



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

**Report: Training Needs Analysis for Ministry of Health and Department of  
Urban Development & Building Construction Staff**

**20<sup>th</sup> September 2017**



**Disclaimer**

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

# 1 Background

The Capacity Enhancement Programme is part of the Health Infrastructure work stream of the Nepal Health Sector Support Programme III (NHSSP). The programme aims to strengthen institutional capacity and transfer skills to management and staff in the Ministry of Health (MoH) and Department of Urban Development & Building Construction (DUDBC), as well as share information and knowledge with private sector construction contractors and professionals. The programme is described in the Health Infrastructure Capacity Enhancement Programme Outline Design Report approved by DFID in July 2017.

Currently, the programme focuses on strengthening skills in three key areas:

- Policy development and evidence based planning
- Health infrastructure technical skills
- Seismic retrofitting and rehabilitation, standards, and practice.

The main target groups for this programme are:

- MoH senior officials, and technical staff in the MoH central Project Coordination Unit (PCU)
- DUDBC technical staff at central and sub-national levels
- Private sector construction professionals (including engineers, architects and quantity surveyors)
- Private sector construction contractors
- 'Fresh' (newly qualified graduate) engineers, engineering teachers and students.

A successful Training Needs Analysis (TNA) workshop was held jointly on 6<sup>th</sup> September 2017 with the MoH and representatives of the DUDBC, PCU, Department of Health Services (DoHS), Nepal Engineering Association (NEA), Society of Consulting Architectural & Engineering Firms (SCAEF), Society of Nepalese Architects (SONA), and the Council for Technical Education and Vocational Training (CTEVT).<sup>1</sup> The workshops concluded with agreement on two key areas for capacity enhancement, technical skills enhancement and policy development and gave a mandate to the Health Infrastructure Team to consolidate these topics into a targeted capacity enhancement programme. The outcomes of this event and proposed training programme will be disseminated to participants and NHSSP stakeholders.

This report summarises progress in formulating both the policy development and technical skills work areas, and describes a set of skills building and information sharing modules that could be targeted to specific beneficiary groups. The Infrastructure Programme Steering Committee<sup>2</sup> will provide oversight and guidance on the final design, implementation and monitoring of the training activities. This report concludes with actions going forward and a timeframe for implementation.

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<sup>1</sup>The workshop attendance list is attached refer to Annex One.

<sup>2</sup>At the time of writing the Programme Steering Committee was being established refer to section 3.3

## 2 Proposed Modules

### 2.1 Outline

Building on suggestions from the September 2017 Training Needs Analysis workshop, a list of proposed modules and training areas to build skills and inform target groups of MoH and DUDBC staff is outlined below. More detail (including content, estimated numbers of participants and the number of training events) is set out in Annex Two and a programme summary is shown in Annex Three.

**Table One: MoH and DUDBC Capacity Enhancement Programme Outline Modules**

SN	Module Topic	Module Type
1	Inclusive and tactical planning in the federal system context	Technical skills building
2	Policy for health infrastructure development, upgrade and maintenance	Information sharing
3	Introduction to health infrastructure design and planning	Information sharing
4	Health Infrastructure Information System (HIIS): Module one: awareness Module two: technical skills	Information sharing
5	Procurement improvements and enhancing transparency	Information sharing / technical skills building
6	Health infrastructure disaster and emergency management planning	Information sharing
7	Construction management training	Information sharing
8	Earthquake retrofitting and rehabilitation standards and practice	Information sharing / technical skills building
9	Environmental adaptation standards and practice	Information sharing / technical skills building
10	Rational planning & health facility location	Information sharing
11	Key aspects of health facilities design, planning and implementation	Information sharing
12	Planning and designing services in health infrastructure	Technical skills building

In addition, the following issues were raised by participants in the workshop:

- Planning and design for highly specialized health facilities
- English to Nepali translation of bid documents
- Importance of knowledge management system and database set-up.

The Health Infrastructure Team considered that each of these issues requires a specific targeted response, and do not necessarily form the content of a training module at this stage. The details of how each issue will be treated are set-out in Annex Two.

## **2.2 Content and objectives**

The content for each module will comprise of information and materials on each topic, appropriate case studies and examples, exercises, and references. Relevant multi-media material can be used or will be developed as required.

Each module will have clear, measurable learning objectives for each topic. It is intended that participants who complete each module<sup>3</sup>, should:

- Have achieved the learning objectives for that topic
- Be capable of applying their knowledge in the development, operation, upgrading and maintenance of health infrastructure
- Be aware of key issues and dimensions of the health infrastructure field, especially in the context of the new federal arrangements
- Be encouraged to participate and share information in relevant networks of practitioners.

## **2.3 Delivery mechanisms**

In addition to facilitating a community of practice<sup>4</sup>, the proposed modules will include a variety of delivery mechanisms, including workshop and classroom-based learning, on-the-job training, coaching, mentoring, and on-site support. This is considered to be good educational practice, and more effective as an adult education methodology than a simplistic 'training by workshop' approach. Training will also be provided at different geographic venues – Kathmandu, an eastern hub and western hub will serve as nodal points for participants drawn from surrounding districts within reasonable travelling distance.

