United Nations Children Fund (UNICEF)

Restoring Education and Learning (REAL) (P175036)

Environmental and Social Management Plan (ESMP)

Rehabilitation of 16 Schools in Taiz and Ibb Governorates in Yemen

September 10th, 2022

1. GENERAL INFORMATION

Governorate	Taiz and Ibb
City / District	Al Mawasit, Sharab As Salam, Al Dhihar, As Sayyani and Dhi As Sufal.
Sub-project name	Rehabilitation of 16 selected schools including WASH facilities in Taiz and Ibb governorates
Sub-project activities (ref. annex 2)	• Minor and medium rehabilitation of structural assets in 16 schools including classrooms, stairs, corridors as well as maintenance of roofs slope concrete layer and isolation layer (ref. BoQs) • Rehabilitation of 62 existing latrines in 10 schools • Construction of 12 new latrines in 4 schools • Construction of 7 cesspits in 7 schools • Construction of 6 ground water harvesting tanks in 6 schools • Installation of 3 small solar power systems in 3 schools
Area/place of civil work implementation	All the activities will be carried out within the premises of the targeted schools (inside the schools' yards)
Implementing Partner	Public Works Project (PWP)
Risk Level	Moderate
Subproject implementation cost	12,000 USD for each school (ref. annex 2)
ESMP cost	Minimum 4,000 $ for all sites (on the contractor)
Field visit	Conducted by PWP in July-August 2022
Consultation	Conducted by PWP in July-August 2022 (ref. annex 3)

2. BASELINE

2.1 CONTEXT DESCRIPTION

The crisis in Yemen had a devastating impact on the delivery of essential services, including the education ones; the situation is worsened by the fact that a third of all education facilities have been partially damaged or destroyed. The proposed intervention is therefore essential to improve access to basic services, including the WASH ones, for children and any other individual who could benefit from it in the targeted schools (ref. REAL POM).

The activities will be implemented in 16 schools in between Taiz and Ibb governorates as follows: seven schools in Taiz Governorate (4 schools in Al Mawasit District and 3 schools in Sharab As Salam District) and nine schools in Ibb Governorate (1 school in Al Dhihar District, 7 schools in As Sayyani District, and 1 school in As Sufal District). Please refer to annexes 2 and 8 for the locations of every targeted school.
Most of the areas in Taiz and Ibb governorates are located in the highlands. Taiz is the most is the most populous governorate in Yemen and is divided into 23 administrative districts; Ibb governorate, which is also known as the "green province" for its verdant mountains and agriculture, is divided into 20 administrative districts.

10 of the targeted schools have latrines in their premises; however, they are out of service and do not have regular water supply and maintenance; 4 of the targeted schools have no WASH facilities at all. Consequently, the children tend to practice open defecation in the environment surrounding the classrooms, leading to many adverse health issues due to the spread of the germs and bacteria in the faeces.

2.2 SUB-PROJECT DESCRIPTION

This Environmental and Social Management Plan (ESMP) refers to Project Subcomponent *1.4. School infrastructure improvements*, under *Project Component 1. Priority interventions to sustain access and ensure learning*, in the framework of Restoring Education and Learning (REAL) project which is funded by the World Bank.
This ESMP is elaborated according to the World Bank Group (WBG)'s Environmental and Social Framework (ESF) and REAL Environmental and Social Commitment Plan (ESCP).
The ESMP is also prepared in compliance with relevant WBG's Environmental, Health, and Safety guidelines, general WBG's EHS guidelines[1], and WBG's EHS sector-based guidelines[2], for water and sanitation sector, as well as with the relevant national environmental standards.

Objective
The intervention is expected to improve the school infrastructure as well as children's access to safe water and sanitation services in the targeted schools in two governorates Taiz and Ibb. It will also ensure the sustainability of the WASH services for a safer and cleaner learning environment for the children in the proposed schools, by, among others, preventing the spread of cholera and communicable disease.

[1] https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=nPtguVM
[2] https://www.ifc.org/wps/wcm/connect/0d8cb86a-9120-4e37-98f7-cfb1a941f235/Final%2B-%2BWater%2Band%2BSanitation.pdf?MOD=AJPERES&CVID=nPtk0wW

The subprojects will be implemented through a partnership with Public Works Project (PWP) which will rely on general contracting to conduct the schools' rehabilitation.
The risk associated with these activities is moderate.

Scope of work
The proposed interventions mainly focus on minor and medium rehabilitations of school infrastructures and WASH facilities, which will be implemented within the premises of the targeted schools – in the schools' yards.
The activities will include the rehabilitation of the 62 existing latrines in 10 schools in order to ensure that they function properly to provide safe sanitation for the schools' children. In addition, 12 new latrines will be constructed in 4 schools.
7 new cesspits will be built in 7 schools to collect wastewater and stop the practice of dumping it in the open areas near the schools' premises. They will be constructed at safe distance (at least 30-50 meters) from any water sources, water bodies, and areas prone to flooding. Furthermore, they will be located in a secured place, out of reach for children and for any other individuals except for project workers, in order to minimize the risk of accidents. The sites will be selected in order to facilitate a safe cleaning process, especially when emptying them with the trucks, and to minimize the risk of contamination of water stream during the rainy seasons. The cesspits cover will be built according to the specifications contained in the related BoQ, specifically to prevent any harm on people as well as to prevent rainwater to penetrate through it.
In addition, ground rainwater harvesting tanks (approximate 3.00*3.00*2.50m) will be constructed in the schools' premises to address the continuous water supply needs of the latrines and handwashing.
To ensure water availability and improve access to safe water and sanitation, 3 solar power systems will be installed in 3 schools to provide energy for pumping water from the ground rainwater harvesting tanks to the water tanks located at the rooftop of the latrines.
The contractor will ensure that the construction material and related equipment will be stored in a safe place, only accessible to project workers, in order not to generate any harm to children and any other individual who may access the premises.

