



# Nepal Health Sector Support Programme III (NHSSP – III)

**Joint Hospital Assessment Report – Karnali Province  
Humla District Hospital  
Final Draft  
26 August 2019**



*Disclaimer: -*

*This material has been funded by UKaid from the UK government; however the views expressed do not necessarily reflect the UK government's official policies”*

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## 2 Introduction

### 2.2 Assessment Methodology and Process

A technical team from the Nepal Health Sector Support Programme 3 (NHSSP) carried out a field assessment at Humla District Hospital in November 2 & 3 2018, responding to a request from the Provincial Ministry of Social Development (MoSD). The team carried out building assessments and problem analysis and proposed a range of design and service improvements.

The general methodology can be summarised as:

**2.2.1 Collection of data and information:** Collection of secondary data on the hospital from sources including DoHS, Department of Urban Development & Building Construction (DUDBC) records, Provincial Ministry of Social Development (MoSD) – Divisional Offices and Provincial Project Implementation Units, hospital records, reports from previous project consultants.

**2.2.2 Field assessment tools:** The NHSSP team used its standard checklist and needs assessment tool to gather information on buildings on the site.

**2.2.3 Field assessment exercise:** The NHSSP technical experts carried out a field assessment, on 2<sup>nd</sup> and 3<sup>rd</sup> November 2018, facilitated by the hospital management.

**2.2.4 Consultation meetings:** The NHSSP team have engaged closely with the Provincial Minister, representatives of the MoSD, hospital management, staff, the local authority and other relevant stakeholders to secure information on proposed developments, operational requirements, catchment areas, road networks, and future plans.

**2.2.5 Analysis of data and information:** The NHSSP team analysed the primary and secondary data against a range of factors, including Health Infrastructure Information System (HIIS) data, Geographical Information System (GIS) maps, existing drawings, health facility standards and categories drawn from Nepal Health Infrastructure Development Standards (NHIDS). This analysis identified infrastructure and service delivery gaps, problems and key issues.

## 4 Infrastructure (NHSSP)

### 4.1 Site and buildings

Humla District Hospital is located in Simikot and serves the whole district. This is considered to be one of the most remote and isolated regions in Nepal, accessible only on foot or by small aircraft. Air services to the Humla District headquarters, Simikot, are irregular and frequently affected by adverse weather. The area is in the high Himalayan region with long winters and a harsh cold climate, with snow for up to four months of the year. Most settlements are to be found between 3 000m to 5 000m above sea level. Access within the District is limited, and development costs (such as construction materials) are high due to its difficult location. The Humla municipality is a Learning Lab site, selected under the NHSSP as a focus area for action research to improve the provision of health services at provincial and local government level.



Location Map of Humla District Hospital

### 4.2 Existing Situation and Services

Humla District Hospital is an essential facility for the sub-region. The hospital precinct includes 21 building blocks providing functions including medical services, diagnostics, accommodation and other ancillary services, as detailed below:

• Out-patients department and Pharmacy Building	• Public Toilets x 2
• In-patient department and Emergency Building	• Red Cross Building
• Maternity New and Old Buildings	• Doctor's Quarters x 2
• Maternity Waiting Block (rented)	• Staff Quarters x 4
• X-Ray Block	• Nurse 4-room Quarters
• Mortuary	• Cold Store
• PHO Building under construction	• Waste Management Block
• Public Health Office (PHO) Building	

The site plan in Figure 1 indicates precinct layout and current construction activities.

