Kathmandu University School of Medical Sciences
Dhulikhel Hospital
Nepal

A Proposal for Physiotherapy Academic and Clinical Building
Improving Health Outcome for Nepal

June 2018
Contents

Foreword .................................................................................................................................................. 3
Executive Summary ................................................................................................................................. 4
Background – Kathmandu University ...................................................................................................... 5
Background – Kathmandu University School of Medical Sciences (KUSMS) .............................................. 5
Background – Dhulikhel Hospital ............................................................................................................ 5
Background – KUSMS Department of Physiotherapy ........................................................................... 5
Background - Definition of Physiotherapy ............................................................................................. 6
Physiotherapy in Nepal .......................................................................................................................... 6
Access to Physiotherapy in Nepal ......................................................................................................... 7
Physiotherapy Education in Nepal ......................................................................................................... 8
Physiotherapy Graduates in Nepal ......................................................................................................... 9
Improved Infrastructure for Physiotherapy Education in Nepal ............................................................. 10
Seeking a Partnership ............................................................................................................................ 10
Appendix 1 – Proposed new infrastructure for KUSMS Department of Physiotherapy ......................... 11
Appendix 2 - Outline of the ground floor ............................................................................................... 15
Appendix 3 - Outline of the first floor .................................................................................................... 16
Appendix 4 - Outline of the second floor ............................................................................................... 17
Appendix 5 - Outline of the third floor .................................................................................................. 18
Appendix 6 - Outline of the fourth floor ............................................................................................... 19
Appendix 7 - Outline of the fifth floor .................................................................................................. 20
Appendix 8 - Proposed teaching resources ........................................................................................... 21
Appendix 9 – Costs for proposed new KUSMS Department of Physiotherapy ........................................ 22
Appendix 10- Details for the monetary process and regulations ............................................................. 23
Foreword

Physiotherapists in Nepal provide beneficial and cost effective primary health care for people across the life span with respiratory disease, neurological disorders, and musculoskeletal injuries.

However, physiotherapy services in Nepal are seriously constrained by inadequate educational infrastructure at the Kathmandu University School of Medical Sciences (KUSMS), Kathmandu University, the sole provider of physiotherapy education in Nepal.

This means the physiotherapy profession in Nepal is struggling to meet a huge unmet demand for physiotherapy services in local Nepalese communities, struggling to educate the next generation of Nepalese physiotherapists, and struggling to improve the quality of physiotherapy services provided to local communities. This scenario has been further exacerbated by the increased demand for physiotherapy rehabilitation following the earthquakes that affected large numbers of people in Nepal in May 2015.

To address these pressing challenges, KUSMS, Dhulikhel Hospital are seeking a funding grant of 2,726,000 US$ to design, construct, and equip a dedicated building to house the Department of Physiotherapy within the KUSMS.

External funding is being sought because KUSMS, Dhulikhel Hospital as a not-for-profit institution is unable to fund this project, despite the inadequacy of current facilities used by the Department of Physiotherapy. This funding model is consistent with that used to upgrade educational facilities for the Departments of Dentistry, Nursing, and Medicine at KUSMS, Kathmandu University.

We present our submission in good faith for your kind consideration.

Professor Dr. Rajendra Koju
Dean, School of Medical Sciences
Kathmandu University

Mrs. Ranjeeta S Acharya
Head, Department of Physiotherapy
Kathmandu University School of Medical Sciences, Dhulikhel Hospital

Professor Gillian Webb AM
Former Chair World Confederation of Physical Therapy – Asia West Pacific Region
Physiotherapy, The University of Melbourne
Executive Summary

There is a large unmet demand for physiotherapy services in local Nepalese communities. This unmet demand for physiotherapy has become even more problematic following the earthquakes in May 2015 that injured large numbers of people in Nepal.¹

Nepalese are stoic, but there are so many people here who need physiotherapy to get back to a normal life or manage life as best they can. And we simply don’t have enough physiotherapists to help them.²

In 2013, there were only 350 registered physiotherapists to provide physiotherapy services to a Nepalese population of 27 million³ or 1 physiotherapist per 77,000 people. By way of comparison, the ratio in Indonesia is 1 physiotherapist per 30,000 people and the ratio in Malaysia is 1 physiotherapist per 12,000 people.⁴

This means the KUSMS Department of Physiotherapy (the Department) needs to increase the number of physiotherapy graduates to meet even basic needs for physiotherapy services among local Nepalese communities in the medium term.

