Terms of Reference

Tertiary TVET "skill level 3" Development of DACUM chart for advance automotive and electrical engineering craftsmen/Ostads

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1. Brief Program Information

The program “Support to Technical and Vocational Education and Training” (TVET Program) aims at developing a target-group differentiated and labor-market oriented vocational education and training system in Afghanistan. It supports the TVET Authority to improve the three core elements constituting a formal TVET system: labor-market oriented curricula, training of pre-service and in-service TVET teachers and a TVET examination system, all of which having nationwide validity. Within the framework of a pilot system comprising a pool of vocational schools offering technical and commercial profiles, a reform project has been piloted. The program consists of six intervention areas:

- Intervention area 1: Improving the effective operation of selected pilot schools
- Intervention area 2: Improving vocational school education for apprentices
- Intervention area 3: Facilitating cooperation between the private and public vocational training sectors
- Intervention area 4: Developing curricula geared to labour-market needs
- Intervention area 5: Capacity development for vocational training specialists
- Intervention area 6: Rehabilitation of 30 TVET schools

These Terms of Reference are related to intervention area **2** of the program.

2. Initial Situation

In international comparison Afghanistan lacks qualified workforce on ISCO skill level 3 (technician) and skill level 4 (professionals). 6,8% of the workforce in Afghanistan are technicians or engineers, whereas a significant higher share of the workforce in – for example - Bangladesh (21,9%) holds skill levels 3 and 4. Moreover, the low share of technicians and engineers goes together with a high concentration of technicians and engineers in Kabul (about 90%). On the other hand are companies helping themselves. Almost one third of the workers in small companies are so called advanced craftsmen. They are experts in their profession as well as managers of companies.

A second severe problem is the lack of standardized and up to date technical and organizational knowledge in the world of work in the country. Knowledge is handed down almost exclusively orally to the younger generation. Neither school based TVET programs nor universities are very helpful to overcome these problems. Secondary TVET as well as universities mainly focus on theoretical knowledge, not much relevant to the world of practice and mostly not application-oriented. In addition, the vast majority of the Afghan youth has access neither to secondary TVET nor to university programs. The lack of a better skilled workforce, in particular on skill level 3 and 4, hampers the self-sustaining technical, organizational and economic development of the country.

The TVET Authority (TVETA) plans to start changing the situation by developing application-oriented training programs on skill level 3 and 4, called tertiary TVET. Automotive, electrical and textile engineering (semi-finished textile products, carpets, garments) are going to be the first professions which will be offered on two levels at tertiary TVET, most likely in Kabul, MeS and Herat.

The development of training programs for skill level 3 at tertiary TVET level needs to start from the scratch: The training course development for advanced craftsmen/Ostads starts with a thorough job analysis according to the DACUM methodology.

3. Mission Goal

The contractor will develop DACUM charts for advanced automotive and electrical engineering craftsmen/Ostads (skill level 3 for tertiary TVET). He will select panelists from automotive and electrical engineering companies to do a job analysis according to the DACUM methodology. The DACUM-Charts as outcomes of the mission will be utilized in the near future as to develop curricula for advanced automotive and electrical engineering craftsmen/Ostads (skill level 3) for tertiary TVET.

4. Expert Profile

Requirement to the contractor are:

- Proven experiences in curriculum development methodologies
- Excellent and proven experiences in conducting DACUM sessions
- An adequate and proven expertise in automobile and electrical engineering
- Excellent command in English and Dari Language
- Curriculum development experts with a master-degree

5. Scope of Work

Work Package 5.1: Arranging DACUM workshop panels

Given the differentiation of work between companies, in particular in the automotive sector, the contractor will:

- Analyze the division of labor between small and medium sized companies in the automotive and the electrical engineering sectors. With regard to the automotive sector, analyses on sites are necessary. In the area of electrical engineering a look at the ISCO classification of professions needs to be taken into account to identify companies and professionals in that segment of the economy.
- Identify advanced craftsmen, willing to take part in DACUM sessions. The composition of DACUM panels needs to mirror.
  - The whole array of companies in the fields of automobile and electrical engineering. Details will be discussed with GIZ-TVET.
  - The array of small and medium sized companies (small: 1-5 employees; medium: 6-20 employees; for the case they exist in the sectors of interest: large companies: 21-99 employees).
- Also identify engineers in the respective sectors, ready to take part in discussions. Session with engineers are needed to make the demarcation line visible between duties and tasks of advanced craftsmen and engineers.
- Discuss the composition of DACUM panels with GIZ-TVET.

Work Package 5.2: DACUM workshops

The contract partner will do job analysis together with the panel members according to the DACUM methodology. At the end, there should be two standard DACUM charts (automotive engineering; electrical engineering) for advanced craftsmen, which provide information about:

- Clustered duties and tasks:
  - Addressing the professional/technical expertise
  - Addressing the business management expertise
- Clustered competencies:
  - Professional competencies
  - Commercial competencies
  - Management competencies

The overviews and the systematizations will serve as basis for the development of corresponding training courses for tertiary TVET.

In order to see the differences between tasks and duties of advanced craftsmen and engineers, the contract partner will discuss with engineers their tasks and duties. Special DACUM sessions are not required.

Cooperation with GIZ-TVET

The work on all work packages will be done in close cooperation with the GIZ TVET Program. The deliverables will be presented and discussed with GIZ TVET incrementally after the completion of a work package.

6. Deliverables and reporting:

The contract partner will write a final report. The report needs to include the following information:

- Case related overview of the division of work in the automotive and the electrical engineering sector
- Lists of DACUM panelists for automotive and electrical engineering
- DACUM Charts advanced automotive and electrical engineering craftsmen
- Brief report about what sets engineers in small and medium sized automobile and electrical engineering companies apart from advanced craftsmen

7. Duration

GIZ-TVET contract a local Afghan company from 10.07.2019 Contract duration for this research project is for 5 months and company should be able to deliver the final version of the report by 10.12.2019.