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Report No: PAD3550

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED CREDIT

IN THE AMOUNT OF (SDRXX/EURXX/OTHER) MILLION
(US$425 MILLION EQUIVALENT)

TO THE

UNITED REPUBLIC OF TANZANIA

FOR A

HIGHER EDUCATION FOR ECONOMIC TRANSFORMATION PROJECT

{RVP/CD CLEARANCE DATE}

Education Global Practice
Eastern and Southern Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective {DATE})

Currency Unit =		
	=	US$1
US$ =		SDR 1

FISCAL YEAR
January 1 - December 31

Regional Vice President:	Hafez Ghanem
Country Director:	Mara K. Warwick
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ABBREVIATIONS AND ACRONYMS

ACE-II	Eastern and Southern African Higher Education Centers of Excellence-II
AF	Additional Financing
APIU	Agency Project Implementation Unit
ARU	Ardhi University
ASA	Advisory Services and Analytics
ASET	Applied Sciences, Engineering and Technology
BOT	Bank of Tanzania
CAG	Controller and Auditor General
COSTECH	Commission for Science and Technology
CPF	Country Partnership Framework
DFIL	Disbursement and Financial Information Letter
DUCE	Dar es Salaam University College of Education
E&S	Environmental and Social
ESCP	Environmental and Social Commitment Plan
ESDP	Education Sector Development Plan
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
FM	Financial Management
FYDP	Five-Year Development Plan
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GER	Gross Enrollment Ratio
HEET	Higher Education and Economic Transformation
HESLB	Higher Education Student Loans Board
HR	Human Resources
ICR	Implementation Completion and Results Report
ICT	Information and Communication Technology
IDA	International Development Association
IEC	Independent Evaluation Committee
IFMIS	Integrated Financial Management Information System
IFR	Interim Financial Report
IPSC	Institutional Project Steering Committee
IRR	Internal Rate of Return
ISR	Implementation Status and Results Report
M&E	Monitoring and Evaluation
MUST	Mbeya University of Science and Technology
MELL	Monitoring, Evaluation and Lessons Learned
MJNUAT	Mwalimu Julius K. Nyerere University of Agriculture and Technology
MOCU	Moshi Cooperative University
MoEST	Ministry of Education, Science and Technology
MoFP	Ministry of Finance and Planning

MTEF	Medium-Term Expenditure Framework
MU	Mzumbe University
MUCE	Mkwawa University College of Education
MUHAS	Muhimbili University of Health and Allied Sciences
NM-AIST	Nelson Mandela -African Institute of Science and Technology
NOCP	National Open Competitive Procedures
NPIU	National Project Implementation Unit
NPV	Net Present Value
NSC	National Steering Committee
PASET	Partnership for Skills in Applied Sciences, Engineering and Technology
PDO	Project Development Objective
PIU	Project Implementation Unit
PMT	Project Management Team
POM	Project Operations Manual
PP	Procurement Plan
PPSD	Project Procurement Strategy Document
PSE-UDSM	Prospective School of Economics of the University of Dar es Salaam (PSE-UDSM),
PIU	Project Implementation Unit
R&D	Research and Development
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
RSIF	Regional Scholarship and Innovation Fund
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SEQUIP	Secondary Education Quality Improvement Project
SIA	Social Impact Assessment
SMIS	Skills Management Information System
SPD	Standard Procurement Document
SSA	Sub-Saharan Africa
STEHP	Science and Technology for Higher Education Project
STEM	Science, Technology, Engineering and Mathematics
STEP	Systematic Tracking of Exchanges in Procurement
SUA	Sokoine University of Agriculture
SUZA	State University of Zanzibar
TASAF	Tanzania Social Action Fund
TCU	Tanzania Commission for Universities
TEMIS	Tertiary Education Management Information System
TERNET	Tanzania Education and Research Network
TVET	Technical and Vocational Education and Training
UDOM	University of Dodoma
UNICEF	United Nations Children's Fund
UPIU	University Project Implementation Unit
USIP	University Strategic Investment Plan
WBG	World Bank Group
WHO	World Health Organization

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Tanzania	Higher Education for Economic Transformation Project	
Project ID	**Financing Instrument**	**Environmental and Social Risk Classification**
P166415	Investment Project Financing	

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	[ ] Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
24-Mar-2021	30-Apr-2026

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To strengthen the learning environment and labor market alignment of priority programs at beneficiary universities, and improve the management of the higher education system

Components

Component Name	Cost (US$, millions)

Strengthening the Learning Environments and Labor Market Alignment of Programs in Priority Areas	329.00
Strengthening the Management of the Higher Education System	78.00
Support for Project Coordination and Management	8.00
Unallocated	10.00

Organizations

Borrower:	United Republic of Tanzania
Implementing Agency:	Ministry of Education, Science and Technology

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	300.00
Total Financing	300.00
of which IBRD/IDA	300.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	300.00
IDA Credit	300.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Tanzania	300.00	0.00	0.00	300.00
National PBA	300.00	0.00	0.00	300.00
Total	**300.00**	**0.00**	**0.00**	**300.00**

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2020	2021	2022	2023	2024	2025	2026
Annual	0.90	28.77	50.62	66.01	60.53	50.79	42.38
Cumulative	0.90	29.67	80.29	146.30	206.83	257.62	300.00

INSTITUTIONAL DATA

Practice Area (Lead)

Education

Contributing Practice Areas

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Moderate
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Substantial
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	
8. Stakeholders	Moderate
9. Other	Substantial
10. Overall	Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	
Stakeholder Engagement and Information Disclosure	
Labor and Working Conditions	
Resource Efficiency and Pollution Prevention and Management	
Community Health and Safety	
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	
Biodiversity Conservation and Sustainable Management of Living Natural Resources	
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	
Cultural Heritage	
Financial Intermediaries	

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Conditions

I. STRATEGIC CONTEXT

A. Country Context

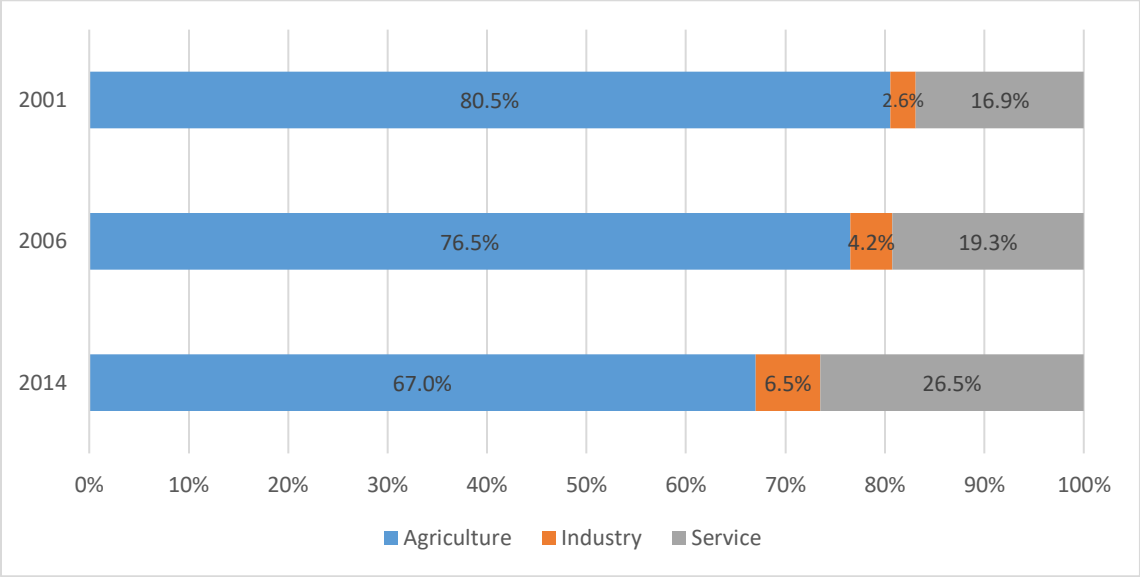
1. **Tanzania's economic growth over the past decade has been impressive, but sustaining and accelerating inclusive growth and consolidating the just earned middle-income country will require substantial and smart investments in human capital**. Gross Domestic Product (GDP) growth has been driven by diversification and expansion of key economic sectors, such as industry, construction and services. Tanzania's 6.3 percent average annual growth rate in the past decade has been markedly higher than the sub-Saharan Africa (SSA) average of 3.5 percent,[1] but rapid population growth due to the persistent high fertility rate (5.2 children per woman) has kept poverty reduction[2] and growth in per capita income relatively modest, at US$900 in 2016, behind Ethiopia, Rwanda, Zambia, Mozambique and Ghana. Zanzibar's growth trajectory has been similar to that of mainland Tanzania, though its average growth rate is marginally lower. To achieve its industrialization agenda of upper middle-income status by 2025, Tanzania would need to grow by over 7 percent per capita per annum, but productivity growth, specifically, labor productivity, is low and value-added per worker is only about US$3,536; considerably below Zambia, Zimbabwe and Kenya.

2. **The COVID-19 pandemic has had significant negative impacts on Tanzania's growing economy with substantial economic costs.** The economic impact of COVID-19 on Tanzania is still evolving but is expected to erode the gains made in recent years with current assessment indicating GDP growth rate slowing to 2.5 percent[3] in 2020, compared to 6.0 percent in 2019. For example, tourism, which has been one of the main contributors to GDP growth over the past decades, has declined significantly despite the country reopening for tourist arrivals in June 2020. Early assessments indicate that the sector is expected to have underperformed during the peak season of July–October 2020. The global situation has strained foreign investment and the overall environment for domestic private sector activity, with a dampened external environment expected to persist.

3. **The short supply of workers with relevant skills is a major constraint to economic expansion via advanced industries.** A gradual shift in employment away from agriculture (which has seen a decrease of 13.5 percent from a high of 80.5 percent in 2001) to industry and services (which have increased by 3.9 and 9.6 percentage points, respectively) occurred between 2001-2014 (Figure 1).[4] Employment growth in services accelerated over the period 2006–2014, with around 10 percentage points annual growth in services such as wholesale and retail, restaurants and hotels, transport, storage, and communication. Sustaining this economic transformation will be challenging, as about 40 percent of Tanzanian firms identified the lack of relevant workforce skills as a key business constraint, compared to the SSA average of 23 percent.[5] An even higher number of failed firms reported skills constraints, with 63 percent mentioning the shortage of workers with the right skills as contributing factor in their failure.[6]

[1] World Bank data (2010-2019)
[2] Based on national poverty lines, between 2007-12, headcount poverty declined from 34% to 28%2 and extreme poverty from 12% to 10% in Mainland. Nevertheless, the total number of the poor (12 million) in 2012 remained almost unchanged since 2007. Similarly, in Zanzibar the poverty rate declined 2010-15, from 35% to 30%.
[3] World Bank Tanzania Economic Update, June 2020
[4] The most recent Integrated Labor Force Survey Data is from 2014.
[5] Tanzania Enterprise Survey 2013.
[6] Sabarwal Shwetlena, 2013, Skills for Competitiveness in the Small and Medium Enterprise Sector, World Bank.

Figure 1: Employment Share by Major Sector (2001, 2006, 2014) in millions



Source: Integrated Labor Force Survey 2001, 2006 and 2014

4. **Catering to the skills needs of high-skills firms in urban areas is particularly important, as these skills appear to provide more opportunities for growth for such firms, which are currently facing acute skill gaps.**[7] High-skill firms are likely to be exporters, Information and Communication Technology (ICT) or other innovating firms. They are exposed to greater competitive pressures from international trade or technological changes and/or introduce new products or processes into the market.[8] As a result, they have a greater need for higher-level skills than firms serving the domestic market, and skills gaps pose a greater constraint to their operations than to low-skill enterprises.[9] For over 45 percent of high-skill firms, skills shortages constitute major operational difficulties, compared to 37 percent of low-skills firms.

5. **A more strategic mix of education and skills will help Tanzania further develop its productive sectors**[10] **and create jobs for the growing number of youth entering the labor market every year.** The latter is very important, as about 800,000 to 1 million young people will enter the labor market every year between now and 2030, with mostly low and medium levels of education and skills.[11] By 2030, this number is projected to reach 1.6 million per year with population growth. While the fast expansion of the youth demographic is a challenge, it also represents a unique economic opportunity, if efficient workforce and skills development policies are implemented.

6. **Shortage of skilled workers across essential sectors such as health and education is also a big challenge in the country**. The shortage of human resources in the national health sector stands at 50 percent. Changes in the pattern of diseases in the country from infectious to non-communicable diseases has expanded demand for expertise in a variety

7 TESS 2015, and Exports and Job Training, Paulo Bastos, Joana Silva, and Rafael Proença, World Bank Policy Research Working Paper 7676, May 2016.
[8] Innovator firms are those which have introduced new products or processes in the last two years.
[9] The share of high skills firms is 50 to 63 percent across sectors, and 36 to 43 percent across regions, but the majority is located in the greater Dar es Salaam region. (TESS 2015).
[10] Government's key priority sectors include productive sectors (agriculture, mining, and manufacturing) and economic infrastructure (energy, ICT, transport and tourism).
[11] Moreno and Tanaka, 2015, Education Attainment Projections for Tanzania, World Bank.

of specializations. Other health care areas with serious human capital shortages, apart from traditional medical specialists, include emergency medical specialists, critical care specialists, and behavioral change specialists. Similarly, education is also in need of a greater number of skilled teachers, particularly in mathematics and sciences, at the secondary and higher education levels.

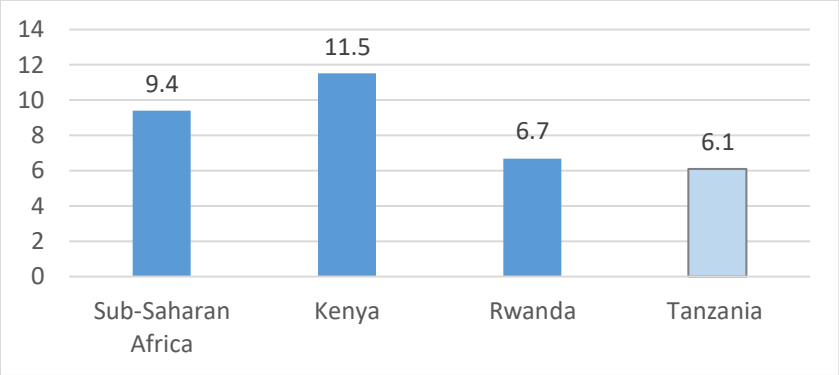
7. **Maintaining the middle-income status will require a transformation of the population's current skill composition to at least 26 percent medium-skilled and 12 percent high-skilled, based on estimates in the National Skills Development Strategy 2016/17-2026/27.** While urban workers with completed basic education are needed for many small, often informal businesses, higher skilled workers are critical to the emergence of a diversified, sustainable economy. Currently, only 16.6 percent of the Tanzanian workforce is medium-skilled and 3.5 percent high-skilled.[12] Despite steady expansion in access to education throughout the pipeline, in 2014, only 9 percent of the labor force had completed secondary education and just 1.3 percent had attended university.[13] Enrolment in Technical and Vocational Education and Training (TVET) and universities is still low.

B. Sectoral and Institutional Context

8. **Despite the significant economic returns to higher education, Tanzania's higher education enrollments in recent years have fluctuated and its current enrollment rate of 6.1 percent is below the Sub-Saharan Africa average (9.4 percent) in access to university.[14]** In Tanzania, a completed university education yields an average annual income 3.5 times higher than a completed upper secondary education. The number of students enrolled in higher education institutions grew from 111,533 in 2016/17 to 211,558 in 2017/18 due to improvements in infrastructure and initiatives to provide higher education loans, but subsequently fell to 181,897 in 2018/19 as a result of closures of programs in private institutions determined to be of poor quality. Correspondingly, during the same period, the Higher Education Gross Enrolment Ratio (GER) rose from 6.9 percent to 8.5 percent and then dropped to 6.1 percent[15], which is below the SSA average of 9.4 percent, and those of Tanzania's neighbors: Kenya (11.5 percent) and Rwanda (6.7 percent) (Figure 2).[16] In 2018/19, a total of 154,758 students were enrolled in Bachelor's, Master's, and PhD programs at 41 public and 43 private higher education institutions, and another 27,139 students attended non-degree courses.[17] Tanzania continues to lag behind the region in upper secondary enrolment with a GER of 7 percent, compared to Rwanda (30 percent) and Burundi (44 percent) which partly accounts for the low enrolment at higher education.[18]

[12] National Skills Development Strategy 2016/17-2026/27
[13] Integrated Labor Force Survey 2014.
[14] Ministry of Education, Science and Technology (MoEST) Annual Education Sector Performance Review (AESPR), 2019
[15] ibid
[16] World Bank EdStats data
[17] AESPR 2019
[18] UNICEF, 2018

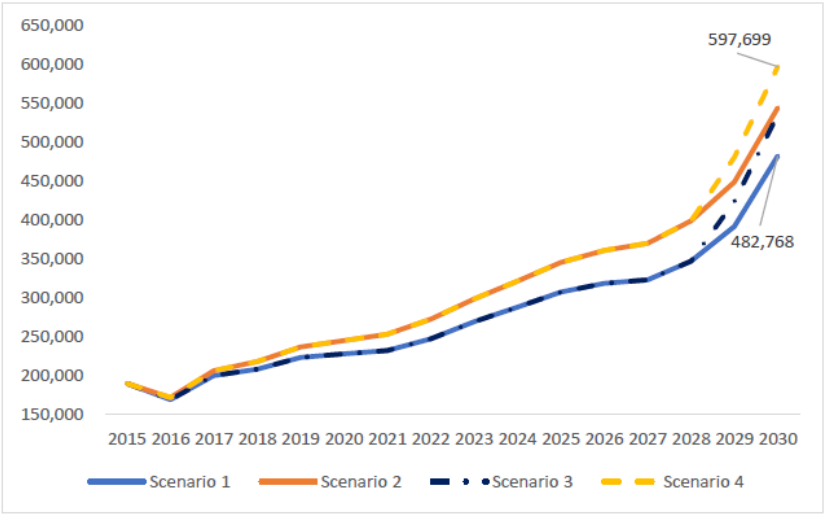
Figure 2: Higher Education Gross Enrollment Ratio (Percent), 2018



Source: MoEST data and World Bank EdStats

9. **Student demand for higher education is expected to surge in the near future to at least 482,000 places by 2030, so the tertiary education system (public and private) must expand and be of better quality to accommodate these additional students.** A larger number of students has been and will continue to graduate from upper secondary schools. According to projections (Figure 3), it is expected that demand for seats at the higher education level will increase from around 230,000 in 2019 to between 482,000 and 597,000 by 2030.[19] Without investments across the sector, there will remain a shortage of infrastructure, teaching equipment and academic staff with advanced training at the university level. This expansion of capacity cannot be remedied by public provision alone and will require reforms in the operating environment of private universities.