However, the ability to increase the number of physiotherapy graduates in Nepal is seriously constrained by inadequate educational infrastructure at Kathmandu University, a not-for-profit institution which is the sole provider of physiotherapy education in Nepal.

To enable Nepalese communities to access high quality physiotherapy that matches contemporary clinical needs, the KUSMS needs state-of-the-art infrastructure for physiotherapy education. External funding is being sought because KUSMS, Dhulikhel Hospital as a not-for-profit institution is unable to fund this project itself. This funding model is consistent with that previously used to upgrade educational facilities for the Departments of Dentistry, Nursing, and Medicine at KUSMS.

The University’s Department of Engineering and Accounts Section have estimated design, construction, and equipment costs for a new Department of Physiotherapy building. A site has been reserved within the KUSMS, Dhulikhel Hospital campus at no additional cost to the project. A funding grant of 2,726,000 US$ is being sought by KUSMS to undertake this project.

¹Refer Dhulikhel Hospital website: www.dhulikhelhospital.org
²Refer Dhulikhel Hospital website
³Nepalese Census 2013
⁴Japanese Physical Therapy Association Conference, Tokyo, June 2015
Background – Kathmandu University

Kathmandu University is an autonomous, not-for-profit, non-government institution dedicated to maintaining high-standards of academic excellence. Kathmandu University is committed to developing leaders in professional areas through quality education.

The University is located in the Dhulikhel municipality about 30 kilometers east of Kathmandu, the capital of Nepal.

Background – Kathmandu University School of Medical Sciences (KUSMS)

KUSMS was established through collaboration between Kathmandu University and Dhulikhel Hospital. KUSMS has educational infrastructure and physical facilities at 2 separate locations 3km apart. KUSMS biomedical science Departments are located at Chaukot and other Departments are located at the Dhulikhel campus where Dhulikhel Hospital, the University’s hospital, is located.

Background – Dhulikhel Hospital (DH)

Dhulikhel Hospital is an independent, not for profit, non-government institution, which was conceived and supported by the Dhulikhel community, as a quality health services provider. The hospital was inaugurated by the late King HM Birendra BirBikram Shah Dev in 1996, as a collaborative project of the Municipality of Dhulikhel, NepaliMed International, and Dhulikhel Health Service Association.

Dhulikhel Hospital is guided by the principles of social equity, sustainable development, and harmony with nature. The trained staffs of Dhulikhel Hospital provide cost effective, compassionate, and quality health care services. The Hospital believes quality health services need not be an expensive commodity limited only to those who are rich enough to afford them.

The hospital covers a population of approximately 1.9 million people from Kavrepalanchowk, Sindhupalchowk, Dolakha, Sindhuli, Ramechhap, Bhaktapur, and other surrounding districts, which in total constitute more than 50 of the 75 districts in Nepal.

Dhulikhel Hospital is the University Hospital for all the physiotherapy educational and clinical programs run in collaboration with the KUSMS, including physiotherapy.

Background – Department of Physiotherapy, KUSMS / DH

The KUSMS Department of Physiotherapy has been the sole provider of physiotherapy education in Nepal since its establishment in 2002. The Department is currently staffed by 14 Nepali physiotherapists, the majority of whom have Masters level degrees in a variety of physiotherapy specialties.

The physiotherapy program is taught at the Chaukot campus (the biomedical science component of the curriculum), at shared facilities on the Dhulikhel campus, and at Dhulikhel Hospital. Many of the current facilities are inadequate for excellence in physiotherapy education. They are also inadequate for expanding the physiotherapy program to meet the future clinical needs of local Nepalese communities.

The primary objective of physiotherapy education is to prepare a trained health care professional within the country to meet Nepal’s demand for high-quality physiotherapy services.

---

5 Refer KUSMS website: www.kusms.edu.np
6 Refer KUSMS website
Background – Definition of Physiotherapy

The World Confederation for Physical Therapy (WCPT) represents physical therapists and their organizations around the globe. Physical therapists, also known as physiotherapists, are the specialists in human activity and movement.

WCPT defines physiotherapy and the role of physiotherapists as follows:

‘Physical therapists provide services that develop, maintain and restore people’s maximum movement and functional ability. They can help people at any stage of life, when movement and function are threatened by ageing, injury, diseases, disorders, conditions or environmental factors. Physical therapists help people maximize their quality of life, looking at physical, psychological, emotional and social wellbeing. They work in the health spheres of promotion, prevention, treatment/intervention, habilitation and rehabilitation.