## **2.4 Ratification and adoption**

It is intended to share the modules package with key partner organisations for ratification and adoption, where appropriate. For example, professional representative associations may wish to implement relevant modules as part of their programmes for Continuing Professional Development (CPD). Similarly, universities and other higher education institutions may decide to include specific modules as part of their curricula for teaching built environment professionals.

## **2.5 Outcomes and impact indicators**

There will be consistent monitoring and evaluation of the health infrastructure capacity enhancement activities. Basic performance indicators include training event attendance

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<sup>3</sup>At the end of the each module participants will be provided with a certificate based on the registration and the attendance of each participant during the event.

<sup>4</sup>Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (Wenger-Trayner, 2015)

registers, and completion reports. The participants will be required to complete a pre-training questionnaire on their expectations based on the objectives of the training event and their knowledge of the topics. Participants will also be required to complete post-training questionnaire to provide their rating of the event, whether they consider the objectives had been met, their overall satisfaction level, their rating of their level of knowledge increase and other feedback for future events. There will be Annual Impact Evaluation exercises to assess the overall improvement in performance in the target areas, with possible impact indicators to include:

- Retrofitting training: widespread incorporation of retrofitting designs and techniques in health infrastructure upgrading programmes.
- Number of health facilities designed adhering to the seismic resilient codes and complying with, the MoH standards designs and implementation guidelines for permanent construction of health facilities.
- Number of professionals better equipped to undertake seismic retrofitting works.
- Work performance change in the construction of health facilities. For example, an increase in number of retrofitting designs completed or checked by DUDBC and the MoH PCU within the stipulated timeframe and efficient management of similar construction projects.
- Health Infrastructure Information System (HIIS) training will be assessed in terms of data usage from the online system and data submission into the system. The online system could track the number of logins and system usage which will reflect the usage of the HIIS and Geographic Information System (GIS).
- Establishment of Health Infrastructure Community of Practice groups.
- Number of tendering procedures successfully completed to an acceptable standard, compared to the number without interventions.
- Improved maintenance procedures and practices in health facilities.
- Mainstreaming Disaster Risk Reduction (DRR) elements in health facility plans at national and sub-national level.

These indicators will be finalised during the detailed design process of each module. To identify baselines for the indicators questionnaire and/or survey forms will be developed.

## **2.6 Target Groups**

As described previously, the prime target groups for the training modules are MoH senior and mid-level officials, technical staff in the MoH, PCU, and DUDBC technical staff at central and sub-national levels. In addition, it is proposed to include a small number of officials (no more than four in total) from key organisations that have a strong working and supportive relationship to the Health Infrastructure Programme. The inclusion of these counterparts will help consolidate the community of practice for retrofitting, health infrastructure and DRR. These organisations and rationale are as follows:

- Ministry of Federal Affairs and Local Development (MOFALD) – hold an important role in transferring information on MoH requirements for disaster risk management and health facility planning, development and maintenance to government structures at sub-national level

- National Reconstruction Authority – will play an essential role in supporting retrofitting contracts and fast-track decision-making on rates, norms and approaches to procurement
- Municipality Association of Nepal – again, an important role in transferring information on MoH requirements for disaster risk management and health facility planning, development and maintenance to municipalities
- National Planning Commission – plays a critical role in capital budget approvals.

These counterparts will participate in only those modules relevant to their role and relationship to the Health Infrastructure Programme.

In addition, the requirements of the new federal government arrangements have to be taken into account. Federal elections are scheduled for November 2017, after which departments may be restructured, their responsibilities transferred and staff establishments reorganised. Responsibilities for health infrastructure may change, and target groups may need to be adjusted accordingly. The Health Infrastructure Team will monitor this transition closely, and ensure that the relevant staffs continue to receive training. Documentation and records will be maintained monitoring the balance of individuals trained at the national and local level in order to reflect any changes in responsibilities.

### **3 Next steps**

#### **3.1 Modules**

The detailed design of these modules will be now commissioned, with activities that include:

- Developing learning objectives, content, materials, assessment methods and timeframe for the package of modules – where necessary a more detailed training needs analysis exercise will be conducted with target beneficiary groups.
- Where necessary, testing a pilot version of individual modules
- Advising on the best approaches to delivery and teaching methods.

#### **3.2 First Training Event**

As set out in the NHSSP Health Infrastructure workplan, the Capacity Enhancement Programme gets underway with a Policy Development and Evidence-based Planning training event to be held in November 2017. Drawing on feedback from the Training Needs Analysis workshop, this topic has been extended to form a topic ‘Inclusive and tactical planning in the federal system context’, and this area will be prioritised in the module design.

The next round of federal and central elections may affect the timing of this event. Therefore, the final date of the training event will be kept under review and the timing confirmed with reasonable notice to the participating departments.

#### **3.3 Programme Steering Committee**

The Health Infrastructure Team is in the process of establishing a Programme Steering Committee for its key performance areas, which includes the capacity enhancement programme. This committee will provide oversight, guidance and monitoring on training

activities, implementation and effectiveness. Membership will be drawn from government departments, nongovernmental organizations and key private sector associations.

