectural solutions.

Tasks:

- Assist MEK in the selection of the Design Consultants through International Competitive Bidding Process (see § 0) and tentatively through an International Architectural Competition (see § 0).
- Prepare master-plan type approaches as framework for the future design of the new CoCs. Include conceptual sketches, room-program, rehabilitation and upgrade measures, preliminary cost estimations, etc., to give the Design Consultant a clear overview of the potentials and limitations of each project. Make sure that the masterplans are included in the respective ToR of the Design Consultants.

Key deliverables:

- Competent and independent Design-Consultants have been selected for the project.

3.3.2.2 Organization of International Architectural Design Competition for CoCs

The new approach to develop centers of competences seeks to improve the reputation of TVET by developing full-scale lighthouse projects. Hence, the centers of competence will include new features not only in the areas of teaching and management, but also in the design of the facilities. The idea is to achieve high architectural values in the design of the CoC with an optimal functional concept for the final users. On these principles an international architectural design competition has been proposed and shall be further discussed with the project partners during implementation.

If such a competition is deemed by the Consultant, MoETE and MEK to be feasible and of added value for the Project, the Consultant will prepare and coordinate such competition as a comprehensive process of selection of the Design-Consultants (see §0).

The objective of the architectural design competition will be to select an architectural design for each new CoCs and to select one or more architects to collaborate in the elaboration of the preliminary and final designs. In addition, the architectural competition shall contribute to create public interest and to increase attention in the importance of architecture in the role of high quality (TVET) educational institutions.

The final scope of the design competition shall be further elaborated by the Consultant preferably during the Inception Phase and shall be presented and discussed in detail with MEK, MoETE and KfW before preparing the procurement of Design-Consultants. On the following a tentative scheme is presented, which shall be later validated, enhanced, and completed by the Consultant.

Preliminary approach for the competition:

- The architectural design competition may include two stages: i) Pre-selection of qualified applicants and ii) Invitation of architects to submit design proposals. However, if sufficient arguments are presented by the Consultant the competition may also be conducted in a single-stage procedure.
- The competition shall be based on recognized guidelines for international architectural design competitions, e.g. of the International Union of Architects (IUA), UNESCO Guidelines or guidelines of an institution of similar recognition.
- The competition process has also to comply with local regulations regarding architectural design competitions, i.e. the Consultant will consult with the Society of Egyptian Architects and will revise specifics in this regard of the Egyptian Tender Law to ensure national compliance.
- The competition will be open to any international architect. However, the Consultant shall verify if some restrictions may apply, such as a requirement to be registered in Egyptian chambers or associations. If the latter applies, the Consultant shall propose a competition approach to fulfil the formal

requirement, but also ensuring that international participation is available in sufficient quantity and quality.

- If found reasonable, the competition could also be aligned with one of the following approaches, which have been discussed and found interesting in the framework of the Project. The Consultant shall discuss and assess the different options and propose a way forward. Instead of conducting a competition of experienced architects:
  - to open the competition to inexperienced *young architects* aiming a collaboration set-up of promoting new and fresh ideas through a young architect, backed up with the senior advice of the Consultant and the IAA, or
  - to invite only international and national *faculties of architecture* to compete, also with the aim of a collaboration set-up with the Consultant and the IAA.
- The selection of the winning designs shall not be made based on the fees expected to be charged by the winning architect. The fees of the winning architect shall be negotiated later, after conclusion of the competition. If found reasonable, fees could be requested in a sealed envelope, which may only be opened after the competition.
- Ideally, both during the presentation of design proposals as well as during evaluation through the jury, the architects should remain anonymous until conclusion of the competition (in this case a single-phase procedure may be more convenient).
- The winning architect shall be offered a service contract as Design Consultant for one or more CoCs, his/her design concept shall be further developed during the design process in total or in parts only, following the design requirements by the Project. However, the documents of the competition shall make a clear statement that the results are not only intended to appoint the *architect* of the CoCs and that his/her role as the winning architect / Design-Consultant is also expected to collaborate closely with the Consultant subject of this tender and its team of experts.

Tasks during Pre-selection of qualified applicants:

- Review and update the above-mentioned concept for architectural competition. Present an updated approach to MoETE, MEK and KfW for approval and non-objection.
- Assist MEK in the organization and management of the architectural competition. Prepare a set of pre-selection and final selection documents in-line with the agreed approach.
- Make sure that the design competition observes the principles of KfW Procurement Guidelines. However, the Consultant shall aim to create a straight-forward competition process, without major administrative burdens as this could prevent interested international architects from participating in the process.
- Establish a set of formal requirements for eligibility (e.g. type of architect, urban planner, etc.) as well as an exclusion list (e.g. members of the jury and relatives) to determine responsiveness of applicants.
- Establish criteria for selection of design firms, architects during the Pre-selection phase of the competition, including criteria such as: experience and expertise with comparable projects, architectural quality of reference projects, human and technical resources to execute the designs, financial soundness of the firms, within others. However, these criteria may have different requirements in case the competition is open to young architect or limited to faculties of architectures.
- Provide parameters in the pre-selection documents, which facilitate applicants the elaboration of an **initial outline design concept for the CoCs**. Accordingly evaluate this initial outline as part of the overall pre-selection process.
- Make clear in the pre-selection documents that no prizes will be given in the pre-selection phase for elaboration of the initial outline design concept for the CoCs or for being shortlisted. Prepare the evaluation report and propose a shortlist with a min. of some 5-6 and a max. of 10-12 candidates.

Tasks during Invitation of architects to submit design proposals:

- Prepare Invitation documents, including framework parameters to enable candidates to prepare and submit design proposals such as conceptual approach of the new CoCs (master-plan approaches), agreed spatial program, agreed equipment requirements, time-plan, available budget for construction, etc. Include scope of work for designers in case of being selected.
- Prepare and publish evaluation criteria, which shall include at least the following design aspects: overall urban planning, architecture and landscape, aesthetic, compliance with the main features of the

functional and spatial program, feasible approach to an energy efficiency and environmental concept, feasible approach within the estimated costs, consideration of local costumes and culture, benefits to the local society, compliance with the relevant regulations, in particular in the field of building law and environmental law.

- An Evaluation Committee shall be formed to conduct the evaluation of the submitted designs. Accordingly the Consultant will propose and organize an independent panel of design professionals and stakeholders as a jury, which could include representatives of: MoETE, GAEB, MEK, Consultant, IAA, members of the Society of Egyptian Architects, representatives acting on behalf of the local governments (e.g. Muderiya and Governorate), external recognized Egyptian or international architects. Eventually representatives of KfW, the EU or the German Embassy could participate as observers.
- The invitation shall make clear that: a) the Employer reserves its right not to execute the whole project or parts of it and, b) the contract may be awarded on the condition that the candidate executes the preliminary and final designs in close cooperation with the Consultant and the IAA.
- Propose the prizes for the three best-placed designers. Tentatively the prizewinners will receive the following prizes: 30.000 EUR for the 1st place, 12.000 EUR for the 2nd place, 8.000 EUR for the 3rd place for each CoC. The final figures will be agreed during negotiations of the consulting contract subject of this tender. The Consultant shall include the total amount of the three prizes (50.000 EUR) as a provisional sum of his financial proposal.
- After evaluation by the jury, the Consultant will invite the winning architects (1st place) to review its design proposal and if any, to implement the recommendations and requirements of the jury, the IAA and the Consultant himself. In this revision phase the Consultant shall make sure that the selected designer can meet the Project functional and technical requirements, and that the design entails features that reflect the Project vision translated into architectural language.
- Finally, the Consultant will produce the Evaluation Report including the identified concept design and a recommendation for award for each CoC. Accordingly, the Consultant will prepare draft design contracts based on the individual revisions and recommendations for each CoC design.
- After the competition, the Consultant will assist MEK and the winner designers to negotiate the contract and the fees for his/her services in the further design activities.

Key deliverables:

- Evaluation Report of the architectural design competition (if applicable as input of the Tender Evaluation Report).
- For each selected CoC a conceptual architectural design has been identified.
- One or more architects have been identified for elaboration of the preliminary and final designs of the CoCs in close cooperation with the Consultant. The corresponding design contracts shall foresee MEK as Employer.

The evaluation results of the international architectural design competition shall be countersigned by the Jury, the Consultant and MEK and shall be submitted to MoETE for approval and KfW for non-objection.

3.3.2.3 Assistance to GAEB Design Department

In Component 2 the rehabilitation and upgrade measures for all selected TSS shall be designed by GAEB design department - following up on the results and the developments achieved by GAEB under the QESP project. In this component GAEB shall take over the leading role in the design and construction supervision according to its official mandate in the Egyptian context.

However, it is expected that additional efforts are required from the Consultant to assist and strengthen capacities at GAEB, especially in the design of technical and vocational workshops, renewable energies, and energy efficiencies. Thus, the consultant shall encourage GAEB in producing high quality and individual design solutions through technical assistance, monitoring and co-work on continuous basis. To achieve this, it is expected that the Consultant will deploy staff at GAEB premises in Cairo, who will be available for the day-to-day Project activities.

Tasks:

- Deploy qualified staff to implement the above-mentioned concept, in particular experienced architectural designers in the Design Unit at GAEB's headquarters in Cairo.
- Support GAEB's Central Design Department in structuring and organizing a qualified team for the design of their Project schools under their responsibility.
- Encourage and assist GAEB on elaboration of specific individual designs for rehabilitation and upgrade of all TSS projects that will be selected under Component 2.
- Identify GAEB's bottle necks as well as their potential and, accordingly, propose adjustment of existing GAEB design processes.
- Review currently valid and applied design guidelines concerning design of TVET institutions and prepare recommendations for improvement, especially as concerns the design of practice-oriented vocational and training facilities.
- Make sure that training facilities are designed and rehabilitated in a way to promote practical skills allowing students to learn based on demonstrations and practice.
- Draw from lessons learnt in QESP, especially regarding GAEB's positive achievements in planning of individual designed schools.
- Strengthen GAEB staff – e.g. through know-how transfer, teamwork, and workshops – in assuming their responsibilities about sustainable design and supervision concepts, providing important administrative functions to GAEB's branches
- Submit recommendations to GAEB and KfW in respect of necessary actions to be taken

Key deliverables:

- GAEB received qualified technical support of the Consultant in specific areas of TSS design, especially concerning TVET infrastructure & equipment design, RE and EE measures in a way that TSS rehabilitation and upgrade measures are designed in a sustainable manner.

3.3.2.4 Main considerations for School Design

Each TVET school projects implemented under the Project (CoC, TSS or ATS) shall be individually planned in line with educational needs, the specific trades offered in the respective institution, the specific curricula and according to its specific site conditions. The infrastructure and equipment design shall help teachers, school staff and students meet the needs of the labour market and the industry relevant in the area. No standard design will be used for the selected school projects.

In addition, school designs shall have a strong focus on creating an improved learning environment inside and outside the classroom areas, i.e. ensuring sufficient circulation areas as well as sufficient ventilation, shading and natural light in classrooms. Thus, the energy efficiency measures should start with creating energy efficient architecture in the buildings (passive measures), which shall be complemented by application of active measures. The landscaping design, playgrounds, green and shaded areas shall become an important element in the overall effort of creating an improved learning environment.

The school's specific spatial requirements shall be optimized aiming an economic utilisation of space. Schools must be designed to be child-centered and fully functional.

For the design process, the Consultant will appoint an experienced International Architectural Advisor (IAA) to assist in developing the school design concepts, supervision and quality control of the design products, with particular emphasis on the planning and design of state-of-the-art TVET schools as well as on providing assistance to MoETE in the technical and economic improvement of the designs. Lessons learned of the ongoing QESP projects and previous school construction projects financed by the German FC shall be taken in consideration by the Consultant.

The Consultant is to organise and lead his own design teams, composed by the IAA in collaboration with local licensed and registered professional experts, as required by GAEB or any other relevant local authority. The Consultant shall ensure that the design milestones are timely and qualitatively met, according to Project requirements.

Key design parameters:

- Consider national and international design guidelines as well as existing design guidelines developed under the previous German FC projects.
- Be based on an analysis of the existing urban environment and relevant urban design considerations in the form of a master plan-type approach (which shall also consider and clearly show possibilities for realistic future extensions).
- Respect and adequately deal with existing climatic (sun, wind, humidity) as well as the specific soil topographic conditions of a given site.
- Be in line with state-of-the-art TVET educational concepts (incl. gender-sensitivity) and educational architecture elsewhere.
- Comply with, but with a tendency to exceed, Egyptian Standards and especially GAEB Standards for educational buildings.
- Achieve robust, maintenance-friendly infrastructure, even where this might entail an initially higher investment cost (such incremental amount to be explicitly indicated by the Consultant, together with the positive impact on future maintenance cost).
- Be in line with present-day TVET pedagogic requirements; in particular, designs that will allow for installation of computers, IT technology, etc.
- Ensure accessibility providing wheel-chair access to some classrooms, sanitary rooms, etc.
- Improve further the design of maintenance-friendly school furniture and equipment and develop and apply an appropriate maintenance concept.
- Provide for the possible utilisation of renewable energies (especially solar), wherever appropriate and cost-efficient.
- Allow for energy-efficient design principles (passive measures reducing electricity demand): Introduction of passive climate control measures, e.g. window shading elements, natural ventilation, cross ventilation instead of air conditioning, insulation of building component, external walls with high thermal capacity, external area vegetation to create a micro-climate. For new buildings and/or extensions, where possible to adapt climate appropriate orientation to avoid direct sun light.
- Introduce reasonable energy-efficient active measures to reduce energy consumption and feasible measures for the use of renewable energy (RE supply side approach), e.g. through power generating by photo-voltaic systems, solar water heating devices, using of low-energy consuming light fittings (preferably LED-bulbs and tubes).
- Introduce environmental aspects: rainwater harvesting, utilization of grey water, a modern concept of on-site waste water treatment if there is no connection to a public sewage system, use of local and environmentally friendly building materials, e.g. there will be no use of asbestos materials whatsoever, school furniture to be treated with non-toxic materials only, etc.

The Project schools shall be an **attractive learning and living environment for the students and staff with sports and recreation facilities** to feel comfortable and render the teaching and learning process effective. A paradigm shift is necessary in most schools from simple education provider to a friendly and fully functional technical and vocational learning center. Quality of the school environment as a whole will thus exemplify quality of technical and vocational education for future skilled workers or technicians and the school community as a whole, including teaching and management staff.

3.3.2.5 Elaboration of Masterplans

The design process shall be guided by the framework established by the Consultant during identification and selection phase, which shall be presented in form of a master-plan type approach for each selected project school.

These **Masterplans** to be developed by the Consultant will contain at the minimum the following information for every Project school:

- Existing site and school layout indicating relevant information about the current conditions on-site and of its surroundings. Indicate here number of students, workshops and classrooms, rooms to be kept, to be rehabilitated or demolished, potential location for new additional rooms (extensions), rooms which

functions shall be changed, accesses to be opened / closed, green areas to be created, access roads to be used, etc.

- Future spatial requirements (room-programme) based on needs identified during the school selection process, determined together with MoETE. Indicate here in sufficient detail list of rooms, whether these are existing or new and the area required (m²).
- List of future investments measures for infrastructure and equipment to be financed under the Project, describe existing buildings and equipment conditions, their rehabilitation and upgrade requirements.
- List of proposed RE and EE measures specific to the school, indicating required active and passive measures.
- Preliminary conceptual schemes in form of diagrams, which allow to illustrate the vision and use of the future school, e.g. new proposed zoning-diagram, new proposed room-diagram, proposed architectural flow-diagram, etc. However, no architectural sketches have to be developed at this stage.
- A summary description of the use and function of the rooms, zones, and equipment to be considered in the development of the design.
- Results of environmental and social screening, review of potential impacts and related mitigation measures, information on regulations and ordinances to be followed.
- If use of existing buildings is not possible, indicate potential demolition / replacement of buildings together with a sound technical and financial justification for it.
- Contain a conceptual budget and schedule

Key deliverables:

- Master plan types approach for each Project school.

