



პროფესიული განათლება
ეკონომიკის განვითარებისთვის
INDUSTRY-LED SKILLS AND
WORKFORCE DEVELOPMENT



ESP Due Diligence Findings & Recommendations

ISWD PICG Grant Scheme DD Feedback and Orientation Session

ISWD TAT
25 April, 2016

ESP DD Findings & Recommendations

Objectives of the Presentation

- To provide information about main findings of the Due Diligence assessment
- To provide feedback and recommendations on ESP related issues

General Information

- In total 21 Full Applications have been submitted by January 15, 2016 in the frames of ISWD PICG Project.
- 19 of them passed the administrative and TEP compliance check, and are subject to the Due Diligence Check.
- We comprehensively reviewed all submitted documentation packages by the end of February, and applicants were sent a feedback on main findings.
- We conducted field visits to all applicants and project sites to obtain more detailed information on planned projects and condition of proposed facilities (March 11 – April 21, 2016)
- In total we assessed around 50 facilities/sites during the DD process

ESP DD Findings & Recommendations

Main findings of the documentation review

- **All applicants submitted an Environmental Review**
 - Most of the submitted documents do not provide information on activities incurring EHS risks, potential EHS risks and mitigation measures.
 - Planned mitigation/management measures are not always relevant to or sufficient for mitigation of impacts/risks
 - ESMP implementation costs are not always estimated and included in the project budget
- **EHS risks are readily identifiable from applications include:**
 - OHS risks during renovation works
 - Unspecified OHS risks for practical classes (e.g. in labs and workshops),
 - Construction waste
- **7 applicants submitted a Stakeholder Engagement Plan**
 - These need to be upgraded up to meet MCC/MCA requirement once grants are issued

ESP DD Findings & Recommendations

ESP Objectives of DD Site Visits

- To obtain information about issues identified from documentation review
- To check current condition and location of proposed facilities/sites
- To learn more details about planned activities and equipment to be procured
- To provide early informal feedback to applicants to ensure that ESMPs are respectively updated and can meet required standards

Issues assessed during DD site visits

- Location of proposed facilities/sites and facilities/sites in the neighborhood
- Current condition of the proposed facilities, including structural/seismic stability, design safety and building materials used, compliance to design requirements, need for renovation, reconstruction or upgrading
- Feasibility and practicability of proposed infrastructural works and ESP measures
- EHS risks for planned renovation works and proposed training courses
- Existing safety installations and safety procedures used, the need for additional safety measures

Common ESP issues

ESP issues could be grouped into the following categories:

- **EHS risks due to renovation and installation works**
 - Demolition/construction works, building machinery, waste, etc.
- **EHS risks from training facilities**
 - Improper design (elevated door thresholds, handless staircases, low balcony balustrade, etc.)
 - Improperly arranged furniture and equipment
 - Insufficient emergency preparedness measures
- **EHS risks from planned training programs – practical trainings**
 - Equipment and materials to be used for practical trainings
- **EHS risks from neighboring facilities/sites**
 - Power sub-stations and transformer houses
 - Large water reservoir (up to 500 t)
 - Refueling stations in close proximity

ESP DD Findings & Recommendations

EHS risks due to renovation and installation works

Such risks exist for majority of applicants, as:

- 10 applicants initially planned renovation/installation works
- After the assessment of the proposed facilities, a majority of applicants were recommended to renovate/upgrade facilities to the required standards

Common EHS issues for facility renovation/upgrading phase

❑ OHS safety for construction workers due to:

- demolition and construction works
- handling of building materials and construction waste
- building machinery operations

❑ Health and safety of TVET personnel and students

- the risk will exist at operational TVET facilities, where renovation works coincide with academic year

❑ Community health and safety

- traffic safety

❑ Construction waste - hazardous and non-hazardous

- Hazardous waste: bitumen containing flooring and roofing
- Electronic waste (old equipment)
- Lab chemicals (unknown contents of bottles)

ESP DD Findings & Recommendations

Recommendations for EHS risk mitigation on renovation phase

Majority of the submitted ESMPs cannot address the above described risks and the following was recommended factually to all applicants:

- To **elaborate ESMP** in a way to address all potential EHS risks of construction activities, particularly to consider:
 - Safety trainings and work permission, PPEs, safety ropes, safe scaffolding, etc.
 - Procedures for safe use and storage of building machinery and equipment
 - Procedures for safe storage and handling of materials and wastes
 - Housekeeping procedures to ensure workspace safety
- Applicants with large scale infra works are recommended to consider development of **waste management plan** in the ESMP to avoid EHS risks and incompliance in waste management
- Planning of renovation works for safer period, when number of people in the facility is minimal (if practicable)
- Consider measures preventing unauthorized entry of TVET personnel and students, and community members to construction areas, material and waste storage sites
- Consider traffic safety measure for building machinery using public roads

NB: Please consider respective changes in the project budget, BoQ, equipment list and materials/equipment specifications

ESP DD Findings & Recommendations

Specific issues

➤ Waste management:

- Some of proposed facilities that are currently non-operational, are full of various waste. This includes old electronic appliances (electronic waste) and potentially hazardous chemicals.
- Waste handling, disposal and documentation procedures have to be established for each project individually according to the waste type and condition. This will avoid OHS risks for the workers and environmental pollution.

Applicants were **recommended** to consider the preparation of **Waste Management Plan** and add this requirement in the ESMP.

Specific issues

➤ **Environmental pollution**

- Some TVET sites are bulked with construction waste and machinery from on-going renovation works
- Outdated equipment are bulked at some sites
- Small scale **oil spills** were detected on site

Recommended actions:

- To ensure proper clean-up and waste management
- Update ESMP to comprise all pollution prevention and OHS measures necessary for clean-up operations

ESP DD Findings & Recommendations

EHS risks from training facilities

- Training facilities are not always properly designed
 - Elevated door thresholds as usual practice
 - Some staircases are handless, balcony has low balustrade, etc.
- In some facilities unsafe materials (e.g. untreated wood) is used for construction and decoration
- Furniture, equipment and materials are not safely placed, and they block passages
- Some classrooms are bulked with outdated equipment
- Inappropriate power and network wiring is an issue virtually for all applicants
- Fire protection and life safety measures are a common issue, they are mostly limited to emergency plans posted on walls and limited numbers of fire extinguishers throughout the building; design proposals do not provide a life safety analysis

ESP DD Findings & Recommendations

Recommendations to address EHS risks from training facilities

- All visited applicants are recommended to review their fire protection and life safety
 - Provision of appropriate means of egress and signage
 - Installation of smoke detectors, fire extinguishers (powder and CO₂), hose reels
 - Limitation of dead end corridors
- Some applicants were asked to redesign/upgrade facilities (e.g. install railings, smoothen elevated thresholds, remove wooden decoration, etc.) when safety risk was found to be high
- Implementation of proper wiring is necessary in many places
- Applicants where study space was arranged unsafely were recommended to consider proper design of furniture and equipment in classrooms/labs to avoid blocking of passages
- Clearing of classrooms from outdated equipment and arrangement of appropriate storage was recommended in some cases
- All applicants were recommended to upgrade the ESMP so that to comprise all recommended measures

NB: Please consider respective changes in the project budget, design documentation, BoQ, equipment list and materials/equipment specifications

ESP DD Findings & Recommendations

Specific issues

➤ Waste Water Management:

- Five of the visited field training sites do not have access to the municipal sewage system
- sewage management should be ensured to avoid environmental pollution
- Applicants planned to install a septic tank for this purpose.

Applicants are **recommended**:

- To consider biological treatment of sewage to ensure compliance to legal requirements and avoid environmental pollution
- To ensure that proposed treatment facility is designed up to required standards (capacity, quality of discharged water)
- To design proper absorption field when discharge into surface water is not practicable
- To deliver relevant information in updated ESMP

NB: Please consider respective changes in the project budget, design documentation, BoQ, equipment list and materials/equipment specifications

ESP DD Findings & Recommendations

EHS risks for planned practical trainings

- Many practical training courses incur EHS risks and require the use of hazardous equipment (e.g. stoves, welding machines, oxygen/high pressure cylinders, etc.), hazardous materials (e.g. lab chemicals, paints/solvents, oxygen, etc.), and will generate various wastes (air pollutants, wastewater, solid waste)

EHS Issues identified

- TVET providers do not have formal EHS procedures to manage potential issues
- Draft ventilation system is absent in some workshops and laboratories
- Very few facilities have warning signs to notify about potential hazards
- PPE is missing, insufficient, or not used where required
- Material and waste management practices are rather weak – appropriate storage facilities are missing, materials and waste are not properly kept, etc.