Figure 3: Total Enrollment Projections in Higher Education[20]



Source: Tanzania Public Expenditure Review FY19: Are Resources and Policies Aligned?

10. **Gender inequality in lower levels of education (especially upper secondary) persists at the university level,**

[19] Tanzania Public Expenditure Review FY19: Are Resources and Policies Aligned?

[20] Scenario 1: Annual growth rate of higher education entrants from other types of education (i.e. other types of post-secondary institutions) is zero; Scenario 2: Annual growth rate of higher education entrants from other types of education is 3 percent; Scenario 3: Scenario 1 plus automatic promotions and abolition of Form 2 exam in secondary; and Scenario 4: Scenario 2 plus automatic promotions and abolition of Form 2 exam in secondary.

though the gender parity index in higher education has improved from 56.5 percent in 2013 to 67.4 percent in 2018. [21] About 40.3 percent of students in higher education were women in 2018;[22] the proportion is much smaller in science, technology, engineering and mathematics (STEM) programs (33.6 percent), especially Engineering (19.6 percent), Mining and Earth Sciences (25 percent) and ICT (27.7 percent).[23] The male-female differences in enrolment arise from a smaller share of girls transitioning from lower to upper secondary schools and again from upper secondary to university compared to boys. Of the students that pass the O-level and A-level exams, 46 percent and 42 percent were female, respectively.[24] The World Bank-supported Secondary Education for Quality Improvement Project (SEQUIP , P163439), approved in 2020, includes interventions to address this persistence problem. The factors contributing to low female representation in STEM in Tanzania are being studied under an ongoing World Bank analytical work effort (P175073), however anecdotal evidence suggests that a small pipeline of female STEM students, insufficient preparation, and inadequate support systems are a few of the challenges. The gender imbalance in higher education exacerbates inequalities elsewhere in Tanzania, such as fewer women leaders in research and innovation, government, professions, businesses and civil society organizations, and among universities' faculties as well. Only 27.4 percent of academic staff at universities are women, due to the lower share of female students in higher education overall, but also likely due to greater difficulties in getting permanent positions, promotions and access to research funding and leadership positions.[25]

11. **Although there is a need for higher skilled workers in the economy, many recent university graduates have struggled to find jobs, at least in part due to a variety of skills mismatches.** Skills mismatches usually occur when: (i) academic disciplines are not in line with disciplines in demand on the labor market; (ii) curricula are outdated, delivery is not innovative and inclusive enough and the content of programs have limited labor market relevance; (iv) inadequate emphasis on industrial practical experience and soft skills; and (iv) teaching and learning facilities and technologies are outdated. The small size of the formal labor market also exacerbates graduates' unemployment issue. For example, although there is a considerable shortage of mathematics and science teachers and medical personnel in the public sector, the government is not able to hire many of the graduates in these disciplines due to budget constraints.

12. **Demand-side considerations underscore the need for greater numbers of students in disciplines and programs sought after by the employers, such as civil engineering, mechanical engineering, mining engineering, agribusiness processing, tourism, and climate change impacts, among others.** Most students currently pursue studies in general humanities and social sciences subjects. Only 26 percent of students at universities study STEM subjects, although there is a large deficit of professionals in these fields.[26] This is largely due to low enrollment and available spaces in science streams at the secondary level, which is one of the challenges the SEQUIP project will attempt to address. As a result of these deficiencies earlier in the education pipeline, enrollment in sciences at post-secondary and post-graduate levels is low, resulting in a shortage of well-trained lecturers in these programs, further limiting spaces for students in these courses of study. For example, there is a lack of engineers and specialists such as electrical, civil, mining and minerals, and mechanical engineers, geologists and hydrology specialists.[27] The discovery of oil and gas deposits is expected to expand industries in the energy and construction sectors and create 20,000 to 35,000 new jobs each that need the aforementioned skilled personnel. Anecdotal evidence from the Ministry of Education, Science and Technology (MoEST)

[21] MoEST AESPR 2019
[22] ibid
[23]Draft Basic Education Statistics Tanzania (BEST) 2019
[24] MoEST AESPR 2019
[25] MoEST BEST 2018
[26] MoEST AESPR 2019
[27] ibid

officials indicates that civil engineering graduates currently find employment within two weeks of graduation.

13. **The overall quality of post-secondary academic programs is low, not internationally-oriented, and does not prepare university graduates adequately for the wide array of current and future formal jobs or self-employment.** The weak teaching and learning environment and inadequate support at university in terms of remediation, where needed, supervision and physical resources contribute to poor quality of training. Infrastructure, equipment and resources such as laboratory spaces, laboratory equipment, sufficient internet bandwidth and access to electronic journals are limited. The lack of necessary lab equipment and materials is especially problematic for faculty seeking to conduct relevant, modern research. Currently, funds for research are inadequate, leading to weak production of novel findings, application of research to addressing local challenges, and impactful innovations. Professors and employers alike note weak technical, English, computer, soft skills and labor-market readiness of graduates. A 2015 Government study on skills gaps in the tourism and hospitality industry found that employees often possessed the requisite formal credentials for employment but lacked the relevant skills to perform their job satisfactorily.[28] Employers are not only seeking technical skills, but also numeracy and behavioral skills, and rated these as the most difficult to find. Few (if any) practical training and internships are available for students to better understand the real world of work. At the post-graduate level, Tanzanians tend to pursue Master's and PhDs in neighboring countries, or outside Africa, due to a perception of low quality or the lack of desired programs in Tanzania, and the greater international orientation and/or reputation of programs outside Tanzania.

14. **There is a shortage of well-trained lecturers, especially in STEM disciplines, as noted above, and the majority use traditional teaching methodologies**. Due to a wave of age-related retirements and the recent recruitment of talented lecturers into positions within the Government there are limited university lecturers, particularly in STEM areas. The proportion of academic staff with a Master's degree is 51.6 percent while instructors with a PhD account for only 32.6 percent of the total teaching staff.[29] In addition, many lecturers are not trained in the use of the latest technical developments and global knowledge in their fields, and use outdated, mostly lecture-based, teaching methodologies, limiting the development of adequate competences among students through group work, projects, presentations and other such approaches. In addition, STEM disciplines face a critical shortage of technical staff.

15. **Given the significant resource and capacity constraints, most higher education institutions are not currently able to access or use modern technologies to deliver modern and adaptable education and training to students.** There is limited integration of digital content and applications, innovative pedagogical approaches using technology, information management systems and other information and communications technology (ICT) in the delivery of higher education across teaching and learning, research and management. Broadband is readily available to faculty and students only in some universities but also in limited areas. Few higher education institutions use Open Educational Resources for teaching and learning as well as research. While some local digital content is available for use by universities, licensing issues discourage innovative ideas and technology uptake.

16. **Finally, the global pandemic of 2020 has reinforced the need for higher education institutions and systems to develop thoughtful resiliency plans.** During the early weeks of the pandemic, Tanzania experienced a relatively short period of school closures, particularly in higher education. Universities closed in March 2020 and reopened in early June, with measures in place to support safe in-person delivery. Nonetheless, the Government of Tanzania is mindful of the need to invest in robust ICT and networking technologies in all its universities, to prepare for any prolonged need

[28] MoEST, 2015, Human Resource Needs and Skill Gaps in the Tourism and Hospitality Sector in Tanzania
[29] MoEST BEST, 2018

to deliver remotely in the future. This focus on resilience in the sector will allow for increased capacity for international and domestic collaboration in the immediate term and accelerated adaptation to challenges that may occur. There is considerable scope for technology to enable universities to promote more personalized learning, encourage greater collaboration and increase access to larger groups of students with more flexible learning options

17. **To address the above challenges, the planning and management of the higher education system needs to become more evidence-based and agile.** More specifically, the universities as well as regulatory and financing agencies need to be supported to use more cost-effective, innovative, adaptive, data-driven, and sustainable approaches in the following areas:

(a) ***Quality assurance process*** for assessing and registering institutions and accrediting programs of study and curricula. Though a process exists, it is neither effective in ensuring and raising the quality of university programs and involving the private sector, nor in streamlining the process of professional certification of students. For example, medical graduates of a private university did not receive their medical licenses by the Medical Council of Tanganyika, the professional body, as they did not consider the program adequate, although it had been accredited by the Tanzania Commission for Universities.

(b) ***Sustainability and efficiency of higher education financing,*** particularly the higher education student loans scheme, as this is already a substantial burden on the government budget due to growing demand, but also ***resource mobilization among universities***.

(c) ***Business and governance environment for private universities,*** many of which are small and struggling to expand or offer higher quality programs. However, competition with well-managed, high quality private universities can also raise the game of public universities, as well as help with the expansion of student spaces. In addition, a fair playing ground with respect to student fees is important to promote a competitive environment between public and private funded universities.

(d) ***Higher Education data systems:*** The most basic data on higher education is not available (e.g. number of graduates, faculty by discipline), and severely limits planning, informed policy decision making and design of appropriate and targeted interventions, at both policy and institutional levels.

18. **The World Bank-supported Science and Technology Higher Education Project (STHEP, P098496) provided critical support to universities and regulatory and financing institutions from 2008-2016.** The project was successful in: (i) contributing to expansion of teaching and research in universities such as the University of Dar es Salaam, Sokoine University of Agriculture, State University of Zanzibar and many others; (ii) increasing the number of graduates from science and technology degree programs from 1,312 in 2007 to almost 7,000 in 2015 by constructing new facilities and increasing the number lecturers with Master's and PhDs in key disciplines; (iii) increasing the number of degree-holding secondary school teachers in mathematics, sciences and English from 172 in 2007 to 5702 in 2015; (iv) connecting all 28 public universities to the national broadband backbone, increasing their high speed internet capabilities despite inadequate funding to improve internal network systems and equipment; and (v) strengthening higher education regulatory and financing regimes, such as enhancing the sustainability of the Higher Education Student Loans Board (HESLB), which experienced an improvement in timely loan repayment from 5.6 percent (2007) to 50 percent (2016) through digitization of records etc.

19. **Regional Initiatives like the Eastern and Southern Africa Higher Education Centers of Excellence (ACE II, P151847) and the Partnership for skills in Applied Sciences, Engineering and Technology (PASET) are also playing an important role in contributing to building capacity for teaching, research and innovation.**

(a) The ACEII project supports post-graduate education and research through selected higher education

institutions in Eastern and Southern Africa. Four Tanzanian institutions, two at Sokoine University of Agriculture and two at Nelson Mandela-Africa Institute of Science and Technology, are supported under the project and receive grants to improve graduate training in the areas of industry, agriculture and health, to address specific development challenges in the region.

(b) PASET is a pan-African initiative that seeks to build– from the technical/vocational level to higher education and research–a technical and scientifically skilled labor force to support priority sectors in SSA. Two of the key higher education initiatives under PASET are the Regional Scholarship and Innovation Fund (RSIF) and the Regional Benchmarking of SSA Universities.30 The RSIF is now supported as a World Bank-financed project through an IDA regional grant–Africa Regional Scholarship and Innovation Fund for Applied Sciences, Engineering and Technology (P165581)–as well as by several SSA countries in the region, the Government of Korea, and other stakeholders in and outside SSA. Tanzanian students have benefitted from the RSIF through competitive access to the RSIF PhD scholarships in regional universities of repute, while some universities have participated in the Regional Benchmarking of SSA universities which provides them a strategic direction on the improvements needed for quality service delivery and student outcomes.

C. Relevance to Higher Level Objectives

20. **The proposed HEET project will directly contribute to Pillar 2 of the Country Partnership Framework (CPF) for Tanzania FY18-FY22 (Report No. 121790-TZ):** *boost human capital and social inclusion* by improving the quality of higher education and promoting labor market relevant high-level skills development in order to address critical skills gaps in graduates to benefit the economy and to promote increased access to higher education for women. Through a sector-based approach, the proposed HEET project is designed to identify and address higher skills and innovation requirements for priority sectors in Tanzania, thereby contributing to the development of other pillars.

21. **The HEET project will support Tanzania's Second Five-Year Development Plan (FYDP II) – *Nurturing Industrialization for Economic Transformation and Human Development,* and Zanzibar's Third Strategy for Growth and Reduction of Poverty (ZSGRP III).** The FYDP II emphasizes education and capability development and includes key interventions and indicators for higher education, notably: (i) broaden access to student loans, especially for sciences; (ii) increase university enrolment and graduates; (iii) promote gender equity in university enrolment; (iv) raise the percentage of high-skilled population; (v) develop and equip research infrastructure for higher learning and research and development (R&D); (vi) expand use of advanced ICT; and (vii) increase number of lecturers.[31]

22. **HEET builds on past and ongoing World Bank-supported operations at the country and regional levels.** It will build on the successes of the STEHP and STEHP-AF projects to further strengthen universities and regulatory and financing agencies. In addition, it will strengthen systems building on ongoing initiatives supported by the Education, Skills and Jobs for Productivity (ESPJ) program (P152810). The HEET project will use findings and recommendations of the ASA on "leveraging technology and the private sector to meet the increasing demand for quality higher education

[30] The RSIF seeks to serve as a sustainable pan-African science-fund RSIF that finances PhD scholarships, research and innovation in applied science, engineering and technology fields at competitively selected SSA institutions in partnership with top international partner institutions. It prioritizes women and young African faculty without PhDs. Tanzania's contribution to the RSIF will give meritorious faculty members of Tanzanian universities priority for RSIF PhD scholarships. PASET's Benchmarking initiative, also offers governments and universities in the region a way to strengthen the availability of data which can be used for performance assessment and quality improvement. About 31 universities across 12 countries participated in the PASET Benchmarking exercise in 2016 and a new round is under way.

[31] Ministry of Finance and Planning, 2016, National Five Year Development Plan 2016/17-2020/21 "*Nurturing Industrialization for Economic Transformation and Human Development.*"

in Tanzania" (P175073) to enable the MoEST and target universities supported under the HEET project to enhance their use of education technology, support greater gender parity, and strengthen engagement with private providers of higher education at the system level. At the regional level, HEET will enable Tanzania to contribute a minimum of US$2 million to the RSIF, allowing the country to leverage twice the amount in regional IDA credit (see detailed description in subcomponent 2.2). PASET RSIF will help address Tanzania's need for high quality faculty who are trained to international standards in science and engineering disciplines at the doctoral and post-doctoral level. In addition, the RSIF will allow Tanzania to benefit from knowledge exchanges at the regional and global levels that will strengthen the capacity of its higher education institutions and stakeholders and provide spillover effects such as learning how to improve Tanzania's national research and innovation fund. Finally, HEET will build on and reinforce outcomes of the ongoing regional Eastern and Southern Africa Centres of Excellence (ACE II) in Tanzania (P151847).

23. **At the global level, HEET will contribute to Tanzania's progress towards the Sustainable Development Goals (SDGs) on education, specifically:** (a) Target 4.3 - access to quality technical, vocational and higher education; (b) Target 4.4 – increase the number of people with relevant skills for financial success; and (c) Target 4C - increase the supply of qualified teachers with special focus on science and mathematics.

24. **HEET is also aligned with the World Bank's guidance for responding to COVID-19 in the higher education sector.** Recognizing the crisis and challenges brought on by COVID-19, the HEET project will help to build Tanzania's response capacity and resilience to COVID-19 and similar shocks. Every institution and agency supported under the project will build COVID-19 response and resilience activities into their strategic investment. Such responses include; development of National Framework and Guidelines for HE Online Training and Assessment; as well as investing in hardware and software for digital delivery, upgrading of facilities to support agile movement between distance and in-person learning, and improved learning science acumen, to promote academic staff capacity building for better teaching and learning measurement and achievements. The MoEST will also develop a crisis preparedness and response plan to enable it to respond to future national, regional and global emergencies.

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

To strengthen the learning environments and labor market orientation of programs in priority disciplines and the management of the higher education system

PDO Level Indicators

(i) Students and faculty participating in internships/fellowships/forms of placement in industry, companies or research institutions (sub-indicators for gender, individuals with disabilities, and students/faculty ratios) (number)
(ii) Degree programs within priority disciplines that are aligned to labor market needs (number)
(iii) Students benefiting from direct interventions to enhance learning (corporate indicator) (number)
(iv) Active use of a Tertiary Education Management Information System (TEMIS) (yes/no)
(v) Higher education institutions supported by the project that achieve a minimum threshold of the annual

targets set in the performance-based agreements (number)
(vi) Inclusive Education indicator
(vii) Gender mainstreaming indicator

B. Project Components

25. The proposed HEET Project will use an Investment Project Financing (IPF) instrument for a total amount of US$425 million. The Project will be implemented over five years from 2021 to 2026.

26. The Project aims to strengthen the delivery of higher education through a combination of university-level investments in improving the quality of learning environments and programs, and Ministry-level interventions that enhance the management of the higher education system and support a conducive policy environment. These interventions are organized under three components described in the following text.