The Masterplans shall be included in the ToR of the respective agreements with designers (Design-Consultant / GAEB) and thus, they shall constitute the framework in which preliminary and final designs will be prepared.

3.3.2.6 Assistance on Preliminary Designs

The Consultant shall make sure that the design approach is implemented in the field, where the construction measures will take place, i.e. the designer (GAEB / Design-Consultant) must visit the project sites, get accustomed with the site conditions and its surroundings, meet relevant stakeholder representatives and discuss project solutions and alternatives with them.

Tasks:

- Encourage the development of site-specific designs which reflect state-of-the-art educational design, and which are both economical and feasible.
- Assist the respective design teams continuously through the IAA, as well as through the RE and EE experts, give guidance to fulfil the design-works as per the specific school needs and the Project goals and indicators.
- Ensure that the respective project partners (MEK, GAEB and MoETE) are be integrally involved during the preliminary design phase.
- Make sure that the design solutions proposed comply with the Project requirements especially in the fields of educational goals, vocational training, energy efficiency, renewable energies and cost-efficiency.
- Verify that preliminary designs are presented in line with accepted national and international standards: site layout plan, landscaping plan, floor plans, sections, façades
- Data on proposed construction, building materials, structural system, etc.
- Request from designer's relevant project data, such as room program, number of students and classrooms, constructed / circulation / free area and their architectural and educational principles underlying the design. Verify compliance with the Masterplan.
- Request a preliminary estimation of project realization costs and verify:

  a) compliance with the Project budget and b) that cost estimates are adequate and realistic.

- Ensure the Project key design parameters (see § 0) and master-plan requirements (see § 0) are reflected in the developed school designs.

The results of this process shall be documented in Preliminary Design for each Project school.

The preliminary designs of the CoCs and some exemplary designs of the TSS (e.g. fast-track schools) hall be presented in a workshop in Cairo with the IAA, MoETE, MEK and GAEB; KfW shall be invited as well and may join depending on availability.

Key deliverables:

- Preliminary Designs for each Project school and presentation via workshop

All Preliminary Designs are subject to assistance/revision/improvement of the IAA, the RE and EE experts, the approval of MoETE and the non-objection of KfW.

3.3.2.7 Assistance on Final Design

The details of the Design Documents shall be worked out based on the approved Preliminary Design Reports and include specific ESHS aspects, as required for qualified execution and fair Tender Process of Works and Goods. The documents shall be composed of a comprehensive Design Report, supportive annexes and all required design, layout and structural drawings presented in an appropriate scale and to an appropriate degree of detail and a cost estimate per component.

Tasks:

- If necessary, make sure that required additional investigations are executed (e.g. topographical or geotechnical, investigations). Indicate provisional sums for the related costs.
- Make sure that the preparation of architectural, structural, hydraulic, and electro-mechanical design and calculations for the works and equipment follow international accepted standards. Verify that corresponding drawings, details, instructions, and specifications required to tender, contract, and implement the construction works are prepared according to Egyptian regulations.
- Verify that BoQ and tentative time schedule are reasonable and in line with the implementation concept.
- Preparation of a confidential cost estimate including a descriptive part presenting the assumptions taken and assessments made for calculating the unit rates.
- Support to the Employer for his preparation of the required documents for obtaining the required permits such as: construction permit; water rights; environmental permits; land availability; right of way.
- Elaboration of a procurement concept taking into consideration local/ regional/ international construction capacities and interest; proposals for contract packaging, support to PEA in updating PEA's overall Procurement Plan.
- Preparation of a Final Design Report.
- Verify the ESHS classification level of the proposed Contracts in accordance with Annex 1: "ESHS Classification of Contracts".
- Include relevant Environmental and Social Impact Assessment/ Environmental and Social Management Plan (ESIA/ESMP) aspects in the Final Design and time-schedules.

Key deliverables:

- Final Design Drawings and Documents
- Design criteria
- Procurement concept
- Confidential cost estimate
- Design Report.

All Final Designs are subject to assistance/revision/improvement of the IAA, the approval by GAEB/MEK and the non-objection of KfW.

3.3.3 Preparation of Tender Documents

The Consultant must be aware that the Egyptian Tender Law applies as well as KfW Guidelines. Therefore, the Consultant is to get familiar with the local procurement legislation, local approval procedures, and to consider the approval timing in his work- and personnel-plan.

All bidders must submit a properly executed declaration of undertaking. The compliance with ILO Core Labour Standards and other FC specific requirements for labour safety and conditions form an integral part of the tendering documents and thereby also of the evaluation criteria of contractors.

In Component 1 MEK will fulfil the role of tendering agency and Employer while GAEB will perform these functions in Component 2.

A Procurement Plan has been agreed for the Project and is part of the Separate Agreements between KfW and MoETE. Before initiating the preparation of the tender documents the Consultant shall review the Procurement Plan and, if necessary, update it thereafter annually and, in case of a revision, such revised version shall be submitted promptly to KfW for No-Objection (as defined in the Procurement Guidelines).

Tasks:

- Coordinate all required tender processes with MEK and GAEB such that related staff, officials and respective evaluation committees are timely conformed and available to carry out the tender and evaluate the bids.
- In Component 1 (construction, equipment, and service contracts) compile the Bidding Documents in accordance with KfW Procurement Guidelines and the respective valid version of KfW's Standard Bidding Documents (SBD) for Procurement of Works. Ensure the application of FIDIC standards in the construction contracts for the CoCs and, together with MEK, review the applicability of the FIDIC Pink Book for construction projects designed by Employers and financed by multilateral development banks or of the FIDIC Red Book Second Ed. 2017.
- In Component 2 (construction and furniture contracts) compile Bidding Documents in line with GAEB Standard Bidding Documents while KfW Procurement Guidelines shall be observed.
- Support MEK and GAEB in tendering for contractors, suppliers and service contracts according to KfW Guidelines, e.g. elaboration of (specimen) Tender Documents, BoQs, Invitation and Request for Proposals, evaluation of proposals, drafting of Tender Evaluation Reports, preparation of contracts, obtaining necessary approvals and non-objections throughout the tendering process.
- Make sure that eligibility and qualification criteria, evaluation method and minimum requirements are transparent and are included in the Bidding Documents.
- Verify compliance of bids with Works Requirements, Specifications and BoQ. Works and goods shall be awarded in consideration of the most economic bid that meets the desired technical requirements.
- Verify that awarded contractors, suppliers and service consultants have a good reputation for quality, proven ability to fulfil their contracts on time, a strong and adequate financial standing and sufficient experience suited to the size and type of the requested tasks.
- Be part of the Technical Tendering Committee, elaborate and countersign all Tender Evaluation Reports.

Tender Evaluation Reports are subject to the approval of MEK and/or GAEB and the non-objection of KfW. Contracts will be concluded by MEK (Component 1) and GAEB (Component 2), after receiving KfW's non-objection to the final draft contract. If during construction implementation addenda or variation orders become necessary, any single or cumulative addenda / variation involving 20% or more of the original contract sum will require KfW's non-objection prior signature / execution as well. This applies also for any single addenda / variation with a value of 50.000 EUR.

To speed up the procurement process, the Consultant shall consider beginning with the preparation of tender documents and obtaining approvals in sufficient time before the expected award.

Key Deliverables:

- Bidding Documents
- Tender Evaluation Reports
- Compliant contracts for works, goods and service consultants

3.3.3.1 Specifics related to tendering of design consultants

MEK will tender the design services for elaboration of preliminary and final designs of all CoCs to independent private architectural firms. The design contracts shall be tendered by way of International Competitive Bidding and tentatively in the framework of an International Architectural Competition (see § 3.3.2.2)

Preferable one lot and one architectural competition shall be organised for all CoCs while individual design contracts shall be awarded for each CoC.

Design activities in Component 2 will be undertaken by GAEB and thus, no tender for designs are envisaged under this component.

Specific tasks:

- Prepare bidding documents in line with KfW Guidelines using KfW's Standard Bidding Documents (SBD) as model.
- Ensure that the procurement notices are advertised on the website Germany Trade and Invest (www.gtai.de) and in at least one newspaper of national circulation in the Employer's Country or in the official gazette, or on a widely used website or electronic portal with free national and international access (such as www.dgmarket.com).

3.3.3.2 Specifics related to tendering of construction works

It is expected that all contracts for construction works of both components will be tendered by way of National Competitive Public Bidding provided these contracts do not exceed the thresholds specified in KfW's Procurement Guidelines.

There will be no pre-qualification of contractors, however contractors have to be registered in GAEB's contractors' database and must demonstrate sufficient technical and financial soundness and experience with the submission of their bids in order to be eligible (i.e. responsiveness as a kind of post-qualification method). Tentatively it is envisaged that construction tenders for Component 1 shall allow for contractors with the GAEB's Category 1 to 2, while construction tenders for Component 2 shall allow for contractors with the GAEB's Category 1 to 5.

In Component 1 preferably one tender shall be conducted for tendering all CoCs, but each CoC shall have individual contracts. Depending on the contractor's category a max. of two CoCs shall be awarded to a single contractor. In Component 2, different lots can be organized, depending on the number of schools or on regional aspects. Fast-tracks schools shall be tendered separately giving them priority. For the rest of the schools in Component 2 preferably a max. of two lots should be tendered, while each school shall have individual contracts.

Invitations may be published in Egyptian newspapers only (at least in two). When considered appropriate, in order to obtain economic offers, logistically well selected packages of a limited number of school projects may be formed as lots - while permitting reasonable periods of construction to optimise the capacity of contractors.

3.3.3.3 Specifics related to procurement of TVET equipment and tools and RE/EE appliances

The contracts for supply of specialized equipment, e.g. TVET machines and tools as well as contracts for equipment related to improvement of energy efficiency in buildings (demand side) and RE-production (supply side) such as solar panels, etc., will be tendered by way of International Competitive Bidding.

Preferable one lot and one supply contract shall be awarded for all TVET equipment and tools, including both Project components, in order to make the supply package attractive to international bidders. The same applies for contracts for specialized equipment related to improvement of energy efficiency and RE-appliances in buildings.

Given that in Component 2 the number of schools is not defined and that some schools under may not be ready for tendering at the time Component 1 is completed, the supply of equipment and tools for Component 2 could be arrange through a framework agreements (unit price agreement) under the same supply contract for Component 1.

Specific tasks:

- Prepare bidding documents for acquisition, delivery and installation of equipment using KfW's Standard Bidding Documents (SBD) as model.
- Ensure that specifications for equipment and tools comply with relevant accepted international standards for vocational training, in line with European Norms (EN) published by European Committee for Standardization (ECN) or the German Norms (DIN).
- Prepare respective Specifications aiming to obtain high quality, low-maintenance equipment, tools and machines for technical and vocational education. The equipment shall offer opportunities for practical training of students in skill acquisition in their respective technical trade areas, especially in the field of renewable energies.
- Make sure that equipment and tools Specifications are adequate and relevant for the specific schools they are ordered for, i.e. the equipment and tools shall be in line with the trades offered by the specific TSS/ATS/CoC, shall comply with the curricula of MoETE and shall meet the needs of the labour market and the industry relevant in the area.
- Specify machines and tools that can enhance student learning and their practical skills by allowing them to be involved in demonstrations and practice. Request documentation from the bidders, which can demonstrate that this is possible.
- Include relevant Incoterm clauses in the ToR / Contract to define obligations, costs and risks related to the transportation of equipment to the schools. Make sure that transportation and delivery of equipment to the school sites have sufficient insurance coverage as found economic reasonable.
- Make sure that manufacturers offer sufficient liability and guarantees for their products in line in internationally accepted practice.
- Make sure that manufacturers can deliver spare parts for their products over a reasonable period of time.
- If found reasonable (e.g. for the CoCs), include manufacturer induction trainings for the new TVET machines in the ToR / Contracts.
- Ensure that the procurement notices are advertised on the website Germany Trade and Invest (www.gtai.de) and in at least one newspaper of national circulation in the Employer's Country or in the official gazette, or on a widely used website or electronic portal with free national and international access (such as www.dgmarket.com).

3.3.3.4 Specifics related to procurement of furniture

All contracts for the procurement of furniture and equipment will be tendered by MoE by way of National Public Competitive Bidding, following MoETE procurement's procedures and in line with KfW Guidelines for Procurement of Goods.

Furniture designs shall satisfy requirements for active learning, and in general its quality, design, ergonomics, and fabrication methods shall comply with high quality standards. Experience gained in previous FC Projects in Egypt (QESP and NILE) shall be taken in consideration.

The final specifications for furniture and the awarding decisions require KfW's prior non-objection.

The Consultant shall actively support MoETE in the following tasks, if necessary, also take up tasks himself.

Tasks:

- Elaborate Tender Documents for acquisition, delivery, and installation of furniture.
- Ensure that the specifications and dimensions comply with relevant accepted standards for design of school furniture, in line with European Norms (EN) published by European Committee for Standardization (ECN) or the German Norms (DIN), especially with the "EN 1729-1: Furniture, Chairs and tables for educational institutions. Functional dimensions".
- School designs and equipment shall be modern and - to an appropriate extent - shall incorporate information and communication technology measures.
- Ensure the timely delivery of all furniture and equipment to the Project Schools, according to the construction time schedules and the requirements of MoE.
- Ideally request furniture and equipment samples from manufacturers, conduct quality control.

- If possible, inspect manufactures in-situ, verify that production is being conducted according to the agreed standards and expected delivery times.

3.3.3.5 Elaboration of Environmental and Social Management Plans (ESMP)

The Consultant shall compile a comprehensive project-specific Environmental and Social Management Plan (ESMP) in line with the existing ESMF, which shall be used as the standard Project-ESMP in all school construction sites. Taking in consideration experiences with contractors in previous German FC project, the Project-ESMP shall not be finalized by the contractors. Instead, the Consultant shall prepare a comprehensive, user-friendly and ready-to-use ESMP, which shall be applicable in all types of project schools (CoCs or TSS) and all types of procurements (works or supplies). This project ESMP shall include, but shall not be limited to: OHS Plan, Community Health and Safety Plan and Labour Management Plan and should take in consideration the local methods and capabilities of contractors.

Tasks:

- Present in the ESMP a set of mitigation and monitoring measures to eliminate, minimize or reduce to acceptable levels adverse environmental and social impacts. The Consultant should provide cost estimations for the proposed mitigation measures as well as the required institutional and financial support, time frame and responsibilities. This information shall be provided for all project phases.
- Ensure that the ESHS provisions are consistent with national requirements and international good practice standards, and are put forward to contractors, subcontractors, and to suppliers, in particular those for major supply items.
- Include the ESMP as part of the bidding documents and of the construction and supply contracts.
- Include ESHS staff required by the contractor to implement the ESMP in line with the specific construction site, this could be supervisors and managers, ESHS liaison officers in charge of relations with external stakeholders and project affected people, equipment related to ESHS tasks (e.g. for transport, computers, communication).
- Include evaluation criteria for ESHS aspects in the bidding documents. Determine whether the Bidder is substantially responsive (i.e. without deviation, reservation, or omission) to KfW´s ESHS requirements as specified in the valid version of KfW´s SBD for the Procurement of Works and has provided suitable references. This includes to assess if the bidder will be able to manage the key ESHS risks of the Project.
- Ensure that the Stakeholder Engagement Plan (SEP) and a Grievance Redress Mechanism (GRM) proposed in the existing ESMF are followed, if necessary, update these documents.
- Develop an ESMP monitoring plan: The Consultant is required to give a specific description, and technical details, of monitoring measures for the ESMP, including the parameters to be measured, methods to be used, frequency of measurements, definition of thresholds that will signal the need for corrective actions as well as deliver a monitoring and reporting procedure. The Consultant should provide a time frame and implementation mechanism, staffing requirements, training, and related cost estimations.

The output will be a project specific ESMP prepared in accordance with the regulatory provisions of Egypt and in line with international environmental standards. The Project-ESMP should be presented in a format acceptable to local competent authorities, GAEB and KfW. The Consultant shall present the Project-ESMP in the required languages (Arabic and English).

