

EMERGENCY HEALTH AND NUTRITION PROJECT (P161809)

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN ESMP

WASH MAINTENANCE

ALTHWARAH GENERAL HOSPITAL - SANA'A City

April 2021

Table of Contents

Abbreviations and Acronyms	3
1. Introduction	4
2. Baseline Information.....	5
3. Project Activities Description	9
4. Institutional Arrangements and Responsibilities	10
4.1. EHNP Organization	11
4.2. Responsibilities during the Project Implementation	11
4.3. ESMP Implementation Cost	12
5. Communication and Consultation	12
5.1. Project Preparation and Design	12
5.2. Project Implementation	13
6. Grievance Redress Mechanism GRM	13
6.1. Introduction	13
6.2. Grievances Management	13
6.3. SEA/SH Grievances	14
7. Environmental and Social Management at Project Site	15
7.1. Introduction	15
7.2. Monitoring and Reporting	15
7.3. Project Potential Risks and Impacts	16
7.4. Environmental and Social Risks Assessment and Mitigations	19
Annex 1 Subproject Screening Form	23
Annex 2 Waste Management Guideline	25
Annex 3 Communication and Consultation Summary	27

Abbreviations and Acronyms

BOQ	Bill of Quantities
CoC	Code of Conduct
COVID-19	Coronavirus Disease 2019
EHNP	Emergency Health and Nutrition Project
ESHS	Environmental, Social, Health and Safety
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
GBV	Gender Based Violence
GRM	Grievance Redress Mechanism
MoPHP	Ministry of Public Health and Population
PMU	Project Management Unit
PPE	Personal Protective Equipment
SEA	Sexual Exploitation and Abuse
SH	Sexual Harassment
UNICEF	United Nations Children's Fund
WASH	Water, Sanitization and Hygiene
WB	World Bank
WHO	World Health Organization

1. Introduction

Launched in 2017, the Yemen Emergency Health and Nutrition Project (EHNP) aims to contribute to the provision of basic health, essential nutrition, and Water, Sanitation and Hygiene (WASH) services across Yemen in all 333 Districts and 22 Governorates. The EHNP is jointly implemented by World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF), leveraging each organizations' comparative advantage and areas of expertise along with partnership and support of the World Bank.

The EHNP aims to support the national health system in Yemen through financing health and nutrition services and assists in maintaining the existing health system capacity through support and engagement of public health facilities and communities.

The project main components are:

1. Improving Access to Health, Nutrition, Public Health and Water and Sanitation Services (WSS).
2. Project Support, Management, Evaluation and Administration.

Al-Thawrah Hospital in Sana'a is one of the supported health facilities by WHO under the EHNP in which the proposed intervention will be performed entirely inside the boundaries of the hospital to improve the overall WASH services.

The proposed intervention, hereinafter the project, will include: Maintenance of water supply network, sanitation network, water storage tanks, latrines, doors and windows of WASH facilities in addition to implement roof water proof layers to prevent rainwater leakage as well as performing the electrical work maintenance in WASH facilities.

Summary of the proposed intervention and baseline data are included hereafter within the plan. Meanwhile, the Bill of Quantities and implementation arrangements have been prepared in coordination with the facility and Ministry of Public Health and Population (MoPHP) official authorities and shared with World Bank WASH team for clearance.

For adequate implementation of the EHNP Environmental and Social Safeguards requirements following, the below documents have been developed and published. Both documents are applicable to any activities financed by the EHNP to ensure adequate protection for the personnel, environment and communities from any adverse impact resulted from the implemented activities.

- [Environmental and Social Management Framework ESMF](#)
- [Medical Waste Management Plan MWMP](#)

As such, the Environmental and Social Safeguards of this intervention will be implemented in accordance with the requirements that detailed in the Environmental and Social Management Framework ESMF.

This Environmental and Social Management Plan (ESMP) however is meant to present further details and clarity on the environmental and social risks associated with the proposed intervention in Al-Thawrah Hospital in addition to the mitigation measures that need to be implemented. The plan also defines the project activities summary, level of responsibilities, communication, consultation, reporting requirements as well as the Waste Management and Grievance Redress Mechanism GRM requirements.

The following were considered during the development of project documentations including this plan: review of existing condition at the hospital site to evaluate the current issues and to propose the necessary solutions and mitigations, Site inspections, visits, communication with the hospital and MoPHP authorities. Identify the potential impacts on the healthcare service, environment, and community in addition to provide the necessary guidance on the necessary risk mitigation measures applicable for the project.

2. Baseline Information

Yemen is currently facing a crisis within a crisis, with a dramatic spike of COVID-19 cases. On 10 April 2020, the first COVID-19 case was formally confirmed in the country. COVID-19 cases have been increasing since 3 Feb 2021, to more than 100 cases per day recently, indicating the start of a second wave, bringing the country's total cases to 4,535 cases and total fatalities to 907 as of 1st Apr 2021¹. Yemeni health system is on the brink of collapse, due to years of conflict – since 2015, millions of people are without access to proper health care, clean water, or sanitation.

Epidemics and other disease outbreaks are overburdening the weak health system. Despite a notable decline in cholera cases (273,551 suspected cases were reported from January to December 2020), disrupted WASH and sanitation infrastructure and widespread malnutrition are increasing susceptibility to outbreaks of cholera and other communicable diseases. Vector-borne diseases are surging, including dengue fever and malaria, severe acute respiratory infections (SARI), and vaccine-preventable diseases due to disruption to vaccination services.²

Al-Thawrah General Hospital, located in Sana'a city capital of Yemen, is the largest public hospital and considered the most important health facility in Yemen. The hospital admits patients from all governorates across Yemen. Its current clinical capacity is approximately 1200 beds and it receives around 2500 patients per day.

The general site of the hospital contains several multi-story buildings, facilities, and yards. The total area of the general site of the hospital, yards, housing and other premises is approximately 53,830 square meters in which the area of the main hospital yards and buildings is approximately 44,181 square meters while the area of outpatient clinics and housing is approximately 9,750 square meters.