Component 1: Strengthening the Learning Environments and Labor Market Alignment of Programs in Priority Areas (US$329 million equivalent)

27. **This component will focus on strengthening and building the capacity of 14 public higher education institutions to become high quality centers of learning focusing on priority areas**. The Government identified 14 priority areas based on key disciplines required to build an industrial economy and propel forward Tanzania's development agenda. These disciplines are aligned with the priority economic sectors identified in Tanzania's *National Skills Development Strategy 2015/16-2025/26*, *Vision 2025* and the *Education and Training Policy 2014*, as having the greatest potential for growth over the coming decade and which function as cross-sector enablers.

28. **The 14 priority areas are:** (a) engineering and technology; (b) ICT; (c) material sciences; (d) health sciences; (e) urban and environmental engineering and technology; (f) renewable energy; (g) water resources; (h) climate change; (i) agriculture and agribusiness; (j) wildlife conservation; (k) tourism and hospitality; (l) academic industry linkages; (m) humanities; and (n) education.

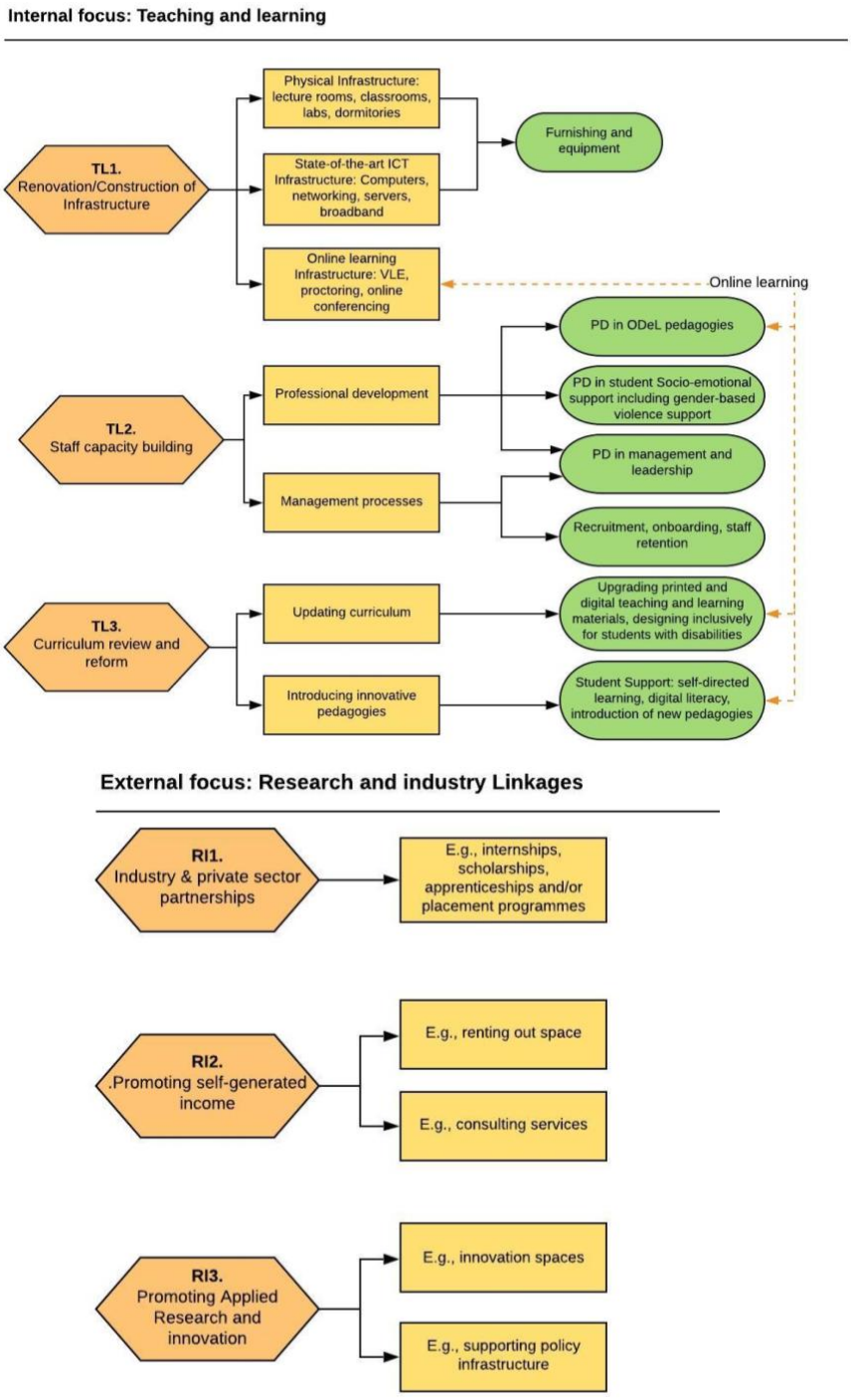
29. **Under this component, the project will finance the development and implementation of institution-specific University Strategic Investment Plans (USIPs) that detail activities to meet the strategic objectives of improving the learning environment at the institution and enhancing the labor market alignment of priority degree programs.**[32] The USIPs will prioritize elements that are core to creating a strong, flexible, and highly skilled workforce that can address Tanzania's development challenges with awareness on climate change mitigation and adaptation measures. The USIP activities will be organized into three internally-focused areas to improve teaching and learning and three externally-focused areas to strengthen research and industry linkages (Figure 4). Areas to improve teaching and learning include: (i) curriculum updates, which will include responsiveness to growing climate change issues and introduction of innovative pedagogy; (ii) construction and/or rehabilitation of energy efficient infrastructure including lecture halls, laboratories and workshops that promote accessibility for those with disabilities and address gender considerations and safety concerns with clear structural strengthening and building maintenance policies and guidelines; and (iii) professional development of academic staff and university leadership including awareness on emerging environmental issues and teaching and advising students with disabilities. Areas to strengthen research and industry linkages include:

[32] About 230 priority degree programs are expected to be supported under the project

(i) industry and private sector partnerships; (ii) promoting applied research and innovation; and (iii) promoting self-generated income through revenue-earning activities. During the HEET Project preparation phase, each higher education institution developed a USIP that addresses its unique needs, challenges and context and received technical assistance under the project to strengthen their plans and incorporate good practices that have demonstrated success in similar contexts around the world.

30. **The HEET Project will place a strong emphasis on the use of digital technology by universities to deliver training and manage administrative services.** There will be a focus on digitalizing all HEET project supported campuses and strengthening the capacity of universities to deliver online learning in order to build resilience within the institutions to respond to shocks like the COVID-19 pandemic and ensure learning continuity. This online learning infrastructure will also help increase access to higher education for the growing youth population as well as support new blended learning approaches that combine in-person instruction and virtual learning with potential for partnerships with international institutions of repute. In addition, universities will invest in digital platforms and efficiency enhancement systems by modernizing the management of administrative processes such as admissions, registrations, learning management and support services. Activities to strengthen institutions' online teaching and learning capabilities and management capacity will include establishing the required ICT infrastructure for smart classrooms, workshops and campuses; improving connectivity including through greater linkage with the Tanzania Education and Research Network (TERNET); digitizing learning materials and library resources and enhancing interactive online teaching and learning; training and exposing academic staff in pedagogies for virtual teaching; establishing digital platforms for core academic and administrative services; and training university staff to develop at least basic digital skills competency. These activities will be embedded within the three USIP areas for teaching and learning. Partnerships with private sector providers of online learning resources and platforms will also be leveraged to promote blended learning and distance learning programs.

Figure 4: USIP Areas



Note: PD = Professional development; ODeL = Open, Distance and e-Learning; VLE = Virtual Learning Environment

31. **In order to help engage relevant industry professionals in the design and delivery of priority degree programs and ensure their alignment to market needs, Industry Advisory Committees (IACs) will be set up at each institution.**

These Committees will be responsible for supporting the review and update of program curricula, advising on applied research and innovation activities including facilitating transfer of technology across industry to faculties in universities, and supporting with outreach to the private sector for functional partnerships with universities and community. Each IAC will be composed of experienced professionals engaged across Tanzania's industries of relevance to the programs on offer at the respective faculty/college in the beneficiary universities, and will be constituted by higher education institutions according to Terms of Reference agreed with the MoEST. The IACs will meet at least twice a year and will work closely with the internal quality assurance units at each institution, which will also be strengthened under this component to ensure that all priority degree programs are accredited and meet national standards established by MoEST. IACs will also work closely with institutional organs in order to further deepen the roles of the industry/private sector in academic operations of universities. Universities will also pursue industry and private sector partnerships through internships and placements for students; faculty training; collaborations on research and innovation such as grants from industry for young entrepreneurs or joint applications for funding; support to establish career offices at universities; course offerings by visiting faculty from industry, mentorship programs; support to establish career offices at universities among others. IAC members will play an important role in identifying and facilitating such partnership opportunities. A national workshop will be held with members of the all the IACs once established to ensure harmonized understanding of the roles and responsibilities, accountability measures and functionality of the body with exposure to good practices of similar bodies in well-performing education systems.

32. **The USIPs will also include interventions to enhance gender equitable participation in priority degree programs.** Each institution is required to integrate activities to address gender issues and encourage greater participation of women in higher education programs, particularly in STEM disciplines. These activities include but are not limited to: (i) developing outreach programs to sensitize female secondary school students and communities about university programs, especially in STEM areas; (ii) preparing an institutional-level gender equity strategy, where absent, to attract and retain women in priority degree programs and monitor progress towards targets and establishing a gender desk to support implementation of the strategy; (iii) creating safe environments in the institutions by promoting practices and implementing national policies and guidelines to safeguard against gender-based violence (GBV) and establishing confidential GBV management processes with linkages to the national policing systems; (iv) introducing mentorship programs for women, especially in STEM areas, (v) constructing climate smart hostels/dormitories with renewable energy sources for women; (vi) ensuring all newly constructed infrastructure address consideration specific to women such as appropriately designed and sufficient bathrooms, nursing/break room/social rooms for breast feeding mothers and spaces that promote better safety for women; and (vii) increasing representation of women among academic staff and university leadership.

33. **In addition, universities will aim to foster more inclusive and equitable environments for students with disabilities**. Facilities constructed and renovated under the project will consider inclusivity elements per global standards and will be accessible to students with special needs. Institutions will also develop the capacity of academic staff to support and cater to the training needs of students with disabilities. In addition, MoEST will create Centers of Excellence for inclusive education at specific universities[33] where the majority of students with disabilities are currently enrolled. Investments will be concentrated at these universities to offer high-quality training, infrastructure and equipment for students with varied disabilities. This will include renovation and rehabilitation of classrooms and lecture rooms to suit the needs of special needs education; construction or renovation of hostels to provide accommodation

[33] Muhimbili University of Allied Sciences; University of Dodoma; Moshi Cooperative University; Dar es Salaam University College of Education; Mkwawa University College of Education; Sokoine University of Agriculture; Mbeya University of Science and Technology; University of Dar es Salaam; and Open University of Tanzania

for students with disabilities; establishing specialized examination rooms; creating resource rooms with specialized equipment for disabled students; and introducing and/or strengthening existing academic and administrative support services for students with disabilities to promote their retention, graduation and entry into the workforce.

34. **Each participating institution will sign a performance-based agreement with the MoEST based on their respective USIPs or MASIPs.** These agreements will define annual performance indicators and milestones that promote shared governance and accountability whose achievement will be monitored by MoEST. Such performance contracts promote mission-driven strategic initiatives, institutional management as well as increased autonomy that improves the operational quality of these institutions. Negotiated performance agreements also encourage greater institutional ownership and more buy-in for difficult reforms, such as changing teaching practices or engaging private sector in curriculum reforms and university research projects. Taken together, the USIPs and MASIPs and the corresponding performance-based agreements will promote a culture of effective management and shared governance with MoEST and higher education institutions by emphasizing autonomy, accountability, quality and institutional ownership (See Annex 2 for more details).

35. **The 14 higher education institutions to be supported under the project are divided into two clusters – 11 competitively selected universities and four priority institutions**. The support for these institutions is divided across three sub-components as described below.

Sub-Component 1.1: Expanding capacity of existing public universities to offer quality programs in priority areas (US$ 219 million)

This sub-component will focus on strengthening and building the capacity of 11 competitively selected public universities around Tanzania by financing their individual USIPs, focusing on the priority areas. This component in part also seeks **strengthen the capacity of the Prospective School of Economics at the University of Dar es Salaam (PSE-UDSM)** to generate skilled and professional personnel in economic planning, investments, economic development research, development of multi-sectoral climate adaptation development plans and modelling, as well as monitoring of the performance of the national priority degree programs with respect to domestic revenue generation and employment. This will be achieved through the USIP framework of UDSM.

36. **A transparent, criteria-driven selection mechanism was used to select the institutions to be supported under this sub-component**. Eleven higher education institutions submitted concept notes for evaluation. An Independent Evaluation Committee (IEC) was constituted by MoEST to evaluate the proposals submitted by institutions and identify the best proposals for financing under the project. The criteria for evaluating the proposals included alignment to the HEET project vision and PDO, alignment to the priority areas, evidence of innovation in proposed new programs and pedagogy, technical capacity of the institution, extent of gender mainstreaming, and sustainability of the program beyond the project among others. All 11 institutions were found to meet the minimum criteria for selection and were recommended for funding. Allocation of funds for each institution was also made based on their proposals with science and technology-based institutions receiving higher allocations due to the need to buy or replace laboratory and workshop equipment.

37. The competitively selected universities to be supported under this sub-component by allocated funds are presented in Table 1.

Table 1: Competitively-Selected Public Institutions Supported Under Sub-Component 1.1

No	Institution	Funding allocations
1	University of Dar es Salaam (UDSM)	USD 39.5 m
2	Sokoine University of Agriculture (SUA)	USD 32 m
3	Mbeya University of Science and Technology (MUST)	USD 31.5 m
4	Ardhi University (ARU)	USD 29 m
5	University of Dodoma (UDOM)	USD 23 m
6	Mzumbe University (MU)	USD 22 m
7	Nelson Mandela Institute of Science and Technology (NMIST)	USD 10 m
8	Open University of Tanzania (OUT)	USD 8 m
9	Moshi Cooperative University (MoCU)	USD 8 m
10	Dar es Salaam University College of Education (DUCE)	USD 8 m
11	Mkwawa University College of Education (MUCE)	USD 8 m

The above allocation includes the strategic funds meant to improve institutional capacities in supporting and delivery of inclusive education, notably for learners with special needs that is extended to UDSM (1.5 m); MUST (1.5 m) and 1 million to each of the rest 7 institutions (MUCE, DUCE, MOCU, SUA, MUHAS, MU and UDOM). The funding is intended to deepen enrollment of learners with special needs in STEM programs. As means towards providing opportunities for learners with special need in HLIs funded through this project, the rest (4 HLIs) were also motivated to embrace inclusive education approaches by building basic supportive foundation for training faculty to identify and support learners with special needs through the pedagogical skill training; establishing Help Desks and developing requisite institutional guidelines. This also included putting up modest resource centres to provide learning resources across programmes. This implies that all HLIs will work towards providing equal learning opportunities to learners with various forms of disabilities. This motivation was indeed in line with stakeholders' advice to HLIs.

Sub-component 1.2: Promoting excellence in development of human resources for underserved areas in the Lake Zone and neighboring regions and Zanzibar (US$110 million)

38. **This sub-component will focus on supporting quality higher education in underserved areas in Tanzania with prioritized investments in human resources development for health and agriculture**. It will finance the USIPs of the following three universities that were identified as priority institutions by the IEC:

(a) Muhimbili University of Health and Allied Sciences (MUHAS), Mloganzila campus**:** To address the identified 50 percent human resource gap in health and allied sciences sector, the HEET project will expand and improve the quality of training programs delivery at the Mloganzila campus of MUHAS. The campus hosts the state-of-the-art Mloganzila Hospital, which was constructed to support quality graduate training in medicine and allied fields, including specialized medical staff in emerging non-communicable diseases, which are growing at an alarming rate in Tanzania. HEET project financing will be used to support climate smart construction and/or refurbishment of essential academic infrastructure such as lecture halls, classrooms, staff offices, laboratories, student social support rooms and student hostels; installation of

energy saving teaching and learning equipment including lab equipment and ICT infrastructure necessary for quality training programs; and staff development through scholarships for specialized post-graduate training for medical doctors to support district and regional hospitals and academic staff from public and private medical colleges as an integral part of strengthening the program for District and Regional Referral Hospitals under the health sector.

(b) Mwalimu Julius K. Nyerere University of Agriculture and Technology (MJNUAT), Butiama: The HEET Project will respond to the emerging need to promote excellence in agricultural technologies by expanding the capacity, quality of programs, and climate resilient innovations at MJNUAT in Butiama. MJNUAT is the only public university in the wider underserved agricultural areas of Lake Victoria and Western Zones and aspires to play a 'center of excellence' role for environmentally sensitive agricultural training. As a relatively new university, MJNUAT-Butiama needs to set up energy saving designs of essential infrastructure including lecture halls, laboratories, equipment and machinery and other key facilities to serve as a leading center for research and innovation in agricultural technologies. The HEET project will finance investments towards such infrastructure as well as activities to strengthen the capacity of academic staff in new pedagogical approaches that embrace awareness on climate change mitigation and adaptation issues and online teaching methods, set up online learning platforms, update curricula, and promote linkages with industry.

(c) State University of Zanzibar (SUZA): The HEET Project will promote higher education excellence in Zanzibar by supporting SUZA. The Zanzibar government is expected to absorb nine local colleges in Zanzibar and the Pemba region and incorporate them as a part of SUZA. The Project will facilitate the integration of colleges into SUZA including the consolidation of management structures, academic processes, change management and coursework in addition to improvements in the academic infrastructure and strengthening the quality of higher education training.