Physical therapists are qualified and professionally required to:

- undertake a comprehensive examination/assessment of the patient/client or needs of a client group
- evaluate the findings from the examination/assessment to make clinical judgments regarding patients/clients
- formulate a diagnosis, prognosis and plan
- provide consultation within their expertise and determine when patients/clients need to be referred to another healthcare professional
- implement a physical therapist intervention/treatment program
- determine the outcomes of any interventions/treatments
- make recommendations for self-management.’

Physiotherapy in Nepal

Physiotherapists in Nepal provide beneficial and cost effective primary health care for people across the life span with respiratory disease, neurological disorders, and musculoskeletal injuries.

For example, physiotherapy for people in local communities includes:

- management of people with chronic respiratory diseases
- women’s health care especially for women with postnatal complications which are prevalent due to inadequate perinatal care
- rehabilitation for people with musculoskeletal injuries which are prevalent because much of the workforce in Nepal undertakes heavy physical labour
- management of children with developmental disorders
- rehabilitation for people with neurological disorders such as strokes and spinal cord injuries
- rehabilitation for people with long-term musculoskeletal injuries, multiple trauma, and spinal cord injuries caused by the serious earthquakes in May 2015.

Physiotherapy services in Nepal are provided by physiotherapists working in public hospitals, rehabilitation centers, and community health centers which are located in Kathmandu, some regional towns, and a few remote areas.

Physiotherapy services for people in remote areas are provided through a few established outreach services including those provided by Dhulikhel Hospital which has 18 outreach programs.
Access to Physiotherapy in Nepal

Access to quality physiotherapy is difficult in Kathmandu, regional towns and remote areas of Nepal because there are not enough qualified physiotherapists to meet the demand for physiotherapy services.

In 2013, there were only 350 registered physiotherapists to provide physiotherapy services to a Nepalese population of 27 million\(^7\) or 1 physiotherapist per 77,000 people. By way of comparison, the ratio in Indonesia is 1 physiotherapist per 30,000 people and the ratio in Malaysia is 1 physiotherapist per 12,000 people\(^8\).

Nepalese are stoic, but there are so many people here who need physiotherapy to get back to a normal life or manage life as best they can. And we simply don't have enough physiotherapists to help them.

After the earthquakes in May 2015, the physiotherapy profession in Nepal felt quite overwhelmed. The gap between how much physiotherapy was needed and what the profession could provide was even worse than before. It was a stark reminder that without change, more and more people in Nepal will be left with serious physical problems that could have been successfully treated with physiotherapy. The main problem is we have such limited resources to educate more local physiotherapists. Since the Bachelor of Physiotherapy program was established at KUSMS in 2010, we have accepted more physiotherapy students each year. But we have reached a point where our educational facilities are now completely overloaded. We desperately need better educational infrastructure to produce physiotherapists who are capable of providing excellent health care for Nepalese people who need it. Without new educational facilities for physiotherapy, it’s almost impossible to see a morally acceptable way forward. But if we can build the right infrastructure for physiotherapy education and meet the need for physiotherapy services, it’s certain the lives of individuals and communities in Nepal will be improved. And that’s our goal.

Mrs Ranjeeta S Acharya, Head Department of Physiotherapy, KUSMS

Everyone who has worked or visited Nepal is amazed by the resilience of the Nepali people. The Nepali people constantly live and work in difficult circumstances which was greatly added to by the devastating earthquake in 2015. Physiotherapy is not well-known professions in Nepal, however there are many people who need the services of physiotherapy to be able to participate in the community more fully. The burden of disability is heavy both for the individual and their families as well as for the Nation as a whole.

Physiotherapy education at KUSMS is growing rapidly. The department is now staffed fully by local Nepalese, most of whom have gained Masters degrees in India. Two faculty members are now undertaking PhD programs internationally and all the staff are working to develop research capacity. To enable the program to be able to offer more places for students and to grow the research activities of staff and students it is imperative for them to have the facilities to do this. The existing learning and teaching areas that are available are barely adequate for the numbers studying now and there are no dedicated research spaces. The University has a site allocated for a new building. It is of utmost importance that this building project is undertaken as soon as possible so that the department can continue its excellent work in facilities that enable them to increase the number of graduates who are so needed to help in getting better health outcomes in the area of disability for the Nepali people.

Associate Professor Gillian Webb AM, Former Chair WCPT-AWP Region.