The building contains more than 12 departments and units such as general emergencies, pediatric emergencies, obstetric emergencies, outpatient clinics, specialized centers for the heart, kidneys, eyes, diabetes, cerebral and inner catheters in addition to different operations departments. There are also other buildings and services such as the academy building, medical supply building, blood bank, laboratory, x-rays, laundry, sterilization, mortuary, administration building, generator rooms, security rooms, service workshops, kitchen, cafeteria, and vehicles parking areas. General layout of the hospital is detailed below within this plan.

Below is general description of the current status of the WASH facilities in the hospital:

Latrines and handwashing basins

The bathrooms around the facility are in poor condition, especially in the main building and the kidney, heart, and outbreaks centers. Obvious leaks from the waste and/or sewer connections. Traces of moisture and leakage available in the inner and outer walls surrounding the bathrooms.

The entire water supply network in bathrooms and sinks needs maintenance and change and most of the doors, and windows require maintenance or replacement.

¹https://covid19.who.int/?gclid=CjwKCAjwpKCDhBPEiwAFgBziArlAbjbet5FTJxVIEpLOH_vQx5P4Y3Muu2wMxbsSReLE09chbl9BoCrnUQAvD_BwE

²https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_HNO_2021_Final.pdf

Sewage network

Sewage network and connections are old and in poor condition, obvious leakage and blockage observed in several areas. Manholes in several areas are blocked, damaged with improper covers and lack of cleanliness. The hospital network is directly connected to the public sewage network.

Roofs and walls

Leakage observed from several roofs around the buildings and several roof areas are partially damaged. Moisture observed at the roofs and walls of WASH facilities and bathrooms.

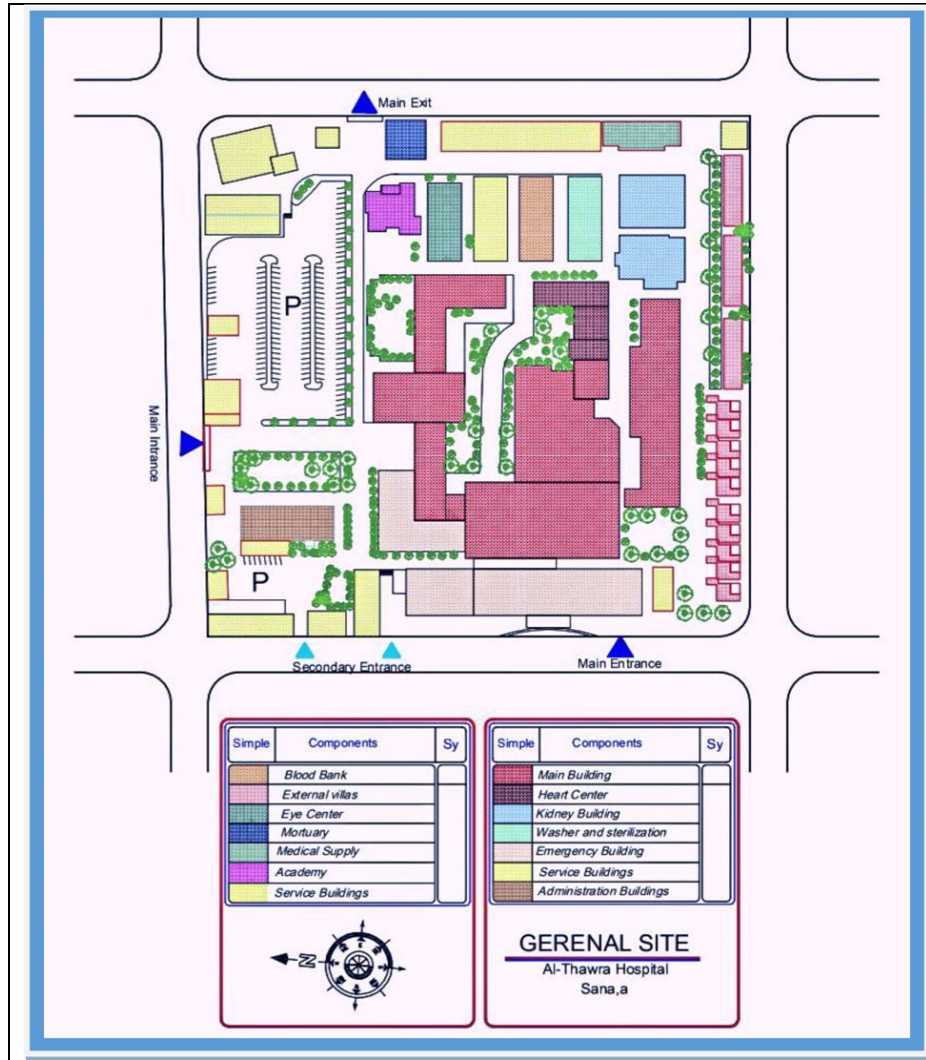
Water source and storage

The water supply to the hospital is from well located in the site. Pressurized water system is available within the facility with plastic storage tanks located at the buildings roofs.

Storage tanks are in poor condition with damaged connections and piping and some needs immediate replacement or replenishments.

Self-explanatory photos available below showing the current degradation of the WASH services and facilities in the hospital which needs urgent action to rectify and to improve the overall condition.

Map / Layout



2.1 Al-Thawrah General Hospital – Layout



2.2 Al-Thawrah General Hospital – Aerial Photo / Google Earth

Photos



2.3 Hand washing basins



2.4 Latrines	
	
	
2.4 Roof damage / Water Tanks	

3. Project Activities Description

WASH plays a crucial role in achieving Universal Health Coverage, including promotive, preventive, curative and rehabilitative services. It contributes to strong health systems that can deliver comprehensive and inclusive management along the continuum of care beyond prevention or cure.

The provision of adequate water, sanitation and hygiene is an essential part of providing basic health services in healthcare facilities. WASH in Health facilities aids in preventing the spread of infectious diseases as well as protects staff and patients.

The current condition of the WASH services and related facilities in the hospital as well consultation outcomes, screening, and need assessment clearly concluded that there is a need for immediate intervention

to improve the status in the hospital and to overcome the current challenges and to sustain the health service provision which will improve the overall health service provision in the facility.

The intervention details, Bill of Quantities (BOQ), studies, layouts, and implementation arrangements have been prepared in coordination with the facility and MoPHP official authorities and shared with World Bank WASH team for clearance.

