

Annex-5 (i and ii)

HIGHER EDUCATION REFORM PROJECT

National Priorities for
Higher Education Reform and Development

**Areas of Priority for
New Academic Programs
and
Guidelines for Selection of
New Programs and Institutions**

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Higher Education Reform Project

National Priority for Higher Education Reform and Development:

Framework of National Priority for Supporting New Programs

The Context

A framework of Higher Education Policy (HEP) has been prepared through extensive nationwide consultations in 2013. One of the most crucial concerns pointed out by the framework is need to reform and develop higher education addressing national development priorities. Prioritization of higher education programs that are directly linked to national development and job market were emphasized in all the consultations including those held at regional level, national level as well as with stakeholders groups. This need has also been suggested in all periodic national development plans and pointed out by the reports of education/higher education commissions.

Accordingly National Program for Higher Education Reform and Development (NPHRD) has been prepared. The major goal of the NPHRD is to help improve quality and relevance of higher education programs, making higher education teaching and learning directly to relevant to national development. Higher Education Reform Project (HERP) has been prepared and implemented with the support of the World Bank to implement the core reform aspects of NPHRD. Drawing on the experience and outcomes of SHEP, the current Higher Education Reforms Project (HERP), 2015-2020, is planning to continue supporting four major areas of reform: system capacity development, academic reform, equity and inclusion in access and enhancing academic excellence through research, innovation and development. As a part of academic reform HERP emphasizes linking academic programs with the issues and needs of national priority. The funding of HERP is based on seven important disbursement linked indicators (DLIs), development of new programs and reform of existing programs making them relevant to national priorities is the fifth DLI. Preparation and implementation of national priority framework for supporting new program development and reform in existing programs is a fundamental aspect of the DLI.

National Program for Higher Education Research and Development (NPHRD) has listed academic reform as a major component of its program with emphasis on strategy for enhancing quality and relevance of higher education. It has prepared and listed a framework for determining national priority for higher education reform and development. This document outlines a framework for providing funding support to new programs and reform in existing programs making them relevant to national priority. This framework has been derived from the national priority framework of NPHRD. This framework is an integral part of the HERP Performance Based Funding Guidelines (HERP-PBF).

This document comprises of (a) Areas of priority for new programs, and (b) Guidelines for selection of programs and institutions.

Annex 5: (i) - Areas of Priority for New Programs

Basis of priority framework

The current national development plan, strategy and the Higher Education Policy framework (HEP) and the National Program for Higher Education Reform and Development (NPHRD) are taken as the basis for determining national priority for higher education reforms project in general and funding new programs as well as reform in existing programs. The priority area for investment for national development identified by the Approach Paper of the Thirteenth Plan includes hydropower and other renewable energy, agriculture, education, health, drinking water, sanitation, physical infrastructure, tourism, industry, trade, natural resources, environment and governance. These areas can be viewed as represented by related disciplines taught in higher education institutions and particularly by academic excellence in these areas as a strong foundation for efficient utilization of resources and developmental innovations. The policy statements of HEP are consistent with priority areas identified in the national plan. The first theme of the HEP states: "aligning higher education development with national needs". And it proposes the following policies to address the above contexts:

- Orienting higher education development towards areas and priorities relevant for national development.
- Modifying Existing traditional practices of HEIs and their programs in response to the demand of time with a view to effectively deliver programs of quality and relevance.

The HEP underlines the need to reform academic programs to make it relevant and functional in addressing

- i. poverty alleviation, employment generation, and holistic national economic development;
- ii. management of natural disaster;
- iii. development of agriculture, water resources, hydropower, renewable energy, small industries and business;
- iv. economic, social, and political transformation to develop culture of inclusive democracy with respect for diversity, mutual respect, and harmony; and
- v. conservation of national heritage, promotion of indigenous knowledge, vocation, and technology.

Further, it has pointed out the need to identify and develop research, innovation and academic programs in the areas of national priorities and potential for excellence such as:

- i. natural environment, forest and biodiversity;
- ii. water resource management, hydropower, renewable energy;
- iii. tourism, mountaineering;
- iv. natural disaster and hazard management; and
- v. cultural heritage and indigenous knowledge.