The Consultant shall include an Environmental and Social Section in the bi-monthly progress reports, reporting on behalf of the Project Executing Agency on the development and implementation of the ESMP and any incidents or violations of the ESMP.

Key deliverables:

- Project-ESMP for inclusion in bidding documents and contracts for works and supplies.
- Key requirements to be fulfilled by bidders regarding management of ESHS issues.
- Evaluation criteria for assessing bidder’s capacity related to management of ESHS issues.

The project ESMP must be included in the bidding documents for approval by MoETE and non-objection by KfW.

3.3.3.6 Labour Management Plan and other sub-plans

As part of the ESMP the Consultant will develop and implement project specific sub-plans based on identified environmental and social risks for typical school construction projects in Egypt.

Especially, the Consultant will prepare a Labour Management Plan, which shall regulate, among others, employment of young people and prevent unauthorized child labour. This sub-plan shall specify among others: types of activities, employments or works permissible for young persons under the project; specify relevant minimum ages; specify permissible working and respective methods of monitoring and supervision. The Consultant shall be aware that Egypt has not recognized all ILO Conventions. Thus, the Labour Management Plan shall be consistent with local laws and regulations, but at the same time it shall not deviate from the ILO Conventions principles and the international good practice.

Tasks:

- The Consultant shall monitor whether workers who will be engaged in construction activities are employed in compliance with accepted national and international labour standards.
- The Consultant shall support GAEB/MEK to take all necessary actions to effectively prevent any form of child labour in line with the approved minimum age for admission to employment or work in Egypt. This shall also be taken in consideration in view of trainees who will be trained in technical and vocational programs in the selected Project schools.
- The Consultant shall verify that activities assigned to young persons in the Project construction sites are not likely to jeopardize their health, safety, or morals.
- Include the Labour Management Plan in the construction ESMP and put it forward to contractors.

Key deliverables:

- Labour Management Plan as Annex to the Project-ESMP.

3.3.4 Supervision of Construction Works and Supplies

The Project Supervision includes general and Site Supervision of Works, the preparation of initial operation activities, continuous project management and monitoring, periodic reporting, and participation in the acceptance of works. General supervision and site supervision of Works shall be performed on a continuous basis.

For the sake of calculating his resources (personnel, offices, transport, etc.) needed to carry out the required services, the Consultant shall make the following assumptions:

- In Component 1, the Consultant will assume the role of the main Construction Supervisor. Also, up to three construction sites and three supply contracts shall be assumed to run in parallel under this component.
- In Component 2, the GAEB will assume the role of the main Construction Supervisor and the Consultant will provide support as Construction Monitoring. Also, up to ten construction sites and ten supply contracts in parallel under this component.
- Regular working times of the construction sector in Egypt apply.

GAEB and MEK will only monitor the construction activities on intermittent basis and at its own discretion. The presence of GAEB or MEK will be necessary at certain milestones (e.g. acceptances of works, decision on variations, etc.). However, the Consultant shall consider that in Component 1, GAEB and MEK will not nominate permanent staff to support the regular permanent supervision activities required by the Project. On the contrary, in Component 2 it is expected that GAEB will be able to nominate permanent supervision staff. Hence, it is the Consultant's duty to ensure that site supervision takes place in sufficient quantity and quality and according to Egyptian formal requirements.

The Consultant will have to form a supervision team, which depending on the specific field, shall be available on permanent or intermittent basis. Tentatively the team shall be composed of regional engineers, site supervisors, electrical engineers, water and sanitary/ mechanical engineers, static engineer, geological & geotechnical experts, quantity surveyors, etc.

It is expected that the Consultant will propose in his offer a comprehensive approach and team set-up according to his own estimations, his experience in similar projects and to the best of his knowledge.

Regardless of its final team-setup, in Component 1 it is expected that the Consultant deploys at least one full-time on-site supervisor to each of the three construction sites. The site supervisors shall be supported and coordinated by the rest of the supervision team.

Tasks:

- Fulfil the role of the Engineer as per FIDIC Red Book contract form.
- Conduct overall construction supervision of the project through qualified team composed of staff placed permanently in each construction site, complemented by staff assigned to several construction sites.
- Ensure that works are conducted in accordance with the requirements as per agreed contract documents, approved plans, standards, specifications, building codes and the construction permit.
- Support the project completion on time and on budget, while meeting all relevant regulations and quality standards, reduce technical risks and prevent construction errors through continuous supervision.
- Elaborate brief but clear records of the construction activities as per local supervision practices, such as: construction daily logs, logs of material tests and systems tests, inspection notes, approval notes, verbal instructions, and copies of any written instruction issued.
- Inform the PEA, the Employer and KfW on monthly basis about the quality and progress of works at all construction sites during all stages of construction. If delays occur, inform all relevant parties accordingly and propose corrective measures. Accordingly, send official notices to contractors.
- Verify and assess contractors' requests of payments and issue corresponding clearances through Certificate of Payments to initiate further approval and payment procedures in MoETE, MEK, GAEB and KfW. Keep track of contractors' payment statuses.
- Keep track of contractors' payment schedules in accordance with the specific contract budget and the overall Project budget.
- Conduct Handing-Over of all Project sites, as well as Initial and Final acceptances of all Project schools, ensure that all relevant stakeholders are present. Accordingly, coordinate in advance with Employer's and PEA's staff on necessary joint site inspections, acceptances or approvals at the foreseen milestones.
- Ensure that specialized equipment is installed and commissioned according to manufacturer designs, standards, and specifications (e.g. TVET machines and solar panels).
- Ensure that testing of materials, systems and installations is conducted according to the agreed standards and according to the relevant building regulations. Ensure that materials used have the required certifications.
- Ensure that contractors prepare and submit as-built documents, indicate corrections if necessary.
- Handling of variation orders, including necessary approvals and non-objections; keep MoETE and employers informed about relevant issues (e.g. variations), and if necessary gather MoETE's / employers' approval in case this is needed (e.g. changes, reductions or additions in the design, which are related to educational outcomes). In projects with a single or cumulative variations equivalent to 20% or more of the original contract value, such variation(s) requires the non-objection of KfW. This applies also for any single addenda / variation with a value of 50.000 EUR. In this case all technical and financial information, and related time implications need to be submitted to KfW together with a statement of the Consultant.

The Consultant shall:

- Assign sufficient staff for supervision of all construction projects on-site, e.g. nominate site engineers on full-time basis at each construction site and specific experts on intermittent basis, as required by the Project. Also, ensure that relevant Consultant's decision-making personnel is available for clearance of specific milestones or variations, whether in Cairo or at project sites or when requested by MoETE / Employer.
- Manage the deployment of his supervision team according to Project needs and progress of the works, i.e. the staff input shall be increased or decreased depending on the number of construction sites running in parallel or depending on the projects' locations.

- Ensure that no contractor will request the Initial / Final Acceptance & Handing-over of facilities where substandard or defective works are evident.
- Conduct at all school sites the necessary final inspections, shortly before the end of the construction period, to determine the remaining works to be completed and, when these are satisfactorily completed, countersign the Certificate of Initial Acceptance & Handing-over, together with MEK, GAEB and MoETE.

Key deliverables:

- Progress Reports

3.3.5 Monitoring and Compliance of ESHS Documents

In parallel to the supervision activities the Consultant will check that all relevant ESHS aspects in line with the Project-ESMP are duly implemented during execution of construction works.

Tasks:

- Inform the Contractor that relevant sub-works shall not commence prior to the Consultant´s approval and satisfaction of appropriate measures in place to address ESHS risks and impacts.
- Instruct the Contractor to update the ESMP if it becomes necessary. The revised version shall highlight the new elements incorporated in the document.
- Supervise the Contractor's implementation of the ESMP and report on compliance of the Contractor with the ESMP and ESHS Works Requirements. This includes health and safety performance and conformance with labour and working condition standards. **In case of severe ESHS violations (and in particular OHS risks to life), the Consultant shall suspend (sub-)works until the Contractor has rectified the situation**.
- Document Contractor's non-conformances. Review and approve the Contractor's proposals for remedial action(s) and their timeframe for implementation. Follow-up on correction/remediation.
- Follow up on the results of any inspections or audits by labour, health and safety or environmental regulatory authorities.
- Check if the Contractor provides instructions and trainings to workers, Subcontractors and Suppliers (in particular those for major supply items) to assure that they understand the relevant ESHS requirements, and that the Contractor complies with the Code of Conduct.
- Advise the Contractor on the ESHS risks and impacts of any design change proposals and the implications for compliance with ESIA, ESMP, consent/permits and other relevant project requirements.
- Conduct regular monitoring of ESHS issues, document nonconformities and address corrective actions. Documentation shall include photographs, explicitly indicating the location, date of inspection and the non-conformity in question.
- Follow-up on the resolution of any complaints or grievances in relation to ESHS.
- Inform the Employer on any ESHS related situation that might arise which could jeopardize the successful completion of the Project. Reflect such situations in the periodic reporting.
- Supervise that non-conformities are addressed through measures adapted to the severity of the situation and which include but are not limited to the suspension of (sub-)works and/or of payments in accordance with the Contract.
- Where possible check supply chain regarding any shortcomings regarding ESHS standards.

Key deliverables:

- ESHS Input in the Progress Reports
- Regardless of the agreed reporting schedule, the Consultant is required to report on any severe accidents (fatalities), severe injuries to persons, serious environmental impact and other serious damage within 72 hours to KfW.

3.3.6 Monitoring of Defects Liability Period and Completion of Project

The assistance during the Defects Liability Period (DLP) and completion Project, after the issuance of the Taking Over Certificate, shall address all post-construction activities up to the final acceptance of works through the Performance Certificate. The Consultant shall carry out regular monitoring inspections at appropriate intervals during the DLP to ensure the execution of all remedial works by the contractor. Prior to Project Completion the Consultant shall check that also all EHSH related tasks of the contractor are completed and the areas of activities have been reinstated by the contractor. On expiry of the DLP the Consultant shall assist the Employer in issuing a Certificate confirming that the constructions/installations were completed successfully in accordance with the specified performance level (Performance Certificate).

During completion of the Project the Consultant shall prepare the Final Project Report.

Tasks:

- Conduct regular monitoring of handed-over schools during the Defects Liability Period (12 months), conduct quality controls, inform MoETE, GAEB and MEK about defects.
- Manage Remedial Works: identify defects occurred due to responsibilities of the contractors, inform the Employer and contractors, accordingly, instruct and supervise contractors' remedial works.
- Randomly verify contractors' as-built documents, indicate corrections if necessary.
- Assist in all school sites during the necessary final acceptances, shortly before the end of the DLP, to determine defects and corrective works to be completed in a punch-list and, when these works are satisfactorily completed, countersign the Certificate of Final Acceptance, together with the Employer and approve the release of retention money.
- Ensure that monetary contractual compensations are not accepted as a substitution to conduct remedial works unless this is the last possible option. As a general practice the Consultant shall support the Employer in enforcing contractors to rectify defective or sub-standard works.

Key deliverables:

- Remedial works are managed efficiently
- Progress Reports.
- Final Project Report.

3.4 Main Tasks related to Renewable Energies & Energy Efficiency Measures

The consultant will be in charge of designing and introducing energy efficiency (EE) features in all TSS and CoCs financed under the Project which refer to the reduction of electricity consumption (demand side approach) and the introduction of RE production (supply side approach). In this section only part of his tasks is mentioned, the other part is listed in the next section on educational planning.

Tasks:

- Define a baseline and propose indicators to measure achievement through better energy efficiency. The baseline shall be established by verifying existing EE/RE measures, behaviours, and energy consumption in the existing school buildings, determine energy demand in the schools and needs of EE. Among others, the assessment shall comprise a representative energy-audit of school buildings, respective analysis of climate data, analysis of electricity bills as well as an estimation of energy consumption for at least 3 years.
- When assessing Project schools on-site, focus on relevant passive EE-measures: insufficient ventilation, missing insulation, air leaks, bulb lighting, finishes, lack of vegetation, lack of shading areas, etc.
- Consider the upgrade of existing buildings and new constructions using EE materials and systems: working with PVC and aluminum (if practicable), efficient hot water facilities (if applicable) or cooling systems, efficient lighting system and electrical appliances, use of external closures, bricklayer (installation of insulation), identification and contrast of hydrothermal parameters in materials, use of heat generation systems through thermal solar, etc.

- Propose rehabilitation and upgrade EE/RE measures for the selected school projects, which are reasonable for implementation from technical and financial point of view, using a simple cost-benefit approach. Define related EE/RE packages and corresponding costs estimations, present an analysis / comparison of energy consumption: actual vs. projected.
- Propose a technical and financial approach to install and operate RE production systems, e.g. solar panels for electricity production in the selected Project schools, including a reasonable operation and maintenance system for MoETE. The approach shall consider administrations of the buildings and of the solar systems, required regular maintenance, required staff and budget for operation of the technical installations and required training of staff. The approach shall include analysis of costs, incomes and revenues from the selling produced electricity by TSS and CoCs to the national system, accordingly the Consultant shall take in consideration the Egyptian Legislation, incl. features of educational legislation, and energy prices.
- Include basic information and learning devices of the installed EE and RE appliances of the school infrastructure in order to create and ensure learning impact and awareness at the level of students, teachers and the public using the educational infrastructure.
- Ensure that provisions regarding EE/RE measures (e.g. specification, quality) are adopted accordingly in the works and supply contracts. Monitor delivery and supply of related EE/RE equipment.
- Conduct on-site supervision through qualified EE/RE experts, ensure that EE/RE works are conducted in accordance with the requirements. Ensure that EE/RE special equipment is installed and commissioned according to manufacturer designs, standards and specifications (e.g. solar panels on the roofs and relevant control equipment).
- Monitor Handing-Over, Initial and Final acceptances of EE/RE systems. Ensure that relevant equipment is tested according to the agreed standards and according to the relevant building regulations.

Key deliverables:

- Baseline and success indicators
- Proposal on EE/RE Measures to be implemented under the Project, which needs to be approved by MoETE, GAEB and non-objected by KfW.
- Design documents of the proposed EE/RE Measures, related specimen Tender Documents and Tender Evaluation Reports.
- Specific input on the progress of implementation of EE/RE measures in the regular reporting.
- Corresponding Final Designs to be approved by MoETE, GAEB and non-objected by KfW.
- Specific input in the Project Completion Report of the Consultant according about results on EE/RE measures, including, technical condition assessments, audits and analyses on energy savings, audits and analyses (if applicable) on incomes through electric energy production, status of maintenance practices and recommendations.

3.4.1 Conduct EE/RE Trainings (EU)

In line with the above-mentioned scope, the Consultant shall conduct trainings with relevant stakeholders to increase the know-how about design, implementation and operation of Energy Efficiency (EE) and Renewable Energy (RE) in school projects.

- If necessary, provide capacity building to GAEB-staff (Governorate level) for identification and preparation of EE measures in the project schools.
- Provide capacity building to relevant MoETE -Muderiya and Idara staff on operation and maintenance of the new EE and RE technical facilities, in particular on operation of solar panels.
- Elaborate a concept of awareness campaign to train school personnel and students to raise awareness on the economic use of energy.
- Conduct workshops and elaborate training documents for GAEB / MoETE in Arabic language including executive summaries in English language.

The Consultant shall clearly specify in the financial proposal the concept, resources and amounts budgeted for capacity building measures.

3.5 Main Tasks related to Educational Planning

The Consultant will assist MoETE in developing an educational concept for the schools which will mostly be based on the ATS model, including the cooperation strategy with the private sector and a proposal for the curricula to be applied in the Centers of Competence. Thus, the Consultant will assist MoETE in the following topic:

3.5.1 With regard to both components (CoCs and TSS)

- Integrating the results and agreements of the reform process TE 2.0 in the new educational concept and curricula.
- Obtaining consensus with / advice from different stakeholders, in particular GIZ and MEK and with other donor programs EU TVET II Programme and USAID programs.
- Creating an educational concept and curricula that have an appropriate level of competence in line with the required profiles and skills required for the job-market and by the industry.
- Identifying skill gaps between the current situation and that required in the goals set by TE 2.0, referring to qualification needs: market and related workforce evolution, skill needs, identification of new emergent competences.
- In cooperation with GIZ, use / help develop a curriculum that promotes and enables skills in EE and RE for CoC level.
- In cooperation with the MoETE and GIZ use / help develop a competence-based curriculum that encourages practice-oriented trainings, in consideration also of duality and which facilitates a link with the private sector.
- Identifying needs for professional training of staff in vocational education and training, especially in the fields of EE and RE, related training programs and courses which currently do not form part of the training system, and other relevant initiatives which can be supported by the Project.
- Establishing criteria for accreditation of the training programs in accordance with CEQAT and ETQAAN standards.