The Steering Committee will play an important role in supplying inputs and advice on programme and module content in the initial stages of the design process.



# ANNEX ONE

## Training Needs Analysis Workshop 6 September 2017

### Attendance List

Training Need Analysis Workshop 6th September 2017 Yellow Pagoda, Kantipath, Kathmandu						
#	Name	Organisation	Designation	Office No. /Cell	Email	Signature
1	Sarjaya Kumar Sah	PCU Health Ministry	SDE Structure	9841401360	Sarjaya_sah111@yahoo.com	Sarjaya
2	Ranu Mahajan	PCU-H	SDE Architect	9841494534	ranu-mahajan@hotmail.com	Ranu
3	Steve Topham	NHSSP	Consultant	0027824524255	steve@icd-sa.com	Steve
4	Gerard O'Brien	NHSSP	TC	9851224301	gerard@nhssp.org.np	Gerard
5	Nabin Malakar	NHSSP	Sr. Engg.	9851108560	nabin@nhssp.org.np	Nabin
6	Prashantlal Shrestha	NHSSP	GIS/IT	9841307357	shresthaprashantlal@gmail.com	Prashant
7	Bhimsen Khadka	Management	Driver	9841981516		Bhimsen
8	Jeet Narayan Shrestha	M.O-H	"	9841536001		Jeet
9	Jeet Patel	FHD	"	9841525297		Jeet
10	Sushil Pd. Nepal	DOHS/MD	IT Officer	985118708	Sushilnepal36@yahoo.com	Sushil
11	Ujjwal Karki	NHSSP	Engineer	9843159299	ujjwal@nhssp.org.np	Ujjwal
12	Pujita Shrestha	NHSSP	Architect	9849159302	pujita@nhssp.org.np	Pujita
13	Ganesh Ram Nhamakuti	NHSSP	CEA	9841643159	ganesh_ram_nhamakuti@yahoo.com	Ganesh
14	Sunit Chandra	"	Head Adviser	9851092207	sunit@nhssp.org.np	Sunit
15	Mani Ram Gopal	DUDBC	BDG	985095878	mani.rgopal@gmail.com	Mani
16	Himani K.C.	DUDBC	SDE	984134445	himani@hotmail.com	Himani
17	Jitendra Bothara	NHSSP	Tech. Director	9861674365	Jitendra.bothara@gmail.com	Jitendra
18	Surindra Thapa	"	STTA			Surindra

Training Need Analysis Workshop 6th September 2017 Yellow Pagoda, Kantipath, Kathmandu						
#	Name	Organisation	Designation	Office No. /Cell	Email	Signature
19	Dr. Binod Man Shrestha	MOH	Chief Surgeon			Binod
20	Er. Rishi Pd Gupta	DUDBC	SDE	560829-	rishigupta27@yahoo.com	Rishi
21	Er. Anil Lal Guraj	DUDBC	S.D.E	01662391	anilguraj@gmail.com	Anil
22	Er. Mila Acharya	DUDBC	SDE			Mila Acharya
23	Er. Birendra K Yadav	MOH	SDE	9851063456	birenyad62@hotmail.com	Birendra
24	Er. Ram Nath Bothara	NEA	Executive Member	9851039192	hemanath_12@hotmail.com	Ram Nath
25	Er. Ram Udar Yadav	SCAEE	EM	9851014227	cligiconconsult@gmail.com	Ram Udar
26	Er. Prakash Koirala	CTEVT	Senior Engg.	9841512980	koiralaktm@gmail.com	Prakash
27	Ar. Rakesh Mahajan	SONA	Executive Member	9851223595	rakesh.stu@gmail.com	Rakesh
28	Er. Mahesh Chitrakar	DUDBC	Er.	9851031507	malleshchitrakar@gmail.com	Mahesh
29	Gyanendra Shrestha	NHSSP	Sr. Ar.	9841253112	gshrestha_guts@gmail.com	Gyanendra
30	Subash K. Bhattarai	NHSSP	Policy Dev.	9851131553	subash@nhssp.org.np	Subash
31	Sagar P. Ghimire	AND, DOHS	Sr. PHA	9841333639	ghimiresagar@yahoo.com	Sagar
32	Dr. Bikash Bhandari	MOH/PHU	Admin	9841262400	dr.bikashbhandari@gmail.com	Bikash
33	Ramesh Pd. Adhikary	MOH	CPHA	9841330210	ramesh.adhikary@gmail.com	Ramesh
34	Bijesh Basnet	CTEVT	Public. & Liaison	9852028851	bijeshbasnet@gmail.com	Bijesh
35	Pranay K. Upadhyay	MOH, PCU	PHA	9841057954	pranayk@gmail.com	Pranay
36	Dr. Santosh Shrestha	Sr. PHA/Health	NHSSP			Santosh

Training Need Analysis Workshop 6th September 2017 Yellow Pagoda, Kantipath, Kathmandu						
#	Name	Organisation	Designation	Office No. /Cell	Email	Signature
37	Dr. Rajendra Pand	DOHS	DG			Rajendra
38						