The share of science and technology areas (technical faculties) in the total higher education enrolment in Nepal is low. Many countries have set targets for increasing the share of science and technology enrolment as increasing its share is critical for competitiveness of the economy. Based on the international evidence that human resources in the areas of science and technology contributes to economic development many countries are prioritizing development of higher education in these areas. The priority areas for development of education defined in the United States cover disciplines related to science, technology, engineering and mathematics (STEM). Referring to higher value given to STEM in China, where in STEM fields constitute over 50% of the overall first degrees awarded in higher education, the US has been implementing STEM Strategic Plan, which covers all levels of education from kindergarten to post graduate level (United States. 2013). The Strategic Plan underlines that advances in STEM have long been central to, among others, manufacture better and smarter products, and grow economy.

The Kigali communique of a High level Forum on Higher Education Science and Technology in Africa also gives an example of how developing countries are giving priority to science and technology education. It states that, "science, technology and innovation (STI) are drivers of job creation and economic growth that is both sustained and transformational". It further states that the proportion of students in STEM disciplines is very low, about 20-25% in the region (Kigali Communique, 2014). Among African countries Ghana and Ethiopia has set very ambitious target for expansion of science and technology education. Ghana's higher education enrolment target in science, engineering and technology fields is 60% and Ethiopia's target is 70% (Joshi, 2013).

Nepal has not set a target for science and technology enrolment. The National Program will prioritize support to science and technology programs with a view to increase its share in the total enrolment.

Listing the National Priorities

The Higher Education Policy (HEP) frame work of Nepal and the National Program for Higher Education Reform and Development (NPHRD) has emphasized on the need for aligning HE with the country's development goals and priorities and accordingly defined priority areas. The priority areas follow the goals and priorities articulated in the Approach Paper to the Thirteenth Plan (2013-2016). The UGC has approved HEP and the NPHRD.

The following faculties are fundamental for building foundational capacity for helping attain the policy goals and economic sectors prioritized in the Approach Paper for the Thirteenth Plan, and HEP:

- (i) S&T;
- (ii) engineering;
- (iii) medicine; and
- (iv) agriculture and forestry.

These are defined as technical faculties. Academic programs belonging to these faculties will be defined as priority areas. Other academic programs, determined by expert panel(s) to be associated with the following national policy goals and priorities as defined in the Approach Paper for the Thirteenth Plan, and HEP, will also be treated as priority areas for funding:

- (i) reduction of economic and human development poverty;

- (ii) employment generation;
- (iii) holistic development of national economy;
- (iv) economic, social and political transformation to develop culture of inclusive democracy;
- (v) conservation and development of national heritage;
- (vi) promotion of indigenous knowledge, vocation, and technology;
- (vii) conservation and sustainable use of natural resources and environment including biodiversity;
- (viii) productivity enhancement in and diversification and commercialization of agriculture;
- (ix) development of basic education and health, drinking water and sanitation;
- (x) promotion of good governance;
- (xi) roads and other infrastructure;
- (xii) water resources;
- (xiii) renewable energy;
- (xiv) small industries and business;
- (xv) natural disaster and hazard management;
- (xvi) global warming and climate change.

The priority areas can be categorized into three categories: i) policy goals, ii) economic sectors and iii) disciplines/areas of study. The following priority area framework has been drawn accordingly:

Table 1 (a): Priority Areas relating to Economic sectors/ commodities

Forestry, <i>fisheries</i>
Water resources
Renewable energy
Small industries and business
Tourism and mountaineering
<i>Whole-sale and retail trade</i>
<i>Transportation, storage and communication</i>
<i>Housing, land utilization, and rental/ trade activities</i>
<i>Construction</i>

Table 1 (b): Priority Areas relating policy goals

Nepal attaining the status of a developing country by 2022 (currently a least developed country)
Reduction of economic and human [development] poverty
Employment generation
Holistic development of national economy
Economic, social and political transformation to develop culture of inclusive democracy
Conservation and development of national heritage
Promotion of indigenous knowledge, vocation, and technology
Conservation and sustainable use of natural resources and environment including biodiversity
Productivity enhancement in and diversification and occupationalization of

Table 1 (a): Priority Areas relating to Economic sectors/ commodities

<i>Mining and industries</i>
<i>Education</i>
<i>Financial intermediation</i>
<i>Textiles and Textile Articles</i>
<i>Base Metals and Articles of Base Metal</i>
<i>Vegetable Products</i>
<i>Herbs and medicinal plants</i>

Table 1 (b): Priority Areas relating policy goals

agriculture
Development basic education and health, drinking water and sanitation
Promotion of good governance
Development of roads and other infrastructure
Development of tourism, industry and commerce
Development of hydropower and other forms of energy
Natural disaster and hazard management
Global warming and climate change

Note: The areas in italics are additional to the areas defined in the Approach Paper and HEP

The following faculties are fundamental to build foundational capacity to address the economic sectors and policy goals, as well as also to open new possibilities. They are also therefore listed as priorities.