The work activities expect to take around 80 working days in which the number of workers will vary depends on the implementation stage. The expected maximum number of workers in any working day is 10 workers with limited use of heavy machineries or equipment. The civil work activities shall be carried out in stages to allow sufficient number of toilets functional for patients, families and workers. Where handicap access points are available, alternative access points will be kept available during the rehabilitation

The activities implementation needs to be arranged in coordination between the HF management, contractor, and supervision engineer.

The proposed intervention and activities are summarized below:

- Maintenance and rehabilitation of the bathrooms, water connections and replacement of tiles and paints where necessary.
- Maintenance or replacement of plumbing materials and maintenance of the supply and drainage network in damaged and out of service bathrooms.
- Maintenance of electricity for bathrooms and WASH facilities, including sockets, lights, and ventilation fans.
- Repair door handles and provide metal layers under wooden doors, replacing the damaged doors with aluminum doors.
- Treatment of cracks and leaks in walls, ceilings, and around damaged windows.
- Renewal of the paint that affected by moisture in the toilets and other WASH facilities.
- Treatment of the roof leakage sources and application of an insulating layers.
- Replacement and repair of the old damaged drainage network in the main building and where needed.
- Maintenance of the manholes as specified in the study and plans, changing the covers, and treating the blockages of the drainage pipes.
- Maintenance of laundries, sinks, and laboratory facilities, x-rays, and clinic rooms, and replacement of tiles where needed.
- Provision of sufficient number of water tanks with a suitable capacity in outpatient clinics, housing and other buildings as required. Repair the damaged connections to the current water storage tanks.

4. Institutional Arrangements and Responsibilities

Al-Thawrah Hospital in Sana'a is one of the supported health facilities by WHO under the EHNP in which the proposed intervention will be performed entirely inside the boundaries of the hospital to improve the overall WASH services.

In 2017 during the early stages of EHNP implementation, planning workshops conducted across the country to introduce the project activities and components. These planning workshops involved Governorate Health Offices GHOs, central health authorities, UNICEF, and WHO officials. During these workshops the EHNP was introduced and health authorities prepared Governorate Health Microplans with identification of priority hospitals to receive support, and the type of support needed. Accordingly, a list of health facilities to be supported under EHNP was prepared and agreed upon in which Althawrah Hospital in Sana'a is one of those facilities.

4.1. EHNP Organization

The Project Management Unit (PMU) within the WHO is responsible for the overall implementation of the EHNP activities in Yemen in addition to liaise with World Bank WB the implementation progress and arrangements.

Safeguards team within the PMU is responsible for ensuring the Environmental and Social Safeguards requirements are well addressed and implemented and the safeguards team consists of: Environmental and Social Safeguards officers, Gender Based Violence (GBV) officer and Grievance Redress Mechanism (GRM) Officer. In other hand the WASH team within the PMU is responsible for implementing the WASH interventions at the supported facilities including the preparation of necessary layouts and requirements as well as maintaining the necessary coordination with the MoPHP authorities and WB WASH team.

4.2. Responsibilities during the Project Implementation

Entity / Position	Responsibilities
WASH Team	<ol style="list-style-type: none"> I. Responsible for preparation / review of the design, documentations and contracting arrangement for the project. II. In charge for the follow up of the overall implementation of the project activities as per the proposed design and timeframe and to ensure adequate cooperation with the official MoPHP authorities.
Supervision Engineer	<ol style="list-style-type: none"> I. Assigned from the PMU side to follow up onsite the implemented activities and to ensure the work performed by the contractor is in line with the proposed design and the necessary safeguards are adequately addressed. II. Regular reporting to the PMU shall be maintained by the Supervision Engineer on the project implementation status as well as the level of compliance to the safeguards' requirements detailed in this ESMP and particularly the table 7.4 requirements. III. The Supervision Engineer, in collaboration with the facility and MoPHP official authorities, will be responsible for site hand over to / from the contractor upon the work start / completion.
Environmental and Social Safeguards Officers	Will oversee the safeguards implementation as stated in the projects ESMF and as per the present ESMP during the various implementation stages of this intervention. Responsible for maintaining the communication and visits to the project site where needed.
GBV Officer	Responsible for the implementation of the GBV requirements as stated in this plan in addition to follow up, address and resolve any GBV issues.
GRM Officer	Responsible for the overall GRM process ensuring all related grievances are recorded, followed up and resolved accordingly.
Contractor	<ol style="list-style-type: none"> I. Responsible for onsite implementation of the Environmental and Social Safeguards requirements as stated in this plan and in the EHNP ESMF as well as the applicable rules and regulations.

Entity / Position	Responsibilities
	II. Contractor shall nominate and hire qualified and trained personnel to implement the project activities including Environmental, Social, Health and Safety (ESHS) Officer. III. The contractor shall ensure all workers involved in the project implementation are trained and covered with insurance for any work-related injuries or incidents.
Contractor ESHS Officer	I. Responsible for following up closely the activities onsite and to ensure adequate protection for the Environment, Assets, Communities, and Workers from any adverse impact that might be resulted from project implementation. II. Daily follow up for the implementation of mitigation measures detailed in this plan and specifically the 7.4 requirements. III. Responsible for the provision of necessary awareness and training to project workers on the Occupational Health and Safety OHS, Waste Management and other Environmental and Social Safeguards requirements.

4.3. ESMP Implementation Cost

ESMP implementation cost at the project site is estimated as below:

No	Implementation Cost	USD
1	Production and dissemination of communication materials on the safeguards and GRM requirements at the project site.	500
2	Assignment of the Environmental and Social safeguards staff for contractor. Provision of training and awareness sessions on OHS to the project workers.	3,000
	TOTAL	3,500

5. Communication and Consultation

5.1. Project Preparation and Design

During project preparation and design phase, the proposed project activities and implementation arrangements have been discussed, communicated, and agreed with the MoPHP and facility responsible authorities.

The communication and consultation on the project components and expected benefits with the beneficiaries are described in Annex 3.

EHNP team maintained the necessary arrangements to address the World Bank team comments and recommendations in addition to include the environmental and social safeguards requirements.

The requirements and mitigations indicated in this plan have been addressed with the official authorities and will be furtherly communicated to the contractor and involved personnel. Additionally, this ESMP will be disclosed in the WHO website.