## ANNEX TWO

### Outline Modules

1	<p><b>Inclusive and Tactical Planning in the Federal System Context</b></p> <p>This module strengthens skills in evidence-based planning for facilities development and service provision. It aims to assist officials in making rational planning decisions in relation to the development and location of health infrastructure based on local needs.</p> <p>Once the Federal system starts taking shape and the responsibility shifts to the local level, it will be required to analyse the usefulness of the module to the local official, make it more contextual to the local level needs and implement module in the changed context.</p> <p>Key aspects include:</p> <ul style="list-style-type: none"><li>• Methods of need assessment/identification/ demand analysis</li><li>• Cost benefit analysis and cost effectiveness analysis</li><li>• Project appraisal</li><li>• Gender and Social Inclusion (GESI) and Leave No One Behind (LNOB)</li><li>• Use of social data, GIS and HIIS information to support planning</li><li>• Disaster Risk Reduction and forward planning</li><li>• Guidelines on site location</li></ul> <p><b>Participant Groups</b></p> <p>Ministry of Health – estimated number of participants per module:</p> <ul style="list-style-type: none"><li>• Policy, Planning &amp; International Cooperation Division - 1</li><li>• Human Resource &amp; Financial Management Division -1</li><li>• Public Administration, Monitoring &amp; Evaluation Division -1</li><li>• Curative Service Division -1</li><li>• Project Coordination Unit – 2</li></ul> <p>Department of Health Services</p> <ul style="list-style-type: none"><li>• Management Division – 2</li></ul> <p>Department of Urban Development &amp; Building Construction</p> <ul style="list-style-type: none"><li>• Health Building Unit – 2</li><li>• Building Code Section – 1</li></ul> <p>Ministry of Federal Affairs &amp; Local Development – 1</p> <p>National Reconstruction Authority – 1</p> <p>Municipality Association of Nepal – 1</p> <p>National Planning Commission – 1</p> <p>Estimated total participants: 15 Estimated length of module: 2 days Number of events: 1 Location: Kathmandu</p>
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2	<p><b>Policy for Health Infrastructure Development, Upgrade and Maintenance</b></p> <p>This module shares information on approaches to the programmatic development of health infrastructure, upgrading and maintenance.</p> <ul style="list-style-type: none"> <li>• The Building Life Cycle concept, and economic value of buildings</li> <li>• Guidelines on facilities development, upgrade and maintenance</li> <li>• Gender and Social Inclusion (GESI) and Leave No One Behind (LNOB) implications for health infrastructure, upgrading and maintenance</li> </ul> <p><b>Participant Groups</b></p> <p>Ministry of Health – estimated number of participants per module</p> <ul style="list-style-type: none"> <li>• Policy, Planning &amp; International Cooperation Division - 1</li> <li>• Human Resource &amp; Financial Management Division -1</li> <li>• Public Administration, Monitoring &amp; Evaluation Division -1</li> <li>• Curative Service Division -1</li> <li>• Project Coordination Unit – 2</li> </ul> <p>Department of Health Services</p> <ul style="list-style-type: none"> <li>• Management Division – 2</li> </ul> <p>Department of Urban Development &amp; Building Construction</p> <ul style="list-style-type: none"> <li>• Health Building Unit – 2</li> <li>• Building Code Section – 1</li> </ul> <p>Ministry of Federal Affairs &amp; Local Development – 1</p> <p>National Reconstruction Authority – 1</p> <p>Municipality Association of Nepal – 1</p> <p>National Planning Commission – 1</p> <p>Estimated total participants: 15  Estimated length of module: 1 day  Number of events: 1  Location: Kathmandu</p>
3	<p><b>Introduction to Health Infrastructure Design and Planning</b></p> <p>This is a package of modules to introduce policy makers and management staff to key aspects of health facility design and infrastructure planning. The package relates to comprehensive planning for all health service functions and facilities (including medical and non-medical functions). The modules could comprise a one-day session for each topic, depending on demand. Gender and Social Inclusion (GESI) and Leave No One Behind (LNOB) implications will be included as appropriate under each topic.</p>

- **Rational Planning & Health Facility Location**
  - Guidelines on health facility land selection and locational factors
  - Community-based planning
- **Standard Guidelines for Design and Construction of Health Building Infrastructure**
  - Module covering the hospital design guidelines produced by Health Infrastructure Team 2017
- **Environmental Standards and Issues in Planning and Design**
  - Environmental Impact Assessment (EIA), Initial Environmental Evaluation (IEE) and Environmental Management Plan (EMP) – legal framework, how to use in practice
  - Environmental standards and impact management
  - Environmental and climate change-induced hazards
  - Fast track EIA for post-earthquake reconstruction project
- **Architectural and Structural Design Requirements**
  - Overview on architectural and structural design requirements in health facility planning and design
- **Electrical and Sanitary Services, and Healthcare Waste Management**
  - Overview on electrical and sanitary services, and Healthcare Waste Management requirements in health facility planning and design