Below are details of works to be conducted:

Minor and medium rehabilitation for schools' structural assets in 16 schools
- Classroom rehabilitation (rehabilitation of plastering layer, painting of ceilings and walls, rehabilitation of windows and doors, rehabilitation of wooden plates, supply, and installation of ceramic tiles)
- Rehabilitation of stair and corridors guardrails, rehabilitation of roof slab parapets
- Maintenance of roof slope concrete layer and isolation layer in 6 schools
- Implementation of stone masonry/cement blocks walls in 5 schools
- Implementation of electricity works including inspection and maintenance of electrical wiring and replacement of the damaged electrical socket point, electrical socket faceplate, electrical switch faceplate, and electrical lighting units wherever needed

Rehabilitation of 62 existing latrines in 10 schools
- Rehabilitation of the water feeding pipes in the latrine
- Rehabilitation of the sewerage PVC pipes from the squat toilet to the cesspit
- Rehabilitation of the latrine body (wall tiles, floor tiles, doors, windows, ceiling)
- Rehabilitation and maintenance or replacement for porcelain wash basin, water point faucets, toilet flushing system, manhole covers, porcelain squatting type toilet, supply and installation of ceramic tiles, maintenance of ceramic tiles by applying white cement layers

Construction of 12 new latrines in 4 schools

- Excavation of the foundations of the latrines – less than 50 cm
- Building latrines walls
- Casting the roof of the latrines
- Excavation works and connection of the pipes to nearest manholes – less than 50cm.
- Instalment of the latrines' windows and doors
- Plumbing work for the latrines
- Installing handwashing stations
- Plastering
- Painting

Construction of 7 cesspits in 7 schools

- Levelling of the sites
- Excavation in various types of soils (rocky and sandy)
- Building the pit retaining wall with black stones
- Building/Casting the pit roof with reinforced concrete
- Dimension: 3 m. diameter *3 m. depth

Construction of 6 ground rainwater harvesting tank in 6 schools

- Excavation for tanks foundation (50 cm) in various types of soils (rocky and sandy).
- Masonry construction of tanks' foundation and walls
- Reinforced concrete pouring of the tanks floor and roof
- Walls plastering works
- Shuttering and timbering works
- Plumbing works (from the roof to the ground water tank including the first flush system – from the cistern to the pump to the latrines roof-top)
- Installation of the tank components (electric pump, pumping room, tank cover, steel ladders – aluminium ladders for maintenance works in the cistern – water pump with capacity of 0.5 Horsepower)
- Tank dimensions will be approximate of 3.00*3.00*2.50m

Installation of 3 small solar power systems in 3 schools

- Installation of two solar panels (200 Watts) on the rooftop with a steel base to restrain it
- Installation of a solar power hybrid inverter (control current and convert current)
- Installation of a one gel batteries (12 Volts and 200 Amps)

3. SOCIAL AND ENVIRONMENTAL IMPACT

As detailed above, the intervention will mainly focus on minor and medium rehabilitations.
An initial evaluation of potential impacts associated with the implementation of the subproject activities was conducted based on the nature of the activities themselves, the characteristics their location characteristics, and according to a screening checklist (ref. annex 1).

In terms of the potential positive impacts, the upgrade of the schools' structural assets and related WASH services is expected to improve school children's health and safety, but also the overall surrounding environment for the neighbouring communities. It is also likely to enhance children enrolment in schools.

On the other hand, the potential negative environmental and social impacts are expected to be moderate, localized, and reversible considering the small to medium-scale of the rehabilitation works. They could consist in the following:

- Safety risks for project workers, children, school personnel and the members of the neighbouring communities related to project works;
- GBV and COVID-19 risks generated by the proximity between the project workers and the children, the school personnel, and the members of the neighbouring communities.

These potential negative impacts are addressed by mitigation measures detailed in the Environmental and Social Management Plan (ref. chapter 4 and related table), in addition to the clauses for contractors in chapter 8.

4. MITIGATION MEASURES AND MANAGEMENT PLAN

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
WB ESS 2: LABOR AND WORKING CONDITIONS						
1	GBV	GBV risks on project workers[3]	• Organize mandatory and repeated training and awareness raising for the project workers about refraining from unacceptable conduct towards women • Inform workers about national laws that make sexual harassment and gender-based violence a punishable offence which is prosecuted	• Contractor to implement[4] • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Continuous
2	Child safeguarding	Child labour	• Verify all workers age by checking IDs and other available documents to ensure they are all 18 years old and above • Ensure a Labour Log is available, and all workers are registered	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Prior commencement of the activities • During work implementation in case of change to the composition of the project workers' team

[3] GBV risks on the community is developed under WB-ESS 4.
[4] The contractor is under PWP's direct supervision; the site engineer is PWP consultant.