5.2. Project Implementation

Communication with the involved parties during project implementation will be maintained as well to ensure safe and smooth implementation of the project components. EHNP team will maintain the necessary arrangements with contractor, Engineers, MoPHP and facility authorities to follow up closely the activities implementation as per the proposed design taking in consideration the safeguards and mitigation requirements indicated in this plan as well as the EHNP ESMF.

This plan will be translated to Arabic and furtherly communicated to all involved parties to ensure all safeguards requirements are well addressed and to ensure the level of responsibilities is well communicated and implemented.

6. Grievance Redress Mechanism GRM

6.1. Introduction

The main objective of a Grievance Redress Mechanism GRM is to assist to resolve complaints and grievances in a timely, effective, and efficient manner that satisfies all parties involved. Specifically, it provides a transparent and credible process for fair, effective, and lasting outcomes. It also builds trust and cooperation as an integral component of broader community consultation that facilitates corrective actions.

The project within Al-Thawrah General Hospital will be implemented by WHO under the Emergency Health and Nutrition Project EHNP and the EHNP GRM channels have been previously disseminated and circulated via several means including the social media channels and posts at the supported facilities. Those channels will be made available to receive any complaints or requests related to the proposed intervention in the Al-Thawrah General Hospital. The GRM channels will be posted by the contractor and visible around the project site and will be communicated regularly through the social media.

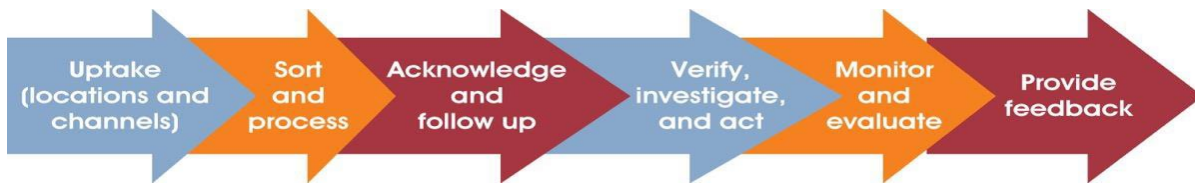
6.2. Grievances Management

The projects' GRM channels detailed hereafter are managed by the projects' GRM officer who will be responsible for following up the grievances received and ensure adequate follow-up and closure of all grievances. The grievances will be referred to relevant officer in the organization. Unsolved complaints are escalated to the project management level (or WHO management level) as appropriate.

The GRM will be accessible to a broad range of project stakeholders who are likely to be affected directly or indirectly by the project. These will include beneficiaries, community members, project implementers/contractor, civil society, media—all of whom will be encouraged to refer their grievances and feedback to the GRM. All stakeholders could submit their comments or grievances anonymously through the complaint boxes, an email, or through the call. They also could request that their name be kept confidential.

The grievance raised will be recorded within one day, while the timeframe for redress will depend on the nature of the grievance, health and safety concerns in work environment or any other urgent issues will be addressed immediately. The complainant can appeal if he is not satisfied and reopen the complaint.

GRM process is detailed in the following chart:



Meanwhile, the Supervision Engineer onsite will be responsible for handling and raising any project related grievances (especially from the complaint boxes) to the EHNP GRM officer.

<u>EHNP- GRM channels</u>	
Toll free number	8004090
Email	YEMGRMehnp@who.int
Complaint Boxes	Inside the HF

6.3. SEA/SH Grievances

Sexual Exploitation and Abuse Sexual Harassment (SEA/SH) related grievances that received and related to the project will be handled by the EHNP GBV officer with strict confidentiality in accordance with the Good Practice Note on Addressing Sexual Exploitation and Abuse in World Bank-Financed Projects³. This will include referrals to GBV service providers, if the survivor approves, to support as appropriate.

Relevant training has been provided on the GBV SEA/SH grievances appropriate handling method as well as the referral channels. This included training on how to collect SEA/SH cases confidentially and empathetically (with no judgement). The guidelines on how to address SEA/SH grievances in accordance with Good Practice Note on Addressing Sexual Exploitation and Abuse in World Bank-Financed Projects are integrated in the training provided for any focal points that are part of the SEA/SH grievances mechanism and resolution mechanism.

WHO’s fundamental principles of integrity, accountability, independence, impartiality, respect, and professional commitment are documented in the Code of Ethics and Professional Conduct. WHO has no tolerance for physical violence and sexual harassment and has clear guidelines and recourses for its staff and collaborators to make available reporting and protection mechanisms and address any acts of physical violence and sexual harassment. The objective of this policy is to address the behavior of WHO staff and collaborators towards third parties and to protect vulnerable populations in the countries that WHO serves from sexual exploitation and abuse at the hands of WHO staff and collaborators in order to ensure the integrity of WHO’s activities.

WHO makes available channels to facilitate the reporting of such violations, giving priority to SEA, and is committed to ensuring prompt and effective response to SEA reports (i.e. investigate and sanction as appropriate), not retaliating and defending/protecting staff who come forward. In addition, WHO is committed to acting to prevent SEA from occurring in the first place by putting in place a communication and raising awareness plan, and monitoring/tracking information concerning SEA.

Any suspect misconduct or SEA issues could be reported by the staff or beneficiaries to WHO’s [Integrity Hotline](#) which facilitates the reporting across the Organization. It is an independent service which takes in reports in confidence and, where warranted, **anonymously**. A [web intake form](#) and an email address

³ [Good Practice Note – Addressing SEA/SH in World Bank Financed Projects](#)

(ethicsoffice@who.int) are available to report SEA issues and it will be dealt as a priority, and WHO's relevant Regional Directors and the Director-General will be informed immediately upon receipt of such a report.⁴

7. Environmental and Social Management at Project Site

7.1. Introduction

In general, the planned project activities within Al-Thawrah General Hospital will have positive Environmental and Social Impacts as it will enhance the overall WASH services within the facility so safe and adequate environmental and social condition will be provided during the health service provision. Additionally, the health services provision to the communities will be sustained and there will be no suspension resulted from any disruption due to the lack of WASH services or due to any potential raining leak through the buildings roofs.