#### **Participant Groups**

Ministry of Health – estimated number of participants per module

- Policy, Planning & International Cooperation Division - 1
- Human Resource & Financial Management Division -1
- Public Administration, Monitoring & Evaluation Division -1
- Curative Service Division -1
- Project Coordination Unit – 2

Department of Health Services

- Management Division – 2

District / Public Health Office

- D/PHO (one per office) – 75
- Major hospitals - 15

Ministry of Federal Affairs & Local Development – 1

National Reconstruction Authority – 1

Municipality Association of Nepal – 1

National Planning Commission – 1

Estimated total participants: 102

Estimated length of module: 5 days

Number of events: 4

	Location: Kathmandu (2 events) and 2 events outside the capital
4	<p><b>Health Infrastructure Information System (HIIS)</b>  This topic will be dealt with in two separate modules. The first module will be targeted at managers policy makers and technical staff while the second module, which will be more skill based, will be aimed at system operators.</p> <p><b>Module one: Awareness</b>  This module describes the purpose, scope, contents and uses of the HIIS, and promotes its use in health infrastructure planning. It also sets out links to the Health Management Information System (HMIS). It is targeted at senior and midlevel officials to raise their awareness of and engagement with the HIIS.</p> <ul style="list-style-type: none"> <li>• Health Infrastructure Information System framework, database, coverage, fields of information</li> <li>• Use of HIIS in planning and location based analysis of health infrastructure</li> <li>• Uses and potential of HIIS links to other management information systems</li> <li>• Gender and Social Inclusion (GESI) and Leave No One Behind (LNOB) implications for health infrastructure information systems</li> </ul> <p><b>Module two: Technical Skill</b>  This module will incorporate key aspect of module one, supplemented by more practical skills set training for system operators.</p> <ul style="list-style-type: none"> <li>• Health Infrastructure Information System framework, database, coverage, fields of information</li> <li>• GIS uses for spatial data development and update</li> <li>• Advance data analysis skill</li> <li>• Training of Trainers of HIIS</li> </ul> <p>At this stage the potential for linkage between HIIS and the Health Building Unit – Database Management System (HBU-DBMS) in DUDBC is currently being explored through the HIIS review exercise, with a view to deciding if this system falls within the scope of this module.</p> <p><b>Participant Groups Module one</b>  Ministry of Health – estimated number of participants per module</p> <ul style="list-style-type: none"> <li>• Policy, Planning &amp; International Cooperation Division - 1</li> <li>• Human Resource &amp; Financial Management Division -1</li> <li>• Public Administration, Monitoring &amp; Evaluation Division -1</li> <li>• Curative Service Division -1</li> <li>• Project Coordination Unit – 2</li> </ul> <p>Department of Health Services</p> <ul style="list-style-type: none"> <li>• Management Division – 2</li> </ul>

	<p>Department of Urban Development &amp; Building Construction</p> <ul style="list-style-type: none"> <li>• Health Building Unit – 2</li> </ul> <p>District / Public Health Office</p> <ul style="list-style-type: none"> <li>• D/PHO (one per office) – 75</li> <li>• Hub hospitals - (one per Hub hospital ) - 14</li> </ul> <p>Ministry of Federal Affairs &amp; Local Development – 1</p> <p>National Reconstruction Authority – 1</p> <p>Municipality Association of Nepal – 1</p> <p>National Planning Commission – 1</p> <p>Estimated total participants: 103</p> <p>Estimated length of module: 2 days</p> <p>Number of events: 4</p> <p>Location: Kathmandu (1 events) and 3 events outside the capital</p> <p><b>Participant Groups Module Two</b></p> <p>Ministry of Health – estimated number of participants per module</p> <ul style="list-style-type: none"> <li>• Policy, Planning &amp; International Cooperation Division - 1</li> <li>• Project Coordination Unit – 1</li> </ul> <p>Department of Health Services</p> <ul style="list-style-type: none"> <li>• Management Division – 1</li> </ul> <p>Department of Urban Development &amp; Building Construction</p> <ul style="list-style-type: none"> <li>• Health Building Unit – 1</li> <li>• DUDBC Divisional offices - 4</li> </ul> <p>District / Public Health Office</p> <ul style="list-style-type: none"> <li>• D/PHO (one per office) – 75</li> </ul> <p>National Reconstruction Authority – 1</p> <p>National Planning Commission – 1</p> <p>Estimated total participants: 85</p> <p>Estimated length of module: 2 days</p> <p>Number of events: 4</p> <p>Location: Kathmandu (1 events) and 3 events outside the capital</p>
5	<p><b>Procurement Improvements and Enhancing Transparency</b></p> <p>This module serves as an introduction or refresher to the MoH and DUDBC</p>