\(^7\) Nepalese Census 2013
\(^8\) Japanese Physical Therapy Association Conference, Tokyo, June 2015
Physiotherapy Education in Nepal

The first formal physiotherapy education program in Nepal was established in 1983 within the Institute of Medicine at Tribhuvan University in Kathmandu with the generous assistance of a Canadian physiotherapist, the late Ms Mary Martin. This course ran until 1990.

In 2002, again with the generous participation of Ms Martin, a 3-year physiotherapy certificate program was created at the KUSMS on the campus of Kathmandu University at Dhulikhel. The certificate was upgraded to a 4.5-year bachelor degree in 2010 with the first degree level students graduating in March 2015.

The KUSMS Department of Physiotherapy has established formal links with a range of Nepalese hospitals including: Dhusikel Hospital -the University's hospital, rehabilitation centres, community health centres, and outreach programs to provide clinical placements for physiotherapy students.

The Department of Physiotherapy was originally staffed by international physiotherapists and then by Nepali physiotherapists educated in India. The Department is now staffed by 16 Nepali physiotherapists, the majority of whom have Masters level degrees in various physiotherapy specialties.

International colleagues have been supporting the physiotherapy curriculum and research activities at KUSMS through visiting lecture programs and staff mentoring, as well as student and staff exchanges.

The Swiss based Association for Support of Physiotherapy in Nepal (ASPN) has been supporting the KUSMS Department of Physiotherapy in capacity building, since the Department was established.

The primary objective of physiotherapy education is to prepare a trained health care professional within the country to meet Nepal’s demand for qualified physiotherapy services.\(^9\)

The other key objectives of the KUSMS Department of Physiotherapy are to:

- provide high quality physiotherapy education in accordance with accepted standards, requirements of the Nepal Health Professional Council and the policies and standards of the World Confederation for Physical Therapy (WCPT)
- produce physiotherapists with excellent skills in primary contact practice, patient-centered evidence based physiotherapy, clinical reasoning, communication, the promotion of health and well-being and the prevention of injury
- produce physiotherapists who are capable of working solo or in teams in a range of healthcare settings
- foster evidence based practice in accordance with accepted international guidelines and the policies of WCPT
- produce Nepalese physiotherapists who understand the culture, customs and health needs of local Nepalese communities
- collaborate with international colleagues on staff/student exchanges and visiting lecturers
- support research activities that benefit physiotherapy services in Nepal
- in collaboration with the Nepalese Physical Therapy Association (NEPTA), provide continuing professional development workshops and symposiums to enable graduate physiotherapists to sustain their skills and knowledge throughout a career in physiotherapy.

\(^9\) Refer KUSMS website
The longer-term objectives of the KUSMS Department of Physiotherapy are to:

- provide higher degrees for Nepalese physiotherapists wishing to increase their knowledge and skills in particular areas of physiotherapy practice
- produce Nepalese physiotherapists who are committed to developing the physiotherapy profession, improving physiotherapy practice and building a sustainable physiotherapy workforce in Nepal
- support research activities that provide evidence for excellence in physiotherapy practice in Nepal
- develop core competency standards for Nepalese physiotherapists
- gain WCPT accreditation of the physiotherapy education program in Nepal.

**Physiotherapy Graduates in Nepal**

Since the 4.5-year Bachelor of Physiotherapy program commenced at KUSMS in 2010, there has been a steady increase in the annual intake of students (Table 1). While this increase is necessary to meet the clinical demand for physiotherapy services in Nepal, it has put significant pressure on the existing educational infrastructure.

All 13 students who enrolled in the new bachelor program in 2010, graduated successfully in March 2015.

<table>
<thead>
<tr>
<th>Year</th>
<th>Physiotherapy Students</th>
<th>Physiotherapy Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>13</td>
<td>Not applicable</td>
</tr>
<tr>
<td>2011</td>
<td>13</td>
<td>Not applicable</td>
</tr>
<tr>
<td>2012</td>
<td>19</td>
<td>Not applicable</td>
</tr>
<tr>
<td>2013</td>
<td>30</td>
<td>Not applicable</td>
</tr>
<tr>
<td>2014</td>
<td>30</td>
<td>Not applicable</td>
</tr>
<tr>
<td>2015</td>
<td>29</td>
<td>13</td>
</tr>
<tr>
<td>2016</td>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td>2017</td>
<td>30</td>
<td>19</td>
</tr>
<tr>
<td>2018</td>
<td>30</td>
<td>17</td>
</tr>
</tbody>
</table>

*Table 1: Student intake in the KUSMS Bachelor of Physiotherapy program since 2010*
Improved Infrastructure for Physiotherapy Education in Nepal

There is a large unmet demand for physiotherapy services in local Nepalese communities. This unmet demand for physiotherapy has become even more problematic following the earthquakes in May 2015 that injured large numbers of people in Nepal.10

The education of more physiotherapy graduates in Nepal is seriously constrained by inadequate educational infrastructure at Kathmandu University, a not-for-profit institution which is the sole provider of physiotherapy education in Nepal.