Table 2: Public Institutions Supported Under Sub-Component 1.2

No	Institution	Funding allocations
1	Muhimbili University of Health and Allied Sciences (MUHAS), Mloganzila campus	USD 45.5 m
2	Mwalimu Julius K. Nyerere University of Agriculture and Technology (MJNUAT), Butiama	USD 44.5 m
3	State University of Zanzibar (SUZA)	USD 20 m

Component 2: Strengthening management of the higher education, science, technology and innovation system (US$ 78 million equivalent)

39. **This component will focus on enhancing the management of the higher education system and creating an enabling environment for excellence among higher education institutions.** A first sub-component will aim to strengthen the capacity of key government departments and agencies responsible for the effective oversight and delivery of higher education in Tanzania, including MoEST and many subsidiary departments and agencies. It will target MoEST which comprises two departments responsible for higher education, research and innovation - the Department of Higher Education and the Department of Science, Technology and Innovation. It will also promote reforms and improved operational capacity and delivery at three key Ministerial agencies – the Tanzania Commission for Universities (TCU), the Higher Education Students' Loans Board (HESLB), and the Commission for Science and Technology (COSTECH). In addition, a second sub-component will help to strengthen public-private partnerships in higher education as well as finance quality improvements in select non-university institutions

deemed critically important for the strategic management and delivery of quality instruction.

40. **Similar to the USIPs, under this sub-component the Project will finance the implementation of individual Ministry and Agency Strategic Investment Plans (MASIPs) aligned to the objectives of the project.** The MASIPs will target investments towards improving the management, institutional development, regulatory frameworks, and capacity for research and innovation of the higher education system to enable higher learning institutions to thrive. Thus, this sub-component will finance the implementation of MASIPs from the MoEST, TCU, HESLB, and COSTECH supporting activities described below through technical assistance, training, technical studies, capacity enhancement and knowledge exchange events.

(a) MoEST: MoEST leads the effective development of policies for higher education, R&D and innovation and mobilization of resources for enhanced access, quality and equity in higher education in Tanzania. The HEET project will provide support to the MoEST for activities such as but not limited to: (i) technical assistance to develop a variety of robust tools and frameworks including for tracking graduates from priority programs (and publishing regular reports), capturing resource mobilization and allocation by higher education institutions, promotion of Public, Private Partnership, and monitoring and evaluating the higher education system among other areas; (ii) upgrading the ICT infrastructure to support operations including the Tertiary Education Management Information System (TEMIS) in concert with TCU; (iii) providing scholarships to support the capacity building and advanced training of university leadership and academic and technical staff, particularly young lecturers who need to upgrade towards full academic careers and build their research capacity, and technicians to support practical training and research undertakings; (iv) through establishment of linkages with the Tanzania Social Action Fund (TASAF) beneficiary registry, providing scholarships to female students from low-income households, who lack qualification for direct admission, to access a one-year foundation course at the Open University of Tanzania. This is intended to enable them to join any science degree program of choice upon graduation from the course; (iv) building the technical and administrative capacity of core staff at MoEST, MoFP, and key sector ministries; (v) verifying construction activities including the development of an effective verification tool and maintenance guidelines, and site visits; (vi) providing guidance on acquisition of new teaching and learning materials (laboratory and workshop equipment) in terms of adequacy and specifications; (vii) development of a crisis and climate change preparedness and response plan and guidelines; (viii) development of an inclusive education strategy based on an assessment of the needs, challenges and constraints faced by students with disabilities in accessing and completing higher education; (ix) verification of the implementation of activities to address gender issues, climate change and crisis preparedness at the institutional levels. (x) development of requisite science, technology and innovation (STI) policies, guidelines and roadmaps including the National Research Priorities, National Technology Roadmap, and National STI Strategy to support the utilization of technology and innovation across the sector; and (xi) support for oversight of national STI policies and activities.

(b) TCU: This agency plays an important role in regulating the quality and relevance of programs and systems at universities, supporting their management and operations, and advising the Government on higher education matters. The HEET Project will, therefore, support TCU in the following key areas: (i) strengthening accreditation and quality assurance including for Open, Distance and e-Learning (ODeL) programs through technical assistance to review and update curriculum design, quality assurance and accreditation guidelines and standards informed by international best practices; (ii) capacity building for academic staff and leadership at universities on the updated guidelines and standards to facilitate proper set up of institutional-level quality assurance units; (iii)

facilitating development of labor market aligned programs at institutions by financing labor market surveys and stakeholder forums; (iv) promoting equity in the higher education system through the development of a national and institution-specific gender-sensitive admissions and university leadership policy and guidelines including on gender discrimination and GBV; (v) strengthening the capacity of university leadership on good governance practices and academic policies; and (vi) improving efficiency of data management in collaboration with the MoEST by upgrading the TEMIS to online ICT systems and integrating management information systems. Private higher education institutions will be able to benefit from this support to TCU through the improved regulatory policies and guidelines on program accreditation and opportunities for capacity building on quality assurance.

(c) HESLB: As the body in charge of managing higher education loans, HESLB has a critical role in addressing the financial constraints facing Tanzanian students looking to pursue higher education. To address this demand-side challenge, the HEET Project will support HESLB's operations to: (i) improve sustainability and equity dimensions of the financing scheme; (ii) improve efficiency of loan management (identification of beneficiaries, loan disbursement, and loan recovery) through a robust performance review of HESLB and support for business process re-engineering; (iii) strengthen linkages with relevant stakeholders through integration of HESLB systems with databases of higher education institutions, TCU, TASAF, National Identification Authority (NIDA), and employers among others; (iv) identifying opportunities for public-private partnerships through a study; and (v) build capacity of HESLB staff to manage the loans program.

(d) COSTECH: This organ of government is in charge of promoting scientific research, technological development and innovation nationally as well as advising the Government of Tanzania on such matters, thereby supporting Tanzania's industrialization agenda. The HEET project will provide support to COSTECH for the following activities: (i) construction of a Technology Innovation Support Center (TISC) and equipping it with scientific lab equipment; (ii) promoting applied research and innovation capacity through the development and operationalization of instruments and guidelines for the management of intellectual property rights (IPRs) as well as establishment of technology transfer facilities to support innovation; (iii) building functional linkages with the private sector/industry by supporting the development of start-ups and preparing tools to promote collaboration between industry and universities; (iv) developing databases to collect data on national STI indicators as well as research and innovation projects from R&D and higher education institutions; and (v) establishing a Special Commercialization Fund (SCF) within the National Fund for Advancement of Science and Technology (NFAST) to promote the self-generation of funds from research and innovation. Operational guidelines of the SCF will be endorsed by MoEST and integrated into the Project Operational Manual (POM).

Table 3: Government Bodies/Agencies Supported Under Sub-Component 2.1

No	Department/Agency	Funding allocations
1	Ministry of Education, Science and Technology (MoEST)	USD 42.9 m
2	Tanzania Commission for Universities (TCU)	USD 5 m
3	Higher Education Student Loans Board (HESLB)	USD 4 m
4	Commission for Science and Technology (COSTECH)	USD 8 m

Sub-component 2.2: Promoting quality improvements in select non-university institutions and

promoting public-private partnerships in the delivery of programs in priority disciplines (US$18.1 million)

41. This sub-component aims to promote quality improvements in targeted institutions not eligible for inclusion in the USIP initiative but deemed critically important for strategic management and delivery of quality instruction. These investments will include support for public higher learning institutes (HLIs) for statistics, accountancy, and financial management; analytical work on how best to utilize private sector partnerships to enhance the quality and value of higher education in Tanzania, and small grant to targeted private institutions delivering excellence in STEM fields. These interventions will be independently managed grant activities, targeting capacity building, curricular reforms, and digital investments at the grant-receiving institutions.

42. Specifically, this will involve four (4) higher learning institutes managed under the Ministry of Finance and Planning (MoFP) which are identified as priority institutions for their provision of excellent, practical training in key fields of accountancy, statistics, and financial management. The institutes are: Institute of Financial Management (IFM), Eastern Africa Statistical Training Centre (EASTC), Tanzania Institute of Accountancy (TIA), and Institute of Accountancy Arusha (IAA). Grants will be awarded to these four (4) HLIs through a non-competitive process that will involve the evaluation of proposals for relevance, impact, efficiency/effectiveness in design, and sustainability by a Grants Selection Committee comprised of members selected by MoFP and MoEST. The identified HLIs will prepare proposals for improving their capacity to deliver high quality teaching and learning environments in priority areas of financial and public management and analytics. The grants scheme, the terms of which will be detailed in a comprehensive Grants Manual, will prioritize institutional investments in digital and ICT infrastructure and delivery and capacity building activities for advanced graduate students, academic staff and institutional management. Once awarded grant, each institution will develop a strategic investment plan based on the USIP template, to ensure continuity in the monitoring and evaluation of the implementation progress of each recipient institution.

43. This sub-component will also finance public-private partnerships (PPPs) in higher education through two key activities including: (a) a technical study on how best PPPs can work for higher education institutions and available opportunities in the Tanzanian context by examining approaches to strengthen linkages between higher education institutions and private sector employers and research collaborations in order to improve the quality and relevance of higher education programs in Tanzania; and (b) competitive grants for private universities to incentivize and support quality enhancements in priority STEM degree programs. Grants will be awarded to private universities through a competitive process that will involve the evaluation of proposals by a Grants Selection Committee comprised of senior academic staff and relevant subject-area experts constituted by the MoEST. The proposals will detail the degree programs in priority areas to be targeted and the quality enhancements to be undertaken by the universities to strengthen the labor market orientation of the programs. The selection criteria, number and size of the grants will be carefully considered and developed to include the wide-range of private universities including faith-based universities and will be documented in a Grants Manual.

    The allocations for MoFP institutions, the strategic study on PPP arrangements and private institutions are summarized in Table 4.

Table 4: Other Activities Supported Under Sub-Component 2.2

No	Department/Agency	Funding allocations
1	Supporting Higher Learning Institutes (HLIs) in Economics and Financial Management	USD 17m
2	Supporting Public-Private Partnerships	USD 1.1 m
	a. Technical study on PPPs	USD 0.1 m
	b. Competitive grants for private universities	USD 1 m

Component 3: Support for Project Coordination and Management (US$8 million equivalent)

44. This component will serve to build capacity within the MoEST and its subsidiary agencies to manage the day-to-day implementation of the HEET Project, as well as monitor and evaluate its impact. It will support the establishment of an efficient National Project Implementation Unit (NPIU), including a project manager; deputy project manager; financial management (FM) and procurement staff; environmental and social safeguards staff; monitoring and evaluation (M&E) staff; and advisors/coordinators for private sector engagement, infrastructure development, gender mainstreaming, inclusive education, and education technology. It would, therefore, finance the salaries, where applicable, and capacity building of NPIU staff, as well as the operational costs of project implementation including regular training of implementers in IBRD /IDA Guidelines. This component would also provide funds for M&E for impact evaluation efforts/ analytical studies/surveys, and audits of both project financial statements and grants implementation.

Component 4: Unallocated Amount (US$10 million equivalent)

45. An amount of US$10 million will be designated as unallocated funds. This amount will serve as a planning reserve to buffer for future demands including losses due to exchange rate fluctuations or unforeseen but necessary activities critical to achieving the PDO.

Climate Change and Disaster Risk Assessment and Mitigation Measures

46. Climate change co-benefits: Evidence from the climate change and disaster risk assessment for the project indicates the following: (a) the country has experienced severe and recurring droughts with devastating impacts on the economy including hydropower generation; (b) flash flooding and coastal flooding are regular phenomena and one of the principal natural hazards faced by coastal communities; (c) 70 percent of all natural disasters in

Tanzania are climate change-related, while increasing temperatures and erratic rainfall patterns cause certain diseases to increase; and (d) agriculture is the backbone of Tanzania's economy but its heavily reliant on rain-fall, which has been decreasing season to season with resultant negative impacts on crop yields due to floods and droughts including reduced water availability. Kangalawe et al (2016);[34] stress that uneven seasonal distribution of rainfall and increased temperature are major concerns for the area. Mitigation priorities at the country level include expansion of natural gas and renewable energy (geothermal, solar, hydro and wind) coupled with sectoral priorities in transport, forestry and waste management. Adaptation strategies are being implemented through ongoing efforts in agriculture, forestry, energy, coastal zones, water, health and tourism coupled with improvements in early warning systems, institutional capacity and coordination.

47. The HEET project contributes to the ongoing and planned mitigation and adaptation efforts through several channels details of which are elaborated in Table 3-1 of Annex 3 by component. Climate change mitigation measures will be integrated in several interventions including curriculum updating; formation of global partnerships for blended programs on environmental issues to enhance their quality, delivery techniques and strengthening the higher education system resilience to emergencies; adoption of energy efficient architectural designs for the new buildings including adoption of climate smart building techniques including installation of renewable energy sources; updating of faculty members' knowledge and skills on emerging environmental issues and ensuring integration of these elements in the updated university curriculum for the respective priority degree programs; ensuring integration of emergency resilience standards of higher education programs in the updated quality assurance and accreditation standards for universities; while monitoring and evaluation of climate change impacts will be an integral part of the national capacity enhancement program. With respect to adaptation, HEET Project will support all improvements in the delivery of updated curriculum that integrates climate change issues including developing capacity of respective beneficiary institutions to deliver the curricula; leverage regular engagement with the private sector as well as partnerships with international universities of repute to strengthen curriculum reviews and content delivery; support development of manuals and guidelines for continuous capacity development and skills updating of faculty; support the revision of infrastructure planning guidelines and maintenance policies for water supply and sanitation facilities and ensure their integration in the construction of new or rehabilitated university infrastructure frameworks; institute mandatory continuous professional development on climate change for all faculty team members buttressed by sustainable financing plans by respective universities; skills enhancement in economic planning, monitoring and forecasting embracing early warning systems data; and important to note is that continuous research and promotion of climate smart technological innovations will overtime generate signification contributions to adaptation strategies.

C. Project Beneficiaries

48. The project will support a variety of **direct beneficiaries**, including the following:
    a. Students enrolled in the priority degree programs in the 14 higher education institutions supported by the project. These students will benefit from labor-market responsive curricula, collaboration efforts with private sector, improved facilities and equipment, and other activities implemented under the USIPs (106,000).

[34] Kangalawe, R.Y. M., Mung'ongo, C.G., Mwakaje, A. G., Kalumaga, E., and Yanda, P.Z (2017); 'Climate change and variability impacts on agricultural production and livelihood systems in Western Tanzania' in Climate and Development. Volume 9. 2017 – Issue 3.

b. Faculty and staff of the 14 higher education institutions supported by the project who will have access to training opportunities, exposure to new pedagogical methods and resources, and work within an improved teaching and research environment (3,500).
c. Staff of the MoEST and its agencies who will benefit from capacity building, more efficient business processes, and knowledge sharing activities (980).
d. Staff of MoFP and its higher learning institutions
e. Young lecturers and technical staff who will receive scholarships to pursue advanced degrees (Masters, PhD) (550)

49. The project will also impact a number of **indirect beneficiaries** such as:
f. Students, faculty and staff of non-priority degree programs at the 14 higher education institutions who will have access to better infrastructure and connectivity and will benefit from spillover effects to other programs arising from activities implemented under this project
g. Employers and industry partners, including private sector companies and public entities, who can hire more highly skilled graduates and access applied research emerging from universities, especially within priority areas for growth.
h. Students and staff of secondary schools who will benefit from well-trained teachers graduating from the teacher training colleges supported under this project.
i. Civil society members engaged in higher education who will be able to operate within a more enabling policy and operating environment
j. General Tanzanian population who will benefit from a group of high-quality higher education institutions that will be able to support the training of skilled professionals and drive research and innovation to support national development.
k. Stakeholders seeking services from the 14 higher institutions of MoEST, MoEST agencies as well as those consulting/working with MoFP and its institutions

D. Results Chain

Activities	Outputs	Medium-term outcome (PDO)	Long-term Impact
Strategic Investment Plans of Select Universities			
• Build/upgrade infrastructure, facilities, and equipment for teaching, research and innovation • Introduce new internationally benchmarked curriculum and update existing curriculum in priority areas to align with labor market needs • Train faculty at Masters, PhD and post-doctorate levels and update pedagogical methodologies and other skills	• Infrastructure, facilities and equipment for teaching, research and innovation in selected public universities improved • Labor market-responsive curricula taught in priority areas • Faculty skills (technical and pedagogical) upgraded • Public-private partnerships increased and university-	Improved learning environements and labor market orientation of priority degree programs in selected public universities	

• Foster functional linkages between universities and private sector/employers/industry • Develop online learning capabilities and digital technology applications • Strengthen opportunities for self-income generation • Train university leaders and staff to promote better institutional management • Provide scholarships to students for MSc and PhD training in priority areas with priority for women • Reduce gender gaps in participation in higher education • Build institutional capacity in inclusive education	industry collaborations enhanced • Increase in opportunities to commercialize research and innovate • Increase in use of online learning and digital technology applications in higher education delivery • Capacity of institutional leadership increased • Increase in availability of financing • Increased enrollment (notably females) in degree programs in priority areas. • Increased enrollment of learners with special needs in STEM programmes		Reduced skills gap and increased economic productivity in priority disciplines Increase in the share of high skilled work across the labor market
Management of Higher Education System			
• Train Ministry staff and staff of relevant higher education agencies in areas like strategic planning, quality assurance, ICT, M&E and other needed skills • Provide technical assistance to support policy updates and strategic planning in areas such as female participation in higher education, private education, commercialization of research, and STI. • Provide technical assistance to review structure and operation of HESLB, TCU and COSTECH • Strengthen TEMIS and Ministry's HR information system • Support project management • Strengthen operational capacity of MoFP and its higher learning institutions	• Staff of Ministry and relevant higher education agencies have greater capacity to deliver on their mandate • Policies facilitating increased access, equity, quality and coordination of HE system introduced • Academic institutions and HE system are benchmarked • Stronger M&E of system and capacity to assess areas for further improvement. • Operational efficiency of MoFP improved • Capacity of MoFP higher learning institutions improved	Improved management of the higher education system	

STI: Science, Technology and Innovation; ICT: Information, Communication and Technology; HR: Human Resources

E. Rationale for Bank Involvement and Role of Partners

50. **The World Bank has been the only systematic and consistent external funder of higher education in Tanzania for several decades**. Existing national resources are limited for development of the higher education sector in the country, and no other significant, comprehensive support from other development partners is currently available. Only 1 percent of the higher education sector budget is supported by three Development Partners (DPs), compared to the DPs' support for about 7 percent for the entire education sector. Apart from being the primary funder for higher education in Tanzania, the World Bank also adds considerable value through its project supervision support by bringing in a wealth and diversity of experience from its higher education work across the world. The World Bank's global role and substantial expertise in higher education (as well as other sectors) put it a unique position to share technical knowledge that is informed by lessons from projects (regional and national) implemented in SSA and globally. In addition, its convening power is crucial to help bring together important stakeholders from government, industry, universities, regional bodies and international partners. The World Bank's strong fiduciary oversight helps with effective project implementation and supports building government capacity, making it an attractive partner for governments. Finally, the robust environmental and social safeguards required by the World Bank helps to protect and promote the interests of vulnerable groups and ecosystems as well as build government capacity to do the same.