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
3	OHS	Labour and working conditions	• Provide all workers with terms and conditions that comply with Yemeni Labour Legislation • Implement the measures and commitments defined in the Labour Management Procedures	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Prior commencement of the activities • During work implementation in case of change to the composition of the project workers team
4	OHS	Accidents and injuries related to civil work (walls, roof plastering, painting, floor pouring, and tiling)	• Ensure site and store materials are properly secured • Conduct awareness/training sessions about (OHS) occupational and health safety before the beginning of work • Provide personal protection equipment (PPE) for workers following the nature of work/risks of the activity • Ensure that the ladders or scaffolding are stable and set up on the levelled ground and must be affixed to any	• Contractor to implement[5] • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Prior commencement of the activities • Continuous

[5] For all activities entailing constructions/rehabilitations mentioned in the above table, contractors shall be contractually responsible to remove all debris, rubbles, and construction waste outside of schools after completion of work.

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			stable body with no movement • Install protective fencing falls from high places • Use a safety harness working at height and lifesaving ropes • Provide workers in high-noise areas with earplugs or earmuffs • Ensure ventilation is continuous inside the workspace • Provide an emergency plan containing the names of the nearest health centre and local assistants, and the routes to be used to each of them fast • Ensure availability of first aid box • Ensure the presence of a vehicle to transfer injured people in case of accidents to the nearest hospital • Use trained first aider capable of providing emergency rescue and first aid			

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
5	OHS	Accidents and injuries during excavation of the cesspits and water tanks	• Remove falling blocks objects or sliding soil in any area above the level of excavation in and around the pit • Conduct inclined excavation if the soil is collapsible or saturated with water. Also, the sides of the excavation shall be supported with timbering work if required • Use safety gloves, dust masks, protective helmets, protective boots, and all necessary PPE • Collecting and transporting the excavation residues to the designated landfills right away • Full precautions must be taken into consideration during the removal of excavation residues, especially on the sides of the pits • Use appropriate equipment for levelling and excavation and pay extra attention while using mechanical excavators	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Prior to civil work/excavation • Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			• Wearing a protective helmet is obligatory to protect the workers from getting sunstroke or head injuries • Provide regular breaks and potable water for workers • Use trained first aider capable of providing emergency rescue and first aid • Provide full body harness and lifelines for workers • Maintain and provide insurance bills for workers according to the requirements and conditions of insurance • Ensure work is conducted only during daylight • Excavated areas must be fenced or barriered			
6	OHS	Accidents and injuries related to working in confined spaces (cesspit's excavation and building)	• Conduct work during daylight time only • Use well-trained workers using special and appropriate PPEs • Provide Self-Contained Breathing Apparatus SCBA as applicable	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			• Apply maximum working shift time for every worker, small period rotational time • Never conduct any work without direct and close supervision of the supervisor's engineers • Ensure the presence of oxygen tanks on site • Ensure workers are attached by safety ropes in case of emergency • Ensure full body PPE is available for workers and adhered to			
7	OHS	Accidents and injuries associated with welding activities/use	• Prevent/limit the welding works performance at the site • Provide and use of personal protection equipment (PPE) for workers in accordance with the nature of work/risks in the activity • Use a helmet with side-shields, safety glasses, breathing protection mask, fire resistance clothing, earplugs, and proper boots and leather welding gloves	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Prior to civil work • Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			• Only trained workers to perform welding works • No work shall be performed during rainy seasons			
8	OHS	Accidents and injuries related to solar system installation and electricity works	• Ensure proper siting for solar panels installation, including that the roof is well maintained and adequate for panels installation • Ensure appropriate site for panel installation with suitable direction and away from the shadow • Ensure array structures are grounded properly • Inspect the existing facility and apply all safety measures to prevent the risk of any injury to the workers by electricity shock during installation or the users during operation • Carefully design using appropriate technologies to minimize hazards • Train contractor electricians and provide them with appropriate insulated PPE and	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up • Facility administration to assist and maintain	On the contractor	• Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			work tools and should be aware of electricity shocks and avoidance techniques • Ensure that only skilled workers are authorized to perform any electrical operations • Install danger signage in the electrical hazard areas and apply all safety measures to prevent exposures • Ensure batteries are well placed in a safe and proper ventilated room with appropriate fire extinguisher and conduct regular monitoring • Ensure proper recycling and disposal paths exist for batteries • Ensure using properly insulated cables			
9	OHS	Poor onsite sanitation or water supply, leading to illness and disease	• Provide project workers with access to toilets and potable drinking water (portable latrines in the working site) • Ensure clean water and soap and cleaning martials are available all time	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			• Ensure that the latrines are always clean and have no leakage to the surrounding to it areas • Ensure proper management and sewage and greywater waste, collection, in insulated containers within the portable latrines and ensure proper disposal in coordination with the local authority • Provide appropriate PPEs during cleaning the cesspits • Use appropriate PPEs during cleaning and maintenance of the cesspits			
10	Non-local manual labour	Risk of influx of non-local manual labour	• Verify that local manual labour hired from the sub-project area to provide work opportunities for local communities and to avoid non-local labour influx	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Prior commencement of the activities • Continuous
WB ESS 3: RESOURCE EFFICIENCY AND POLLUTION PREVENTION AND MANAGEMENT						
1	Pollution	Acoustic and air pollution during the implementation of rehabilitation works, including for the transportation of	• Use well-maintained equipment and vehicles • Spray water for dust control • Use dust sweeping methods to minimize water spraying in dust suppression	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Prior commencement of the activities • Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
		construction materials	• Employ appropriate dust control measures • Properly cover trucks transporting construction materials • Limit noisy activities to normal daylight hours and coordinate with school construction for proper/balance timing of work • Provide PPEs such as ear mufflers • Sensitize workers to turn off vehicles and machinery when not in use • Ensure minimum traffic speed enforced on site during transportation of material			
2	Pollution	Water use/water contamination (surface water and groundwater) and soil contamination	• Employ appropriate water conservation measures such as using collected rainwater and good practice measures while using water • Ensure proper drainage on site • Decrease water usage in construction area • Avoid using public water and use alternative water source	• Contractor to implement • PWP site engineer to ensure implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			for construction purposes (e.g., grey water) • Ensure proper handling, storage, and disposal of any liquid waste according to the chemical's material safety data sheet (MSDSs) • Ensure cesspits are properly lined and well insulated to avoid leakage during operational and maintenance phase • Ensure cesspit and latrines (including portable latrines for workers) location is far from runoff areas and properly insulated • Apply any maintenance work at designated areas away from runoffs and to avoid soil and ground water contamination • Minimize chemical usage (lubricants, solvents, petroleum products) and conduct machine maintenance at designated sites insulated from the ground			