To enable Nepalese communities to access high quality physiotherapy services that matches contemporary clinical standards, the KUSMS needs state-of-the-art infrastructure for physiotherapy education. External funding is being sought because Kathmandu University as a not-for-profit institution is unable to fund this project itself.

Appendix 1 shows the current educational infrastructure at the KUSMS Department of Physiotherapy and a proposed infrastructure based on essential resources commonly found in Departments of Physiotherapy in the WCPT – Asia West Pacific Region. Appendix 2 shows related teaching resources. The proposed infrastructure and related teaching resources have been developed in conjunction with the Chair of the WCPT Asia West Pacific Region, Associate Professor Gillian Webb AM, School of Physiotherapy, Faculty of Medicine, Dentistry and Health Sciences, The University of Melbourne.

The existing physiotherapy outpatient service – a valuable resource for the community and an important aspect of clinical education – will remain located in Dhulikhel Hospital with the potential for additional outpatient facilities in the proposed new building. It is envisioned that library facilities will be shared with other Departments within KUSMS.

The Department’s current infrastructure caters for 14 academic staff and a combined total of 120 students from an annual intake of 30 students. The proposed infrastructure and related teaching resources is intended to cater for a medium-term transition to 24 full time academic staff and a combined total of 240 students from an annual intake of 60 students.

Seeking a Partnership

Kathmandu University and Dhulikhel Hospital seek a contractual partnership with an individual or entity willing to offer a funding grant to assist in the design, construct, and furnishing of a dedicated building on the Dhulikhel campus to house the Department of Physiotherapy within KUSMS. The primary objective of the proposed project is to enable the education of physiotherapists in accordance with national and international standards and the requirements of the Nepal Health Professional Council, and allow for progressive growth in the production of physiotherapy graduates to meet a contemporary need for high quality physiotherapy services in local Nepalese communities.

The University’s Department of Engineering and Accounts Section have estimated design, construction and equipment costs for a new Department of Physiotherapy building and related teaching resources (Appendix 3). A site has been reserved within the KUSMS on the University’s Dhulikhel campus so no additional funding for land is required. This funding model is consistent with that previously used to upgrade educational facilities for the Departments of Dentistry, Nursing, and Medicine at KUSMS, Kathmandu University.

10 Refer Dhulikhel Hospital website
### Appendix 1 – Proposed new infrastructure for KUSMS Department of Physiotherapy

**Proposed surface area for the building: 800 m² / Floor, so total: 4800 m²**

Each Floor planning (Tentative with minimal further changes)