3.5.2 With regard to the CoCs

- Review the educational offer of the TSS selected for development and propose adaptations for the basic levels to serve the CoC specializations
- Identify private sector partners for training
- Put up a concept for dual trainings, in school and the facilities of specific private sector partners
- Define the learning content for the specializations (RE/EE) on different levels (3+2) and develop/adapt new curricula (CBT-based) for the specializations.
- Make sure that English language classes as well as computer literacy is part of the educational offer
- Introduce didactical material and media for the specializations
- Design together with TVETA a teacher-training/upgrading program within the CoC and if possible in cooperation with the partner companies.
- Develop pedagogical/didactical and also technical training modules for in-company trainers such as foremen.
- Develop a training offer for upgrading/continuous learning for company employees in cooperation with the companies and reflecting their needs.
- Train the trainers (TVET teachers and in-company trainers) accordingly, to be able to deliver high quality teaching in the specialization.

Key Deliverables:

- Harmonized educational concept for the ATS and CoC
- Updated competence-based curricula for the new CoCs
- Concepts and training modules for practical upgrading of teachers and in-company trainers
- E-learning modules for RE/EE

3.6 Networking with the private sector and others

3.6.1 Support in COC governance

CoCs are governed by PPP boards. For the two already identified CoCs, it is expected that MEK and MoETE will enter a Public Private Partnership (PPP) based on the ATS model or similar Agreement for the operation and management of these schools before completion of the upgrade process. For the third CoC a corresponding partner must be identified. This PPP agreement for all CoCs might include a company or a group of companies if such partners can be identified until then. If no company can be identified, the agreement with MEK will also serve to identify such partners for the long-term operation of the school. GIZ has engaged a consultant to define the governance and management structures of CoCs. Once approved by MoETE, this will be the basis also for the project CoCs.

Main tasks:

- Assist on drafting a long-term contractual agreement between the MoETE and private providers for the delivery of educational services with sustainability as a main feature.
- Assist MoETE in identifying private sector partners for the third CoC.
- Coordinate with MoETE the timely identification of corresponding private partner to make sure that the agreements are in place once the school are ready to operate.
- Follow up on the development of similar agreements of MoETE which are currently supported by GIZ.
- Building on the existing ATS framework, propose to MoETE a framing structure through which to bring the public and private sectors together to complement each other's strengths in the financing and provision of education services.
- Make sure that responsibilities regarding day-to-day management of the infrastructure and/or service are clear and correspond to the overall tasks and services offered by the CoC

Key Deliverables:

- Private providers for operation and maintenance of all CoCs have been identified
- Final PPP model agreed by MoETE.

3.6.3 Support sustainable operations of the CoCs

High quality of technical teaching is expensive: Qualified teaching staff, running cost, training material, maintenance of building and equipment as well as periodic re-investments into new equipment ask for substantial budgets. In order to operate properly, the CoCs need sufficient public budget funding but also income from activities and private sector contributions (in cash or kind). In order for the private sector to contribute, the CoC needs to be attractive for the private sector and responding to the private sectors immediate needs. The consultant in cooperation with MEK and MoETE shall therefore develop an operational concept and business plan that reflect the extra-curricular services and income generation activities of the CoCs. Such services may reach from tailor-made trainings for industry employees, renting out of workshops or equipment, organization of trade and job fares, applied research activities with companies, business development and start-up promotion etc.

Main tasks:

- Ensure through the PPP sufficient maintenance, safety, efficiency, and capacity of the new physical infrastructure financed by the Project. Make sure that responsibilities regarding day-to-day management of the infrastructure and/or service are clear.
- Creating an operation concept for the new CoCs together with MEK and in close coordination with the GiZ EPP 3. The concept is to maintain the entire extra-curricular offer.
- the consultant is expected to design a set of offers for the CoC attractive for the private sector and a pricing for these offers. The entire operations of the CoCs are to be laid down in a business plan, to be elaborated in cooperation with MEK.
- Support and train the Management staff of the CoC in establishing networks, establishing an offer in services (according to the demand)

- Design a financial and income-generating framework and support the drafting of needed legislation that allows the CoC to create income and use it flexibly according to the purpose of the CoC.

Key deliverables:

- Operational concept
- business plan for each CoC.
- Financial and income-generating framework

3.6.3 Networking and community embedding

In order for the CoC to fulfill its role as lighthouse and sectoral/local development hub, the CoCs need to closely cooperate with the respective business community locally and nationally. In order to stay technically up-to-date and to offer relevant services to the private sector, it will be very beneficial for the CoCs to cooperate with academia like research organizations. For example, the TU Berlin Campus in El Gouna (Hurghada) and the Energy College from Aswan University (Aswan) offer such possibilities. The other important partners of the CoCs will include; the community including surrounding schools, other schools serving the sector nationwide as well as social partners like private sector representative bodies (chambers and sector skills councils). In that sense, cooperation with neighbouring technical schools (as well as other schools serving the sector) are foreseen and the active participation of the community in the program offered by the CoC, thus improving the reputation of Technical Education in Egypt. MEK will be an important partner with the necessary connections and experience to establish this network.

Main tasks:

- Identify research and higher education facilities in the relevant sector, who would be interesting partners for the CoC and elaborate a cooperation strategy/plan
- Identify TSS and VTCs in the surrounding of the CoC who would qualify as network partners. Develop a cooperation strategy (e.g. on technical support by CoC or teacher upgrading)
- Develop and test a strategy for community embedding of the CoC, by offering services to the community (e.g. renting of halls), organizing school events and “open school days”
- Identify sectoral and national partners (other technical schools serving the sector or sector-specific social partners representing the private sector) to create the role of the CoC as a sectoral (not just a local) lighthouse.
- Cooperate with the CoC management and provide training if necessary, in order to take on the networking activities

3.7 Communication and Visibility

The Consultant will ensure that the German FC and EU's supports will be visible to all direct beneficiaries - in particular on school buildings. In addition, all further information material distributed in schools through various visibility materials will bear the German FC and the EU logo in compliance with the ATS visibility guidelines.

The Consultant will develop a Communication and Visibility Plan during the inception phase of the project. The Consultant will prepare and implement the following indicative visibility and communication activities and materials, amongst others:

- Signage post/plates acknowledging EU funding installed during construction, on each construction sites and at the hand-over, on each EU funded school.
- Signing, ground-breaking and hand-over / inauguration ceremonies.
- Online and print information on project scope and progress.
- Photo and video material.

German FC, EU and ATS Visibility Guidelines will be followed by the Consultant in the preparation of all public documents and materials, as well as for the acknowledgement of the funding on equipment - where appropriate. EU visibility shall also be ensured with the flag utilized according to the EU Visibility Guideline.

Additional detailed information regarding the requirements for the communication and visibility measures will be provided by the EU upon selection of the Consultant. The consultant shall report regularly on the Communication and Visibility activities.

Due to the importance and scope of these measures, up to 250.000 EUR for communication activities in schools as part of the Consultant's Contract shall be included in the financial offer as a Provisional Sum. In addition, another 250.000 EUR are budgeted for financing of general communication features and related measures.

4. COST AND FINANCING

4.1 Tentative Cost and Financing of the Project

The estimated total costs ('Total Costs') for the Project underlying the Project Appraisal add up to EUR 50 Mio. The German Government, through KfW Development Bank, will provide grant funds of up to EUR 18 million and a loan of EUR 20 million.

In addition to the German funding, the EU, through KfW Development Bank, will provide approx. EUR 13 million as a NIP-grant, whereas EUR 4 million are reserved for implementation of EE and RE measures in the ongoing primary school's projects QESP. This mean that EUR 9 million of the NIP-grant are available for implementation under this TVET project.

The Government of Egypt (GoE) will contribute approximately the equivalent of EUR 3.0 million as in-kind contribution. This shall comprise the provision of the land required for school construction and extensions, the connections to basic infrastructure as well as the costs of the PPP Contract between the GoE and the private sector. If any duties or local taxes will be due under the Project activities, those costs shall be fully borne by the Egyptian side.

In summary, the following total funding shall be available:

FC grant funds:	**EUR**	**18.0 million**
FC loan:	**EUR**	**20.0 million**
EU grant funds:	**EUR**	**9.0 million**
Egyptian Contribution (in kind):	**EUR**	**3.0 million**
TOTAL	**EUR**	**50.0 million**

Total funds for activities under the Project are therefore about EUR 50 Mio., whereas the respective cost of consulting services shall be financed from the FC grant funds.

The Consultant must manage and optimize the Cost and Financing Plan under the prerequisite that the number of CoCs under the Component 1 is fixed to 3 units. Since Component 2 is regarded as an "open Programme" the actual number of measures to be financed under this component will be determined during implementation and will be limited through the given funding framework.

4.2 Financial handling of the Project

The Consultant shall support MoETE in the financial handling of the FC and EU funds vis-à-vis KfW. Furthermore, the Consultant shall take in consideration that the project components will have separate accounts with separate authorized representatives acting on behalf of MoETE, namely, MEK for Component 1 and GAEB for Components 1 and 2.

Accordingly, the Consultant will:

- Keep track of the project's Cost and Financing Plan separately for the FC grant funds, FC loan funds and the EU funds.
- Prepare in advance a schedule of the disbursements planned, with a respective list of contracts broken down by main cost categories. For the contracts concluded in Component 1, KfW shall be furnished with a copy of each of said contracts and of any amendment to any of such contracts. For the contracts in Component 2, KfW shall be furnished with a list of all contracts concluded containing the following data: contract date and value, designation of good/service, contractor, reference number, amount to be financed from the Financial Contribution and EU funds.
- Ensure that payments to contractors, suppliers and service consultants are being affected from the corresponding budget lines (FC and EU budget plans);
- Keep separate records of all disbursements effected out of the Disposition Fund (FC and EU accounts); and
- Support MoETE and GAEB in establishing requests for replenishments of the Disposition Fund (FC and EU account).

4.2.1 Disbursement Procedures under the Project

There are different disbursement procedures that will be applied for the Project. The detailed procedures are described in the Separate Agreements of the Project to be signed between KfW, and MoETE. The supplementary conditions of KfW for “Disbursement Procedures” (annex of the Separate Agreements) regulate the procedures governing the use of the different payment methods.

Planned disbursement procedures under the Project:

- Payments of the Consultant’s contract subject of this tender will be disbursed via Direct Disbursement Procedure. The Consultant must submit invoices to MoETE, based on which MoETE will send a signed withdrawal application to KfW. If necessary, the Consultant will assist MoETE in the preparation of the withdrawal application. Only once this request for disbursement is received by KfW, payment to the Consultant can be affected.
- Payments of construction contracts under Component 1 as well as of machines supply, RE and EE equipment supply of both components shall be disbursed according to the Simplified Direct Disbursement Procedure.
- Payments of construction contracts under Component 2 as well as furniture contracts of both components shall be disbursed according to the Disposition Fund Procedure (Special Account) provided that the value of each underlying contract does not exceed EUR 350.000 or equivalent.
- For contracts exceeding EUR 350.000 the Simplified Direct Disbursement Procedure shall be applied for all payments.

In addition the Consultant has to manage the project expenses in line with the Cost and Financing Plan keeping in mind that it will have to be possible to attribute each expenditure to its respective line in the budget of the FC grant funds, FC loan funds and the EU funds.

4.2.2 Disposition Fund (Special Account)

One special account will be opened in Egypt for payments of construction works under Component 2 and of furniture contracts under components 1 and 2, to which an initial amount will be deposited by KfW. Ideally, the accounts shall bear interest. MoETE and GAEB will have the right to withdraw from this account to pay invoices received. MoETE and/or GAEB will be responsible for requesting KfW for a regular replenishment of this Disposition Fund but shall be supported closely by the Consultant.

An independent external auditor (paid out of Project funds) shall annually examine the management of the Disposition Fund and report on the audit findings to KfW and to MoETE.

The Consultant will not be allowed to formally administer the Disposition Fund as an authorized third party, but the requests of replenishment shall be countersigned by the Consultant. Thus, the Consultant shall:

- Assist MoETE so that payments to contractors are being affected according to the relevant supply and service contracts
- Supervise that an adequate internal control system e.g. for the release of payments is in place within MoETE.
- Keep records of all disbursements effected out of the Disposition Fund according to the supply and service contracts financed out of the disposition fund and the cost categories agreed upon.
- Support MoETE in preparing requests for replenishments of the Disposition Fund in order to maintain an adequate liquidity position.
- Prepare the statements of expenditures to be sent to KfW as evidence of the use of funds together with supporting documents e.g. bank account statements.
- Ensure a periodical audit of the disposition fund by an independent auditor on the basis of Terms of Reference provided by KfW.
- Inform MoETE and KfW immediately if relevant problems occur.

Details concerning the Disposition Fund Procedure are described in the “General Terms for Disbursements under the Disposition Fund Procedure” ("General Terms", attachment to the “Disbursement Procedures” of the “Special Agreements”).

4.2.3 Supervision of guarantees

The Consultant shall ensure that any contracting party, contracted to provide consulting, supply or construction services under this Project submits the guarantees as required pursuant to the relevant KfW's Procurement Guidelines in the amount and at the time stipulated there.

The contracting party (MoETE, MEK or GAEB) shall ensure that these guarantees will remain in place until the complete fulfilment of all claims under the supply and service agreements secured by such guarantee.

The Consultant shall support MoETE, MEK and GAEB in fulfilling these obligations. This includes:

- At the time of planning of the procurement, the Consultant shall identify all relevant contracts within the scope of the above-mentioned obligations and shall assist the relevant contracting party in receiving guarantees complying with the relevant guidelines.
- The Consultant shall ensure that guarantees are issued in favour of the Employer and that the specified amounts are payable to the respective Project's special account, in case of Disposition Fund Procedure; or to KfW's account in Frankfurt am Main, in case of Direct Disbursement Procedure.
- As part of the regular reporting, the Consultant shall inform in table form about all existing guarantees and point separately to the guarantees which will expire within the next reporting period and which must be extended. If necessary, prior to the expiration of such guarantees, the Consultant shall further assist MoETE, MEK and GAEB in obtaining from the guarantor an extension of the guarantee compliant with the contract.
- The Consultant shall inform MoETE, MEK and GAEB as well as KfW immediately and in a timely manner before the expiring of the guarantee if relevant problems occur with the extension of the guarantee and if necessary will assist the MoETE, MEK and GAEB with the call on the guarantee.

5. REPORTING AND DELIVERABLES

The Consultant will submit the below mentioned reports in the English language. All reports have to be prepared in DIN A4 format. Plans and drawings shall be prepared as per requirements of relevant authorities of Egypt. All documents (reports and drawings) must be provided in digital format. Time for comments and approval shall be up to four weeks after submission. Final reports shall be submitted 2 weeks after receiving comments on the draft.

The Consultant is asked to prepare each report including sound and relevant data to the project. Information contained in the reports shall be presented in a clear and concise way, in sufficient level of detail but it should not be unnecessarily longer than required.

Generally, each report shall contain an Executive Summary situated at the front of the document providing: objectives, an overview of the elements under study, a brief overview of the analysis, corresponding actions undertaken, summary of potential options and alternatives, main results, conclusions and recommendations.