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			• Ensure hazardous wastes and materials are handled by trained workers • Ensure proper storage of hazardous substances, solid wastes and hazardous wastes at well insulated areas • Ensure proper storage, handling and management of chemicals such as oil and paint • Separate (segregate) water supply and water distribution pipeline channels/route from sanitation pipeline channels/route • Avoid working during rainy seasons			
3	Waste management	Poor disposal of construction debris and waste materials and hazardous wastes	• Properly collect and load the debris using well maintained equipment to suitable trucks with suitable load • Properly transport the loaded wastes and debris by suitable trucks with cover to avoid spillage during transportation • Properly store waste at designated zones and properly dispose of solid	• Contractor to implement, in coordination with the general department of the municipality and cleaning local council (where it exists) • PWP site engineer to ensure implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			waste, construction waste, and hazardous waste if any (e.g., empty paint and oil containers) to designated permitted by local authority's sites • Ensure all the loading and unloading of the construction material conducted safely within fenced areas away and isolated from children and communities			
4	Resource efficiency	Inefficiency of the solar panels system	• Ensure water is used efficiently while cleaning the panels in order to avoid wasting water • Ensure solar panel cleaning will be wiper cleaning and water saving practice by using rubber • Ensure blade water sprayers with very little amount of water	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up • Facility administration to assist and maintain	On the facility administration	• Continuous
5	Landscape	Damage to the environmental ecosystem	• Plant trees in select sites in the schools' yards, at a safe distance from the cesspits to ensure that root system do not lead to crack and seepage at the cesspits	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor and on the facility administration	• Prior commencement of the activities • Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			• Perform appropriate landscaping on completion • Ensure construction materials and waste are transported properly and not affects the surrounding environment and public • Ensure proper trenches backfills and properly compacted not lead to landfalls/landslips after work completion in future	• Facility administration to assist and maintain		
WB ESS 4: COMMUNITY HEALTH AND SAFETY						
1	GBV	GBV risks on community	• Organize mandatory and repeated training and awareness raising for the project workers about refraining from unacceptable conduct toward children, specifically girls, and women • Inform workers about national laws that make SEA and gender-based violence a punishable offence which is prosecuted	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Continuous
2	Education activities	Temporary disruption of education activities due to the	• Coordinate with school instructor/manager • Isolate the work site from schools' personnel, students,	• Contractor to implement, in coordination with the school instructor/manager	On the contractor	• Prior to civil work/excavation • Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
		implementation of civil work	and any other potential visitors • Limit the work to one area in series • Spray the site with water to dampen dust • Accelerate construction activities, limit implementation time (beyond the school's operation time) as feasible • Never disturb children from access to school • Provide alternative temporary access to schools • Ensure that school children have alternative water supply, if construction will cause water supply cut during construction • In sensitive areas where dust is emitted, inform locals to close their windows and distribute masks for nearby people	• PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up		
3	Health	Spillage and stagnant water may generate mosquitoes and health hazards	• Ensure proper drainage of spillage and mud water retrieved by rehabilitation and removal of silt	• Contractor to implement • PWP site engineer to ensure the correct implementation	On the contractor	• Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			• Clean and maintain drainage structures • Eliminate and reclaim spillage and mud water by providing adequate drainage work • Clean and maintain drainage structures • Eliminating and reclaiming spillage and mud water	• PWP/UNICEF to supervise and follow up		
4	Health	COVID-19 pandemic spread	• Ensure full adherence to COVID-19 precautionary measures by all workers • Ensure face masks and eye protection PPE are available and used by all workers • Ensure awareness sessions are conducted on COVID-19 for all workers • Ensure availability of hygiene kits, soap, clear water, and hygiene etiquettes are followed • Ensure social distancing is applied in the work site	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up	On the contractor	• Continuous
5	Safety	School children, school personnel's and school visitors' safety during construction works	• Restrict access to the working site (administrative control, communicating risks and fencing)	• Contractor to implement, in coordination with the school instructor/manager	On the contractor	• Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			• Protect work zones with zinc plates or scaffold sheets • Install warning signs • Erect removable barriers in high-risk areas • Ensure the presence of supervisors • Conduct work during school holiday periods	• PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up		
6	Sanitation	Lack of maintenance and management of the latrines and water tanks	• Perform regular inspection of latrines and water tanks • Conduct regular maintenance for water tanks and latrines • Ensure that the surrounding areas are always clean, and the soil not contaminated • Ensure no leakage of water into the streets or to open areas • Ensure that the latrines are always clean • Provide training to school management before handing over • Ensure proper housekeeping and management of latrine cesspits area • Prevent stagnant water formation/presence	• Contractor to implement • PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up • Facility administration to assist and maintain	On the facility administration	• Continuous (during and after project completion)