<table>
<thead>
<tr>
<th>Level of floor</th>
<th>Description</th>
<th>Office allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basement</td>
<td>Utility and Parking</td>
<td>Utility and parking for faculties and patient’s care takers</td>
</tr>
<tr>
<td>Ground floor</td>
<td>Physiotherapy Outpatient department</td>
<td>Front desk, patient waiting hall, musculoskeletal treatment hall, neurological treatment room, electrotherapy hall, paediatric treatment room, cardio respiratory treatment room, counseling room, clinical staff room, washroom, bathroom with shower, changing rooms</td>
</tr>
<tr>
<td>First floor</td>
<td>Extended patient care and Academic skills labs</td>
<td>Extended patient care unit consists of rooms for admissions and sub-acute management of up to 50 patients. Three skills labs for demonstration room for practical. Counseling room, waiting hall, nursing station, washroom, bathroom with shower, changing rooms.</td>
</tr>
<tr>
<td>Second floor</td>
<td>Administration and Faculty rooms</td>
<td>Head of department office, small offices for each faculty member (enough for 26 faculty, required number while enrolling 60 students per year), meeting room, lobby, tea room, general administrative offices, front desk, storage, library, washroom, bathrooms</td>
</tr>
<tr>
<td>Third floor</td>
<td>Teaching/ classroom floor</td>
<td>Physiotherapy classrooms (big enough to accommodate 60 students), post graduate/ PhD classrooms, media (computer) room lobby, washroom, bathroom with shower</td>
</tr>
<tr>
<td>Fourth floor</td>
<td>Research floor and auditorium</td>
<td>Research rooms (enough to conduct research in core physiotherapy areas), an auditorium (appropriate to run hands on session and physiotherapy professional developmental courses plus exam conducting hall), backstage room, lobby, washroom, bathroom with shower</td>
</tr>
<tr>
<td>Fifth floor</td>
<td>Tutorial floor and fitness hall</td>
<td>Six small tutorial rooms (for small group problem based learning, case discussion etc), a big fitness hall, changing room, store room, bathroom with shower</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Rationale</td>
<td>Current</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Teaching spaces</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auditorium</td>
<td>An auditorium is required for accommodating up to 250 students (involving students from 3 or 4 years of the 4.5 year program)</td>
<td>-</td>
</tr>
<tr>
<td>Classrooms (Bachelor)</td>
<td>Classrooms are required for up to 60 students of the 4.5 year program</td>
<td>2</td>
</tr>
<tr>
<td>Classrooms (post graduates/PhD)</td>
<td>Seminar rooms are required for up to 15 students for seminars involving students from 1 or 2 years of the PG/PhD program</td>
<td>-</td>
</tr>
<tr>
<td>Tutorial rooms</td>
<td>Tutorial rooms are required for small group learning with up to 10 students in each tutorial group</td>
<td>-</td>
</tr>
<tr>
<td>Media room for distance learning / computer room</td>
<td>The media room should facilitate distance learning between the Department and students on clinical placements/external sites. Also for computer access</td>
<td>-</td>
</tr>
<tr>
<td>Practical classrooms (Skills lab)</td>
<td>Each practical classroom should be able to accommodate 10 adjustable treatment beds. There should be adequate storage facilities for each practical classroom. There should be at least 1 hall for electrotherapy and 2 additional exercise halls.</td>
<td>1</td>
</tr>
<tr>
<td>Fitness Clinic and Gymnasium</td>
<td>A dedicated gymnasium with adequate storage facilities is required for teaching fitness and rehabilitation skills</td>
<td>1</td>
</tr>
<tr>
<td>Front desk</td>
<td>Reception</td>
<td>-</td>
</tr>
<tr>
<td>Patient waiting hall</td>
<td>Enough space to wait for patients up to 10 at time for each musculoskeletal, neurology, pediatric, fitness, and electrotherapy services</td>
<td>-</td>
</tr>
</tbody>
</table>

11 One of the 2 existing seminar rooms is within the Dhulikhel Hospital Outpatient Department; it is designed for clinical not educational purposes. The second seminar room is shared with other KUSMS programs.
12 The existing practical classroom is within the Dhulikhel Hospital Outpatient Department; it is designed for clinical not educational purposes and can accommodate only 6 treatment beds; as a result, students are unable to undertake sufficient skills practice.
13 The existing gymnasium is within the Dhulikhel Hospital Outpatient Department; it is very small and is designed for clinical not educational purposes.
<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Rationale</th>
<th>Current</th>
<th>Proposed</th>
<th>Unit Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neurology room</td>
<td>For management of neurological patients, electrodiagnosis, quiet room for patients with neurological problems</td>
<td>-</td>
<td>1</td>
<td>10 x 12 m²</td>
</tr>
<tr>
<td>Musculoskeletal room</td>
<td>For management of patients with musculoskeletal disorders</td>
<td>-</td>
<td>1</td>
<td>10 x 12 m²</td>
</tr>
<tr>
<td>Paediatric room</td>
<td>For management of paediatric patients with varied disorders</td>
<td>-</td>
<td>1</td>
<td>10 x 7 m²</td>
</tr>
<tr>
<td>Electrotherapy hall</td>
<td>For management of patients through different modalities that have good evidence in treatment</td>
<td>1</td>
<td>1</td>
<td>10 x 6 m²</td>
</tr>
<tr>
<td>Counselling room / Visitors room</td>
<td>Rooms large enough for counseling individual or small group of students / patients or patient families</td>
<td>-</td>
<td>2</td>
<td>4 x 4 m²</td>
</tr>
<tr>
<td>Faculty room with cupboards</td>
<td>26 small cubicles for individual faculty and for head of the department (26 for enrolling 60 undergraduate and 15 post graduate students per year)</td>
<td>2²⁶</td>
<td>26</td>
<td>2 x 4 m²</td>
</tr>
<tr>
<td>Bathroom with shower</td>
<td>Two, 1 for male and 1 for female to be included in each floor and 2 extra in fitness floor (for changing and showering)</td>
<td>-</td>
<td>12</td>
<td>4 x 4 m²</td>
</tr>
<tr>
<td>Research laboratories</td>
<td>Separate research laboratories are required for cardiothoracic, musculoskeletal, neurological, and paediatric, research projects</td>
<td>-</td>
<td>4</td>
<td>9 x 4 m²</td>
</tr>
<tr>
<td>Staff meeting room</td>
<td>There needs to be dedicated space for regular meetings of academic, clinical, and administrative staff. The meeting room needs to include basic kitchen facilities and staff lockers.</td>
<td>1²⁵</td>
<td>1</td>
<td>10 x 8 m²</td>
</tr>
</tbody>
</table>