This section, however, details the adverse or positive potential impacts of the project during the implementation stages in addition to the applicable mitigation measures. The potential adverse impacts of the project expected to be site based, localized and with temporary Environmental and Social effect. Screening of project activities as per the requirements of EHNP ESMF has been performed and the screening form is available in the annex 1.

Contractor shall implement all safeguards requirements as included in this plan and any other project documents by qualified and trained personnel in addition to provide the necessary training where required and any violations to the project safeguards requirements during the implementation various stages will lead to penalties against the contractor.

Contractor shall control the whole project areas to ensure safe working environment to the workers as well as to limit any adverse impact resulted from the project activities on the health service provision within the facility. Contractor shall prepare and post widely at the work areas the necessary guidelines, posters, Personal Protective Equipment (PPE) requirements, and barriers to prevent any unauthorized entry to the work areas.

7.2. Monitoring and Reporting

Monitoring of the safeguards implementation onsite shall be performed in daily basis by the Supervision Engineer assigned from the EHNP project associated with regular visits by EHNP WASH or safeguards team where necessary. Regular progress reports shall be issued on the implementation status and shall address / overcome any challenges in the implementation. Such reports need to include any deviations or anomalies with the necessary corrective and preventive actions.

From the contractor side the safeguards implementation monitoring shall be performed by dedicated and qualified ESHS officer assigned permanently for the project.

Contractor and Supervision Engineer are required to report immediately, to the EHNP responsible officer, any incident or accident in relation with the project activities; the event then shall be reported to the World Bank within 24-48 hours.

⁴ [WHO Sexual Exploitation and Abuse Prevention and Response, Policy and procedures, March 2017](#)

7.3. Project Potential Risks and Impacts

I. Water and Landscaping

Contractor shall ensure all materials that will be used in the project activities are sourced from authorized quarries. Usage of explosives, child or forced labor is prohibited to source any of the civil work materials. Only limited amount of the civil work materials shall be stored within the work area or hospital vicinity that is enough for the daily work and contractor shall avoid excessive storage of such materials in the hospital yards.

Solid waste generated from the project will be considered as domestic solid waste and construction waste. Disposal of such waste in an uncontrolled way might result in soil contamination or might affect the human health at the area.

Wastewater that generated from the civil work activities may cause soil / water contamination when it is not properly managed, the contractor therefore shall not discharge any hazardous substances to the sewage networks without appropriate treatment as per the applicable regulations and project procedures.

Contractor, Supervision Engineer, and official authorities within the facility will need to follow up closely the implementation of waste management process and disposal according to the project requirements and the applicable rules and regulations. In addition to reduce the waste generation to the possible extent and to ensure all recyclable waste is properly segregated and treated.

Waste management guideline is available in Annex 2 for the contractor to ensure appropriate waste management in the project site.

II. Air Quality

The potential impact on air quality during the project civil work is the generation of dust from different site activities such as excavation, concrete work, cleaning, ... etc. The generated dust might impact the health of workers, patients, and healthcare workers.

Although painting work is limited, the emitted volatile components might cause irritation to eye and respiratory system of the workers.

Taking in consideration that the excavation activities are limited to the sewage network pipes outdoor of the health facility buildings or tiles/blocks removal inside the buildings. Additionally, the excavation activities are manual with limited use of machineries. Mitigation measures required for this component are to limit the dust generation during civil work by spraying water in addition to install barriers around the civil work areas to avoid any emissions to the occupied healthcare facilities or premises. Additionally, provision of the necessary Personal Protective Equipment PPE to the workers as well as regularly conducting the appropriate training and supervision.

III. Natural habitats; Flora and Fauna

The project activities are limited to the boundary of Al-Thawrah health facility.

IV. Noise and visual impacts

The different activities that will be implemented during the civil work activities will potentially have noise and visual impact risks within the hospital premises and healthcare services. This could be resulted from machinery movement, concrete work, excavation, and the building activities. The health service provision might be temporarily disturbed as a result of the generated noise.

Noise generating activities will be implemented in coordination with the facility responsible authorities and shall be avoided in the peak hours of health service provision and the contractor will ensure the integrity of equipment and the provision of PPE to the workers. Additionally, the barriers surrounding the work area will be implemented to help in decreasing the impact on the health service provision or the neighboring communities.

V. Archeology and Cultural Heritage

The project will be implemented within the boundary and vicinity of the Al-Thawrah General Hospital in which it is not considered as archeological or cultural heritage area, therefore no impact is expected on this component.

VI. Transportation and Vehicle Movements

Vehicles and equipment movement within the civil work areas is limited and when occurs the following measures at minimum shall be implemented:

- Dedicated routes for the movement of machinery, vehicles, and equipment away from the patients flow or emergency access.
- Trained and qualified operators / drivers.
- Movement within the hospital yards needs to be always guided by banks man for signaling.
- The dedicated route shall be arranged away from any excavated or work at height area and no movement is allowed during the nighttime.
- Regular checks and inspections for the vehicles or equipment to confirm the integrity, records to be kept available for any inspection by the project team.
- Reduction of any route closure times, if any, and considering the health service provision as priority
- Any alternative routes shall be provided with adequate lighting and signage.

VII. Occupational Health and Safety

Occupational health and safety risks might be resulted and affected the project workers If the necessary safeguards are not well implemented. Those risks are associated with the painting work, vehicles movement, work at height, confined space entry, cementing / concrete work, and the other civil works within the project scope.

The magnitude and impact of those risks is expected to be low and this is subjected to the implementation of necessary mitigations such as: activities risk assessment by the contractor, provision of the necessary PPE and training, adequate supervision, provision of barriers around the civil work areas, safe access and egress to the civil work areas, adequate platform for work at height activities as well as correcting and reporting the unsafe condition within the project site.

COVID-19 infection transmission among the workers could be resulted and the contractor will be responsible for providing the necessary PPE, handwashing facilities, disinfectants as well as any other infection prevention and control measures. Contractor in other hand shall ensure all workers onsite are fit, not developing any COVID-19 symptoms, and provided with the necessary awareness, training, and communication in regular basis.

Contractor workers and work areas shall be kept separated, to the best possible extent, from any interaction with the healthcare services provided within the hospital.

The contractor shall ensure all workers involved in the project implementation are covered with insurance for any work-related injuries or incidents.