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			• Ensure proper provision of cleaning materials • Ensure clean water is always available in the latrines • Ensure WASH facilities are accessible and safe for all users, including girl students and students with disabilities • Ensure WASH facility are equipped with functional locks, lighting, ramps and handrails			
7	Sanitation	Overflow of wastewater from cesspits	• Empty/clean the cesspits regularly and dispose the sludge/wastewater into authorized by the designated authority dumping site • Use trained workers for cleaning and desludging the cesspits, using the sucking trucks and the appropriate related agencies/entities • Ensure that the cesspit cover is always free from obstacles	• School management and the Mothers and Fathers' Councils to ask for the support of local authorities and district education offices to take action • Local authorities and/or district education offices to ask the Water and Sanitation Local Corporation to intervene	On the facility Administration	• Continuous (after project completion)
WB ESS 10: STAKEHOLDER ENGAGEMENT AND INFORMATION DISCLOSURE						
1	Stakeholder and community engagement	Stakeholders' negative feedbacks, complaints, and grievances	• Awareness raising and continuous consultations with the key stakeholders and members of the community	• Contractor to implement	On PWP and UNICEF	• Continuous

#	Area of concern	Issue/Impact	Mitigation measures	Responsibility	Cost estimate	Time/Frequency
			• Dissemination of information on GRM for both project workers and community, with a specific focus on GBV	• PWP site engineer to ensure the correct implementation • PWP/UNICEF to supervise and follow up		

5. MONITORING PLAN

No.	Parameters	Monitoring requirement/tools and indicators	Responsibility	Locations	Timeframe/ Frequency
WB ESS 2: LABOR AND WORKING CONDITIONS					
1, 3-9	Occupational health and safety practices, including GBV	- Contractor's incident record - PWP site supervisor engineer report - PWP/UNICEF GRM report - UNICEF TPM report - PWP/UNICEF field visits' report - Photographic documentation to be annexed whenever possible **Indicators:** - Number of project workers wearing proper PPEs - Number of injured project workers - Number of received grievances on this topic - Number of project workers having signed the Code of Conduct	- Contractor - PWP site engineer - UNICEF education team - PWP/UNICEF safeguarding units	- Working site	- Continuous
2	Child safeguarding/child labour	- Contractor's record of project workers, with a focus on their birth certificate - PWP site supervisor engineer report - PWP/UNICEF GRM report - UNICEF TPM report	- Contractor - PWP site engineer - UNICEF education team - PWP/UNICEF safeguarding units	- Working sites	- Continuous

No.	Parameters	Monitoring requirement/tools and indicators	Responsibility	Locations	Timeframe/ Frequency
		- PWP/UNICEF field visits' report **Indicators:** - Number of project workers below 18 - Number of received grievances on this topic - Number of project workers having signed the Code of Conduct			
8	Accidents and injuries related to solar system installation and electricity works	- Contractor's incident record - PWP site supervisor engineer report - PWP/UNICEF GRM report - UNICEF TPM report - PWP/UNICEF field visits' report - Photographic documentation to be annexed whenever possible **Indicators:** - Number of project workers wearing proper PPEs - Number of injured project workers by electric shocks - Number of received grievances on this topic	- Contractor - PWP site engineer - UNICEF education team - PWP/UNICEF safeguarding units	- Working site	- Continuous
10	Risk of influx of non-local manual labour	- Contractor's record of project workers, with a focus on their residency certificate	- Contractor - PWP site engineer - UNICEF education team	- Working site	- Continuous

No.	Parameters	Monitoring requirement/tools and indicators	Responsibility	Locations	Timeframe/ Frequency
		- PWP site supervisor engineer report - PWP/UNICEF GRM report - UNICEF TPM report - PWP/UNICEF field visits' report **Indicators:** - Number of project workers coming from the local community - Number of received grievances on this topic	- PWP/UNICEF safeguarding units		
WB ESS 3: RESOURCE EFFICIENCY AND POLLUTION PREVENTION AND MANAGEMENT					
1	Acoustic and air pollution	- Contractor's incident record - PWP site supervisor engineer report, including an evaluation and health inspection, air monitoring through visual assessment of the amount of dust and particulate matter (visible dust cloud) and noise inspection and measurement - PWP/UNICEF GRM report - UNICEF TPM report - PWP/UNICEF field visits' report **Indicators:** - Visible dust cloud	- Contractor - PWP site engineer - UNICEF education team - PWP/UNICEF safeguarding units	- Working site - School vicinity	- Continuous