²⁶ The existing staff offices are within the Dhulikhel Hospital Outpatient Department; the offices are entirely inadequate for a staff of 11 which means productivity is constrained

²⁵ The existing staff room is within Dhulikhel Hospital Outpatient Department; it is very small and is designed for clinical not educational purposes
<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Rationale</th>
<th>Current</th>
<th>Proposed</th>
<th>Unit Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception for administration (excluding clinics)</td>
<td>A reception area is required for providing information, handling student/staff queries, and greeting visitors</td>
<td>-</td>
<td>1</td>
<td>8 x 5 m²</td>
</tr>
<tr>
<td>Storage space</td>
<td>Lockable storage space is required for confidential documents such as student results</td>
<td>-</td>
<td>3</td>
<td>8 x 5 m²</td>
</tr>
<tr>
<td>Administration offices</td>
<td>Offices are required for general administration and 1 office is required for IT support</td>
<td>-</td>
<td>2</td>
<td>10 x 11 m²</td>
</tr>
<tr>
<td>Stairs</td>
<td>To access all floors</td>
<td>5 floors</td>
<td>X1</td>
<td>2 x 8 m²</td>
</tr>
<tr>
<td>Lift</td>
<td>To access all floors</td>
<td>4 floors</td>
<td></td>
<td>2 x 4 m²</td>
</tr>
<tr>
<td>Ramp**</td>
<td>To access clinical floors</td>
<td>-</td>
<td>2 floors</td>
<td>10 x 11 m²</td>
</tr>
</tbody>
</table>

* (Additional spaces can be used for hallways, private bathrooms, tea room, locker spaces for students, magazine/newspaper section, decorations, walkways for practicals, waiting rooms, etc)

** The building especially clinical floors will be constructed to be environmental friendly for physically challenged individuals based on WHO criteria
Appendix 2: Outline of the ground floor

![Ground Floor Layout]

GROUND FLOOR
Floor Area=807.2 sqm
Appendix 3: Outline of the first floor
Appendix 4: Outline of the second floor
Appendix 5: Outline of the third floor
Appendix 6: Outline of the fourth floor
Appendix 7: Outline of the fifth floor
### Appendix 8 - Proposed teaching resources for new KUSMS Department of Physiotherapy

<table>
<thead>
<tr>
<th>Resource</th>
<th>Rationale</th>
<th>Current</th>
<th>Proposed</th>
<th>Total Cost US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustable treatment beds (for teaching)</td>
<td>There need to be enough adjustable treatment beds for all students to acquire safe practical skills.</td>
<td>6</td>
<td>60</td>
<td>120,000</td>
</tr>
<tr>
<td>Audiovisual resources</td>
<td>Audiovisual resources are required in the lecture theatre; all seminar rooms and the media room to support excellence in education.</td>
<td>0</td>
<td>8</td>
<td>40,000</td>
</tr>
<tr>
<td>Computers</td>
<td>Computers are required for staff workstations and the student learning hub.</td>
<td>6</td>
<td>50</td>
<td>40,000</td>
</tr>
<tr>
<td>Whiteboards</td>
<td>At least 1 whiteboard is required in each teaching and research space.</td>
<td>6</td>
<td>10</td>
<td>1,000</td>
</tr>
<tr>
<td>Exercise equipment</td>
<td>A full range of exercise equipment is required for the gymnasium and practical classrooms for teaching exercise therapy and rehabilitation (eg, exercise bikes, treadmills, exercise mats, elliptical, bars).</td>
<td></td>
<td></td>
<td>30,000</td>
</tr>
<tr>
<td>Safety equipment</td>
<td>Fire extinguisher, smoke alarm, alarm, cctv</td>
<td>0</td>
<td>12</td>
<td>3,000</td>
</tr>
<tr>
<td>Internet Access &amp; Phones</td>
<td>Internet access is required throughout the Department (teaching spaces, research spaces, staff facilities, student facilities and administrative areas) to support a productive workplace and excellence in education.</td>
<td></td>
<td></td>
<td>2,000</td>
</tr>
<tr>
<td>Clinical beds</td>
<td>25 hydraulic beds</td>
<td></td>
<td></td>
<td>50,000</td>
</tr>
<tr>
<td>AC</td>
<td>Central AC</td>
<td></td>
<td></td>
<td>10,000</td>
</tr>
<tr>
<td>Furniture</td>
<td>Class room chairs and tables, lockers, cupboards, kitchen accessories, notice boards, stools, sofa, rack, computer desk</td>
<td></td>
<td></td>
<td>30,000</td>
</tr>
<tr>
<td><strong>Total costs</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>326,000</strong></td>
</tr>
</tbody>
</table>
Appendix 9 – Costs for proposed new KUSMS Department of Physiotherapy