ESP DD Findings & Recommendations

Recommendations to address EHS risks for practical trainings

Some applicants already proposed certain measures to manage the described EHS risks at their training facilities

- All applicants are recommended to identify environmental, health and safety risks for planned practical training programs; they should consider the development and adoption of management procedures for major EHS risks
- All facilities where air quality issues may occur (e.g. chemical labs, welding or building material processing workshops, etc.) are recommended to install properly designed draft ventilation systems, or upgrade the existing system where applicable
- The development of material and waste management procedures is recommended to ensure safe storage and handling of materials/wastes as well as proper waste disposal
- Warning/safety signs should be provided in locations of high risk as required
- Applicants are recommended to include the provision and use of proper PPE throughout the training sessions that are taking place in their facilities
- All applicants are advised to upgrade their ESMP in order to incorporate all recommended measures
- ❑ ***Please note that proposed mitigation and monitoring measures should be based on EHS risk assessment and cost-effective.***
- ❑ ***Please consider respective changes in the project budget, design documentation, BoQ, equipment list and materials/equipment specifications***

ESP DD Findings & Recommendations

EHS risks from neighboring facilities/sites

- Two of proposed field training sites are in the power sub-station yard and poorly isolated from the sub-station area.
- Some rooms allocated for field trainings share the building with the sub-station's control room, and these spaces are not insulated from each other.
- In several cases transformer houses are installed in the yard/close to the TVET facility. Transformer houses are not always safely arranged, they do not have protective fencing to prevent unauthorized entry.
- Safety signs are not provided for sub-station/transformer sites to warn about potential risks and prevent unauthorized entry.
- 500 ton reservoir is installed on a high tower in 15-20 m from one of the training centers
- Refueling stations are built very close (20-30 m) to TVET in some cases

ESP DD Findings & Recommendations

Recommendations to address EHS risks from neighboring facilities/sites

- To ensure proper fencing and signage of high risk sites (e.g. transformer houses, power sub-station) to separate them from training areas whenever practicable
- To consider other measures restricting unauthorized access to high risk areas (e.g. locking of doors and gates).
- To consider safety signs to inform people about potential hazards and prevent unauthorized entry
- TVET personnel and students should be notified about potential hazards, restricted areas, actions to be done in case of emergencies
- Applicants with these or similar issues are advised to upgrade their ESMP in order to incorporate all recommended measures
- ❑ ***Please note that the owners/operators of the neighboring facilities are your stakeholders and they should be considered during the Stakeholder Engagement planning.***
 - Engagement with these stakeholders is required to have timely information about the current condition of the facilities and their potential risks. Negotiate with them about the risk mitigation measures and emergency notification.
- ❑ ***Please consider respective changes in the project budget, design documentation, BoQ, equipment list and materials/equipment specifications***

ESP DD Findings & Recommendations

Specific issues

- **Community health and safety risk:** two of visited applicants have/plan to establish small scale food production units (milk processing, fruit and vegetable processing) for practical trainings of service personnel
 - Consumption of produced food is planned, what incurs food safety issues
 - Both applicants plan to establish a food safety laboratory to test food quality, but the laboratory authorization and the legal compliance of the production process should be checked

Recommendation given:

- To contact the National Food Agency in order to obtain advise, what food safety requirements should be met to ensure legal compliance and avoid community health and safety risks.

Specific issues

- **Resettlement need** for one proposed project: 2-3 persons (IDPs) residing in the proposed facility should be resettled, according to provided information
 - The applicants have proposed 2 alternative options for displacement:
 - (a) rehabilitate one of the existing building wings under the residential apartments
 - (b) purchase apartments in residential blocks
 - ESMP does not include resettlement measures and allocated funds are not provided in the project budget

Recommended Measures

- To describe planned resettlement measure in the ESMP and consider the implementation of a resettlement procedure up to MCC/MCA standard
- To modify the budget in order to show funds allocated for the resettlement

Summary of ESMP specific recommendations

- **Please review your ESMPs before resubmission:**
 - Address issues identified by TAT from documentation review and site visits, and as discussed during TAT's field visits
 - Consider formal feedback and recommendations from TAT, as well as best practice recommendations for the issues identified
- **Ensure that EHS management and monitoring costs are estimated and included in the project budget to enable the implementation of the ESMP**
- **Ensure that revised/prepared design documentation of the renovation works includes measures required for EHS risk management**
- **Ensure that list of equipment and equipment specifications are updated and include all equipment/installations purchased for EHS risk management**
- ❑ ***Please note that ISWD ESP Experts are be available for checking of the ESMP and feedback before final submission***

Thank You!