	<p>procurement requirements and processes for relevant staff. Sessions will vary from half to full days, according to the complexity of the topic.</p> <ul style="list-style-type: none"> <li>• Procurement planning – range and scope</li> <li>• Fiduciary risk</li> <li>• Financial management</li> <li>• Bidding procedures and bid documents, preparation of documents</li> <li>• Procurement of civil works</li> <li>• Bid documents preparation</li> <li>• Rate analysis, including norms for rate analysis</li> <li>• Tendering</li> <li>• Contract management (time, cost and quality)</li> <li>• E-bidding</li> <li>• Gender and Social Inclusion (GESI) and Leave No One Behind (LNOB) implications</li> </ul> <p><b>Participant Groups</b></p> <p>Ministry of Health – estimated number of participants per module</p> <ul style="list-style-type: none"> <li>• Policy, Planning &amp; International Cooperation Division - 1</li> <li>• Project Coordination Unit – 10</li> </ul> <p>Department of Health Services</p> <ul style="list-style-type: none"> <li>• Management Division – 2</li> </ul> <p>Department of Urban Development &amp; Building Construction</p> <ul style="list-style-type: none"> <li>• Health Building Unit – 2</li> <li>• DUDBC Divisional Offices (2 per 35 offices) - 70</li> </ul> <p>Estimated total participants: 85  Estimated length of module: 5 days  Number of events: 4</p> <p>Location: Kathmandu (2 events) and 2 events outside the capital</p>
6	<p><b>Health Infrastructure Disaster and Emergency Management Planning</b></p> <p>This module informs participants of Government of Nepal requirements for Disaster Risk Reduction (DRR). It has a specific focus on health infrastructure, in the context of MoH and DUDBC activities.</p> <ul style="list-style-type: none"> <li>• Background to DRR, international history and protocols (including Sendai framework)</li> <li>• DRR in Nepal (including new Revised Bill /Act to integrate Disaster Risk Mitigation and Management)</li> <li>• Preparedness and mitigation planning</li> <li>• Disaster response plans (national, state and local, with an emphasis on health facility response plans)</li> <li>• Implementing lessons from the 2015 Gorkha earthquake and 2017 floods</li> <li>• Gender and Social Inclusion (GESI) and Leave No One Behind (LNOB) implications for disaster and emergency planning</li> </ul>

	<p><b>Participant Groups</b>  Ministry of Health – estimated number of participants per module</p> <ul style="list-style-type: none"> <li>• Policy, Planning &amp; International Cooperation Division - 1</li> <li>• Human Resource &amp; Financial Management Division -1</li> <li>• Public Administration, Monitoring &amp; Evaluation Division -1</li> <li>• Curative Service Division -1</li> <li>• Project Coordination Unit – 5</li> </ul> <p>Department of Health Services</p> <ul style="list-style-type: none"> <li>• Management Division – 2</li> </ul> <p>Department of Urban Development &amp; Building Construction</p> <ul style="list-style-type: none"> <li>• Health Building Unit – 2</li> </ul> <p>Ministry of Federal Affairs &amp; Local Development – 1</p> <p>National Reconstruction Authority – 1</p> <p>Municipality Association of Nepal – 1</p> <p>Hub Hospitals – (one per Hub hospital ) - 14</p> <p>Estimated total participants: 29  Estimated length of module: 2 days  Number of events: 1</p> <p>Location: Kathmandu (1 event)</p>
7	<p><b>Construction Management Training</b></p> <p>This module serves as an introduction to the MoH and DUDBC construction management requirements, as well as a refresher for staff that have some experience in this area.</p> <ul style="list-style-type: none"> <li>• Project life cycle</li> <li>• Maintenance management planning</li> <li>• Maintenance cycle planning</li> <li>• Budgeting</li> <li>• Roles and responsibilities</li> <li>• Construction progress monitoring and reporting</li> <li>• Gender and Social Inclusion (GESI) and Leave No One Behind (LNOB) implications,</li> <li>• Health and safety of the concerned people in the project</li> <li>• Construction waste management</li> <li>• Environmental impacts and mitigations</li> </ul> <p><b>Participant Groups</b>  Ministry of Health – estimated number of participants per module</p> <ul style="list-style-type: none"> <li>• Project Coordination Unit – 8</li> </ul> <p>Department of Health Services</p>



	<ul style="list-style-type: none"> <li>• Management Division – 1</li> </ul> <p>Department of Urban Development &amp; Building Construction</p> <ul style="list-style-type: none"> <li>• Health Building Unit – 2</li> <li>• DUDBC Divisional Offices (2 per 35 offices) - 70</li> </ul> <p>Estimated total participants: 81</p> <p>Estimated length of module: 3 days</p> <p>Number of events: 3</p> <p>Location: Kathmandu (1 events) and 2 events outside the capital</p>
8	<p><b>Earthquake Retrofitting and Rehabilitation Standards and Practice</b></p> <p>This module introduces theory and practice for earthquake retrofitting and rehabilitation of health infrastructure. It is aimed at GoN technical staff (especially engineers, architects, quantity surveyors, planners) involved in programmes to roll-out, upgrade and maintain health facilities. This module will also be adjusted for the capacity enhancement activities aimed at the private sector construction contractors and professionals.</p> <ul style="list-style-type: none"> <li>• Earthquake hazard in Nepal – impact, risks and projections</li> <li>• Building life cycle and economic value of improvements</li> <li>• Selection of types of retrofitting methods – structural, non-structural and functionality</li> <li>• Overview of retrofitting techniques (for example, jacketing, shear walls, steel plate bonding, dampers, base isolation)</li> <li>• Assessment for selection of buildings and suitability for retrofitting</li> <li>• Assessment of building condition</li> <li>• Retrofitting and design of Reinforced Cement Concrete (RCC) frame in health facilities</li> <li>• Retrofitting stone and brick masonry in health facilities</li> <li>• Construction progress monitoring and reporting</li> <li>• Instructions to masons in retrofitting techniques</li> <li>• Gender and Social Inclusion (GESI) and Leave No One Behind (LNOB) implications</li> </ul> <p><b>Participant Groups</b></p> <p>Ministry of Health – estimated number of participants per module</p> <ul style="list-style-type: none"> <li>• Project Coordination Unit – 8</li> </ul> <p>Department of Health Services</p> <ul style="list-style-type: none"> <li>• Management Division – 1</li> </ul> <p>Department of Urban Development &amp; Building Construction</p> <ul style="list-style-type: none"> <li>• Health Building Unit – 2</li> <li>• Building Code Section – 2</li> <li>• DUDBC Divisional Offices (2 per 35 offices) – 70</li> </ul>