F. Lessons Learned and Reflected in the Project Design

51. The proposed HEET Project benefits from lessons learned under the STEHP/STHEP-AF efforts, as well as other World Bank-financed higher education projects implemented in the region and globally. Some of the key lessons include:
    l. Competitive selection of universities: STEHP showed that competitive selection of universities to benefit from project activities was an effective approach, as it allowed the Project to finance higher education institutions through sub-grants based on comparative advantages. The HEET Project also uses a competitive selection process whereby 11 public universities were competitively selected by an independent evaluation committee using transparent criteria and based on the submission of proposals.
    m. Preparation of Strategic Investment Plans: Following the model of the Africa Centers of the Excellence (ACE) Projects and East Africa Skills for Transformation and Regional Integration Project (EASTRIP, P163399), the universities to be supported by the HEET project are also required to prepare USIPs to enable them to prioritize investments according to their strategic objectives to improve access, quality and institutional management. The USIPs were developed during the preparation of the project in order to get ready for implementation and serve as the frameworks for the performance-based agreements to be negotiated between the institutions and the Government of Tanzania.
    n. Effective governance and management: World Bank projects around the globe have proved that performance-based financing is a useful tool to promote effective governance and management of programs as well as encourage greater institutional-level ownership. The HEET project design incorporates performance-based agreements between the MoEST and the selected public universities whereby incentives will be provided against the achievement of specific performance-based indicators. This approach also promotes greater autonomy at the institutional level.

o. Inclusion of demand-side considerations in project design: World Bank projects implemented worldwide have also shown the importance of addressing demand-side constraints of beneficiaries in the project design in order to have more effective and lasting outcomes. The HEET project targets demand-side challenges faced by female students by promoting safe environments at higher education institutions through the introduction of national and institutional-level gender policies and guidelines, providing flexibility in class schedules, and supporting scholarship programs for women from low-income households for a one-year STEM foundation course, among other activities. In addition, the HEET project will support the HESLB to improve its efficiency and diversify financing products in order to tackle financial constraints encountered by higher education aspirants.

p. Integrated systems approach for greater impact: STEHP and other World Bank projects have demonstrated the importance of using a systems approach with complementary investments at the university and sector levels in order to have a bigger impact. This design is mirrored in the HEET project with investments targeted towards universities based on their USIPs as well as to government institutions including MoEST, TCU, COSTECH and HESLB to improve the policy environment, quality assurance mechanisms, and data collection systems for enhanced system efficiency.

q. Building capacity at the institutional level: Drawing on lessons learned from countries in the Sub-Saharan Africa region with higher education projects, the HEET project emphasizes the need to build the capacity of the higher education institutions to implement projects instead of focusing on implementation solely at the Ministry level. Each university supported under the project will have its own unit with expertise on financial management, procurement and environment and social safeguards to implement the project. Evidence from the ACE I project has shown that institutions with such dedicated units perform better than those without. How the gained capacity is transitioned to the regular implementing departments of the university by the close of the project will be regularly monitored to ensure that supported initiatives are integrated in the day-to-day running of the respective universities for sustainability.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

52. The proposed HEET project is designed to have interventions at the university level and national level, the latter encompassing key departments and agencies under MoEST. Accordingly, the project has a two-tiered implementation structure as outlined in Figure 5. The proposed project implementation arrangement includes a total of 18 project implementation units (PIU)[35], following successful structures adopted under the ongoing ACE II and EASTRIP projects, and takes on board the lessons being learned from the implementation experiences of those project.

a. At the national level, a **National Project Implementation Unit (NPIU)** will be established in the MoEST led by the Department of Higher Education in collaboration with the Department of Science, Technology and Innovation. It will be responsible for key project functions including project coordination, procurement, financial management (FM), and M&E (the NPIU composition is described under Component 3). NPIU will

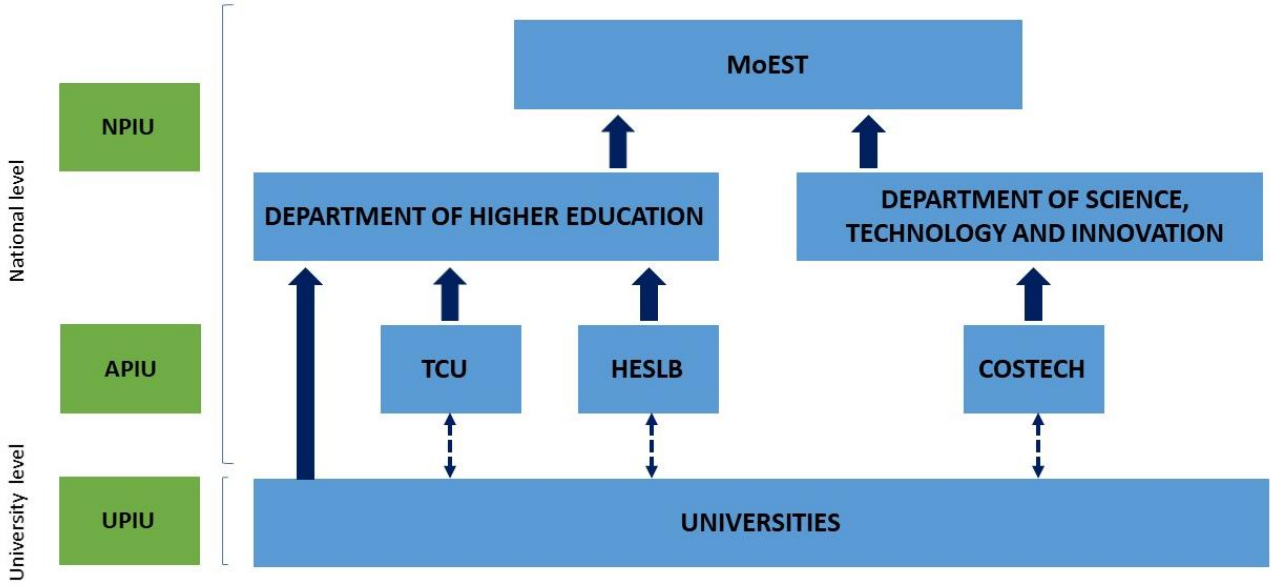
[35] As the Prospective School of Economics falls within the University of Dar es Salaam, they will share one UPIU for the project.

be headed by the Project Director/National Project Manager who shall be the Director of Higher Education.

b. The Project Director/National Project Manager as head of NPIU will work with project coordinators from the APIUs (UPIU and APIU) on day-to-day project implementation and management and will coordinate all TA support geared to provide capacity building to Ministerial agencies and project-supported universities. He shall also serve as the main link between the Office of the Permanent Secretary (MoEST) and participating institutions.
c. Similarly, an **Agency Project Implementation Unit (APIU)** will be established at each of the MoEST agencies – TCU, HESLB and COSTECH – to manage project activities for that agency.
d. A **University Project implementation Unit (UPIU)** will be established at each university supported by the project with similar coordination and management functions. Since interventions at the university level will be multidimensional encompassing different colleges, departments, disciplines, and programs, a senior staff at the level of the Deputy Vice Chancellor will be appointed to lead the UPIU with support from another senior staff member as needed. Additional members representing participating colleges/departments/programs will also be appointed to join the team depending on the nature of the project support to a respective university.
e. At each participating institution (HLIs and MoEST agencies, there shall in addition be an Institutional Project Steering Committee (IPSC) that will be chaired by Vice Chancellors/Principals or CEOs of Agencies or their appointees. Members of the Committee shall be staff of UPIU/APIU, other project members and Chair/representative of AIC. Institutions will be allowed to coopt additional members as deemed fit. IPSC shall oversee all project activities and ensure that project planning, implementation and reporting involve institutional organs in order to enhance institutional ownership and accountability. Heads of UPIU/APIU, assisted by unit supportive staff, shall serve as secretariats of IPSCs.

f. Each UPIU and APIU will be headed by a Project Coordinator/Leader and have staff responsible for FM, procurement, environmental and social safeguards, and M&E. For the bigger projects (eg MJNUAT and MUHAS), hiring professional full time staff (TAs) is highly recommended. Other thematic focal point coordinators will be incorporated based on key project activities with universities and agencies.

Figure 5: Project Implementation Arrangements



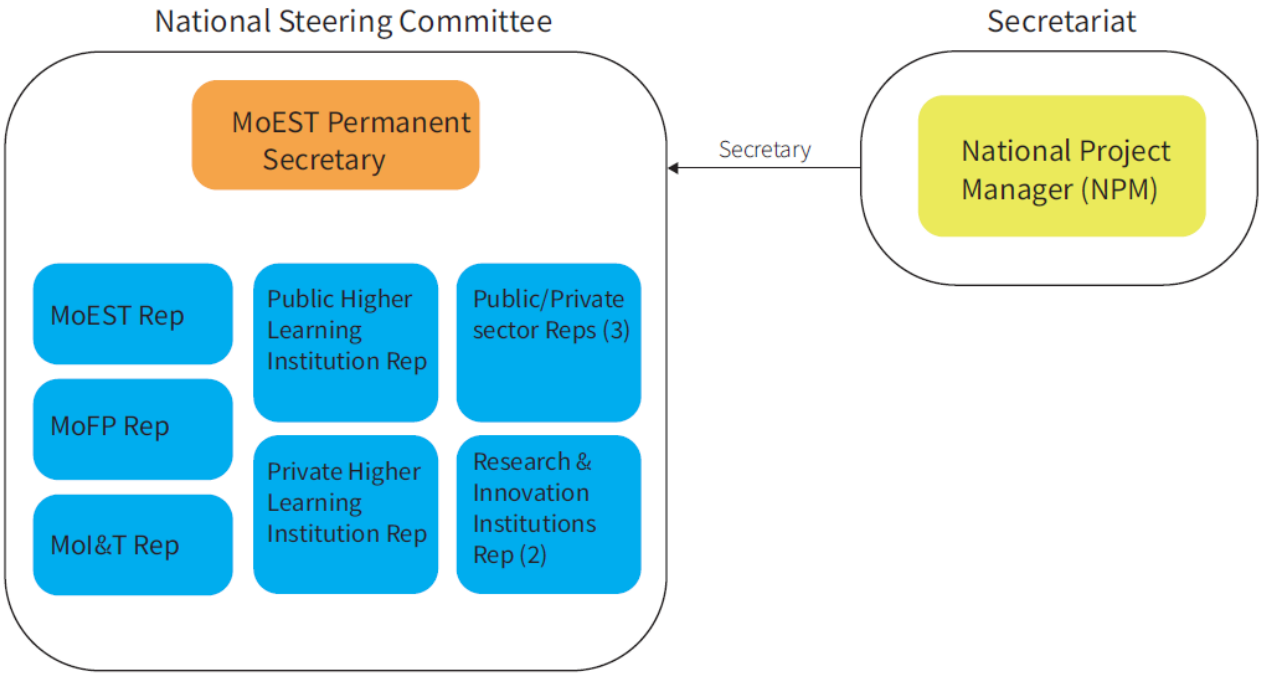
Note: Solid arrow signify reporting relationship; dotted arrows signify close working relationship

A **National Steering Committee (NSC)** will be established with representatives from key project stakeholders including the central Government, national higher education institutions and public/private sector institutions to ensure political commitment and linkage with the world of work. The NSC responsibilities will include overseeing and providing guidance on the project implementation. The NSC will be responsible for advocating for and promoting collaboration between higher education providers, research and innovation institutions, and public/private sector. Also, it will act as a liaison between the project and Government and private sector at large. The NSC will be chaired by the Permanent Secretary (PS) of the MoEST and its composition will include the following members whose Terms of Reference will be provided in the POM (Figure 6):

a. Government key sectoral ministries (4 members) – MoEST (2), Ministry of Finance and Planning (MoFP) (1), President's Office – Public Service Management (PO-PSM) (1) and Ministry of Industry and Trade (MoI&T) (1)
b. Representative from Prime Minister's Office to support sector coordinator (1 member)
c. Representatives from professional regulatory bodies (3 Members)
d. Representatives from industry/private sector (3 members)
e. Representatives from research and innovation institutions other than COSTECH (2 members)

g. The Project Director/National Project Manager (NPM), who also serves as the head of the NPIU, will be the Secretary to the NSC. This role will be supported by NPIU staff.

Figure 6: National Steering Committee and Secretariat



B. Results Monitoring and Evaluation Arrangements

h. The existing Skills Management Information System (SMIS) established under the Education and Skills for Prospective Jobs (ESPJ) Project (P152810) captures data for tertiary education and is maintained by MoEST. The system includes all the information related to accreditation, programs, student data (both enrolment and graduation) and enrolment capacities. The system will be strengthened to ensure all relevant data for higher education are captured. The SMIS will be supported by the department of IT and statistics to ensure technical and professionalism in data management.

i. Monitoring project implementation: At the national level, the MoEST, via the NPIU, will be responsible for the coordination of collection, documentation, analyses and compilation of data from all participating universities and agencies to produce national quarterly and annual reports. At the university and agency level, each institution will be primarily responsible for the progress of its activities and will, through institutional organs, report its progress and challenges to the MoEST through quarterly and annual progress reports. MoEST will oversee the overall progress of activities and provide guidance for the smooth implementation of the activities defined in the USIPs. Each university and agency will have a designated M&E expert as part of the implementation team who will be responsible for data collection and reporting.

C. Sustainability

j. The project is expected to be sustainable beyond its duration as a result of the varied interventions at the institutional and national levels. At the institutional level, the development and implementation of USIPs by each of the selected and priority institutions with the support of technical expertise will promote institutional ownership, autonomy and accountability. The USIP instrument is complemented by performance-based agreements, which will enhance the long-term capacity for governance and management, as well as leading to a modernized, agile model for potential financing reforms for the sector. In addition, the activities included under the USIPs are expected to build the capacity of technical teams as well as university leadership, improve income generation, and establish private sector partnerships, thereby contributing to management and financial sustainability of the institutions even after the end of the project. In addition, the updated programs and quality assurance systems will continue after the project.

k. At the national level, the MASIPs developed by the MoEST departments and agencies in charge of higher education identify strategic actions and investments to strengthen the management of the higher education sector. Through the financing of these MASIPs, the project will support capacity building for staff from MoEST and its regulatory agencies as well as technical assistance for policy development and strategic reforms. This will strengthen the Ministry's management capacity, its ability to strategize, plan and monitor activities, as well as its capacity to create an enabling policy environment for innovation and growth, which will contribute to sustainable reforms and long-term benefits for the higher education sector.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis (if applicable)

Technical Analysis

l. **The HEET project design is based on globally recognized approaches to build stronger higher education systems as well lessons learned from past World Bank higher education and skills projects as described previously.** This includes the use of a competitive selection process to identify the institutions to be supported by the project; the use of institution-specific strategic investment plans (USIPs and MASIPs) to promote autonomy, accountability and ownership; the introduction of performance-based agreements between the MoEST and the higher education institutions to strengthen the links between certain forms of financing and institutional quality, governance and sector management; the inclusion of activities to address demand-side constraints for female students in particular by ensuring safer spaces at universities and providing scholarships for a foundational STEM course; and the use of a system-approach that addresses institutional-level and system-level needs to enhance the project's impact.

m. **HEET will address gender gaps in the Tanzanian higher education sector through a variety of targeted activities that are based on regional and global good practices.** To address the unequal enrollment of female students in higher education, particularly in STEM fields, the project will provide scholarships to women for a foundational STEM course; and support the MoEST and agencies to introduce a gender strategy for higher education including gender-friendly admissions policies, system-level guidelines against gender discrimination and GBV as well as support for more female leaders and academic staff. Each beneficiary university will also include interventions to improve female participation and outcomes for women in their respective USIPs including the development of institutional-level guidelines and mechanisms to prevent GBV and create safer spaces for female students and faculty; introduction of mentoring programs for girls; ensuring that all new infrastructure has facilities for women; and organization of outreach activities to raise awareness among female students and families in the community about the opportunities for and benefits of higher education programs, especially in STEM. The project will also include additional activities, as needed, to reduce gender gaps in higher education STEM programs that emerge from the World Bank analytical work expected to be completed in 2021. Finally, the project will set and monitor gender equity targets over its lifetime, particularly the enrollment of female students in STEM programs and the introduction of institutional-level gender policies or strategies to promote equitable participation in higher education.

n. **The HEET Project will also proactively address climate-change issues affecting Tanzania.** Tanzania experiences severe droughts, flash flooding and coastal flooding, and has seen an increase in the temperature and rainfall in recent years. HEET will help to mitigate and adapt to these climate change issues through energy-efficient and climate-smart construction and rehabilitation of infrastructure; updates to curricula to ensure inclusion of climate change issues, capacity building of faculty and staff to increase knowledge and awareness on emerging climate change topics and challenges; and research on climate change and renewable energy which are priority areas targeted by the HEET project.

o. **The project will promote opportunities for greater collaboration between the higher education sector and the private sector.** While the private sector is still relatively small in Tanzania, particularly in terms of employment, HEET will provide frameworks that incentivize greater collaboration with private enterprises, including both private providers of higher education and private sector consumers of higher education outputs (including graduates and knowledge products). With regard to private providers, the project will support quality assurance improvements via grants programs and include private higher education institutions in reformed quality assurance frameworks and regulations. In terms of the labor and innovation ecosystems, each funded university is required to develop an Industry Advisory Committee, to provide strategic advice and access to external contexts for students and faculty to engage more fully with the private sector.

p. **The project will build the capacity of Tanzania's higher education sector to respond to COVID-19 and future disruptions.** Every higher education institution and agency supported under the project will build COVID-19 response and resilience activities into their USIPs and MASIPs such as investing in hardware and software for digital delivery, upgrading of facilities to support agile movement between distance and in-person learning, strengthening capacity for quality assurance of online learning, and improving learning science acumen to promote academic staff capacity building for better teaching and learning

measurement and achievements. MoEST will also develop a crisis preparedness and response plan for national, regional and global emergencies.