5.1 Inception Report (IR)

The IR shall be submitted in two hardcopies and in electronic form 15 calendar days after execution of the Inception Workshop envisaged at the end of the Inception Phase, but in any case, within not more than six months after commencement of consultancy services. This Report shall in general provide the following information:

- Outline the proposed actual Project implementation, taking into consideration latest developments regarding Project's indicators and the ongoing Technical Education 2.0 reform process in Egypt.
- A clear and concise proposal for the development of three Centers of Competence under Component 1, including results of verification of the two pre-identified technical schools in Hurghada and Eneiba, alternatives if any, and final selection of the three schools to be upgraded into ATS and CoCs, all accompanied by a clear justification and recommendation for the way forward.
- An updated Project Long List TSS schools under Component 2, which shall be considered for rehabilitation and upgrade into ATS, together with the relevant documents and justifications.
- The Selection Criteria and Application Process, which shall be followed to final select ATS under implementation of Component 2.
- Results of the fast-track analysis, including a proposal of 2 – 3 schools to be implemented under a fast-track approach immediately after the Inception Phase.
- An outline for possible cooperation with GIZ, especially under the fast-track approach as well as a general outline (with focus on Pillar 4).
- The baseline for the future Tracer Study and the Mid-Term Review
- A Communication and Visibility Plan (see 3.6)
- A Gender Strategy applicable during implementation of the Project
- A revised Project budget (Cost and Financing Plan) countersigned by MoETE.
- A revised Project Time Schedule.
- A revised scheduling of Consultant services, if necessary
- Propose evaluation and monitoring structures.

The Final List of ATS (Component 1) and Selection Criteria & Application Process (Component 2) can also be submitted for non-objection separately of the Inception Report if they are ready beforehand.

The IR, the list of ATS, the project Selection Criteria and application documents require MoETE's approval and KfW's non-objection.

5.2 Quarterly Progress Reports (QPR)

The QPR shall be elaborated on basis of a format to be agreed upon with MoETE and KfW. The QPRs shall highlight, amongst others:

- Major developments in the project context (reform progress, cooperation with other donors)
- Overview over project activities
- Assessment on status of implementation schedule, cost and financing, ESHS relevant aspects
- Difficulties and problems encountered – and actions to be taken (by whom?).
- summarized progress and effect of the EU funding of the Project The reported status quo shall be set into reference with the situation at the beginning of the Project. A special emphasis shall be given to risks and obstacles impeding the timely implementation of the Project. Wherever possible, proposals for problem solutions shall be given. The QPR shall be submitted (by email only) within not more than five calendar days after the end of the reporting period (Details on the required aspects within the QPRs can be found in Annex 3).

ESHS relevant aspects

In the QPR the consultant shall report separately on Environmental, OHS, Labour and Community Health and Safety issues. Besides, severe accidents (fatalities), severe injuries to persons, serious environmental impact and other serious damage shall be reported to KfW within 72 hours.

The QPRs shall be regularly submitted during project implementation until completion of all main activities (i.e. completion of works), excluding the Defects Liability Period (DLP).

5.3 Annual Progress Reports (APR)

The APR shall summarize the project progress of one year on a more analytic and less detailed level. The APRs shall highlight, amongst others:

- Overview and analysis of sector developments and project activities within the last year
- Lessons learned and proposals for adjustments, if necessary
- Financial Overview
- Comprehensive overview over Consulting activities, including staffing schedule
- Updated and commented time schedule
- Updated results matrix
- Outlook for the next year including major upcoming activities, challenges, and planned disbursements

The APR shall be submitted (by email only) within not more than 14 calendar days after the end of the reporting period (Details on the required aspects within the APRs can be found in Annex 3).

5.4 Construction Monitoring Reports (CPR)

Preferably CPRs should not be considered as a separate report but rather as an additional input to the quarterly reports (QPR) in order to avoid duplications. CPRs content shall be included in the QPRs on a quarterly basis only once the construction activities have started and thus, this input will be submitted together with the corresponding QPRs five calendar days after the end of the relevant reporting period.

CPRs input shall give an overview of ongoing and planned construction activities for each component. Ideally the input will be divided in a narrative section together with a summary table presenting information for all ongoing construction sites.

Narrative section (one- or max. two-pager):

- A summary of the overall progress made in each component of the project against the time schedule.
- An explanation of the causes of any delays.

- An assessment of any quality issues.
- An assessment of any health and safety issues.
- An assessment of design issues or any other issues that need to be addressed and proposals for addressing them.
- Look ahead to the next period
- Relevant progress photos (in the Annexes of the QPR / CPR).

Tabular section:

- Tabular presentation of each construction site per component
- Relevant data to be included in the table: school names and official ID-codes, progress of construction (in total, in the relevant reporting period and in the previous reporting period), expected vs. agreed completion dates, agreed contract values, executed payments, etc.
- Status of initial and final acceptances

5.5 DLP-Monitoring Reports (DLPMR)

DLPMRs shall be submitted to MoETE and KfW (by email only) on a quarterly basis and within not more than five calendar days after the end of the reporting period. DLPMRs shall give an overview of monitoring activities, management of remedial works, final acceptances, and status of final payments. The DLPMRs shall be submitted during DLP only.

5.6 Project Completion Report (PCR)

The Consultant shall be responsible for coordinating and compiling the Project Completion Report (PCR) on behalf of the Employer. The PCR will be submitted upon Initial Acceptance and Handing-over of all building sites and will contain results of the finalized construction works (final cost, specific cost per sqm of built-up area, cost per student, quality controls performed, etc.), capacity building and backstopping measures implemented, goals achieved, data relevant for performance indicators etc. Also, the PCR shall document any issues occurred during the acceptance's procedures and corresponding remedial works, if applicable.

All deviations from the original Project plan (as shown in the Inception Report) shall be clearly shown and explained. A summary OHS report with all OHS statistics and lessons learnt shall be included as well. The PCR shall also document issues associated with Environmental, Labour and Community Health and Safety (including stakeholder engagement and grievances) topics.

In particular deviations, if any, from the original Project concept shall be highlighted in the PCR. In each case, the deviations should not only be defined quantitatively, but the reasons / explanation for such deviation will be given.

In a final chapter, the Consultant will briefly discuss the "Lessons Learnt" - i.e. what went wrong, what should have been done differently, which changes should apply if there were to be a new Project, etc.

The PCR shall be submitted to MoETE and KfW in two copies each - latest within one month after having issued all Certificates of Initial Acceptance.

The PCR requires MoETE's approval and KfW's Non-Objection.

Further details on the required aspects within the PCR can be found in Annex 3).

5.7 Final Project Report (FPR)

The Consultant shall be responsible for coordinating and compiling the Final Project Report (FPR) on behalf of the PEA. The FPR will be submitted at the end of the Defects Liability Period (DLP), summarizing:

- Achievements and problems encountered since handing-over of the buildings until end of the DLP.
- Measures taken to solve these problems (by whom and when?).

- Status and description of Final Acceptances.
- Remedial Works done since Initial Acceptance.
- Status of payments and retentions.
- Outstanding tasks (and agreements on who will implement them and when).

The FPR requires MoETE's approval and KfW's Non-Objection.

5.8 Documents Subject to Approval and Non-Objections

The following documents prepared by the Consultant are subject to approval of MoETE and non-objection of KfW. They shall be submitted by the Consultant according to the suggested reporting schedule. The Consultant may propose a different reporting schedule in which case, reasons for this shall be provided:

- Inception Report, no later than 6 months after commencement of the services
- School selection reports for components 1 and 2
- Preliminary and Final Designs
- Variation Orders of ongoing contracts with single or cumulative value of 20% of the original agreed contract sum.
- Any Variation Order of ongoing contracts with a value of 25.000 EUR.
- (Specimen) Tender Documents for procurement of goods, supply or services
- Tender Evaluation Reports
- Final drafts of Contracts before signature if applicable according to Separate Agreement signed between MoETE and KfW
- Project Completion Report
- Final Project Report

This list is not conclusive and may be appended throughout the Project.

6. PROJECT IMPLEMENTATION SCHEDULE

Total Project duration (FC and EU measures) is estimated at **48 months** plus 12 months Defects Liability Period (DLP) ideally starting from the second quarter of 2021. The duration and length of the Consultant's advisory input(s) shall be proposed by the bidder in the proposed methodology and in considering the available budget.

While the FC and EU measures shall be implemented generally in parallel, the Consultant shall take into consideration that especially the duration of the EU Component is strictly binding.

A summary breakdown to the following project-phases is suggested:

Both Components
- Inception Phase (see § 3.2) 6 months

Component 1 (New CoCs)
- Design & Tender of construction 10 months
- Construction work 18 months
- Tender & delivery of equipment & furniture 10 months

Component 2 (Rehabilitation of TSS)
- Application & Selection of schools 8 months
- Design and tender of construction 9 months
- Construction works 18 months
- Tender & delivery of equipment & furniture 9 months

Both Components
- Defects liability period 12 months

Note: The different project phases are meant to run in parallel.

In addition, the Consultant will reflect in his work plan specific milestones and durations for Training, assistance on curricula development and ESHS monitoring.

In the *Technical Proposal* the Consultant shall review the *Tentative Time Schedule* under **Annex 4** and present an updated and detailed *Time Schedule,* also indicating interdependencies between project activities and relevant milestones to be achieved.

Also, the Consultant shall reflect in his work plan specific milestones and achievement for the implementation of the EU measures.

7. STAFFING

The Consultant and its proposed team shall be experienced in the procedures of German FC and the EU projects. The Consultant must demonstrate that the Project team has suitably qualified and experienced experts among its key personnel, who shall have the appropriate level of academic and professional qualifications and expertise gained in similar projects and countries to be able to implement the tasks and to deliver the results as required in these ToR with respect to the management requirements.

CVs of key and non-key experts shall be included in the Technical Proposal, clearly structured in:

- Team Leaders and long-term Key Experts,
- short-term Key Experts,
- and national Experts.

7.1 Staff Qualifications and Responsibilities

The Consultant shall include in the Project team amongst others at least the staff with qualified expertise/ experts as indicated in the table in ANNEX 4. Bidders are free to allocate specific person-months for each position according to their individual staffing schedule and estimate. Sufficient working time in Egypt is required as outlined in ANNEX 4 for some of the key experts.

The consulting team shall have expertise in the TVET sector, especially regarding procurement of TVET equipment. Specific experience in selection and specification of modern training equipment, particularly in the field of RE/EE, tools, teaching aids and didactic material for the trades selected as well as in implementation of civil works is required. In his Technical Proposal, the Consultant should propose a personnel concept that ensures coverage of all relevant Project tasks a*s* outlined in § 3 of these *Terms of Reference*.

Additional areas to be covered may be proposed by the Consultant in accordance with his / her Technical Proposal and finally agreed on during Contract Negotiation and specified during Inception Phase.

The interface and share of responsibility between the planning / conceptual and the architectural / engineering tasks, the period of work, number of Key and Non-Key Experts (stating role and specific task) shall be defined in the Consultant's Technical Proposal for the entire period of services. It is expected that enough on-site presence of qualified key personnel will be foreseen by the Consultant (this shall be demonstrated in the working schedule as an important evaluation criterion: working time on-site and in the home office).

All experts shall have excellent knowledge of English, both written and spoken. In addition, they shall demonstrate experience of working in a team and shall be able to adapt to local project conditions (experience in working in partner countries). A description of the individual tasks and responsibilities of the Key and Non-Key Expert shall be included in the Technical Proposal of the Consultant.

The evaluation of the staff will be done on basis of the criteria in Section II DATA SHEET refined by more detailed criteria in ANNEX 5.

Fluent English knowledge is required for all key staff.

The **Senior International Project Manager** shall be the long-term international Team Leader – with a strong background in the management of complex projects and especially with a large experience in the management of projects with a complex stakeholder structure. The expert shall have a University degree (preferably master's degree or equivalent), at least 10 years of professional experience and be fluent in English. The major tasks of the Team Leader will be to conduct the entire coordination, management, monitoring and quality assurance of the Project tasks as well as being responsible as main counterpart for the cooperation with other stakeholders working in the TVET sector (existing and future sector institutions) and in the ongoing reform process TE 2.0. Thus, it is expected that the Team Leader will not be a classic infrastructure expert, but rather an expert in the field of handling complex activities, challenging tasks and with excellent skills in negotiation, communication and stakeholder coordination, preferably with experience in reform processes. Experience in the region (Egypt / Middle East) is required.

The **International Infrastructure Manager** (could be also suggested as Deputy Team Leader) will assist the Team Leader in achieving the Project goals, especially with regards to rather more technical tasks. The expert shall have a University degree in civil engineering or architecture, at least 8 years of professional experience and be fluent in English. Thus, the International Infrastructure Manager shall bring to the team profound experience in the design and implementation of complex infrastructure & construction projects, especially in the field of school construction and preferably in the field of TVET.

In addition, **both experts** mentioned above (Senior International Project Manager and the International Infrastructure Manager) shall combined (i.e. one or the other expert) demonstrate relevant experience in the following fields: project identification measures, projects application procedures, capacity building measures and trainings, preferably in the field of education and TVET. At least one of these experts shall have proven experience with management of EU projects.

As part of the management team and with the goal of promoting young professionals, both experts shall be supported by a **Junior Project Manager** (international expert), who will assist in coordination, management and monitoring of the Project tasks. This expert shall have a University degree (preferably master's degree or equivalent), at least 3 years of professional experience (project experience) and be fluent in English. This position can be a part-time position with rather low presence in Egypt. The Consultant is free to define in detail in the Technical Proposal the exact task to be assigned to the Junior Project Manager.

The **TVET expert/educational planner** shall be a senior international experienced specialist in planning of educational programs and curricula, in technical and vocational education, and especially with regard to RE/EE. This expert shall have a University master-degree, at least 8 years of professional experience and be fluent in English. This expert shall demonstrate experience in the TVET sector (at least 4 years) and excellent negotiation and communication skills.

The **organizational/Business development expert** shall be responsible for planning the extra-curricular and income generating activities of the CoCs, so that the CoCs can offer attractive services to the needs of companies. He shall also develop a business plan for the CoCs. This expert shall have a University master-degree, at least 5 years of professional experience and be fluent in English. He shall have experience with TVET, business incubators and industry parks as well as fund raising.

As part of the team one **expert in Renewable Energy and Energy Efficiency** will be proposed by the Consultant. This expert will be responsible for planning of RE / EE Measures and training on RE / EE equipment. This expert shall have a University master-degree, at least 10 years of professional experience and be fluent in English. In addition, this expert shall be an experienced professional in capacity building and training measures.

One **ESHS expert team**, composed by two or max. three experts (in any case the team will be evaluated as one position). At least one of the experts of the ESHS team must be an international expert ("ESHS leader") and will be responsible for quality assurance and compliance with international ESHS standards during implementation of the Project. The other(s) expert(s) must have experience in local ESHS policies. All the experts shall have University master-degrees, at least 5 years of relevant professional experience in ESHS field and be fluent in English. One of the experts shall have at least 10 years of experience. In particular, the team must demonstrate combined experience in the fields of:

a) Environmental and Social Impact Assessment,
b) ESHS project screening and
c) Occupational Health and Safety.

At least one of the experts shall demonstrate experience in ESHS monitoring on the construction sites.

The **International Architectural Advisor (IAA)** shall be experienced and qualified in the design field of gender-sensitive and modern educational infrastructure in emerging countries. The expert shall be responsible for advising on the design and quality of all school designs. He will advise and closely collaborate with the national engineers and architects within the team, planning firms, MoETE, and representatives of MEK and GAEB. His role will be to assist in

a) Developing the concepts, designs, supervision, and quality control of the School Designs, with particular emphasis on the planning and design of state-of-the-art schools and

b) Providing assistance to MoETE, MEK and GAEB in revising educational and technical standards for school buildings.

The IAA could act on basis of various short-term assignments - with an intensive presence in Egypt at least during the planning and design phases of the physical infrastructure.

In addition, the core team has to include one **National Architect**, one **National Civil Engineer** and one **Senior National Construction Supervisor**. These national experts must be fluent in English and have extensive experience in the design and construction of infrastructures and building projects in Egypt or the Middle East. They shall have a university degree and generally they should prove at least 8 years of professional experience. These experts shall be involved in the planning and implementation of the school infrastructure and be able to take over responsibilities when needed.