VIII. Community Health and Safety

In general, the project implementation will cause positive impact on the community as it will enhance the WASH services in the facility and ensure sustainable healthcare services through the hospital.

In other hand, some negative impacts might be resulted from the project activities such as dust, noise, vehicle movements and disturbing temporarily the healthcare services. Movement restriction in some areas might be resulted as well and there will be a need for alternative routes provision. Patients, healthcare workers, and visitors might be affected or injured from the exposure to civil work or work at height activities, therefore all work areas shall be controlled, provided with physical barriers, sufficient lighting during night, and clear signs / instructions to avoid any unauthorized entry.

IX. Employment Opportunities

Employment opportunities will be generated to the local society from the project implementation. This will have a positive impact on society' economic especially with the current crisis in the country whereas limited private sector employment opportunities and irregular salary payment to the governmental workers.

X. Labor Issues, GBV and SEA/SH

All project workers are expected to be local and from the same communities. Labor risks including forced labor, child labor, Gender Based Violence GBV, SEA and SH are not expected or with low magnitude and impacts, and to mitigate this risk the requirements will be included in the contracts and Code of Conduct CoC in which the contractor will be obliged to follow along with his workers. Enforcement of CoC implementation among the contractor and workers will be ensured by the project WASH and GBV team.

Register of the workforce detailing the necessary personnel information including the age in addition to screening / verification of labors involved in the project activities shall be implemented by the Supervision Engineer and any finding shall be reported immediately.

In addition, the project GRM channels will be made available for contractor workers as well as any concerned party to raise any grievance related to the labor issues during the project implementation.

7.4. Environmental and Social Risks Assessment and Mitigations

No	Environmental / Social Aspect	Potential Impact	Significance	Risk Response and Mitigation Measures	Responsibilities	
					Implementation	Monitoring
1	Water and Landscaping	Soil contamination	Low	<ul style="list-style-type: none"> Implementation of waste management process and disposal according to the project requirements and the applicable rules and regulations. Reduction of the waste generation to the possible extent and to ensure all recyclable waste is properly segregated and treated. Eliminate any waste disposal to the sewage networks, or within the health facility boundary. Contractor to assign of dedicated waste collection team provided with the necessary training and Personal Protective Equipment PPE. Dedicated waste collection area shall be arranged by the contractor and to include adequate number of bins for each type of waste. Waste segregation at sources and the waste collection outside the hospital yards shall be performed at least twice a day to avoid any waste cumulation within the hospital. Work areas shall be kept free of any debris, scattered litters, or any type of waste at any point of time. Only limited amount of the civil work materials shall be stored within the work area that is enough for the daily work and contractor to avoid excessive storage of such materials in the hospital yards. Waste will be transported to authorized and licensed landfill or dump site which is designated by the city municipality. 	Contractor	Supervision Engineer (Daily) / Contractor ESHS Officer (Daily) / Third Party Monitoring (Spot check)
		Improper waste management and disposal	Low			
		Human health and safety	Low			
2	Ambient Air Quality	Human health impacts from generated dust	Low	<ul style="list-style-type: none"> Spraying water regularly to reduce dust generation. Provide barriers and/or mechanical ventilators around the civil work areas to avoid any emissions to the occupied premises. 	Contractor	Supervision Engineer (Daily) / Contractor

No	Environmental / Social Aspect	Potential Impact	Significance	Risk Response and Mitigation Measures	Responsibilities	
					Implementation	Monitoring
		Effect on the facility Healthcare services	Low	<ul style="list-style-type: none"> Dust generated activities durations and timing to be arranged in accordance with the health service provision and in coordination with the facility management. Additional protection around the kitchen and healthcare provision areas needs to be implemented to avoid any dust ingress such as curtains around the entrances. Provision of the necessary PPE to the workers as well as regularly conducting the appropriate training and supervision. 		ESHS Officer (Daily) / Third Party Monitoring (Spot check)
3	Natural habitats; Flora and Fauna	NA	NA	NA	NA	NA
4	Noise and visual impacts	Nuisance to the nearby facilities and personnel Disturbance of the hospital services	Low	<ul style="list-style-type: none"> Noise generating activities will be avoided in the peak hours of health service provision and the timing to be arranged with health facility management Usage of noise reduction tools and equipment. Contractor will ensure the integrity of equipment and the provision of PPE to the workers The barriers surrounding the work area shall be installed to help in decreasing the impact on the health service provision or the neighboring communities. 	Contractor	Supervision Engineer (Daily) / Contractor ESHS Officer (Daily) / Third Party Monitoring
5	Archeology and Cultural Heritage	NA	NA	NA	NA	NA
6	Transportation and Vehicle Movements	Personal injuries Damage to the assets or equipment	Low	<ul style="list-style-type: none"> Dedicated routes for the movement of machinery, vehicles, and equipment away from the patients flow or emergency access. Trained and qualified operators / drivers. Movement within the hospital yards needs to be always guided by banks man for signaling. The dedicated route shall be arranged away from any excavated or work at height area and no movement is allowed during the nighttime. Regular checks and inspections for the vehicles or equipment to confirm the integrity, records to be kept available for any inspection by the project team. 	Contractor	Supervision Engineer (Daily) / Contractor ESHS Officer (Daily) / Third Party Monitoring (Spot check)

No	Environmental / Social Aspect	Potential Impact	Significance	Risk Response and Mitigation Measures	Responsibilities	
					Implementation	Monitoring
				<ul style="list-style-type: none"> Reduction of any route closure times, if any, and considering the health service provision as priority. Any alternative routes shall be provided with adequate lighting and signage. 		
7	Occupational Health and Safety	Workers Injuries	Moderate	<ul style="list-style-type: none"> The contractor shall ensure all workers involved in the project implementation are trained and covered with insurance for any work-related injuries or incidents. Provision of the necessary PPE to the workers as well as regularly conducting the appropriate training and supervision. Provision of handwashing facilities, disinfectants as well as any other COVID-19 infection prevention and control measures. Install the necessary protection around any excavated or work at height areas. Provide safe egress and ingress from any excavated area. Movement of vehicles and equipment shall be properly controlled in dedicated routes by certified operators. To properly arrange the work area and avoid any slip/trip or fall hazards. Separate access for contractor workers to the work areas without any interaction with the healthcare activities (to the possible extent). Contractor to prepare the necessary plans and measures to prevent any hazardous condition that affect the workers occupational health or safety. 	Contractor	Supervision Engineer (Daily) / Contractor ESHS Officer (Daily) / Third Party Monitoring (Spot check)
8	Community Health and Safety	Sustainable and safe healthcare services provision to the communities	Positive	NA	NA	NA
		Human injuries from exposure to the vehicle movement, civil or excavation work	Low	<ul style="list-style-type: none"> All work areas (civil or excavation areas) shall be controlled, provided with adequate physical barriers. Sufficient lighting during night, in addition to clear signs / instructions to avoid any unauthorized entry to the work areas. 	Contractor	Supervision Engineer (Daily) / Contractor