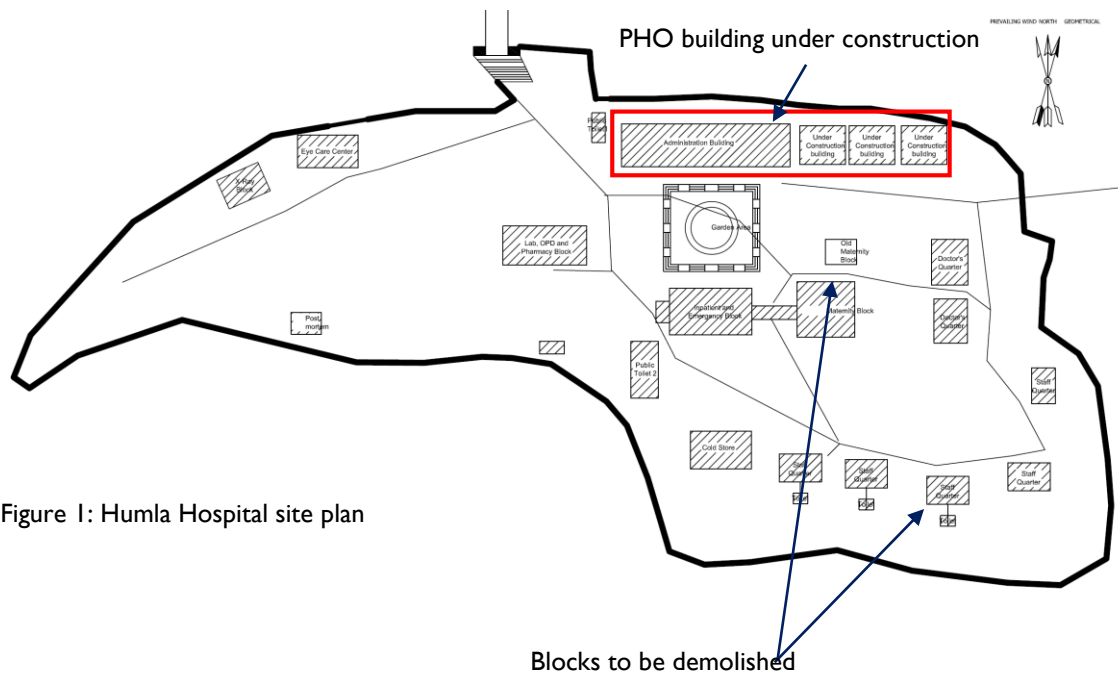


Figure 1: Humla Hospital site plan

A new Public Health Office (PHO) is under construction in the site; comprising four new blocks (see Figure 2).



Figure 2: Public Health Office Building under construction

### 4.3 Assessment Findings

The field assessment identified that many buildings in the precinct, built with dry stone masonry and mud mortar, are highly vulnerable to earthquake hazard. This is particularly true of older buildings, such as the Old Maternity Block and Nurses Quarters. Risk is reduced in those buildings of more recent construction, such as the New Maternity Block. A number of cracks were observed in different buildings, requiring repair. Given the level of seismic risk, it is considered that most buildings will require retrofitting.

The Humla climate is harsh and patients were observed spending time outside hospital buildings to catch the sun where possible (see Figure 3). Buildings are very cold in winter, and heating is inadequate.



Figure 3: Humla patient in sun

## 4.4 Gap Analysis

### 4.4.1 Comprehensive Masterplan for Functional Upgrading:

This hospital has been categorised as Primary Hospital A3 level as per the Nepal Health Infrastructure Development Standards (NHIDS). To meet this requirement, the following functions and services will need to be added to the hospital:

- Directly Observed Treatment Short Course (DOTS) Clinic
- Dental Clinic
- EPI/MCH/FP Room
- USG & ECG
- Oxygen plant and Distribution System
- One-stop Crisis Management Centre (OCMC)
- Maternity Department - Examination & Counseling Rooms
- Blood Bank- blood store and matching room
- Hospital Kitchen
- Emergency Department (including Police Room, Sluice in Minor OT Room and Doctor's Room)
- Canteen Block
- Standard Post Mortem Block
- Guard House
- Waste Management Area
- Multipurpose Hall
- Rain Water Collection
- HVAC
- Store Room
- Cabins
- Ramp

In addition to the facilities required to secure compliance with Primary Hospital A3 status, the hospital management have proposed that the following functions and services be included in the hospital upgrade programme:

- Anti-Retroviral Therapy (ARV)
- Ear Nose Throat services (ENT)
- Intensive Care Unit (ICU)
- Improved Solar Power Backup
- Family Waiting Room
- Magnetic Resonance Imaging (MRI) and Computerised Tomography scan (CT)
- Family Planning Counseling
- Poison treatment services
- Dermatology
- Tropical Disease treatment services
- Caesarian Section (CS) services