Economic and Financial Analysis

q. **The economic analysis shows that the proposed project is economically viable with Net Present Value (NPV) of US$48.2 million and Internal Rate of Return (IRR) of 28 percent.** The direct economic benefit of the project combines the present value of increased lifelong earnings of the project beneficiaries who would not have completed the program without the HEET project through increased employment rate and increased wages due to quality improvement and market relevant research activities boosting local economies. The primary direct project beneficiaries are students enrolled in degree-granting programs in priority disciplines in selected public universities through Component 1. It is assumed that the project will have a positive impact on enrollment rate in priority disciplines (annual increase of 20 percent, 76,000 at baseline to 160,000 during the project period (2021-2026). In addition, the improvement in teaching quality and labor market relevance along with more research and industry partnership will have an impact on overall labor market outcomes (better employment and wage) for the beneficiaries. The cost of the project includes the estimated project expenditure plus the private cost of higher education including tuition and maintenance for four years and the foregone earnings during the average two additional years of education.

r. **Expected impacts of the proposed project.** Investments in various aspects of the learning process (physical investment in space and learning technology as well as teaching professionals' quality) can increase students' satisfaction and expectations of the benefits of university education, resulting in higher demands for the priority disciplines in the selected universities and increasing retention through the university cycle. It is empirically shown that the improvement in learning environment in university has positive impact on students' perception on teaching quality,[36] and students' perception is shown to be a strong predictor of college retention, especially during the first and the second years[37]. Collaboration between universities and university-industry partnership will have positive impact on local economy, generating demand for high skilled workers. University-industry partnership has shown positive impacts in various aspects for both research institutes and industries. This includes synergies between basic and applied science, lowering labor cost, raising revenues from innovative products, improvement of market oriented research capacity and positive societal spillovers across health, sanitation, agriculture, food, energy, and etc.[38] Also, incentivizing university patenting is empirically shown to have large long run employment and payroll per worker around the universities, with 0.5 standard deviation increase in

36 Hill, Mary C., and Kathryn K. Epps. "The Impact of Physical Classroom Environment on Student Satisfaction and Student Evaluation of Teaching in the University Environment." Academy of Educational Leadership Journal 14.4 (2010): 65-79.
37 Schreiner, Laurie A. "Linking Student Satisfaction and Retention." Azusa Pacific University. (2009)
38 Adams, J., E., Chiang and J. Jensen "The Influence of federal laboratory R&D on industrial research", NBER working paper 7612. (2000)
Azoulay, P., Ding, W., Stuart, T. "The Effect of Academic Patenting on (Public) Research Output." NBER Working Paper 11917 (2006)
Bishop, K., D'Este, P., and Neely, A. "Gaining from interactions with universities: multiple methods for nurturing absorptive capacity", Research Policy, 40 (1), (2010)
Pluvia Zuniga, "The State of Patenting at Research Institutions in Developing Countries", World Intellectual Property
Zucker, L.G., Darby, M.R., Brewer, M.B. "Intellectual Human Capital and the Birth of U.S. biotechnology Enterprises." American Economic Review, 88 (1), (1998)

payroll and 0.04 standard deviation increase in employment number with respect to 1 standard deviation increase in industry intensity.[39.]

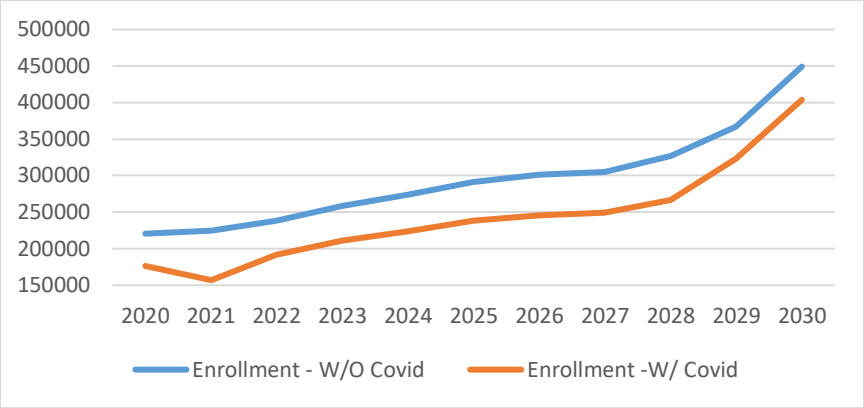
COVID-19 impact on Tanzania's Higher Education Sector and Financing

s. **The Tanzanian economy grew only 1.9 percent in 2020, which is 5 percentage points lower than pre-pandemic level[40] and it is likely that education sector financing will face contraction in coming years**. Up until now, the increasing financing demand for education, due to young population growth and expansion of free and universal basic education policies, has been followed by increases in GDP growth in Tanzania with annual growth rates of 5 to 7 percent. However, the negative COVID-19 impact on the Tanzanian economy potentially means the education budget in the current and following years would freeze without external support. The global economic downturn and implementation of public health crisis preventive measures, such as school closures, has the potential to cause decreases in enrollment across all the education cycles, resulting in a reduction to financing needs. In higher education, the recurrent budget is likely to be allocated to public universities regardless of the dip in enrollment numbers, while the financing of student loans may diminish due to decreasing demand.

t. Without COVID-19, Tanzania had the potential to reach its intermediary goal of 40,000 graduates (approximately 300,000 enrollees) by 2026; however, the COVID-19 impacts could delay reaching the goal for another 3 years (Figure 7). This COVID-19 scenario assumes an overall 15 percent decrease in enrollment numbers across all education cycle in 2020 and 5 percent decrease in 2021. It is anticipated, thereafter, that enrollment figures will recover toward normal enrollment trends. However, the effect of COVID-19 on the stock of higher education enrollees will persist for the next 15 years until the youngest COVID-19 cohort becomes old enough to finish education cycle because of the permanent loss of enrollment opportunities during the earlier years.

Figure 7. Higher Education Enrollment Simulation with COVID-19

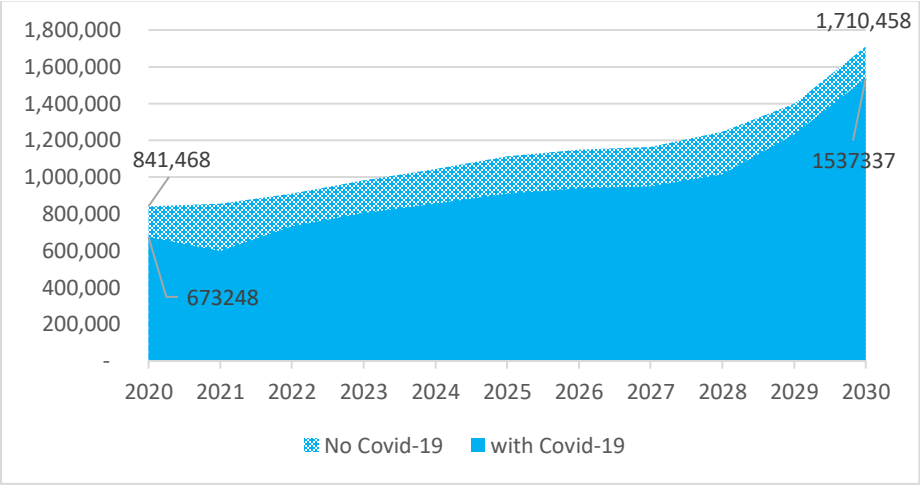
[39] Hausman, Naomi. "University innovation, Local Economic Growth, and Entrepreneurship" Harvard University (2012)
Industry intensity measures the extent to which an industry is likely to be affected by innovation produced at nearby universities.
[40] IMF estimates as of Jan 2021. Real GDP growth



Source: World Bank estimates

u. The COVID-19 impact on the education financing is not conclusive because of the high uncertainty in enrollment during and after the COVID-19 era and its economic impacts. With COVID-19, the projected budget for the recurrent and student loan expenditures will reduce by 20 percent in the first year then to 30 percent in the following year, and the gap in budget between COVID-19 and no COVID-19 case will reduce slowly.

Figure 8. Total Recurrent and Student loan budget projection – With or Without COVID-19



Source: World Bank estimates

B. Fiduciary

(i) Financial Management

v. The FM assessment for the project was carried out for the 18 proposed implementing institutions in accordance with the **World Bank Directive**: Financial Management Manual for World Bank Investment Project Financing Operations issued on February 10, 2017 and effective retrospectively from March 1,

2010; and the **World Bank Guidance**: Financial Management in World Bank Investment Project Financing Operations issued on February 28, 2017 and effective retrospectively from February 24, 2015. The FM assessment considers the degree to which: (a) the budgeted expenditures are realistic, prepared with due regard to relevant policies, and executed in an orderly and predictable manner; (b) reasonable records are maintained and financial reports produced and disseminated for decision-making, management, and reporting; (c) adequate funds are available to finance the Project; (d) there are reasonable controls over Project funds; and (e) independent and competent audit arrangements are in place.

w. **Financial management risk assessment and mitigation measures.** The overall financial management risk for the Project is assessed as **Substantial**. Key risks include: (i) Coordination of multiple project implementation units (PIUs) to ensure compliance to FM reporting and auditing requirements; (ii) Channeling of funds disbursed to the PIUs in a timely manner to avoid possible delays in project implementation; (iii) Different levels of capacity of the FM staff in the hosting institution which may impact proper maintenance of accounting records; (iv) Different capacities of PIUs internal control systems including available policies and procedures in place to safeguard project funds; and Limited capacity of internal audit teams in different institutions to frequently conduct internal audit reviews. These challenges have been proposed to be addressed by ensuring the PIUs (NPIU for MoEST, APIUs for MoEST agencies and UPIUs for universities) will have qualified staff for the coordination of FM matters including disbursements, financial reporting and auditing. The MoEST, agency and institution-level PIUs should each have a qualified Project Accountant with experience in managing project financial requirements.

x. **Summary of FM Arrangements.** A summary of the FM arrangements is as follows (more details in Annex 5):

y. **Planning and Budgeting:** Hosting institutions will prepare a work plan and budget on an annual basis and submit to the NSC for approval. The approved budget will be submitted to the World Bank before the beginning of the fiscal year (by June each year). The *MoEST will develop a timeframe for institutions to submit their budget for consolidation and inclusion in the Medium-Term Expenditure Framework (MTEF) of MoEST.*

z. Accounting arrangements:

a. **Accounting Staff:** Each institution- and agency-level PIU will have dedicated Project Accountants responsible for supporting project implementation. The qualification and experience of appointed Accountants will be communicated to the World Bank prior to the request for first disbursement for clearance**.** Institutions such as MJNUAT, MUST, DUCE and HESLB with inadequate accounting staff capacity will be required to hire experienced Accountants dedicated for the project. In addition, to strengthen the capacity, the World Bank will conduct project FM training for appointed project Accountants within the first year of operation.

b. **Accounting systems:** Detailed processes to be followed at the institutional level are documented in Financial Procedure Manuals. Some institutions do not have accounting software and maintain accounting records in Excel (for example, Mwalimu Julius K. Nyerere University of Agriculture and Technology (MJNUAT) and State University of Zanzibar (SUZA)). In order to keep track of project accounting records, institutions will maintain separate project records depending on the capacity of the accounting software in place. PIUs will ensure institutional financial accounting records and the MoEST IFMIS are regularly updated with project affairs.

aa. Internal controls including internal audits

a. **Internal controls.** Each institution will be responsible for developing internal controls system with the aim of ensuring the project objectives are achieved in an effective and efficient manner. Project-specific internal control systems to manage project financial risks and safeguard project assets will be documented in the Project Operations Manual (POM). The MoEST will enter into performance-based agreements with implementing institutions. The agreements will provide guidance on financial operations including detailed budget processes and timeframes and fund flow arrangements.

b. **Internal audit.** Operational effectiveness of the internal controls systems will be monitored by the internal audit departments of respective institutions. It is expected that internal audit reviews for the project will be conducted at least twice per annum. The adequacy of capacity of internal audit staff will be compensated by additional site visit reviews to the implementing institutions conducted by the internal audit team of the Ministry. Internal audit reviews conducted by the Ministry will use the existing reporting framework to the Ministry Audit Committee, however copies of their reports should be communicated and shared with the respective institutions for further follow up and implementation of audit recommendations.

bb. **Funds flow arrangement:** Detailed procedures, responsible personnel and timelines for funds requisition and transfers will be defined in the POM and performance agreements with implementing institutions. PIUs may request disbursement through any of the following options: (i) Advanced method, (ii) reimbursement method, or (iii) direct payment method. More detailed disbursement arrangements are provided in the Disbursements and Financial Information Letter (DFIL).

cc. **Financial reporting:** Project implementing agencies will prepare and submit to the World Bank two sets of reports: (i) unaudited IFRs for disbursement purposes; and (ii) audited annual financial statements.

dd. **External audits:** The MoEST will contract the Controller and Auditor General (CAG) CAG to audit the annual financial statements of the project. Terms of Reference for the external audit will be developed after the project is effective. Audited financial statements and management letters will be submitted by the PIUs to the Bank through the client connection system within six months after the end of financial year.

ee. **Financial management action plan.** The World Bank's FM team will provide capacity building and implementation support over the project's lifetime. The project will be supervised on a risk-based approach. Supervision will cover but not be limited to desk review of audit reports and IFRs. Site visits will be conducted at least twice per annum based on current assessed risks and may be adjusted when the need arises.

(ii) Procurement

ff. **Procurements under the proposed project will be carried out in accordance with the following World Bank procedures**: (a) the World Bank Procurement Regulations for IPF Borrowers (July 2016, revised November 2017 and August 2018) and (b) 'Guidelines on Preventing and Combating Fraud and Corruption

in Projects Financed by IBRD Loans and IDA Credits and Grants', dated October 15, 2006, and revised in January 2011, and revised as of July 1, 2016, and other provisions stipulated in the Financing Agreements.

gg. **A Project Procurement Strategy for Development (PPSD) and the Procurement Plans (PP)** for each Implementing Institution is under preparation and will be ready by appraisal. The Borrower will prepare a PPSD identifying optimum procurement strategies for meeting the development objectives of the project, based on which the PP for the first 18 months for each Implementing Institution has been prepared, setting the selection methods to be used by the borrower in the procurement of goods, works, non-consulting services, and consulting services under the project. The PP for each Implementing Institution will be updated at least every 12 months, or as required, to reflect the actual project implementation needs. Each update shall require World Bank approval and will be publicly disclosed in accordance with the World Bank disclosure policy.

hh. **Systematic Tracking of Exchanges in Procurement (STEP).** The World Bank's STEP system will be used to prepare, clear, and update PPs and conduct all procurement transactions for all implementing institutions of the project.

ii. **A Procurement Capacity Assessment of the Implementing Institutions was carried out in April 2020 (will be updated at the Appraisal Stage):** The assessment reviewed the organizational structure for implementing the project, functions, staff skills and experiences, adequacy for implementing the project, and the interaction between the project's staff responsible for procurement activities and the relevant departments within the agencies and other government agencies. The assessment revealed that some of the Implementing Institutions have no prior experience in World Bank operations. Furthermore, the assessment revealed that (i) PIUs staff have inadequate experience in managing procurement of complex works, goods and consulting works; in accordance with World Bank procurement guidelines/regulations and procedures; (ii) inadequate staff to couple with volume of procurement transactions; (iii) PIUs and User Departments staff have inadequate knowledge and skills/experience in contract management; (iv) inadequate records management system; (v) inadequate office space and office facilities; (iv) low capacity in managing / supervising ESHS and Sexual Exploitation and Abuse (SEA) in the procurement process both borrower and construction industry.

jj. **Identified risks, mitigation measures, capacity building and action plan agreed.** The overall project procurement risk was assessed to be "High". The residual risks after the implementation of the mitigation measures is **"Substantial".** To address capacity gap and mitigate the risks identified, procurement capacity of the Implementing Institutions needs to be strengthened. To ensure sustainability, apart from recruiting Procurement Consultant to build internal capacity and assisting managing procurement activities, all Implementing Institutions will prepare a capacity-building program for the PIUs and User Departments which will articulate areas to be strengthened, capacity strengthening activities to be undertaken, and the duration of each activity.

kk. **Procurement oversight and monitoring arrangements.** The World Bank exercises its procurement oversight through a risk-based approach comprising prior and post reviews as appropriate. Since the

assessed procurement risk rating is 'High', the Borrower shall seek the World Bank's prior review for contracts of value equivalent to the thresholds as detailed in Table 5-3 in Annex 5. Frequency of Procurement Supervision. In addition to the prior review supervision to be carried out by the Bank, the capacity assessment of the implementing agencies recommends one supervision mission every six months to visit the field to carry out post review of procurement actions.