No	Environmental / Social Aspect	Potential Impact	Significance	Risk Response and Mitigation Measures	Responsibilities	
					Implementation	Monitoring
		Restricted movement within the hospital premises	Low	<ul style="list-style-type: none"> Alternative and safe routes or walkways shall be provided for any access blocked by the project activities, safe patients flow shall be ensured. Adequate lighting, signage and protection for any alternative routes shall be implemented. Priority shall be given to the patients flow and emergency access at any point of time during civil work activities. Routes closure or access blockage to be minimized and the work areas shall be categorized and divided in coordination with the health facility management. 	Contractor	ESHS Officer (Daily) / Third Party Monitoring
9	Employment Opportunities	Employment opportunities will be generated	Positive	NA	NA	NA
10	Labor Issues	Labor influx, child labor, forced labor GBV, SEA/SH	Low	<ul style="list-style-type: none"> Contractual obligations to reduce the labor issues as well as SEA/SH risks. Enforcement of the CoC implementation for GBV- SEA/SH among contractor and staff. Labor register to be maintained and updated by contractor to include necessary information as well as labors' age. Labors screening and age verification at work site by the Supervision Engineer and to report immediately to PMU any observed deviations. EHNP GRM channels will be made available to contractor workers as well as any concerned party to raise any grievance related to the project implementation. 	Contractor	Supervision Engineer (Daily) / Contractor ESHS Officer (Daily) / Third Party Monitoring (Spot check)

Significance Rating	High	Moderate	Low	Positive
---------------------	------	----------	-----	----------

Annex 1 Subproject Screening Form

B1- Screening Checklist for WASH Intervention in Health Facility by WHO/UNICEF

قائمة الفحص الخاصة بالتدخل في مجال المياه والصرف الصحي والنظافة الصحية في المرفق الصحي من قبل منظمة الصحة العالمية / اليونيسيف

NOTE: Any subproject that triggers Physical Cultural Resources OP 4.11, Involuntary Resettlement OP 4.12 and/or International Waterways shall be excluded.

ملاحظة: يستثنى أي مشروع فرعي يؤدي الموارد الثقافية المادية أوب 4.11، إعادة التوطين القسري أوب 4.12 و / أو الممرات المائية الدولية.

Project Name: Al-Thawrah Hospital – Sana'a **Date** 01-April-2021

Project ID:.....

Aspect 1s of EA	Checklist questions Will the new health Unit? هل الوحدة الصحية؟	Yes,	No	Additional data needed
Sources of Impact	1. be an extension of an existing one امتدادا للوحدة القائمة	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2. raise land ownership problems and potential impacts to the use Of land (including encroachers in ROW or public land) ترفع مشكلات ملكية الأراضي والتأثيرات المحتملة على الاستخدام من الأراضي (بما في ذلك المتعديين في رو أو الأراضي العامة)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	3. be run by sufficiently qualified personnel; have qualified WASH personnel . يديرها موظفون مؤهلون بما فيه الكفاية؛ لديها موظفين مؤهلين في مجال المياه والصرف الصحي والنظافة الصحية	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Receptors of Impact	4. affect water sources تؤثر على مصادر المياه	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	5. affect sites of historical or cultural importance تؤثر على المواقع ذات الأهمية التاريخية أو الثقافية	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	6. affect agricultural land تؤثر على الأراضي الزراعية	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	7. affect the life of surrounding human settlements تؤثر على حياة المستوطنات البشرية المحيطة	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	8. affect the life of plants or animals of special importance تؤثر على حياة النباتات أو الحيوانات ذات أهمية خاصة	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Impacts	<p>9. be a source of hazardous solid, liquid or gaseous waste (e.g. infected syringes or bandages, expired medicines, chemicals, gases, etc.) أن تكون مصدرا للنفايات الصلبة أو السائلة أو الغازية الخطرة (مثل الحقن أو الضمادات المصابة، والأدوية المنتهية الصلاحية، والمواد الكيميائية، والغازات، وما إلى ذلك)</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
	<p>10. during construction, present a significant pollution hazard to workers and local communities أثناء البناء، تشكل خطرا كبيرا على التلوث على العمال والمجتمعات المحلية</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
	<p>11. once operational, present a significant pollution risk to potable water supplies بمجرد تشغيلها، تشكل خطرا كبيرا على تلوث إمدادات المياه الصالحة للشرب</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
	<p>12. not disturb the social structure of the surroundings لا يزعج الهيكل الاجتماعي للمحيط</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Mitigating measures	<p>13. be likely to require mitigating measures that result in the project being financially or socially unacceptable من المرجح أن تتطلب تدابير تخفيفية تؤدي إلى عدم قبول المشروع ماليا أو اجتماعيا</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
	<p>14. require safety instructions with regards to the disposal of hazardous waste تتطلب تعليمات السلامة فيما يتعلق التخلص من النفايات الخطرة</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
	<p>15. have its own water resource لديها موارد مائية خاصة بها</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Comments	<p>I recommend that the subproject will have no significant adverse environmental impacts. وأوصي بأن لا يكون للمشروع الفرعي آثار بيئية سلبية كبيرة.</p>	<input checked="" type="checkbox"/>
	<p>I recommend that the subproject may have significant adverse environmental impacts and requires further analysis وأوصي بأن يكون للمشروع الفرعي آثار بيئية سلبية كبيرة ويتطلب مزيدا من التحليل</p>	<input type="checkbox"/>
	<p>All the required mitigating measures have been included within the design and contract conditions for the construction and operation phases. وقد أدرجت جميع التدابير التخفيفية المطلوبة ضمن شروط التصميم والعقود الخاصة بالبناء ومراحل التشغيل.</p>	<input checked="" type="checkbox"/>
<p>Name and signature of YEHNP engineer</p>		<p>date</p>
<p>Eng. Abdulkudus Al-Sharafi</p>		
<p>Name and signature of environmental specialist</p>		<p>date</p>
<p>Eng. Abdulkudus Al-Sharafi</p>		

Annex 2 Waste Management Guideline

1. Introduction

This procedure is meant to provide the necessary guideline to the contractors onsite on the appropriate management and disposal of the generated waste from rehabilitation site at the supported facilities under EHNP. This procedure includes guidelines on the types of generated waste, segregation, storage, and disposal methods.