The International and National Key Experts will be supported by national and international short-term experts, as required, especially:

- Communication and visibility expert team (see § 3.6 Communication and Visibility)
- One International Expert in Planning and design of TVET equipment
- One landscape architect shall support and approve the landscaping designs
- Experts in gender matters and inclusion
- One national/international Structural Engineer
- One expert in Operation and Maintenance
- Social Experts (nationals or internationals) as required for implementation of setting the team for the technical assistance and training measures
- National site supervisors and additional national construction supervision staff e.g. electrical engineer, water and sanitary engineers, static engineer, geological & geotechnical experts, topographers, etc.
- One professional translator (Arabic - English, and vice versa).
- Additional staff, as may be required.

The National Experts shall be closely involved in both the design and Project preparation phases as well as in the management/ supervision of construction activities, the supervision of training and backstopping measures, etc. – and / or will assist PEA in these activities.

The Consultant will include in the Technical Proposal a preliminary approach for communication and visibility measures. Accordingly, in the Financial Proposal the Consultant will include a Provisional Sum of up to EUR 250.000 for communication and visibility.

7.2 Staff Requirements

Bidders are free to allocate specific person-months for each position according to their individual staffing schedule and estimate.

The Consultant shall make efficient use of staff by proposing synergies between the two components and thus, avoid duplication of staff. When preparing his offer, it is the duty of the Consultant to revise the suggested staff-input and to enhance / complement it according to his methodology, his experiences in similar projects and to the best of his knowledge.

It is assumed that the proposed experts will be available within the period of validity of the proposals and during the execution of the consultancy services. If the replacement of a Key Expert is required, the Consultant shall provide adequate justification and evidence. The request of replacement will be subject to the approval of the Employer and non-objection of KfW. In any case the replacement expert must have equal or better qualifications and experience as those of the originally proposed expert. If the replacement is accepted, no changes in the technical or financial proposal will be permitted.

The Consultant is encouraged to include junior staff in his team subject to available guidance within a team headed by senior professional staff.

Besides the key experts, the Consultant shall provide backstoppers for supervision, monitoring and quality assurance of the Consultant's services from the home office to support the team. The cost of the

backstoppers must be included in the rates of the other experts. Backstopping staff in the home office is expected to have substantial experience in the following fields and tasks:

- KfW rules and regulations, including procurement regulations.
- Quality assurance of tender documents and processes.
- Management / implementation of TVET Infrastructure Projects.
- Technical vocational education and training in general.

ANNEXES to the Terms of Reference

ANNEX 1: ESHS Classification of Contracts

Projects financed by KfW are categorized in Environmental and Social (E&S) categories A, B+, B or C depending on their adverse E&S risks and impacts. This categorisation takes place at an early stage and applies to the overall Project. However, Projects typically comprise several components and specific individual Contracts are awarded to Consultants, Contractors, firms or suppliers. The categorisation of these individual Contracts which may have different Environmental Social and Health and Safety (ESHS) risks and impacts compared to the overall Project (e.g. a separate supply Contract for computers, or a separate Small Works Contract for the rehabilitation of a guard house may have low risks and impacts, whereas the overall Project may be a large hydro power project categorised as high-risk A).

Therefore, when designing the Requirements for the Bidders or the ESHS Specifications for each particular Contract of a Project, the potential ESHS risks and impacts of this individual Contract need to be taken into account. This is particularly relevant for the occupational health and safety aspects (OHS) on the construction site and, if relevant, in worker camps during Contract implementation.

Depending on the potential ESHS risks and impacts and the estimated Contract size, ESHS Requirements for Bidders might be classified as low, medium or high and thus the Requirements need to be adjusted accordingly.

In the context of this section the ESHS classification levels are defined as follows:

Level ❶ low = relevant to Contracts with low ESHS risks and impacts

Typically for Contracts with minor ESHS construction related risks and impacts. During the implementation of the Works only limited ESHS measures are required, e. g minor Works and small scale rehabilitation measures; few workers; minimal transport requirements; no worker camps required; no hazardous wastes; no working at heights or confined spaces; no heavy construction machinery; no external environmental risks like flooding.

Level ❷ medium = relevant to Contracts with medium ESHS risks and impacts in addition to ❶

Typically for Contracts with moderate ESHS impacts and risks. During the implementation of the Works standard ESHS measures are required, e. g. approximately less than 100 workers; transport of hazardous material; general OHS risks (welding, hazardous material); working at one to two storey buildings.

Level ❸ high = relevant to contracts with high ESHS risks and impacts in addition to ❷

Typically for Contracts with significant or long term ESHS risks and impacts. During the implementation of the Works extensive ESHS measures are required, e. g. approximately more than 100 workers; worker camp(s) required; significant risks at complex work sites(s); increased heavy load traffic.

ANNEX 2: Structure for Works / Employer's Requirements of the Bidding Documents

The Bidding Documents shall be built up in a modular way, being a kind of "building set" easily adaptable to any requirement by adding/deleting according chapters of specification parts and data sheet parts.

- Repetitions of similar text passages shall be avoided, common requirements shall be superordinate and concentrated
- Structuring of Technical Specifications and related Data Sheets shall be product-oriented with regard to today's supply chains; specifications for particular equipment shall not be described in multiple different chapters but grouped together. The structuring shall allow the Contractor easily to extract parts thereof and give according orders to subcontractors
- No transcriptions of standards shall be done but only be referenced to such standards
- Designations shall be used in conformity with according definitions in the relevant standard
- Test requirements shall be listed and also referenced to according standard(s).

The Scope of Work shall define what to provide, the GTR, PTR and specifications shall define how to provide, and the Data Sheets shall define the technical properties to be provided.

For the Bidding Documents the following structure as a strict recommendation shall be considered:

A. Scope of Work (SoW)
   SoW shall give a project description and shall define in a quantitative manner all the services, works and goods to be provided and performed by the Contractor, if applicable sub-structured by different Lots

B. General Technical Requirements (GTR)
   GTR shall contain inalterable and general requirements applicable to all and any kind of Technical Specifications and Technical Data Sheets (e.g. standards, system of measurements, reporting, meetings, documentation, corrosion protection, packing and storing, basics of tests and inspection, quality, …)

C. Particular Technical Requirements (PTR)
   PTR shall contain all project specific and country specific requirements applicable to all and any kind of technical specifications and technical data sheets (e.g. language, national standards, general data [environmental, electrical, insulation coordination, distances and clearances, operating voltages, fire ratings, climatic and environmental conditions, colours, marking and labels, document submittal schedule, site infrastructure, …)

D. Technical Specifications (TS)
   TS shall contain all basic requirements related to the particular equipment and works without mentioning any particular and variable technical data (functionality and basic requirements of civil works, transformers, auxiliary supply, …). The TS shall be clearly sub-structured per major equipment and works

E. Data Sheets (DS) and Bill of Quantity (BoQ)
   DS shall contain all particular technical data defining the particular technical data of a specification (e.g. minimum failing load, creepage distance, …), BoQ itemises materials, parts, and labour (and their costs). The DS and the BoQ shall be clearly sub-structured per major equipment and works

F. Tender Drawings
   Tender Drawings shall contain all necessary drawings (e.g. basic plant layout, single line diagram, …)

G. Environmental Requirements (if not included in GTR and PTR)
   probably split again into general and particular requirements, furthermore detailed ESHS requirements might be added here as stipulated by KfW Competence Center Climate and Energy and KfW Competence Center for Environmental and Social Sustainability.

ANNEX 3: Reporting Requirements

All reports shall be submitted in English Language.

Below, a short summary of main aspects to be included in individual reports. This Annex is subject to further detailing and forms an integral part of the Terms of Reference.

Regular Reporting

As part of the regular reporting, PEA shall provide the following reports to KfW:

- Inception Report (Six Weeks after IC has been mobilized
- Brief Monthly Reports
- Quarterly Progress Reports (QPR)
- Annual Progress Reports (APR)
- Project Completion Report (PGR)
- Final Project Report (FPR)

The **Inception Report (IR)** shall be submitted not later than three months after the signature of the Separate Agreement and shall contain the following information:

- Sector situation:
  - Political developments (on national or regional level) that might have implications on the implementation of the project and its intended outcome.
  - Any conflicts or other potential critical developments observed.
  - Relevant activities by other donors in the project area in the field of TVET in Egypt.
- Progress and developments regarding the project set-up:
  - Description of any changes in the project's implementation structures.
  - Description of project staff including responsibilities.
  - Overview over planned activities by PEA.
  - Overview of the project participants, their tasks, responsibilities and team coordination
  - Updated budget, if applicable.
  - Updated time schedule, if applicable.
  - Review and update initial scheduling of Consultants services

The **Quarterly Progress Reports (QPR)** shall be submitted to KfW not later than 5 days after the period under review and shall contain the following information (subdivided into Component 1 and 2, where useful):

- Summary overview
- Project context:
  - Reform progress and major developments on policy level
  - Cooperation and Coordination with GIZ and other stakeholders
- Project Activities:
  - Infrastructure/Tendering
  - Progress in the Organizational Set-up and Development of the CoC and the application procedure/training measures in Component 2
  - Communication and Visibility Activities
- Project status assessment regarding:
  - Time plan
  - Cost and Financing (updated cost and financing schedule, account status, disbursement overview)
  - Implementation Status of the Environmental and Social Management Plan
- Report in a separate chapter on the summarized progress and effect of the EU funding of the Project taking into account the EU funded project components (including EU funding in the primary schools projects QESP, input to be supplied by the Consultant of these projects).

The **Annual Progress Reports (APR)** shall be submitted to KfW not later than 14 days after the period under review and shall contain the following information:

- Executive Summary:
  - Summarize the key progress made to date in the implementation of the programme.
- Sector situation:
  - Political developments (on national or regional level) that might have implication on the implementation of the project and its intended outcome.
  - Any conflict or other critical development observed.
  - Relevant support by other donors to PEA.
  - Relevant activities by other donors in the field of TVET in Egypt
  - Reporting on performance indicators and other educational data as detailed below (to be provided by MoE)
- Progress and developments during the Reporting period:
  - Summarized activities in all project components during the reporting period
  - Project goals and related indicators: Provide update on the achievement of the different indicators (based on Results Matrix, see Annex II). Give reasons for deviations and propose remedial action in case of deviation, if necessary. Difficulties and problems encountered - and actions to be taken (by whom?).
  - Development with view on target group: How many beneficiaries have been reached through the project? What have been difficulties in reaching the target group, if any?
  - Challenges and risks faced during implementation and solutions/mitigation strategies identified.
  - Description of unintended impacts and mitigating measures.
  - Photos of activities.
- Environmental and Social Aspects
  - All occupational health and safety issues and related recommendations.
  - Recommendations on corrective and remedial measures to be implemented under the Environmental and Social Management Plan.
  - Update on the application of environmental and social standards if relevant,
- Update time schedule:
  - Provision of updated time schedule: Show plan vs. actual situation. Explain deviations and consequences.
- Costs and Financing
  - Critical issues relating to budget and costs - if any.
  - Development of costs in comparison to preliminary budget (see Annex III).
  - Outline Deviations and explain reasons.
- Outlook, recommendations and issues to be decided upon:
  - Summary of activities for the next reporting period.
  - Outlook on planned disbursements for the next reporting period
  - Issues KfW should decide or comment upon, if applicable.
  - Answers to open questions from the last report, if applicable.

Project Completion Report (PCR)

The PCR will be submitted upon Initial Acceptance and Handing-over of all building sites and will contain results of the finalized construction works (final cost, specific cost per sqm of built-up area, cost per student, quality controls performed, etc.), capacity building and backstopping measures implemented, goals achieved, data relevant for performance indicators etc. Also, the PCR shall document any issues occurred during the acceptance's procedures and corresponding remedial works, if applicable. All deviations from the original Project plan (as shown in the Inception Report) shall be clearly shown and explained. The PCR shall also document issues associated with Environmental, Labour and Community Health and Safety (including stakeholder engagement and grievances) topics.

Other information to be included:

- Description of measures executed and a detailed listing of activities, e.g.:

Construction works:	Capacity Building:
- Submissions and approvals, - Tendering and execution of works, - Variation orders, if any. - Initial Acceptances & Handing-over - Remedial Works executed, if any - Status of payments and retentions - Quantity and cost estimates, contract cost (comparison of planned vs. actual cost), - Outstanding payments per contract - Original and actual implementation schedule. - As-built documentation (including related certificates). - Summary OHS report with all OHS statistics and lessons learned. - Summary of Environmental, Labour and Working conditions, Community HS issues and lessons learned.	- Advisory activities or trainings conducted on policy level (MoETE) and within the administrative structure (Muderiyas, Idaras) - Trainings conducted with the target groups, impact and feedback (if any) - Outline and analysis of the final business and operational plans of the promoted schools - Overview over the final educational program of the CoCs - Comprehensive overview of the networks created by the CoC and further expansion potential

The PCR will show (in summary tables/ graphs/ diagrams) information concerning the results achieved, comparing them to the original targets. Such tables/ graphs are to deal with:

- Physical Project results, i.e. buildings completed, etc., including details of furniture and equipment procured and placed.
- Achievement of project objectives.
- Reporting on performance indicators, o Status of construction site restauration, o Training and backstopping results.
- Financial Project results, i.e. how the total Project budget was actually spent; reference will be made to the initial budget break-down. What was the unit cost of facilities (per sqm, per student, etc.), training and support measures, etc.?
- Development of the Project over time, i.e. it will be shown in a graph comparing the original time schedule and how Project implementation actually took place.

The PCR needs to be both descriptive and analytical. In the descriptive should:

- Outline the intended Project concept and the goals to be achieved
- Describe the point of departure / initial Development / Improvement / Action Plans
- Briefly discuss Project implementation, problems encountered, other points of interest, etc.
- Describe the Project's end result and impacts.

In the analytical section, should describe:

- Deviations, if any, from the original Project concept
- Deviations, if any, from the Project target(s)
- Deviations, if any, from the original time schedule
- Deviations, if any from the original budget and cost plan.

In each case, the deviations should not only be defined quantitatively, but the reasons / explanation for such deviation will be given. In a final chapter the "Lessons Learnt" shall be briefly discussed - i.e. what went wrong, what should have been done differently, which changes should apply if there were to be a new Project, etc. The PCR shall be submitted to KfW in two copies. The PCR requires KfW's Non-Objection.

Final Project Report (FPR)

The FPR will be submitted at the end of the Defects Liability Period (DLP), summarizing:

- Achievements and problems encountered since handing-over of the buildings until the end of the DLP.
- Measures taken to solve these problems (by whom and when?),
- Status and description of Final Acceptances,
- Remedial Works done since Initial Acceptance, o Status of payments and retentions.
- Status of construction site restauration.
- Outstanding tasks (and agreements on who will implement them and when).

The FPR requires KfW's non-objection approval.

With regard to environmental and social matters, including occupational and community health & safety and labour issues as well as impacts on adjacent population, the Recipient shall notify KfW promptly of any event, incident or accident in relation to the Project execution that

(i) has, or is likely to have a direct or potentially material adverse effects

(ii) has attracted or is likely to arouse substantial adverse attention of outside parties or to create substantial adverse media/press reports, or

(iii) gives or is likely to give rise to material potential liabilities.

The Recipient shall also inform KfW of details of any measures taken to mitigate or remedy the effects or cause of such events.

KfW reserves the right to request any additional reporting in cases where this might become inevitable.

Ad-hoc Reporting

In addition, PEA shall report to KfW (HQ and local office) the development of all other important general conditions including sector related developments with importance to the project, new cooperation partners of PEA, environmental and social performance, topics of occupational health and safety and labour conditions, community relations and grievances which may have occurred.