C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

D. Environmental and Social

ll. The project will apply the Environmental and Social Framework (ESF) through the Environmental and Social Standards (ESSs) for environmental and social (E&S) risk management.

mm. **The E&S risks for the proposed project activities are rated as Substantial due to likely impacts anticipated during project implementation and the limited experience of the implementing agencies in applying the ESSs.** The main impacts of the project will emanate from the physical construction activities proposed in the participating institutions. The cumulative impact, which is likely from the works and presence of contractors and machinery at each targeted institution, calls for careful supervision to avoid occupational health and safety incidences.

nn. **Component 1 of the project will finance construction of critical university infrastructure (such as lecture halls, labs, dormitories, staff offices, etc.), which are likely to generate unfavourable and site-specific construction related E&S risks and impacts**. The proposed investments will be built on sites within the premises of the beneficiary institutions in accordance with the existing masterplans. Potential impacts at the participating institutions are related to: (i) waste generated at construction sites which can pollute land and water bodies (cement mixing areas, metal, wood and paint residues, diesel, used electronics equipment and other residues); (ii) open pits (for construction materials, waste or water can cause accidents); (iii) food residues, which can attract disease causing organisms; (iv) cutting of trees for building material; (v) noise from machinery and exhaust from diesel engines of transport trucks (transporting equipment and materials); (vi) occupational health and safety incidents; and (vii) traffic disruption and road accidents; amongst others. Component 2 will focus on strengthening key higher education agencies and building strategic regional partnerships for effective research and labor market relevance, whereas Component 3 will focus on Project Coordination. Unlike Component 1, these two project components are not anticipated to lead to physical E&S footprints.

oo. **The main potential social issues, that can be mitigated/managed are related to:** (i) labor and working conditions of construction contractors as delineated under ESS2; (ii) community health and safety as

indicated in ESS4; (iii) potential loss of crops or assets in University land or requiring acquisition of extra land; (iv) potential impacts to vulnerable groups in terms of curricula development as defined under ESS7; and (v) risks related to exclusion of stakeholders consultations and engagement as implied in ESS10. Other risks are related to gender-based violence/sexual exploitation and abuse (GBV/SEA) of students and workers at university, related to disabilities and inclusion or exclusion (mainly during operation), and transmission of diseases. These potential impacts and risks will be site-specific and are unlikely to cause serious adverse effects to communities and the environment if appropriate mitigation and management measures are in place.

pp. **E&S Management.** The HEET project is anticipated to comply with requirements of all the ESSs (ESS 1 - ESS10) with exception of ESS 9 which is not considered relevant. On the Borrower's side, key national regulatory requirements for E&S that will be applicable to the project activities will be also be observed to ensure that potential mitigation measures are adequately covered. All participating institutions in the project will be responsible for the application and compliance with the ESF and ESSs.

qq. **Five instruments have been prepared by the project to manage the E&S risks**. These are: (i) Environmental and Social Management Framework (ESMF); (ii) Resettlement Policy Framework (RPF); (iii) Labor Management Procedures (LMP); (iv) Stakeholder Engagement Plan (SEP); and (v) Environmental and Social Commitment Plan (ESCP). With the exception of the LMP, all the instruments have been consulted upon, finalized and will be disclosed both in country and in the Bank website prior to project appraisal. The project will also strengthen sexual harassment policies at the participating universities to address GBV/SEA and strengthen prevention and response in a university context through both the project design as well as complementary actions in a Project GBV Action Plan to be ready prior to approval of the project by the World Bank Board of Directors.

rr. **The capacity of the MoEST and implementing institutions in managing E&S risks based on the implementation of previous education projects involving infrastructure activities is inadequate**. Strengthening of capacities and definition of roles and responsibilities on E&S management will be defined in E&S safeguard documents and other operational manuals. The ESMF has provided roles and responsibilities and an institutional arrangement for E&S management under the project. These roles and arrangements will be further defined in the POM. It is understandable that since the ESF is new and there are several actors involved in the project, with limited knowledge of the ESF as well in E&S issues, there will be a need for additional resources for training and capacity building at all project levels.

ss. **Citizen engagement.** The project design will ensure that the stakeholder engagement process is broad enough to include those who may be affected, those who are potential beneficiaries, also those with interests in the project activities. The SEP has identified stakeholders noting that this process will continue throughout implementation and methods for engagement. With meaningful consultations project stakeholders will have chance to express their views, feedback, concerns, risks and proposed changes and mitigation measures for the project activities. These consultations will be documented and disclosed in the format agreed with the World Bank. The SEP also articulates a Grievance Redress Mechanism (GRM) that enables any potential grievances to be captured at the initial stage and addressed prior to seeking

recourse through the formal legal justice system. The project will review and strengthen the GRM at the implementing institutions to ensure that all project beneficiaries and community members, especially vulnerable groups have access to it. The GRM will also be responsive to GBV/SEA issues. Once the site-specific sub-projects are defined, public consultations will be organized within the project area to target project beneficiaries and the surrounding community and integrate their feedback into interventions. These consultations will also inform project beneficiaries and affected communities about the existence of the GRM, its procedures, communication channels, entry points and response times. Citizen engagement under the project will be monitored by measuring institutions' resolution rates of grievances, i.e. share of registered grievances registered that are addressed or resolved within the stipulated timeframe and service standard. Institutions will public periodic GRM reports showing the grievances registered, resolution rates and how the issues were resolved.

V. GRIEVANCE REDRESS SERVICES

tt. **Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS).** The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

VI. KEY RISKS

uu. **The overall Project risk is Substantial.** Although Government commitment to the education sector is strong, including higher education, the following substantial risks exist:

(a) *Sector strategies and policies:* Though an outdated Higher Education Plan 2010-2015 exists and the Education Sector Development Plan 2016-2021 includes a section on higher education, these documents do not sufficiently take into account recent policy changes (notably the impact of the Fee Free Basic Education Policy), and lack sufficient detail on the strategic development of the sub-sector, including on financial implications. Further, the Higher Education Act needs to be updated to include changes in the higher education ecosystem, as the last update of took place in 2005. Therefore, the framework for higher education needs to be further clarified, which creates a possible risk in the operating environment for HEET. HEET will mitigate this risk by

supporting capacity building for MoEST staff on management of the higher education system as well as technical assistance to strengthen/develop policies and strategies in specific areas such as science, technology and innovation.

(b) *Financial sustainability of the overall education sector*: Budget allocations for education already are 15 percent of the government budget (2017/18), of which higher education represents a considerable but decreasing share, at over 21 percent in 2016/17 (down from 25 percent in 2012/13). Given the continuously growing enrolment at universities, and the increasing demand for student loans, financial sustainability may affect the ability of MoEST and institutions to scale up delivery to larger student populations and undertake investments that are necessary to support quality learning environments and management of the system (such as maintenance of facilities and equipment, recruitment of adequate staff, etc.)

(c) *Capacity gaps at project institutions*: The capacity gaps at universities, MoEST and the regulatory agencies could pose a potential risk to timely and adequate implementation of activities. Activities under the project, especially the USIPs, need close monitoring and supervision to ensure that they are on track, in line with the work plans, and achieving the indicated results. Strong supervision by university leadership and MoEST is critical to assessing any implementation hurdles and resolving them in a timely manner. The project aims to mitigate risks in this area by supporting the capacity building of universities, MoEST and the regulatory agencies. The project will also be sensitive to the contributions of civil society and engage them to ensure stakeholders are informed of the project objectives and can contribute to community-level monitoring and evaluation of the project activities.

(d) *Fiduciary*: The gaps in capacity for FM and procurement at the implementing institutions (as detailed in the previous section) could impact the smooth implementation of project activities as per the envisioned timeline and timely reporting on the use of funds. To mitigate these risks, the project will have qualified staff for the coordination of FM matters such as disbursements, financial reporting and auditing, including a Project Accountant at each PIU. On the procurement front, to ensure sustainability, apart from recruiting a Procurement Consultant to build internal capacity and assisting managing procurement activities, all implementing institutions will prepare a capacity-building program for the PIUs and User Departments which will articulate areas to be strengthened, capacity strengthening activities to be undertaken, and the duration of each activity.

(e) *Environmental and Social*: The likely E&S impacts of project activities anticipated during implementation and the limited experience of the implementing institutions in applying the ESSs pose risks to the safe implementation of activities. The main impacts of the project will emanate from the physical construction activities proposed in the participating institutions. The cumulative impact, which is likely from the works and presence of contractors and machinery at each targeted institution calls for careful supervision to avoid occupational health and safety incidences. The project aims to mitigate these risks by clearly defining the roles and responsibilities on E&S management in the ESMF, POM and other E&S safeguard documents and project manuals. All participating institutions in the project will be responsible for the application and compliance with the ESF and ESSs and each implementing institution will have E&S staff responsible for managing, monitoring and reporting on the implementation of E&S measures. Training and capacity building of this staff will also be provided under the project.

(f) *Other*: The unprecedented COVID-19 pandemic could have a considerable impact on the implementation of varied project activities. For example, procurement of materials for construction activities may be affected as a result of disruptions in global supply chain, and partnerships with industry in some sectors may be challenging given the difficult macroeconomic situation. Measures have been taken to control the spread of the virus across Tanzania and mitigation measures including the development of contingency plans at the

national and institutional levels and bolstering of online learning infrastructure have been incorporated in the project (though widespread internet connectivity remains limited). However, the relatively unknown nature of the COVID-19 virus may result in unexpected impacts on the ability of Tanzanian higher education institutions and MoEST to implement elements of the project as the local, regional and global situation with respect to the pandemic evolves

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Tanzania

Higher Education for Economic Transformation Project

Project Development Objectives(s)

To strengthen the learning environment and labor market alignment of priority programs at beneficiary universities, and improve the management of the higher education system

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Strengthen learning environments and labor market alignment of programs in priority areas							
Students and faculty participating in internships/fellowships/a form of placement in industries/companies or research institutions (Number)		9,800.00	13,300.00	18,200.00	25,400.00	35,800.00	42,000.00
Female (Number)		3,400.00	4,700.00	6,700.00	9,600.00	13,900.00	16,800.00
Students (Number)		8,820.00	12,000.00	16,500.00	23,100.00	32,900.00	39,000.00
Faculty (Number)		980.00	1,300.00	1,700.00	2,300.00	2,900.00	3,000.00
Students and faculty members with disabilities (Number)		30.00	41.00	72.00	110.00	196.00	280.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Degree programs within priority areas that are aligned to labor market needs (Number)		91.00	100.00	119.00	130.00	210.00	228.00
Students benefiting from direct interventions to enhance learning (CRI, Number)		0.00	76,000.00	90,000.00	108,000.00	130,000.00	160,000.00
Students benefiting from direct interventions to enhance learning - Female (CRI, Number)		0.00	30,000.00	36,900.00	45,300.00	55,900.00	72,000.00
Strengthen management of the higher education system							
Active use of a Tertiary Education Management Information System (TEMIS) (Yes/No)		No	No	Yes	Yes	Yes	Yes
Higher education institutions supported by the project that achieve a minimum threshold of the annual targets set in the performance-based agreements (Number)		0.00	0.00	5.00	8.00	12.00	15.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Strengthening the Learning Environments and Labor Market Alignment of Programs in Priority Areas							
Higher education institutions with internal quality assurance units/offices that have adopted improved quality assurance procedures (Number)		0.00	0.00	5.00	9.00	12.00	15.00
Higher education institutions that have established an Industrial Advisory Committee (Number)		1.00	5.00	10.00	14.00	14.00	14.00
MoUs/ agreements/ letters of intent to partner signed with private sector companies or employers (Number)		207.00	227.00	265.00	301.00	335.00	370.00
Facilities that are newly constructed/ rehabilitated/ equipped at the higher education institutions supported by the project (Number)		0.00	51.00	99.00	180.00	260.00	286.00
Lecture Halls (Number)		0.00	29.00	51.00	80.00	88.00	91.00
Dormitories (Number)		0.00	1.00	5.00	9.00	16.00	19.00
Laboratories (Number)		0.00	14.00	25.00	51.00	77.00	90.00
Other (Number)		0.00	7.00	18.00	40.00	79.00	86.00
Students in STEM programs that are female (Percentage)		33.00	33.00	34.00	36.00	38.00	40.00
Priority programs using digital technology in instructional practices/pedagogies (Number)							

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Core university administrative services delivered to constituents via digital platforms (Percentage)							
University staff and leaders who receive training on teaching and supporting students with special educational needs (Number)							
Higher education institutions with an implementation plan for the national gender equity strategy for higher education (Number)							
Priority programs that include content on climate change mitigation and adaptation in their curriculum (Number)							
Strengthening management of the higher education system							
Tertiary education graduate tracking reports published by MoEST (Number)		0.00	0.00	0.00	1.00	0.00	2.00
National quality assurance regime or system updated in line with international good practices (Yes/No)		No	No	Yes	Yes	Yes	Yes
Development of emergency response and contingency plan for higher education delivery (Yes/No)		No	No	Yes	Yes	Yes	Yes
Newly enrolled RSIF PhD students supported through		0.00	10.00	20.00	20.00	20.00	20.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Government of Tanzania's contribution (Number)							
Research papers submitted for publication to peer reviewed indexed journals by RSIF PhD students supported through funds transferred by the Government of Tanzania (Number)		0.00	0.00	2.00	5.00	7.00	8.00
Academic staff enrolled in advanced degree programs to upgrade their capacity (Number)							
Masters (Male) (Number)							
Masters (Female) (Number)							
PhD (Male) (Number)							
PhD (Female) (Number)							
Support for project coordination and management							
Project beneficiaries (Number)		0.00	77,000.00	92,500.00	111,000.00	133,000.00	165,000.00
Project beneficiaries (Female) (Number)		0.00	30,800.00	37,900.00	46,600.00	57,200.00	74,200.00
Project beneficiaries (Persons with disabilities) (Number)		0.00	230.00	277.00	555.00	800.00	1,160.00
Grievances received addressed within stipulated timeframe (Percentage)		0.00	50.00	60.00	70.00	80.00	90.00

Monitoring & Evaluation Plan: PDO Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Students and faculty participating in internships/fellowships/a form of placement in industries/companies or research institutions	This indicator measures the total number of students and faculty from degree programs in priority areas participating in internships, apprenticeships, fellowships or a form of placement in companies or research institutions in fields related to the priority areas targeted by the project. An internship refers to practical training undertaken at a company or research institution during the period of study. The data will be disaggregated by gender, students and faculty with disabilities, and by student vs. faculty	Annual	USIP Results Framework	MoEST collects data from USIP Results Framework submitted by each university	Universities (MoEST aggregates university data)

Female	Disaggregated: Number of female students and faculty members	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each university	Universities (MoEST aggregates university data)
Students	Disaggregated: Number of students	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each university	Universities (MoEST aggregates university data)
Faculty	Disaggregated: Number of faculty members	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each university	Universities (MoEST aggregates university data)
Students and faculty members with disabilities	Disaggregated: Number of students and faculty members with disabilities	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each university	Universities (MoEST aggregates university data)
Degree programs within priority areas that are aligned to labor market needs	This indicator measures the number of degree programs within priority areas that have developed/ reviewed their curriculum in consultation with labor market stakeholders or introduced at least 2-months internships/ apprenticeships with employers/industry to ensure their orientation to	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each university	Universities (MoEST aggregates university data)

	labor market needs. The engagement of labor market stakeholders in the curriculum development/review will be established by means of certification/ endorsement letter from an Industrial Advisory Committee established at each institution				
Students benefiting from direct interventions to enhance learning		Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each university	Universities (MoEST aggregates university data)
Students benefiting from direct interventions to enhance learning - Female		Annual	USIP Results Frameworks	MoEST to collect data from USIP Results Framework submitted by each university	Universities (MoEST aggregates university data)
Active use of a Tertiary Education Management Information System (TEMIS)	This indicator is important for assessment of the M&E function of the Ministry and will help to verify the progress of project activities as well as the management of the higher education system. The active use of the TEMIS	Annual	Annual report on the status of higher education	Confirmation of publication of report	MoEST

	will be measured by the annual publication of a report on the status of higher education using data from the TEMIS (including key indicators like student enrollment and graduation rates by discipline and gender, number of faculty by qualification level and gender, number of degree programs, etc.)				
Higher education institutions supported by the project that achieve a minimum threshold of the annual targets set in the performance-based agreements	This indicator focuses on the implementation of the activities specified in the performance-based agreements (PBAs) of the higher education institutions supported by the project and ability of the Ministry to manage the performance-based agreements. In order for an institution to be counted towards this indicator, a minimum threshold of the annual targets laid out in each of the PBAs must be achieved annually – 60% in Year 1 of the PBA, 65% in Year 2 of	Annual	Performance Based Agreements between MoEST and higher education institutions	MoEST to verify achievement of targets using USIP Results Frameworks	Ministry of Education, Science and Technology (MoEST)

	the PBA, 70% in Year 3 of the PBA, 75% in Year 4 of the PBA [and 80% in Year 5 if the PBA is set up by Year 1]				

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Higher education institutions with internal quality assurance units/offices that have adopted improved quality assurance procedures	This indicator is related to strengthening the institutional capacity of the higher education institutions and captures if they have incorporated improved quality assurance procedures as identified under the project and which meets the guidelines of the National Quality Assurance Framework established by the Tanzania Commission of Universities (TCU). To meet this indicator, higher education institutions will have to provide documentation/a link to the updated QA procedures.	Annual	USIP Results Framework	MoEST to collect data from the USIP results framework submitted by each HEI	HEIs (MoEST aggregates HEI data)