Total costs are based on the dedicated spaces listed in Appendix 1 and the related teaching resources listed in Appendix 2.

The Department of Engineering and Accounts Section have determined building costs based on:

- a 6-story building with a standard configuration of plumbing; electrical; internet access; stairways; lifts; windows; bathrooms; corridors; heating; fire safety requirements; security requirements
- a general unit cost per square meter
- additional costs associated with physiotherapy specific infrastructure (additional hand washing facilities; sinks with hot and cold water; sinks with plaster traps; storage for gym equipment; storage for electrotherapy equipment).

Summary of costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost in NRS</th>
<th>Cost in USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiotherapy building (4800m² x 50,000 NRS)</td>
<td>240,000,000</td>
<td>2,400,000</td>
</tr>
<tr>
<td>Physiotherapy teaching resources</td>
<td>32,600,000</td>
<td>326,000</td>
</tr>
<tr>
<td>Total Cost</td>
<td>272,600,000</td>
<td>2,726,000</td>
</tr>
</tbody>
</table>

- Surface area for the building: 800 m²/ Floor, so total: 4800 m²
- The cost of the building is NPR 50,000 per square meter

Building infrastructure includes the following stages:
- Planning
- Project management
- Construction
Appendix 10: Details for the monetary process and regulations for Physiotherapy Building:

- Following the initial contact between the fundraiser (can be any member from the department of physiotherapy, KUSMS, well-wisher, experts/ expatriates who has been involved with KUSMS) and the donor, further contact will be forwarded to the details provided below.

1) Ms. Ranjeeta S Acharya  
   Head, Department of Physiotherapy  
   Kathmandu University School of Medical Sciences, Dhulikhel Hospital  
   ranjeetashija@gmail.com

2) Ms. Bimika Khadgi  
   Deputy Head, Department of Physiotherapy  
   Kathmandu University School of Medical Sciences, Dhulikhel Hospital  
   bimikakhadgi@kusms.ku.edu.np

- For the money transfer, Dhulikhel Hospital has an account (given below) and the amount sent will be deposited in the bank account. Please mention “Support for Physiotherapy building” when the amount is transferred.

   Bank Details:  
   ACCOUNT NAME : DHULIKHEL HOSPITAL  
   ACCOUNT NO. : 006-000000301  
   BANK NAME : NCC BANK (NEPAL CREDIT AND COMMERCE BANK LTD.)  
   BRANCH : BANEPA  
   BANK ADDRESS : BANEPA, KAVRE  
   SWIFT CODE : NBOCNPKA  
   COUNTRY : NEPAL

- The Donor can notify when the amount was sent (via email to Ms. Ranjeeta or Ms. Bimika). Once the amount is received by Dhulikhel Hospital, the donor will received a letter from Dhulikhel Hospital (Account Section) stating the amount that was received and its purpose.

- The deposited amount will be entered in a separate account head. All the amount received for the support of Physiotherapy building will be collectively placed in the account head.

- The account section will provide an update for the progress of the building for the amount being used

**Tax deductible options:**

Dhulikhel Hospital is registered as a not for profit organization and we can provide a certificate if needed. Donors could claim for tax deduction (with the certificate) as per the norms of the home country.

Thank you very much for the support in the development of Physiotherapy profession in Nepal.