Contractor is responsible for implementation the waste management at the project site as per the applicable rules and regulation and shall avoid under any circumstances dispose the generated waste in a way that could result in harm to the environment or communities.

Storing materials delivered to site carefully to minimize potential damage and creation of waste (off ground storage, maintain original packaging, covered protection from the weather and protection from collision by vehicles).

The main principles of effective waste management in the project site are:

Reduce: efficient use of resources to eliminate or reduce the generation of waste

Reuse: eliminate the waste disposal or incineration by reuse the generated waste

Recycle: recycle the generated waste and avoid disposal or incineration

2. Storage of hazardous substances and wastes

Storage and handling of hazardous substances

Substances that may harm people or the environment shall be handled and stored in a way that prevents accidental release.

Waste storage areas shall be provided on site:

- enough space should be allocated on site for the waste expected to be generated,
- storage areas shall be indicated on site plans for communication purposes,
- storage areas shall have clear signage to ensure different wastes are stored in the correct place,
- storage area shall be enclosed to prevent waste escaping – i.e. spread of waste by wind-blown; if possible covered skips are suggested to be used,
- if possible, waste should be protected from the rain fall/water ingress,
- waste storage shall not be in the area prone to flooding or on the slope,
- location of the waste storage should be away (min 30 m) from human settlements, animal pastures, water bodies, water sources etc.

Hazardous wastes shall not be mixed with non-hazardous waste:

- organic waste shall not be mixed and stored with non-organic waste,
- hazardous wastes shall be stored in suitable containment, on impermeable surface

3. Waste segregation, treatment, and disposal

3.1 Types of waste

- Organic waste

- Inert waste - materials that do not cause environmental pollution or harm to human health or endanger the quality of any surface water or groundwater when deposited in a landfill under normal conditions. These include rocks, ceramics, concrete, masonry, and brick rubble.
- non-hazardous waste - include timber and bitumen
- hazardous waste - waste that is deemed to be harmful to life and/or damaging to the environment. It may be corrosive, reactive, explosive, oxidizing, carcinogenic or flammable i.e asbestos, acids, alkaline solutions, oily sludges, waste oils and wood preservative.

3.2 Waste Reuse / Recycle

To the possible extent, the rehabilitation and demolition debris should be prevented from disposal into the landfills. This can be achieved by reuse and recycle materials on site. Following examples present how materials can be re-used in which some of the items are applicable to the Al-Thawrah General Hospital intervention:

- excavated stone can be used to build retaining wall in place of the gabions; this allows for cost saving on installation of gabions and disposal of the stone,
- concrete from demolition of existing structures can be crushed and then used as general fill material – i.e. concrete can be used on haul roads and when these are removed, it can be used as a capping layer for the new footpaths.
- excavated material can be reused for backfilling, this eliminates the need to import other material onto site saving time and money.
- excavated material (gravel, stone, sand) or other suitable construction waste (brick, concrete) can be used as cover material at the landfill, backfill at new construction sites, for the reclamation of wetlands, for the filling of low-lying areas subject to regular flooding or can be sold to other engineering contractors.
- scrap metal - has a residual value and can be sold to the scrap metal dealers
- the local waste market should be investigated - there may be potential for recovery and reuse of materials from the waste such as recycling of paper, metals, glass, and plastic.

3.3 Waste Segregation

Segregation is an important step in the waste management procedure as it will help in the recycling and treatment process. It will also ensure no contamination is resulted from the generated hazardous waste:

- provision of designated waste bins and areas as per each type of generated waste.
- briefing and awareness to staff on the segregation requirements
- organic waste SHALL be segregated from non-organic waste
- hazardous waste SHALL be segregated from non-hazardous waste
- allocate enough space for the storage and ensure regular transportation.

3.4 Waste Disposal

Disposal of waste from site must only be carried out as per the applicable rules and regulations in an authorized and licensed areas / facilities.

It is essential to carry out review of the local waste practices - what waste facilities are available in the country/governorate. No extension or implementation for new waste disposal areas is allowed under the project.

Annex 3 Communication and Consultation Summary

The Consultation and communication with the beneficiaries aim to:

- Providing information on the proposed intervention components.
- Discussing project risks, impacts, and proposed mitigations.
- Evaluating the overall satisfaction and acceptance of the proposed intervention in the Hospital.
- Gathering recommendations and suggestions that could improve the project implementation.
- Introduction of project GRM channels during the recent consultations.

Main issues raised are as below:

- There is an immediate need to improve the water and sanitation services across the hospital where the toilets and the waster networks need intensive work in several buildings.
- The sewage system, piping and network also need to be maintained to avoid any risk that could be resulted from open manholes or broken sewage pipes.
- The rainwater leakage from different roofs need an intervention and immediate action to avoid any further degradation resulted from the upcoming raining season.

List of personnel involved in the recent consultation, conducted in April 2021, is as below:

No	Name	Gender	Designation
1	Dr. Ahmed Alansi	Male	Doctor
2	Dr. Ammar Alhuthaifi	Male	Emergency
3	Ahmed Sanad	Male	Administration
4	Dr. Saaifa Bamasdous	Female	Surgery
5	Khaled Alhuthaifi	Male	Administration
6	Hajer Almutwakel	Female	Quality Control
7	Abdrabu Shabin	Male	Visitor
8	Amat Almalik Alshahari	Female	Visitor