No.	Parameters	Monitoring requirement/tools and indicators	Responsibility	Locations	Timeframe/ Frequency
		- Number of received grievances on this topic			
2-3-4-5	Working site arrangement and management, including debris and waste material management and disposal	- Contractor's incident record - PWP site supervisor engineer report - PWP/UNICEF GRM report - UNICEF TPM report - PWP/UNICEF field visits' report - Photographic documentation to be annexed whenever possible **Indicators:** - Presence of waste at undesignated zones - Number of received grievances on this topic	- Contractor - PWP site engineer - UNICEF education team - PWP/UNICEF safeguarding units	- Working site	- Continuous
WB ESS 4: COMMUNITY HEALTH AND SAFETY					
1, 3-6	School children, personnel and visitors' health and safety, including GBV and SEA	- Contractor's incident record - PWP site supervisor engineer report - PWP/UNICEF GRM report - UNICEF TPM report - PWP/UNICEF field visits' report **Indicators:** - Number of injured people because of the project works (excluding project workers)	- Contractor - PWP site engineer - UNICEF education team - PWP/UNICEF safeguarding units	- Working site	Continuous

No.	Parameters	Monitoring requirement/tools and indicators	Responsibility	Locations	Timeframe/ Frequency
		- Number of received grievances on this topic - Number of project workers having signed the Code of Conduct			
2	Temporary disruption of education activities	- Contractor's incident record - School attendees' record - PWP site supervisor engineer report - PWP/UNICEF GRM report - UNICEF TPM report - PWP/UNICEF field visits' report **Indicators:** - Number of received grievances on this topic	- Local authorities/communities - School management - Contractor - PWP site engineer - UNICEF education team - PWP/UNICEF safeguarding units	- Working site	- Continuous
3	Spillage and stagnant water	- Contractor's incident record - PWP site supervisor engineer report - PWP/UNICEF GRM report - UNICEF TPM report - PWP/UNICEF field visits' report - Photographic documentation to be annexed whenever possible **Indicator:** - Visible spills - Change in soil colour	- Contractor - PWP site engineer - UNICEF education team - PWP/UNICEF safeguarding units	- Working site	- Continuous

No.	Parameters	Monitoring requirement/tools and indicators	Responsibility	Locations	Timeframe/ Frequency
		- Number of received grievances on this topic			
7	Overflow of wastewater	- Contractor's incident record - PWP site supervisor engineer report - PWP/UNICEF GRM report - UNICEF TPM report - PWP/UNICEF field visits' report - Photographic documentation to be annexed whenever possible **Indicators:** - Cesspits are regularly checked and emptied - Number of received grievances on this topic	- Contractor - PWP site engineer - UNICEF education team - PWP/UNICEF safeguarding units	- Working site	- Continuous
WB ESS 10: STAKEHOLDER ENGAGEMENT AND INFORMATION DISCLOSURE					
1	Inadequate stakeholder and community engagement	- Contractor's record - PWP site supervisor engineer report - PWP/UNICEF GRM report - UNICEF TPM report - PWP/UNICEF field visits' report - Photographic documentation to be annexed whenever possible **Indicators:** - Number of received grievances on this topic	- Contractor - PWP site engineer - UNICEF education team - PWP/UNICEF safeguarding units	- Working site	- Continuous

6. STAKEHOLDER'S CONSULTATIONS

Besides multiple meetings with local authorities, several consultations were conducted with primary stakeholders, including school instructors, teachers, Mothers & Fathers' Councils, and the community members in the targeted schools, in order to listen to their concerns and opinions on the intervention and take into account their priorities. Sessions were organized in all the targeted schools by two PWP consultants (one female and one male) and the technical PWP team, by using the Participatory Rapid Assessment (PRA) tool. The consultations were held in July and August 2022, during the preparation of the BOQs of each sub-projects, and more than 503 persons participated: 312 males and 191 females (ref. annex 3 and 4).

The stakeholders were invited in public meetings conducted either in one of the school classrooms or in the schools' yards.

The members of the Sub-Projects Committees (1 committee per school) were nominated by the Mothers and Fathers' Council, who selected representatives from the council itself by general acceptance. The main role of the mentioned committees, which are made up of both females and males, is to facilitate in managing the implementation of sub-projects activities as well as in solving the potential conflicts that may occur during the project. The frequency of the meetings of the sub-projects committees varies from school to schools – from 1 to 4 meetings per year.

The project components and the expected environmental and social impacts were described to the beneficiaries.

The consulted communities/beneficiaries, especially the schools' instructors and the Mothers & Fathers' Councils, committed to provide the needed support to facilitate the smooth implementation of the project activities in the schools.

However, most of the consultees expressed their dissatisfaction with the inadequate available funding for rehabilitation, which does not meet the schools' needs.

They also mentioned the need to construct new schools for girls in the rural areas of Taiz to decrease their drop out from the education system, since in most of the current structures the classrooms are too crowded and WASH facilities are insufficient.

Moreover, the consulted actors pushed for the sub-projects to be implemented in a timely manner in order not to disrupt the educational activities.

They asked to prioritize the recruitment of workers from the local communities for the project implementation.

The consultees are familiar with the impact that could occur during implementation as most of them are using cesspits for wastewater disposal and ground tanks for water collection in their houses. Therefore, they are not worried about the impact of the project, and they are willing to help implement the activities, as it will improve the hygiene situation and reduce the children's health risk associated with waterborne diseases.