	<p>National Reconstruction Authority - (2 per Central Level Project Implementation Unit) - 6</p> <p>Estimated total participants – 85  Estimated length of module: 5 days  Number of events: 3</p> <p>Location: Kathmandu (1 events) and 2 events outside the capital</p>
9	<p><b>Environmental Adaptation Standards and Practice</b></p> <p>This module explains the rationale and legal framework for key environmental planning and compliance tools - Environmental Impact Assessment (EIA), Initial Environmental Evaluation (IEE) and Environmental Management Plan (EMP). It introduces the concept of Green Design in health infrastructure. This module includes:</p> <ul style="list-style-type: none"> <li>• Environmental Impact Assessment (EIA), Initial Environmental Evaluation (IEE), Environmental Management Plan (EMP) – legal framework, how to use in practice</li> <li>• EIA fast tract for post 2015 earthquake reconstruction activities</li> <li>• Environmental standards and impact management</li> <li>• Environmental and climate change-induced hazards</li> <li>• Concept of Green Design in health infrastructure</li> <li>• Environment-friendly construction methodology and use of alternative technology</li> <li>• Gender and Social Inclusion (GESI) and Leave No One Behind (LNOB) implications</li> </ul> <p><b>Participant Groups</b></p> <p>Ministry of Health – estimated number of participants per module</p> <ul style="list-style-type: none"> <li>• Project Coordination Unit – 8</li> </ul> <p>Department of Health Services</p> <ul style="list-style-type: none"> <li>• Management Division – 1</li> </ul> <p>Department of Urban Development &amp; Building Construction</p> <ul style="list-style-type: none"> <li>• Health Building Unit – 2</li> <li>• Building Code Section – 2</li> <li>• DUDBC Divisional Offices (2 per 35 offices) – 70</li> </ul> <p>National Reconstruction Authority (2 per CLPIU) - 6</p> <p>Estimated total participants – 85</p> <p>Estimated length of module: 3 days  Number of events: 3</p> <p>Location: Kathmandu (1 events) and 2 events outside the capital</p>

10	<p><b>Rational Planning &amp; Health Facility Location</b></p> <p>This module (intended to be no more than two days in length) promotes the rational planning and selection of locations and sites for health facilities. It describes a process of consultative planning, and provides an overview of good practice in health facility design. It includes:</p> <ul style="list-style-type: none"> <li>• Guidelines on health facility land selection and locational factors</li> <li>• Need and feasibility assessment of health infrastructure</li> <li>• Community-based planning</li> <li>• Health facility standard design guidelines produced by Health Infrastructure Team 2017</li> <li>• Land selection, forward planning and budgeting</li> <li>• Gender and Social Inclusion (GESI) and Leave No One Behind (LNOB) aspects of rational planning and health facility location</li> </ul> <p><b>Participant Groups</b></p> <p>Ministry of Health – estimated number of participants per module</p> <ul style="list-style-type: none"> <li>• Policy, Planning &amp; International Cooperation Division - 4</li> <li>• Project Coordination Unit – 8</li> </ul> <p>Department of Health Services</p> <ul style="list-style-type: none"> <li>• Management Division – 3</li> </ul> <p>Department of Urban Development &amp; Building Construction</p> <ul style="list-style-type: none"> <li>• Health Building Unit – 2</li> <li>• DUDBC Divisional Offices (1 per 35 offices) – 35</li> </ul> <p>Estimated total participants – 52</p> <p>Estimated length of module: 2 days</p> <p>Number of events: 3</p> <p>Location: Kathmandu (1 event) and 2 events outside the capital</p>
11	<p><b>Key aspects of Health Facilities Design, Planning and Implementation</b></p> <p>This module shares information of key areas relating to the design, planning and implementation of health facilities. These sessions will cover:</p> <ul style="list-style-type: none"> <li>• Special requirements of health facilities (standards, guidelines, materials and special considerations)</li> <li>• Construction supervision for site engineers</li> <li>• Good practice and basic procedures for effective monitoring and feedback during construction</li> <li>• Multi-hazard planning for health infrastructure</li> <li>• Disaster preparedness training</li> <li>• Alternative energy during the disaster period</li> <li>• Good practice in health facility maintenance (including the Building Life Cycle concept, developing a maintenance plan, commissioning)</li> <li>• Landscape design</li> </ul>