Table 1 (c): Priority areas relating to disciplines and study areas

Priority Faculties	Other priority disciplines and study areas areas/programs
<i>Science and technology</i>	<ul style="list-style-type: none"> • <i>Interdisciplinary programs such as natural disaster and hazard management; Global warming and climate change</i> • <i>Individual programs such as Communication English</i> • <i>Programs like Bachelors in Information Management, Bachelors in Hotel Management, Bachelors in Business Administration</i> • <i>Arts and crafts</i>
<i>Engineering</i>	
<i>Medicine</i>	
<i>Forestry</i>	
<i>Agriculture</i>	

The above prioritization matrix does not include an exhaustive list of areas of study or disciplines. It would be impractical to do so since the list will be very long. However, if some important priority areas do not clearly fall under the priorities defined in the matrix they can be added under the priority disciplines/ study area table. The programs listed here in this table are examples. The proposals for initiating new programs and research should be evaluated by an expert panel to decide if they fall under the priority areas.

Annex 5: (ii) Guidelines for Selection of Programs and Institutions

Eligibility criteria for institutions and programs for participation

The following HEIs meeting general eligibility criteria can apply for competitive selection of new programs in priority areas:

- (i) all autonomous and accredited campuses;
- (ii) TU central departments that are at the Self Study Report phase of QAA; and
- (iii) all HEIs selected for performance grants.
- (iv) All new

Academic programs for HERP support will be introduced on the basis of market demand, emphasis will be given to sustenance through self-financing.

Programs meeting the following requirements are classified as new programs:

- (i) bachelor's and master's degree level programs;
- (ii) those approved by relevant academic bodies; and
- (iii) programs approved by relevant professional councils, if applicable.

Details regarding the HERP support provisions under DLI 5 will be as listed in PBF Guidelines (www.ugcnepal.edu.np).

HEIs need to prepare and get due approval of the designated authority in order to apply for the grant support for new/additional program. Proposals for funding new academic programs or additional programs will be reviewed by an expert panel to identify whether the proposals belong to priority areas based on the priority areas listed in table 1. The institutions applying for new program/additional program will be selected for HERP support on the basis of the ranking criteria for selection of HEIs for academic reform given in table 2. See other eligibility requirements for participation in HERP grants relating to this DLI 5 in PBF Guidelines.

Table 2: Ranking Criteria for Selection of HEIs for HERP Support Regarding New/Additional Program

Indicators	Weight	Remarks
<i>Group A: Academic Strength</i>	<i>40%</i>	
Curriculum	10	
Faculty strength	10	
Organizational strength	10	
Academic schedule of work	10	
<i>Group B: Physical Facilities</i>	<i>30%</i>	
Classrooms for the new program	10	
Textbooks and reference materials for the new program	10	
Laboratory for the new program	10	
<i>Group C: Sustainability</i>	<i>25%</i>	
Financing plan	15	
Market demand analysis	10	
<i>Group D: Impression from Site Visit</i>	<i>5%</i>	
Governance and leadership	2	

Indicators	Weight	Remarks
Linkage with community	1	
External and internal environment	2	

The higher education policy framework portrays the overall perception of stakeholders with respect to quality and relevance of higher education. But, for more complete assessment of the higher education system it is important to analyze quality and relevance comprehensively highlighting good practices as well. The quality and relevance of programs offered by universities vary greatly. And there is also divergence in the quality and relevance of programs offered within a university, especially in TU. The quality and relevance of programs of KU are generally perceived as acceptable by the stakeholders. One of the indicators of this inference is KU's ability to recover the operation costs of the university in full while maintaining a good learning environment. In TU, there are also host of programs which meet similar benchmark. For example, academic programs offered by Institute of Medicine and Engineering are highly sought after. Similar, is the case of TU master's degree programs in sociology, rural development etc. Since a few years TU has been practicing offering all new programs on self-financing basis. All such programs have reasonable quality and relevance. But this is not to mean that there is no scope for improvement.

Detailed evaluation scheme for competitive selection of programs for HERP support using this framework will be prepared. It will take into account the descriptors of GDP where necessary and basis of other important priority contexts of high significance such as the recent destructive earthquake in Nepal.