The school management indicated that no dedicated workers are available for the school maintenance; they also complain about the lack of cleaning materials in the schools and their inability to afford resources for purchasing them. In addition, they intend to raise awareness on GBV related issues with the school children (boys and girls) and prevent any risk or harm which may occur to them during implementation.

The stakeholders were informed on the Grievance Redressal Mechanism (GRM) and how to use it; they were reassured that it is free of charge, that all information is confidential, and that they would receive a timely response to any inquiries and/or grievances.

During the consultations, PWP filled and documented the baseline survey form and other required tools, such as Covid-19 and cholera prevention measures and risks assessments forms.

7. GRIEVANCE REDRESSAL MECHANISM (GRM)

7.1 UNICEF GRM

UNICEF has established Grievance Redressal Mechanism (GRM), to collect and respond to the stakeholders and communities' inquiries, feedbacks, and complaints, in order to ensure their engagement and consultation in all aspects of the project implementation. The GRM is also intended to address any issue relate to risk or harm to the stakeholders' lives or to the quality of their lives which may arise during the project implementation, including those related to GBV/SH/SEA and corruption.

Feedbacks (both positive and negative) will be collected from beneficiaries, community members, contractors, project workers, and any other concerned stakeholder; they will be addressed properly and accurately in order to improve the project quality and maximize the benefits and the opportunities of the intervention itself.

GRM visibility materials reflecting the available communication tools/channels were produced and will be distributed to ensure the accessibility of the system (ref. annex 5). As mentioned in the previous chapter, consultees were informed on the GRM and on the fact that all complaints will be treated equally and confidentially.

Every complaint will be received via the toll-free hotline (8004090) and will be registered, treated and resolved. Records of grievances will be maintained, including minutes of discussions, recommendations, and redressal actions. Anonymous complaints will be accepted and processed too.

Summary of UNICEF GRM Management Process

No	Action	Responsibility	Time frame
1.	The complaint is submitted to the Call Centre (CC)	Complainant	Any time
2.	The complaint is logged into the CC registration system with index number	CC agent	Day 1
3.	The CC agent confirms the receipt of the complaint and notifies the complainant whether the complaint is related to the REAL project or not (if not, referral to the concerned agency)	CC agent	Day 1
4.	Gather evidence on the complaint and conduct interviews as necessary, analyse the information and develop resolutions on grievance (correction actions) In case of SEA allegations, UNICEF do not conduct any interviews, but use the information received and send it to the Office of Internal Audit and Investigations who are responsible for conducting investigations and recommend further (disciplinary) actions, as per the SEA guidance from UNICEF and for the UN system. Investigations should not take longer than 7 days.	REAL appointed staff /team (at central level and local focal points)	Day 2 to 7
5.	Inform the complainant on the redressal actions	CC agent	Day 7-8

No	Action	Responsibility	Time frame
6.	Review and close the complaint	GRM central Focal Point	Day 8 to 11
7.	Produce grievance summary report	GRM central FP	Quarterly

In case the complainant is not satisfied with the redressal action, she/he or an appointed staff on his behalf can report it directly to UNICEF relevant chief of section; the latter can propose a solution, in consultation with the relevant parties (including the complainant). If the raised issue is particularly complex, the complainant can rely on an arbitrator for further investigation.
UNICEF GRM Call Centre (CC) agents and UNICEF staff have been trained on how to deal with SEA complaints according to UNICEF protocol. For all cases received, the national GBV referral pathway is used to refer the survivor to the available services, including medical care and psychosocial support.
The role of UNICEF GRM is to complement PWP GRM, in case the utilizers are not satisfied with the PWP redressal actions to their complaints.

7.2 Public Works Projects (PWP) GRM

As part of an ongoing move to improve its accountability, PWP has developed a GRM system for managing, responding to, and monitoring issues within its programs. The accumulated experience in PWP to respond and interact with all partners and beneficiaries enables it to improve and adopt an efficient GRM, focusing on institutionalizing the experience in dealing with complaints and mainstream it in the system context including MIS. GRM awareness sessions have been conducted to explain the mechanism and introduce the system to the local communities. GRM brochures were distributed to the local community (ref. annex 6). Complaint boxes were also placed in the subproject sites which will be opened in a formal meeting with supervision from the local community committee – nominated during the early intervention stage and usually composed of 50% males and 50% females-every week. The complaints are then registered and classified according to their type and raised to branch offices to be addressed and solved. Other communication means were also introduced to beneficiaries, as per the below list:

- Complaints box at subproject location which is open every week
- Telephone: 8002626
- SMS, Telephone, and What's up to no. 775626262
- Face to face by visiting PWP offices

Received complaints will be recorded and investigated and the person who submitted the complaints will be notified of the updates of her/his case. Similarly, all complaints received anonymously will be treated at the same level and as seriously as others complain. Every effort is made to resolve any issue at the community level and within a time frame of 14 days. UNICEF will monitor the implementation of the complaint and feedbacks mechanism, follow up on pending complaints and provide assistance to PWP to solve the complaints themselves.

8. CLAUSES FOR CONTRACTOR

General

1. The Environmental and Social mitigation measures and management plan as well as the related monitoring plan (ref. chapters 4 and 5) were prepared to prevent and minimize any possible risk or harm which may arise during the implementation. The Contractor shall be informed about it and organize his/her work in compliance with the provisions in the above plans.