PEA took note that it has to report on all circumstances that might jeopardize the achievement of the overall objective, the Project purpose and the results.

a.) With regard to environmental and social matters, including occupational and community health & safety and labour issues as well as impacts on adjacent population, the Recipient shall notify KfW promptly of any event, incident or accident in relation to the Project execution, regarding details of

i) any incident of an
   - environmental nature
   - occupational health and safety nature
   - public health and safety nature

   (in particular, but not limited to, any explosion, spill or workplace accident which results in death, serious or multiple injuries or material environmental contamination, accidents of members of the public/local communities, resulting in death or serious or multiple injuries, sexual harassment and -violence involving project workforce);

ii) any incident of a social nature (including without limitation any violent labour unrest or dispute with local communities);

iii) any other incident of an environmental or social nature occurring on or nearby any site, plant, equipment or facility of the Project Executing Agency (the incidents mentioned in (i) to (iii), in the following the "Incidents")

which

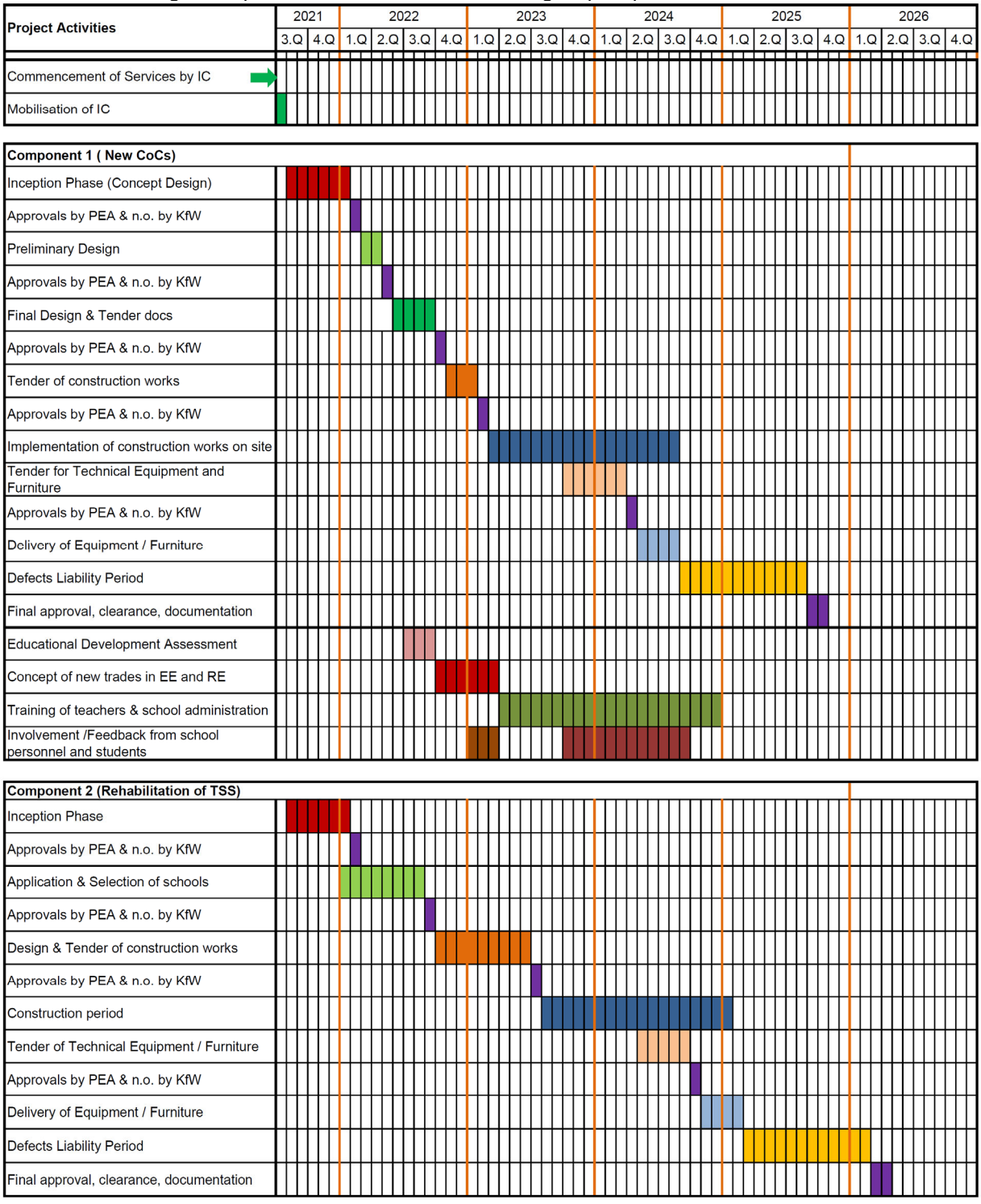
- has, or is likely to have a material adverse effect; or
- has attracted or is likely to arouse substantial adverse attention of outside parties or to create substantial adverse media/press reports; or
- gives, or is likely to give rise to material potential liabilities.

b) Notification will comprise, in each case,
   (i) a specification of the nature of the Incidents and the on-site and off-site effects of such Incidents and
   (ii) details of any action the Recipient proposes to take in order to remedy the effects of these Incidents. PEA shall keep KfW informed about any progress in respect of such remedial action.

KfW reserves the right to request any additional reporting in cases where this might become inevitable.

ANNEX 4: Tentative Time Schedule

The following Tentative Time Schedule shall be seen as a framework for the project's working steps, and it is the duty of the Consultant to present in his / her Technical Proposal a detailed Working and Time Schedule indicating the impact of each staff in each working step as per Terms of Reference.



ANNEX 5: Presentation of Staff Characteristics

The following tables are indicating the experts proposed and to be represented in the Work Plan, their tasks, professional qualification, and the experience related to the project. They must be backed unambiguously by details in the CV. In case of contradictions found during evaluation, details of the CV prevail.

Key Experts – long-term

No	Expert	Responsible for	General professional experience	Experience related to the project	on-site presence
1	Senior Project Manager	Team Leader, overall management of the Project and the team,	**International** Master's degree, 10 years of professional experience (thereof 5 years as TL in FC projects, regional experience, fluent English	Strong background in coordination, management, monitoring and quality assurance of complex projects, excellent skills in negotiation, communication, and stakeholder coordination	75%
2	Infrastructure Manager (probably DTL)	assisting the TL in design and implementation of infrastructure & construction	**International** Master's degree in civil engineering or architecture, 8 years of professional experience, regional experience, fluent English	Construction of educational projects as TL, thereof minimum 2 in TVET, regional experience in min. 2 projects (preferable in TVET), Architecture or Construction of educational facilities	75%
Both experts combined shall demonstrate relevant experience in Project identification measures, projects application procedures, capacity building measures and training, preferably in education and TVET. At least one of the two experts shall have proven experience with management of EU projects.					
3	Junior Project Manager	Assist the TLs	**International** Master's degree, 3 years professional experience, regional experience, fluent English	Design of minimum 3 state-of-the-art facilities of higher education (preferable in TVET) and minimum 2 projects in the region	
4	TVET Expert / educational planner	Planning of educational curriculum (TVET) training for teachers and in-company trainers	**International** Master's degree, 8 years of professional experience, fluent English	4 years Educational projects as expert for planning curriculum in the TVET sector), especially in RE/EE with excellent negotiation & communication skills	60%
5	Expert in Renewable Energy and Energy Efficiency	Planning of RE / EE measures and training on RE / EE equipment	Master's degree, 10 years professional fluent English	Experience in RE / EE measures and equipment, capacity building and training measures	75%
6	Organizational/Business development expert	Designing extra-curricular activities, income generation for CoCs, business plan development	Master's degree 5 years professional fluent English	Experience in TVET, business incubators, industry parks, business planning, fund raising	40%

7	ESHS Expert (team)	Quality assurance and compliance with international ESHS standards (International) assurance of local ESHS policies (national)	**One International and one max. two nationals** Master's degree, one 10 years the other(s) 5 years professional experience in ESHS, fluent English	The team combined: ESIA, ESHS project screening and Occupational Health and Safety. At least one: ESHS monitoring on construction sites	80%
8	International Architect Advisor (IAA)	Assist PEA in developing concepts, designs, supervision, and quality control of the School Designs, assistance to MoETE, MEK and GAEB	**International** Master's degree, 10 years professional experience in Egypt, regional experience, fluent English, Experience in planning in emerging countries	Experience in design of minimum 3 state-of-the-art facilities of gender-sensitive and modern higher education infrastructure (preferable in TVET)	80% during Design phase
9	National Architect	Planning and implementation of school infrastructure	**National** University degree, 8 years professional experience in Egypt, fluent English	Experience in design of minimum 3 projects as lead architect of higher quality buildings (Universities, Hotels, Hospitals, etc.)	
10	National Civil Engineer	Preparation and implementation of construction of the facilities	**National** University degree, 8 years professional experience, fluent English	Experience in tendering of construction works in minimum 3 projects of higher quality (Universities, Hotels, Hospitals, etc.)	
11	Senior National Construction Supervisor	Management and supervision of the construction works	**National** University degree, 10 years professional experience, fluent English	Experience in supervision of construction works in minimum 3 projects of higher quality (Universities, Hotels, Hospitals, etc.)	

Short- and Long-term Experts – International and national

No	Expert	Responsible for	General professional experience	Experience related to the project
12	Communication and visibility experts (team)	Development of Communication and Visibility Plan	**International** University degree, 8 years of professional experience fluent English	Experience in activities according to § 3.6 of the ToR, minimum 3 projects
13	TVET Equipment Expert	Planning and procurement of TVET equipment	**International** University degree, 8 years of professional experience fluent English	Experience in equipment of higher educational facilities (workshops, laboratories, etc.), minimum 3 projects

14	Landscaping Expert	Landscape planning for the school sites	**International** University degree, 8 years of professional experience regional experience, experience in dendrology fluent English	Experience in landscaping of educational projects, thereof minimum 2 in higher education (University campus etc.), regional experience in minimum 2 projects
15	Expert in gender matters and inclusion	Ensure implementation of gender matters and inclusion in the design and implementation	**International / national** University degree, 8 years of professional experience, fluent English, regional experience	Experience in min. 3 projects with integration of gender matters and inclusion
16	Structural Engineer	Structural Calculation of school infrastructure	**International / national** University degree, 10 years of professional experience, fluent English	Experience in construction in of higher quality projects (Universities, Hotels, Hospitals, etc.) minimum 3 projects
17	Operation and Maintenance Expert	Development of O&M schemes for the CoCs and TSS/ATS	**International** University degree, 8 years of professional experience, fluent English	Experience in O&M, thereof minimum 2 projects in higher education
18	Social Experts	Setting the team for the technical assistance and training measures	**International / national** University degree, 8 years of professional experience fluent English	Experience in monitoring of safety and health issues during construction works in minimum 3 projects of higher quality (Universities, Hotels, Hospitals, etc.)
19	Procurement Expert	Procurement of works, services, and supplies	**International / national** University degree, 8 years of professional experience, FC experience fluent English	Experience in educational projects as expert in procurement, tendering and contracting, minimum 3 projects
20	Site / Construction Supervisors	Continuous supervision of the construction works	**National** University degree, 10 years of professional experience, FC experience good English	Supervision of construction works in minimum 3 projects of higher quality (Universities, Hotels, Hospitals, etc.): - electrical / IT - water / sanitation - statics - geology & geotechnical - topographer, etc.
21	Professional Translator	Translation English – Arabic and vice versa of documents and in meetings	**National** Graduate Translator, 5 years of professional experience	Experience in translating of documents and in meetings of complex projects

Backstopping staff in the home office

No	Expert	Responsible for	General professional experience	Experience related to the project
22	Project Director	Monitoring, quality assurance, and providing support to the team	Master's degree, 10 years professional experience, minimum 5 years in backstopping, fluent English	Backstopping of minimum 3 projects in FC and of higher quality, KfW and EU rules and regulations (incl. procurement)
23	Backstoppers Minimum 2 for different issues	Monitoring and providing support to the team	Master's degree, 10 years professional experience, minimum 5 years in backstopping, fluent English	Experience in design, procurement, financing, and construction of TVET projects, TVET in general

ANNEX 6: Student-centered and Fully Functional TVET school

A “Student-Centered Fully Functional TVET school” focusses on a high-quality educational environment suitable for an effective vocational education. This includes adequate classrooms that fit for the special requirements of competence-based and practice-oriented learning, adequate workshops for machinery and equipment, clear safety-oriented settings (including first aid kits, clear signs and instructions) and reliable computer laboratories. These aspects have a positive influence on the quality of education as well as the access, retention and completion rates of the school.

Characteristics of a student-centered TVET school:

- **Academically effective**: Qualified teachers capable of creating stimulating learning environments which promote the achievement of learning outcomes.
- **Health promoting**: Healthy school environment that provides access to safe water and sanitary facilities, hygiene and environmental education; and health and nutrition services.
- **Rights-based, gender sensitive and inclusive**: a fully functional TVET school accommodates all students from different backgrounds, sensitive to gender differences and ensures non-discrimination.
- **Safe and protective**: The school environment promotes students’ emotional, psychological and physical well-being, collaborates with parents and communities to eliminate all forms of violence against students and develops effective and participatory monitoring systems.
- **Involving community**: Active Boards of Trustees and school administration that proactively reaches out to community for seeking its support in improving the image of the vocational education graduate and showing the real value for the community as well as for supporting community development. The school establishes communication ties with the surrounding industries to promote the students and open new training and job opportunities for them.
- **Promotive**: The surroundings encourage the student in his/her curiosity for the chosen trade; technical installations of the building serve as a model of the discipline. The student’s initiative to apply the acquired knowledge for the improvement of his or her surroundings is being encouraged.
- **Connected to the exterior**: Education should not only take place in enclosed areas, neither should it be limited to classrooms areas. Additional common open and shaded areas are needed, which invite the students to come together in different groups (different group sizes, different age groups, origin, etc.).
- **Flexible arrangement**: Although it may not be possible to have a building that has all types of desired spaces, still it is necessary to design buildings where spaces can be used for different functions throughout the day, and throughout the lifetime of the school. E.g. a shaded area can be an assembly hall in the morning, a playground during break and a discussion circle during lessons.

Aims of a student-centered TVET school:

- Increased access to school participation
- Improved attendance, retention and completion rates
- Improved learning achievement by increasing the practice-oriented proportion of teaching and encouraging the problem-solving skills of the students
- Provision of a safe, healthy and inclusive environment for all students
- Provision of a rich and enabling learning environment for all students
- Involvement of parents and the community
- Open ties to the industry and the job-market

Features of Fully Functional TVET schools:

In terms of the infrastructure requirements following from the above-mentioned principles, one generally speaks of "Fully Functional Schools". The term "*Fully Functio**al** School"* shall not be confused with "*Fully Functio**ing** School*". The former only implies that all necessary physical prerequisites for the latter have been put in place. For a school to be "*Fully Functioning*" additional requirements have to be met, e.g. the availability of teachers, curricula, students, etc.

A school is considered "*Fully Functional*" if it has all the required physical infrastructure deemed necessary and indispensable in a given environment. The following elements can be considered necessary for a "*Fully Functional School*":

- **School Buildings:** All classrooms are of solid construction, preferably made of natural stone walls or with stone cladding (where such material is locally available at acceptable cost). They shall be properly oriented to improve thermal conditions and designed to minimize glare. The design should aim at minimizing future maintenance requirements.
- **School furniture:** All classrooms, teacher and administration rooms should be equipped with the adequate furniture, i.e. desks, chairs, cupboards, tables as well as computers and adequate presentation technology to easily conduct training sessions and administrate the school.
- **Clean Site**: School units shall consist of newly constructed or rehabilitated buildings only, i.e. the site will not contain any dilapidated structures. All wastes or construction debris shall be removed from the site prior to handover.
- **Sanitary Facilities:** Each school shall have appropriate sanitary facilities. Water borne systems are only to be provided where water is readily available. Furthermore, there will be separate facilities for boys and for girls. In designing such systems, local customs and traditions must be respected, e.g. in the orientation of access, respect for privacy, etc. The access should be indirect, i.e. doors are behind protective walls.
- **Boundary Walls**: Schools shall be provided with boundary walls, fences or hedges if required, primarily with a view to enforcing privacy of the school yard and excluding unauthorized entry.
- **Additional Rooms:** Teacher and administration rooms as well as special rooms are to be provided where this is warranted by the size of the school and the prescribed curriculum.
- **Materials:** materials chosen shall be of low maintenance, durable and long lasting. It is also recommended not to involve very complicated technical solutions, of difficult installation procedures or expensive costs.
- **Other:** Additional measures may be foreseen where they are warranted by a given site's specific conditions, e.g. solar rooftop panels, landscaping and preparation of open spaces, provision for the low-cost collection and storage of rainwater, etc.