## 4.5 Interventions

### 4.5.1 Comprehensive Master Plan

The NHSSP team have recommended that a comprehensive master plan for the short- to long-term development be prepared for the Humla District Hospital. This should cover aspects of

standard design guidelines, existing conditions and specific needs of the Humla district. It should comprise an integrated approach that plans for infrastructure, equipment, human resources and services as required by the Nepal Health Infrastructure Development Standards (NHIDS). Attention should also be given to including a Multi-Hazard Resilience Perspective and Disaster Preparedness aspects.

#### 4.5.2 Short-term Intervention Plan

The NHSSP team has prepared a plan for short-term interventions to address the immediate needs identified under the field assessment. This will complement and support the longer-term comprehensive plan, and bring about rapid improvements to health facilities and services in this deprived area.

The plan sets out improvements to the buildings and facilities shown in the table below and Figure 4.

Short descriptions of interventions and estimated costs are as follows:

Building / Function	Works	Cost NPR
Emergency Block	Construction of new block	18 200 000
Mortuary Block	Construction of new block	7 081 200
OT Block	Construction of new block	20 550 000
Kitchen block	Construction of new block	7 210 000
Toilet Block	Construction of new block	4 410 000
Waiting house	Construction of new block	6 000 000
Medical Oxygen Plant	Installation of plant and distribution system	8 326 575
<b>Total</b>		<b>71 777 775</b>

Note that these preliminary estimates are prepared based on the plinth area rate of the building construction. Plans are adopted from the standard type design. These will be finalized in line with the final designs.

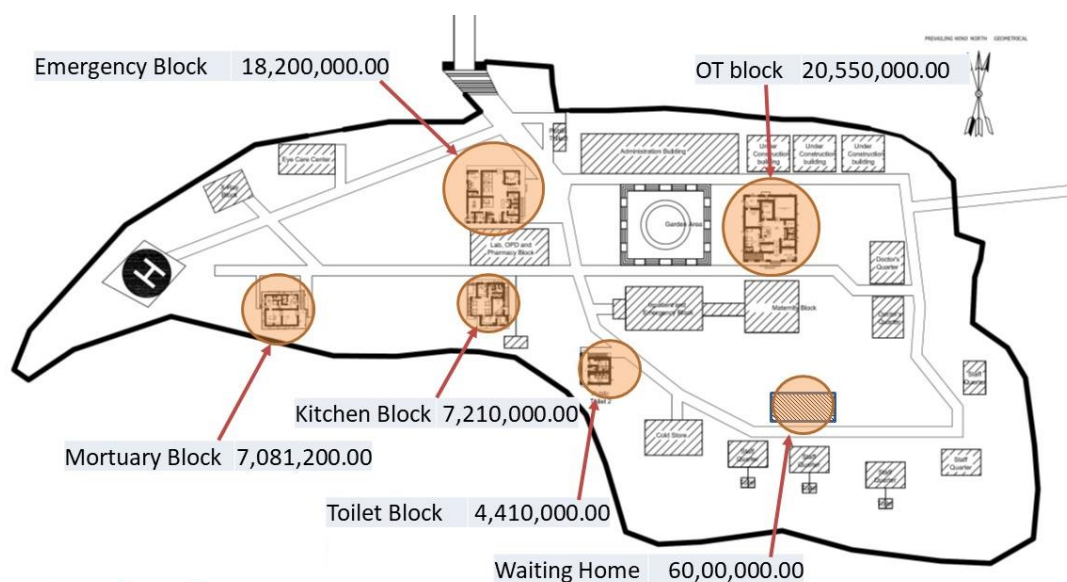


Figure 4: Humla Hospital short-term interventions

#### 4.5.2 Climate responsive interventions



As mentioned previously, the Humla climate is harsh. The development plan will include the introduction of space-heating measures. Maximum use will be made of passive solar techniques to increase building temperatures. Active systems - such as heating, ventilation and air-conditioning systems (HVAC) – used only to make up shortfalls.