2. The Contractor shall implement all measures necessary to avoid undesirable adverse environmental and social impacts wherever possible and restore work sites to acceptable standards.
3. The Contract shall comply with the Yemeni Labour Law to ensure the appropriate labour and working conditions of the project workers.
4. These provisions also apply to any Sub-Contractors, including suppliers, present on the project work sites.

Environmental and Social Measures

5. The environmental and social protection measures that must be executed by the Contractor must include:
    - Provide proof of insurance for all project workers, including third party, in accordance with the local regulations and before the implementation of the project.
    - Commit to carry out work implementation during the daytime, and never conduct work at night.
    - Conduct awareness sessions about OHS before the start of work, including hazards associated with the activity, mitigation measures, workers' responsibility, GRM, sexual harassment, abuse, and gender-based violence as well as disciplinary action against any violation.
    - Provide information and awareness on the availability of the grievance mechanisms for project workers.
    - Sign the Code of Conduct and ensure that all project workers sign it too, in order to avoid, among others, any GBV and SEA/SH related risks.
    - Report to PWP/UNICEF on any accident or injury occurring during the execution of the work and within a maximum period of 24 hours. This report shall be recorded in the site logbook and could be attached to the progress reports too. UNICEF to notify the WB within 24 hours after learning about the incident and accident occurrence.
    - Ensure that no worker below the age of 18 is employed, by verifying the relevant documents before hiring, as well as the compliance with national labour regulations.
    - Prioritize hiring from neighbouring communities if unskilled daily-hired workforce is necessary.
    - Ensure adherence to COVID-19 precautionary measures and that social distancing is applied in the work site and hygiene kits (water and soap) are available.
    - Submit a Permit to Work request to the project consultant before starting the work to ensure all safety measures are in place.
    - Comply with the ban on the use of explosives.
    - Prevent any substances, including bitumen, oils, lubricants, and wastewater used or produced, from entering natural water bodies/reservoirs, irrigation channels and streams channels.
    - Supply and implement roadblocks and traffic signs to prevent the entry of non-workers to work sites (metal and/or timber for fences, concrete blocks, warning tapes, traffic signs).
    - Coordinate with the competent authorities to regulate the traffic in the streets.
    - Place warning signs for pedestrians and cars and plan the car movement as well as solve all traffic problems with the local community and local authority and accordance to the instructions of the supervising engineer.
    - Provide safety equipment and tools to all project workers at the expense of the contractor and ensure that the project workers properly utilize them.
    - Prepare a contingency plan containing the names and numbers of the nearest health centres and health personnel, the routes to be used, and the means of transport in case of injuries and accidents.

- Ensure the presence of a guard at the work site for 24 hours throughout the project implementation period to protect the area and prevent unauthorized entry.
- Ensure that the necessary PPEs and COVID-19 protection gears are distributed to each worker who will participate in the implementation.
- Remove all waste (debris, rubbles, and construction waste) during and after the implementation period to a dedicated location outside the work area (allocated landfills) and in accordance with the instructions of the PWP site engineer.
- Commit to placing disturbing equipment away from populated places and operating them at the appropriate times.

6. The contractor is the primary responsible of the inspection of the project work and of its compliance with the environmental and social standards, while PWP site engineer oversees the quality assurance/correct implementation of the standards.

Waste Management

7. All containers, bags, etc. containing oil/fuel/surfacing materials and other hazardous chemicals (including oils from maintenance) shall be stored on a sealed and/or bonded area. All waste containers litter and any other wastes shall be disposed of at designated disposal sites as approved by responsible authorities.
8. Construction waste shall not be left in stockpiles along the schools' yard or roads, but removed and reused or disposed of on a daily basis.
9. Where temporary dump sites for clean excavated material are necessary, they shall be located in areas, approved in written by the responsible authority, where they will not result in supplemental erosion.
10. Areas for temporary storage of hazardous materials such as contaminated liquid and solid materials shall be approved by the supervisor and appropriate relevant local or national authorities before the commencement of work. Disposal of such waste shall be in existing, approved sites.

Management of Resources for Construction Purposes

11. The Contractor shall at all costs avoid conflicting with resources of local communities, including the water ones.
12. No construction water containing spoils or site effluent, especially cement and oil, shall be allowed to flow into natural water drainage courses, including wash water.
13. Site spoils/temporary stockpiles shall be located away from the drainage system and surface run off.

Damage to Property

14. In case of damages to property, the Contractor shall repair to the owner's satisfaction and at his own cost. A certificate from the owner/user shall be obtained for each repair.
15. The Contractor will be legally and financially accountable for any environmental or social damage or prejudice could occur during this subproject activities implementation. Noncompliance, or violation of the ES measures/clauses, or in case of non-remedy of any environmental and social damage, penalties covering the damage remedy will be calculated and deducted of each submitted invoices by contractor.

Project Workers' Health and Safety

16. To avoid work related accidents and injuries, the contractor will:
    - Provide occupational health and safety training to all workers involved in works.
    - Provide protective clothes, masks, helmet, overall and safety shoes or boots, and safety goggles, as appropriate.

- Provide workers in high noise areas with earplugs or earmuffs.
- Ensure availability of first aid box.
- Provide workers with access to toilets and potable drinking water.