The combination of the principles of a "Student-Centered School" with the requirements for a "Fully Functional School" leads to a holistic approach to a "Student-Centered Fully Functional School" that aims to provide a high-quality learning environment catering to the student's needs.

ANNEX 7: Centers of Competence (CoC) - Concept (version 12.04.2021)

Centers of Competence (CoC) are part of pillar 4 of the Egyptian Technical Education 2.0 Strategy (TE 2.0) focusing on employer engagement and building on the PPP dual education model of Applied Technology Schools (ATS). The CoCs are designed to be sectoral and local knowledge hubs and lighthouses to enhance and develop the existing TVET system. It is to overcome the deficiencies in: lack of relevance, quality, effectiveness and sustainability and consequently to substantially improve the image and reputation of TVET. In the following, the concept of the CoCs is outlined with regard to its different elements:

Education

- 3+2 years educational program: 3y technical secondary school (TSS), 2y technical college (Technical Diploma), 2y[9] advanced technical college (Bachelor of Technology)
- Sector specialization in the +2 level
- Dual education: Alternating between school and company – like ATS (Applied Technology Schools)
- Practice-oriented training modules and Competency-based curricula (CBT)- like ATS
- Basic education and training and continuous learning and training
- Training of TVET-teachers and in-company trainers (foremen) in collaboration with local TVETA branch
- E-learning as part of regular education 2+2 and continuous learning

Governance

- Like all TVET institutions in Egypt, the CoC is to be accredited by the newly established Egyptian TVET Quality Assurance and Accreditation Authority (ETQAAN).
- The legal status of the CoC is an advanced ATS serving a certain sector. As such, the CoC is under leadership of the ATS department within MoETE.
- The overall leadership CoC shall be under a PPP arrangement (steering committee) composed of private sector representatives like chambers, Sector Skills Councils, etc., individual companies and MoETE (e.g. appointed school principle/ Academic Director).
- From the management side, the CoC will have an Academic Director and an Executive Director, the latter from the private or non-profit sector. The responsibilities and lines of command within the COC still need to be developed (by an institutional development consultant currently engaged by GIZ).
- Managerial autonomy/flexibility for the non-educational services and activities (e.g. extra-curricular services, networking).
- CoCs must enjoy a certain financial independence/flexibility, otherwise it will not be able to perform as a lighthouse of PPP education and sector development.

Extra-curricular services

- Operating an income generating vocational training center like the ATS to serve the surrounding community of job-seekers and in-service workers
- Job fairs to liaise with the local economy and give soon-to-be graduates a chance for networking
- Job placement, start-up and business development services – in collaboration with external service providers
- Renting out of workshops/equipment to local businesses
- Cooperation in applied research with companies and academia
- Other…

[9] For a second +2 level (which would be equivalent to the German master craftsman) the Egyptian educational reform foresees to integrate it into the technological universities under the Ministry of Higher Education. It will thus be important for the CoCs to seek the link to the technological universities.

Networking

- **With ATS, TSS and VTCs** in the surrounding and ones serving the same sector nationwide: for absorption of graduates and continuous provision of quality education/training by improvement teachers' capabilities, connecting with e-learning network, promulgating new technologies/practices etc.
- With **external service providers**: e.g. for professional business development services (BDS), for start-up promoters etc.
- With **academia**: national or international universities for cooperation in applied research, technological update of CoC teaching staff, etc.
- With **industry**: cooperation for training purposes and upgrading of company staff, exchange of/on technologies, use of workshops, activities like job fairs, joint research projects etc. Also, cooperation with sectoral representative bodies like chambers and Sector Skills Councils to coordinate the development of curricula and staying relevant.
- With the **local community**: organization of "open school days", job fairs, exhibitions and graduation ceremonies etc.

Facilities

The building in its design and function need to reflect high quality standards by:

- "fully functional school" concept
- Climate-smart building (by design, material and utilities)
- The building/facilities are designed to exemplify training content and be used for demonstration purposes
- Workshops with integrated classrooms
- Fully digitalized (broad-band connection, e-learning facilities and equipment)
- State-of-the-art green/sustainable technologies for the respective specialization, with principles of circular economy where possible
- Facilities and spaces to reflect educational and extra-curricular services (e.g. job fairs) and enable the renting of space to businesses or the community

Funding

- Running cost of the educational part (staff, utilities, material, maintenance) to be covered by MoETE (who is also owner of the buildings) with contribution from the partner private sector companies
- Running cost of the extra-curricular activities to be covered by own income from fees and industry contributions
- Salaries of teaching and management staff need to be competitive in order to attract and maintain qualified teaching staff
- CoCs need some financial autonomy/independence in order to manage the extra-curricular part and networking
- CoCs will have a business plan in order show how they generate the additional income needed

ANNEX 8: Fact-finding Study, March 2014

Attached as separate document!

ANNEX 9: Feasibility Study, June 2018

Provided as separate document!

ANNEX 10: Minutes of Meeting between MoETE, MEK and KfW, November 2018

Centres of Excellence and Promotion of Technical and Vocational Education and Training
Minutes of Meeting on the appraisal mission

November 1st, 2018

GERMAN FINANCIAL COOPERATION
WITH THE ARAB REPUBLIC OF EGYPT

Project Appraisal: "Centres of Excellence and Promotion of Technical and Vocational Education and Training (TVET)"

MINUTES OF MEETING

Introduction

From October 22nd to November 1st 2018, a project appraisal by KfW took place in Cairo, Hurghada and Aswan structuring the project "Centres of Excellence and Promotion of Technical and Vocational Education and Training (TVET)" together with the Ministry of Education and Technical Education (MoETE) and the Misr-El-Kheir Foundation (MEK). The KfW Delegation consisted of Vera Dicke (Project Manager), Carlos Beteta (Technical Advisor) and Livia Hackemann (Trainee). Meetings were held in Cairo with representatives of the Ministry of Education and Technical Education (MoETE), the General Authority for Educational Buildings (GAEB) and the Misr-El-Kheir Foundation (MEK). In addition, visits to technical secondary schools in Cairo, Hurghada and Aswan were conducted. Furthermore, KfW met the Muderiyas in Hurghada and Aswan, the Deputy Governor of Aswan as well as private sector companies and other international development partners.

The delegation would like to express its gratitude and appreciation for the organisation of meetings and the facilitation of visits, for the warm welcome and the open discussions held during these days. These Minutes of Meeting (MoM) shall enable all stakeholders to follow up on the understandings reached.

It is understood that all statements made and understandings reached are subject to further review and approval by KfW senior management as well as by the German Government. The results of the discussions and understandings reached are summarised in the following.

I. Context

During the German-Egyptian government negotiations in 2014 and 2015, the German side committed a EUR 13m grant and a EUR 20m standard loan to the Arab Republic of Egypt for the purpose of promoting technical and vocational education and training. Additionally, a grant of EUR 5m, committed in 2016, is available for the envisaged project. The conclusion of a financing agreement for the implementation of these funds is subject to the authorisation from the German Ministry for Economic Cooperation and Development to pursue contract negotiations between KfW and MoETE as Project Executing Agency and the Central Bank of Egypt (CBE) as borrower. The appraisal report from KfW will provide the basis for this authorization.

1

II. Preliminary Project Design

1. General setup and objectives

This project has been prepared by a Feasibility Study, contracted by MEK and MoETE and financed by a special fund from the German Government for such purposes. The study included a broad sector and labour market analysis. The results will guide the selection of the project sites and promoted sectors. It was implemented by PEM Consult with regular consultations of MEK and MoETE.

Within the framework of promoting technical and vocational education and training, the CBE will serve as borrower of the funds from the German government and will channel the funds to MoETE as Project-Executing Agency. The conclusion of a tri-partite agreement between KfW, CBE and MoETE and a Separate Agreement between KfW, MoETE, MEK and GAEB is planned. MoETE will be the political partner and Project Executing Agency for the overall project. MEK will be the implementing partner for Component 1; GAEB will be the implementing partner for Component 2. There will be an overarching consultancy team with the Team Leader being based in MoETE assisting all partners in the project implementation and ensuring the compliance with KfW guidelines and procedures. The suggested composition of the Consultancy is shown in section 2.3.

The objective of the project will be to improve the quality of Egyptian technical and vocational education and training by enabling students to gain the necessary knowledge and skills required for them to enter the job market after graduation. The focus of the project will be on upgrading two selected technical secondary schools in Hurghada and Aswan into regional Centres of Excellence as well as rehabilitating and extending existing technical secondary schools on a regionwide basis.

2. Project Components

The project will encompass two components:

1) Upgrading of two technical schools to regional Centres of Excellence in Renewable Energies and Energy Efficiency
2) Rehabilitating and extending existing TSS

During this appraisal mission, the envisaged activities have been discussed with the project stakeholders. Given that many stakeholders will be involved in both components, each with specific responsibilities, a preliminary matrix of the roles and responsibilities can be found in annex 2.

2.1 Component 1: Centres of Excellence

Project Concept and Objectives: The proposed Centres of Excellence in Hurghada and Aswan shall be developed as a brand and quality seal for the provision of

- high quality and
- practically oriented training, related to
- the needs of the (regional/sectoral) labour market.

The concept aims at bringing existing technical schools towards a new level of quality of the sector by expanding them to "lighthouses" (for the detailed concept, please see Annex 3).

The CoE approach concentrates on demand oriented and work- and competence-based training contents and methodologies. Following the MoETE's approach a CoE aims to provide access to and permeability of the TVET system and in optimal conditions supports "life-long learning" by offering advanced training courses as well as recognition of prior learning. This guarantees the relevance of employability of young people in formal and informal working and living environments.

The envisaged CoEs in Hurghada and Aswan shall provide target-oriented trainings in the field of **renewable energies and energy efficiency**, as this has been identified as the sector with high employment potential and need for skilled labour force in Egypt. Based on the Feasibility Study, in Hurghada, the areas of specialization could focus on wind and solar energy as well as desalination. In Aswan, a focus on solar energy and additionally on biomass energy obtained from agricultural products has been discussed. Here, the school identified with the highest potential for investment is the Eineiba Agricultural School. However, MoETE has highlighted that an agricultural school cannot be transformed into an industrial school. Thus, a solution needs to be found in order to cover the solar energy branch in Aswan.

The CoEs should establish win-win cooperations with **private and public sector companies** in order to align training offers with the demand from local businesses and the local labour market and thereby increase the employability of graduates.

At the same time, connection to an **Institution of Higher Education** (Hurghada: TU Berlin Campus in El Ghouna; Aswan: Aswan University College of Energy) shall be aimed at and will be further investigated in the beginning of the implementation phase. Also, the establishment of exchange and cooperation with other TSS schools building a network and fulfilling a function as hub for renewable energy and energy efficiency would be an objective of the CoEs.

A CoE does not necessarily consist of one school, but could as well be divided into two schools or two campuses. In Hurghada, it is proposed to link the Hurghada Industrial School for boys as envisaged primary location for the CoE with a nearby Industrial School for girls, which is already supported by the USAID WISE program and offers trades in renewable energies. **KfW will investigate cooperation possibilities and reach out to USAID for that.** In Aswan, the envisaged CoE (Eineiba Agricultural School) could be linked to other schools in the same Idara (Kamel Yacoub School) in order to implement the focus on renewable energies (see above).

Project Implementation Arrangements: For the operation of the two soon-to-be Centres of Excellence, KfW, MEK and MoETE have agreed upon the formation of a public-private-partnership between MoETE and MEK. The details of the partnership will be laid out in a separate contract, to which KfW will give its non-objection. MEK will act as a facilitator and implementer for Component 1 and will enrich this partnership by taking over the operation of the two Centres of Excellence for a specific timeframe to establish good management practices. MEK will assume ownership for the two CoEs from the beginning and will further foster close working relationships to the private sector as well as mobilize in-kind contributions.

Also, MEK will support the project significantly during the implementation phase through an assigned project manager and will act as the tendering agency for Component 1 according to KfW Procurement Guidelines and with the support of the Implementation Consultant. For the design, it is envisaged to conduct an international architectural competition. The works and the equipment shall be tendered internationally.

2.2 Component 2: Rehabilitating and extending existing TSS:

Component 2 aims to improve the learning environment in selected TSS through investments in infrastructure, equipment and establishment of cooperation models. Within an open programme approach, eligible schools will be selected through an application process. The main criteria in this selection process will be the sustainability of the investment (e.g. through proven good management capacity in the school) and the readiness to or a track of establishing cooperations with companies. A committee will evaluate the applications based on selection criteria agreed to in advance. KfW will give its non-objection to the final list of selected schools.

Greater Cairo, the Alexandria region and Gharbiya have been identified as target regions by an extensive labour market analysis during the Feasibility Study. In a second step, it is suggested to select one of the governorates Menia, Damietta, Menoufia or Dakhahleya. Sohag was brought up by MoETE as one potential additional governorate, as it has potential in the sector of bioenergy. **This will also be considered for the second step if a small scale labour market analysis of Sohag comes to the conclusion that employment opportunities of graduates in the respective sectors are given.**

Project Implementation Arrangements: GAEB being generally responsible for all educational buildings in Egypt will take care of the design process together with the Consultant, of the tendering process for works and the financial management of the funds. It was agreed that rehabilitation works will be tendered nationally. Equipment will be tendered internationally. It shall be further discussed whether GAEB or MoETE, through the Muderiyas, shall be responsible of the tendering of equipment.

2.3 Consultancy

A Consultant shall be appointed to support the implementation of the project. This encompasses inter alia the coordination and planning of the implementation as well as the selection of eligible TSS. A detailed allocation of responsibilities can be found in annex 2. The costs of the Consultant shall be financed from the grant funds. KfW offers to conduct the tendering of the consultancy services on behalf of MoETE, authorized by an agency contract. An independent Tender Agent shall be appointed to elaborate Terms of Reference, conduct the tendering process and select the Consultant. As the project will have a very high number of different stakeholders, a team shall be engaged that covers, inter alia, the following processes:

- Reporting the progress of the project and ensuring implementation according to KfW rules and procedures and the Environmental and Social Management Framework which was elaborated in the Feasibility Study
- Assistance in all procurement processes at MEK as well as GAEB and in the supervision of the construction works
- Financial Management of the different project accounts and disbursement procedures
- Educational Consultancy, including the further development of the educational concept of the CoE, possible partnerships with the private sector and universities and further investigations on the sectoral orientation of the Centres. In Component 2, this encompasses the accompaniment and assistance in the application process of the schools and the development of a concept for Operation and Maintenance in the selected schools.

- Architectural Consultancy, assisting in the organisation of a competition for Component 1 and assisting as well as approving the GAEB designs for Component 2.

III. Next Steps

KfW will submit its appraisal report to the German Ministry for Economic Cooperation and Development by end of December to seek approval for entering contract negotiations with the MoETE and CBE in the first quarter of 2019.

Cairo, ..., 2018

ARAB REPUBLIC OF EGYPT

For MoETE:

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Ministry of Education and Technical Education

For MEK:

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Carlos Beteta
Technical Advisor
Social and Economic Development
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.....V. Dicke.....

Vera Dicke
Project Manager
Education, Economy and Environment
North Africa

Annexes:
Annex 1: List of Participants
Annex 2: Roles and Responsibilities of Project Partners
Annex 3: Concept Center of Excellence

PART 3 – CONTRACT FORM

Between the Employer and successful Consultant, a Contract will be signed as per the attached Model Contract for Consulting Services.

Section VIII. Contract for Consulting Services

Please find the Model Contract Form under:

https://www.kfw-entwicklungsbank.de/Download-Center/PDF-Dokumente-Richtlinien/Mustervertrag-E.pdf

Note: Following Article 16.1 of the Data Sheet on page 23/24, the detailed payment terms as part of the Contract (Ad Article 5 in the Special Conditions) will be provided in a separate document asap.