	<ul style="list-style-type: none"> <li>• Gender and Social Inclusion (GESI) and Leave No One Behind (LNOB) implications</li> </ul> <p><b>Participant Groups</b></p> <p>Ministry of Health – estimated number of participants per module</p> <ul style="list-style-type: none"> <li>• Project Coordination Unit – 8</li> </ul> <p>Department of Health Services</p> <ul style="list-style-type: none"> <li>• Management Division – 1</li> </ul> <p>Department of Urban Development &amp; Building Construction</p> <ul style="list-style-type: none"> <li>• Health Building Unit – 2</li> <li>• DUDBC Divisional Offices (2 per 35 offices) – 70</li> </ul> <p>Estimated total participants – 81</p> <p>Estimated length of module: 5 days</p> <p>Number of events: 3</p> <p>Location: Kathmandu (1 event) and 2 events outside the capital</p>
12	<p><b>Planning and designing services in health infrastructure</b></p> <p>This is a set of skills transfer modules, focusing on improving technical awareness and design competencies among MoH and DUDBC staff. Areas include:</p> <ul style="list-style-type: none"> <li>• Sanitary system</li> <li>• Water supply</li> <li>• Electrical</li> <li>• Hospital waste management</li> <li>• Fire protection and lightning protection</li> <li>• Heating, ventilation and air conditioning (HVAC)</li> <li>• Working drawing preparation training</li> <li>• Structural analysis and design (Reinforced Cement Concrete and Cement Masonry)</li> </ul> <p>Gender and Social Inclusion (GESI) and Leave No One Behind (LNOB) aspects will be included in the design of each module as appropriate.</p> <p><b>Participant Groups</b></p> <p>Ministry of Health – estimated number of participants per module</p> <ul style="list-style-type: none"> <li>• Project Coordination Unit – 8</li> </ul> <p>Department of Health Services</p> <ul style="list-style-type: none"> <li>• Management Division – 1</li> </ul> <p>Department of Urban Development &amp; Building Construction</p> <ul style="list-style-type: none"> <li>• Health Building Unit – 2</li> <li>• DUDBC Divisional Offices (2 per 35 offices) – 70</li> </ul> <p>Estimated total participants – 81</p> <p>Estimated length of module: 8 days</p>

	<p>Number of events: 3  Location: Kathmandu (1 event) and 2 events outside the capital</p>
	<p><b>Planning and Design for Specialised Health Facilities</b>  This module focuses on training for the planning and design of specialised health facilities (for example, organ transplant centres, eye hospital, cancer hospital and heart hospital). More investigation and information gathering workshops are required to confirm the scope and depth to which training is required on this topic, to ensure the module is aligned with needs.</p>
	<p><b>English – Nepali Translation of Bid Documents</b>  The Public Procurement and Management Offices (PPMO) provides official translate of government’s document. The Health Infrastructure Team will support MoH/DUDBC in submitting the bid document package to the PPMO, and provide assistant on technical terminology as required.</p>
	<p><b>Importance of a Knowledge Management System and Database Set-up</b>  Knowledge management comprises a wide range of inter-related interventions, for example, record keeping, regular information dissemination, clear methods of organising digital and hard copy data, central registry and filing. It is proposed to discuss this issue further with DUDBC to determine the precise nature of capacity enhancement required.</p>

## ANNEX THREE: Summary of capacity enhancement programme delivery

SN	Module Titles	Days	Participants	Events	Days x events	Locations	
						Kathmandu	Districts
1	Inclusive and Tactical Planning in the federal system context	2	15	1	2	1	-
2	Policy for Health Infrastructure Development, Upgrade and Maintenance	1	15	1	1	1	-
3	Introduction to Health Infrastructure Design and Planning	5	102	4	20	2	2
4	Health Infrastructure Information System (HIIS)						
	Module one: Awareness	2	103	4	8	1	3
	Module two: Technical skill	2	85	4	8	1	3
5	Procurement Improvements and Enhancing Transparency	5	85	4	20	2	2
6	Health Infrastructure Disaster and Emergency Management Planning	2	29	1	2	1	-
7	Construction Management Training	3	81	3	9	1	2
8	Earthquake retrofitting and rehabilitation standards and practice	5	85	3	15	1	2
9	Environmental adaptation standards and practice	3	85	3	9	1	2
10	Rational Planning & Health Facility Location	2	52	3	6	1	2
11	Key aspects of Health Facilities Design, Planning and Implementation	5	81	3	15	1	2
12	Planning and designing services in health infrastructure	8	81	3	24	1	2
<b>Total</b>		<b>45</b>	<b>899</b>	<b>37</b>	<b>139</b>	<b>15</b>	<b>22</b>