Higher education institutions that have established an Industrial Advisory Committee	This indicator will track whether higher education institutions have established an Industrial Advisory Committee. The Industrial Advisory Committee must be established as per the composition required by the MoEST and have clear TORs in order for the institution to be counted towards this indicator.	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each HEI	HEIs (MoEST aggregates HEI data)
MoUs/ agreements/ letters of intent to partner signed with private sector companies or employers	This indicator measures the effort of higher education institutions to improve the labor market orientation of their priority area programs through Memoranda of Understanding (MoUs) or agreements or letters of intent signed with private sector companies or employers for collaboration on curriculum reviews, internships, research, innovation, etc. in the priority areas targeted by the project. The MoUs/agreements/letters of intent must define at	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each HEI	HEIs (MoEST aggregates HEI data)

	least three specific areas of collaboration in order to be counted towards this indicator.				
Facilities that are newly constructed/ rehabilitated/ equipped at the higher education institutions supported by the project	This indicator measures the efforts to improve the learning environments at the higher education institutions supported by the project through the construction or rehabilitation of infrastructure or equipping of facilities (such as but not limited to lecture halls, dormitories, laboratories, and workshops) at these higher education institutions. The indicator will be disaggregated by the type of facility (lecture hall, dormitory, laboratory, other)	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each HEI	HEIs (MoEST aggregates HEI data)
Lecture Halls	Disaggregated: Lecture halls	Annual	USIP Results Frameworks	MoEST to collect data from USIP Results Framework submitted by each HEI	HEIs (MoEST aggregates HEI data)
Dormitories	Disaggregated: Dormitories	Annual	USIP Results Framework	MoEST to collect data from USIP Results	HEIs (MoEST aggregates

				Framework submitted by each HEI	HEI data)
Laboratories	Disaggregated: Laboratories	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each HEI	HEIs (MoEST aggregates HEI data)
Other	Disaggregated: Other types of facilities. The institution must specify the type of facility when reporting data.	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each HEI	HEIs (MoEST aggregates HEI data)
Students in STEM programs that are female	This indicator measures the percentage of female students out of the total enrollment in science, technology, engineering and mathematics (STEM) programs	Annual	USIP Results Framework	MoEST aggregates data collected from higher education institutions	HEIs (MoEST aggregates data)
Priority programs using digital technology in instructional practices/pedagogies	This indicator measures the number of supported priority programs at the project's beneficiary universities that use digital technology (such as videoconferencing facilities, online learning content, smartphones, etc.)	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each HEI	HEIs (MoEST aggregates HEI data)
Core university administrative services delivered to constituents via digital platforms	This indicator measures the share of core university administrative services that	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted	HEIs (MoEST aggregates HEI data)

	are delivered to constituents using digital platforms. Core university administrative services include admissions, registration and academic records, learning management, student services, financial management, human resource management, and facilities management.			by each HEI	
University staff and leaders who receive training on teaching and supporting students with special educational needs	This indicator measures the number of faculty members, staff and university leaders who receive training on teaching, supporting and handling matters related to students with special education needs or disabilities.	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by HEIs	HEIs (MoEST to aggregate data from HEIs)
Higher education institutions with an implementation plan for the national gender equity strategy for higher education	This indicator measures if higher education institutions have a time-bound implementation plan to execute the national gender equity strategy for higher education. to meet this indicator, institutions will have to provide documentation.	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each HEI	HEIs (MoEST aggregates university data)

Priority programs that include content on climate change mitigation and adaptation in their curriculum	This indicator measures the number of priority programs supported by the project that include content focusing on climate change mitigation and adaptation in their curriculum. To meet this indicator, institutions will be required to share supporting documentation/curricula on the relevant content included.	Annual	USIP Results Framework	MoEST to collect data from USIP Results Framework submitted by each HEI	HEIs (MoEST aggregates university data)
Tertiary education graduate tracking reports published by MoEST	This indicator measures the capacity of the Ministry to track graduates and therefore the impact of the programs. It is expected that tracking reports will be published every other year.	Annual	Tertiary education graduates tracking report	Confirmation of publication of report	MoEST
National quality assurance regime or system updated in line with international good practices	This indicator measures the capacity of the Ministry to regulate the quality of higher education programs taking into account global good practices. Data on this indicator must include links to the updated national quality assurance guidelines, frameworks, standards or principles.	Annual	National quality assurance regime or system	Confirmation of links to the updated national quality assurance guidelines, frameworks, standards or principles.	MoEST

Development of emergency response and contingency plan for higher education delivery	This indicator measures the development and availability of a robust emergency response and contingency plan for higher education that strengthens the capacity of the Ministry to respond in the short and medium term to crises.	Annual	Emergency response and contingency plan for higher education	Confirmation of availability of emergency response and contingency plan for higher education	MoEST
Newly enrolled RSIF PhD students supported through Government of Tanzania's contribution	This indicator measures the number of RSIF students that are being sponsored with a PhD scholarship through the contribution of the Government of Tanzania. This includes only the scholarship funds that are transferred through the HEET project.	Annual	Report from *icipe* (Regional Coordination Unit for RSIF)	MoEST uses data from *icipe* report	*icipe* (Regional Coordination Unit for RSIF)
Research papers submitted for publication to peer reviewed indexed journals by RSIF PhD students supported through funds transferred by the Government of Tanzania	This indicator measures the number of research papers submitted for publication to peer reviewed indexed journal by RSIF students who are supported through the Government of Tanzania's contribution to the RSIF. The RSIF students must be those who are sponsored with the support of funds transferred by the Government of Tanzania to	Annual	Report from *icipe* (Regional Coordination Unit for RSIF)	MoEST uses data from *icipe* report	*icipe* (Regional Coordination Unit for RSIF)

	recipe for the RSIF				
Academic staff enrolled in advanced degree programs to upgrade their capacity	This indicator measures the number of academic staff enrolled in advanced degree programs (Masters or PhD programs) to upgrade their capacity through scholarships from MoEST	Annual	Scholarship records at MoEST	MoEST to use data from scholarship records	MoEST
Masters (Male)	This indicator measures the number of male academic staff enrolled in Masters degree programs to upgrade their capacity through scholarships from MoEST	Annual	MoEST scholarship records	MoEST to collect data from scholarship records	MoEST
Masters (Female)	This indicator measures the number of female academic staff enrolled in Masters degree programs to upgrade their capacity through scholarships from MoEST	Annual	Scholarship records at MoEST	MoEST to collect data from scholarship records	MoEST
PhD (Male)	This indicator measures the number of male academic staff enrolled in PhD programs to upgrade their capacity through scholarships from MoEST	Annual	Scholarship Records at MoEST	MoEST to collect data from scholarship records	MoEST
PhD (Female)	This indicator measures the number of female academic staff enrolled in PhD programs to upgrade their capacity through	Annual	Scholarship records at MoEST	MoEST to collect data from scholarship records	MoEST

	scholarships from MoEST				
Project beneficiaries	This indicator measures the total number of students, faculty, university staff and leaders and government staff that benefit from the project's interventions	Annual	USIP Results Framework, MASIP Results Frameworks, TEMIS	MoEST collects data from HEIs and MoEST agencies	MoEST, MoEST Agencies, HEIs
Project beneficiaries (Female)	This indicator measures the total number of female students, faculty, university staff and leaders and government staff that benefit from the project's interventions	Annual	USIP Results Framework, MASIP Results Framework, TEMIS	MoEST collects data from HEIs and MoEST Agencies	MoEST, MoEST Agencies, HEIs
Project beneficiaries (Persons with disabilities)	This indicator measures the total number of students, faculty, university staff and leaders and government staff with disabilities that benefit from the project's interventions	Annual	USIP Results Framework, MASIP Results Framework, TEMIS	MoEST collects data from HEIs and MoEST agencies	MoEST, MoEST Agencies, HEIs
Grievances received addressed within stipulated timeframe	This indicator captures citizen engagement. It will measure the share of grievances received related to the project that are addressed by the implementing institutions. within the stipulated timeframe.	Annual	GRM Reports	MoEST aggregates data from the higher education institutions and agencies	MoEST, MoEST Agencies, HEIs

ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Tanzania
Higher Education for Economic Transformation Project

1. The strategy for implementation support has been developed based on the nature of the project, its design and risk profile. The objective of the implementation support is to provide the client with flexible and efficient guidance and support to mitigate risks. The approach has a strong focus on transparent and regular communication with all actors involved in the project (such as the MoEST, various PIUs [NPIU, APIUs, UPIUs], selected institutions, etc.). Strong communication channels and links will be established with all the actors in order to ensure adequate and relevant implementation support.

2. Implementation support will cover technical, fiduciary, social, environmental and safeguards issues. It will comprise: (i) review missions; (ii) regular technical meetings and field visits by the World Bank team between review missions; and (iii) internal audit and FM reporting.

Table 1.1: Implementation Support Plan

Time	Focus	Skills Needed	Resource Estimate	Partner Role
First twelve months	Technical Review and Support	Technical knowledge and experience in higher education, planning and capacity building	TTLs: 15 SWs Higher Education Specialist: 9 SWs	N/A
	Institutional arrangements and project supervision coordination and team leadership	Task/project/team management, operations, planning and coordination	TTLs: 15 SWs Operational Officer: 9 SWs	
	FM/Procurement Training and Supervision	Technical knowledge and experience in FM and procurement	FM specialist: 6 SWs Procurement specialist: 6 SWs	
	Environment and Social Monitoring and Reporting	Technical knowledge and experience in environment and social safeguards	Environmental Specialist: 3 SWs Social Safeguards Specialist: 3 SWs	
12-48 months	Technical Reviews/Support	Technical knowledge and experience in higher education, planning and capacity building	TTLs: 12 SWs Higher Education Specialist: 9 SWs	

Time	Focus	Skills Needed	Resource Estimate	Partner Role
	Institutional arrangements and project supervision coordination and team leadership	Task/project/team management, operations, planning and coordination	TTLs: 12 SWs Operations Officer: 9 SWs	
	M&E arrangements review	Technical knowledge and experience in M&E	M&E Specialist: 5 SWs	N/A
	Environmental and Social monitoring and reporting	Technical knowledge and experience in environmental and social safeguards	Environmental safeguards: 3 SWs annually Social Safeguards: 3 SWs annually	
	FM monitoring and reporting	Technical knowledge and experience in FM	FM specialist: 4 SWs	
	Procurement management	Technical knowledge and experience in procurement	Procurement specialist: 4 SWs	

Table 1.2: **Task Team Skills Mix Requirement for Implementation Support**

Skill needed	Number of Staff Weeks Per Fiscal Year	Number of Trips
Program Management (TTL and Co TTL)	30	Field trip as needed
Higher Education Specialist	9	Field trip as needed
Operational Officer	9	Field trip as needed
M&E Specialist	5	Field trip as needed
Economist	4	Field trip as needed
FM Specialist	6	Field trip as needed
Procurement Specialist	6	Field trip as needed
Environment Specialist	3	Field trip as needed
Social Safeguard Specialist	3	Field trip as needed
Administrative Support	10	Field trip as needed

ANNEX 2: Performance Based Agreements

1. **Each higher education institution supported by the HEET project will sign performance-based agreements with the MoEST based on their respective final USIPs.** The performance agreements are expected to promote mission-driven strategic initiatives and institutional management as well as increased autonomy of the institutions, to improve the operational quality of these institutions. Negotiated performance agreements also encourage greater institutional ownership and more buy-in for difficult reforms, such as changing teaching practices. Taken together, the USIPs and the corresponding performance-based agreements will promote a culture of effective management and shared governance with MoEST and higher education institutions by emphasizing autonomy, accountability, quality, and institutional ownership.

2. The performance-based agreement defines performance indicators that correspond with the results indicators identified under the HEET project, namely:

(a) Student and faculty participating in internships/fellowships/a form of placement in industries/companies or research institutions (disaggregated by gender, persons with disabilities, and student and faculty ratios)
(b) Degree programs within priority areas that are aligned to labor market needs
(c) Students benefitting from direct interventions to enhance learning (disaggregated by gender)
(d) Adoption of improved quality assurance procedures by the institution's internal quality assurance units/offices
(e) Establishment of an Industry Advisory Committee
(f) MoUs/agreements/letters of intent to partner signed with private sector companies or employers
(g) Facilities that are newly constructed/rehabilitated/equipped at the institution

3. Each higher education institution's performance will be measured against its success in meeting or surpassing annual performance targets for each of these indicators as stipulated in the USIP Results Framework and resultant PBA of that institution. In addition, each institution will be required to meet some minimum gender considerations in order to continue to receive funds from the Project. These minimum considerations include establishment of guidelines/codes of conduct to protect women against gender-based violence and sexual harassment and ensuring any new infrastructure accommodates the needs of female students and faculty.

4. The performance agreements will also require each higher education institution to establish a Monitoring, Evaluation and Lessons Learned (MELL) Committee within its UPIU and led by an M&E expert. The institutional MELL Committee will be responsible for responsible for carrying out routine M&E for the institution's activities, collecting data towards the performance indicators, and submitting quarterly and annual reports describing progress towards achieving the annual targets to a national-level MELL Committee constituted within the NPIU through their respective UPIU/APIU; IPSCs and institutional organs. The national MELL Committee will verify the achievement of targets and consider institutional reports for submission to the NPSC.

5. Should an institution not show evidence of progress toward achieving stipulated performance targets according to the timeline for implementation detailed in the PBA, MoEST following consultation with the World Bank, may re-allocate funding from a non-performing institution to another.

ANNEX 3: Climate Change Mitigation and Adaptation Measures

Table 3-1: Climate Change Mitigation and Adaptation Measures

Component	Activity	Climate Actions
Component 1: Strengthening the Learning Environments and Labor Market Orientation of Programs in Priority Areas	Curriculum updates and introduction of innovative pedagogy in the priority degree programs *(sub-component 1.1 & 1.2)*	*Mitigation:* support delivery of updated curriculum content for raising awareness on climate change mitigation (greenhouse gas) especially in the priority areas of renewable energy, water resources, climate change tourism and hospitality, wildlife conservation, agriculture and agribusiness, urban and environmental engineering and technology. Coupled with this is the possibility of drawing on global partnerships for blended programs on environmental issues and their management for greater quality programs packages. Learning from Tanzania's experience with COVID-19, innovations in programs delivery will integrate blended learning including development and delivery of online course content to strengthen higher education systems resilience in emergencies. Student assessments will be updated to reflect improvements in delivery of this content including responsiveness to remote learning. *Adaptation:* Support to all improvements in the delivery of these curriculum and build capacity to integrate climate change in the curriculum review processes. This includes the growing climate change issues and changing climatic patterns within the identified program areas of respective target institutions. Coupled with this is the integration of content on climate change adaptation including national and sub-national impacts of climate change as well as flood responses given the high frequency of floods in some areas of Tanzania. This will be complemented by inclusion of content on water conservation methodologies as well as local adaptation approaches in agriculture including drought tolerant and disease resistant crop yields to grow the capacity needed to support communities in the drought affected areas. Regular engagement with the private sector as well as partnerships with international universities of repute will be leveraged to the extent possible. Disposal of depreciated technological hardware modalities will be stressed right from the start to ensure safe management of the facilities and equipment right from installation. Manuals and guidelines will be added to ensure that support for staff capacity development and skills updating is continuous. Online programs delivery will continue to further support continuity of learning during emergencies like COVID-19.
	Need-based construction or rehabilitation of infrastructure at the respective institutions *(sub-components 1.1 and 1.2)*	*Mitigation:* Adoption of energy efficient architectural designs for the new buildings that will be constructed in each of the benefitting higher education institutions. This will embrace adoption smart energy building techniques including installation of renewable energy sources like solar power systems for lighting, wind powered water systems where applicable, and energy smart appliances for the facilities to be constructed and or rehabilitated with support from the HEET project. Such facilities include but not limited to lecture halls and laboratories, as well as gender and disability responsive sanitation and waste management facilities.

Component	Activity	Climate Actions
		Adaptation: Adaptation measures, including revision of infrastructure planning guidelines as well as maintenance policy for water supply and sanitation facilities will be integrated in the construction of new or rehabilitated university infrastructure. Key adaptation strategies of facilities include but not limited to structural strengthening, rainwater harvesting and recycling in water-scarce areas, drainage improvement for flood control, use of weather-resistant material. This may also require updates of the construction and maintenance manuals used by the Estates Departments of respective universities, coupled with capacity development on the demands of smart construction and building maintenance technologies. Gains will be realized over time as universities continue to use the climate smart designs and technologies.
	Professional development of academic staff and university leadership *(sub-components 1.1 & 1.2)*	*Mitigation.* HEET project will contribute to the updating of faculty members' knowledge and skills on emerging environmental issues and ensuring integration of these elements in the updated university curriculum for the respective priority degree programs. Inclusion of content on climate change mitigation (greenhouse gas) in programs to update faculty skills and materials will be ensured. The capacity development programs have potential to be buttressed with events to expose staff to regional or international universities of repute that have effective climate change mitigation efforts. *Adaptation*. Instituting mandatory continuous professional development on climate change for all faculty team members will be essential in ensuring continuity of the capacity development effort. This will be complemented by committed financing to this initiative.
	Educational opportunities for the beneficiary students of the updated curriculum for the priority programs *(sub-components 1.1 & 1.2)*	*Mitigation*: Students will benefit from the revised university curriculum for the priority programs that will integrate topical issues on climate change, learning materials, newly constructed and rehabilitated climate smart learning environments, and knowledge transfer from faculty with updated knowledge, skills and exposure in environmental management issues. *Adaptation*: Student cohorts over the years will benefit from the regularly updated curriculum on environmental issues; changing patterns of rains and floods; and emergency responses to the natural disasters. In addition, continued use of the updated civil works with climate smart designs will be a continuous engine of change not only for the universities but all student cohorts across universities resulting in wider benefits for the country and world at large.
	Enhancing national capacity to plan, forecast, and monitor economic trends *(sub-component 1.3).*	*Mitigation.* Monitoring and evaluation of climate change impacts will be an integral part of the national capacity enhancement program of PSE-UDSM in planning and forecasting of economic trends. This will entail data and forecasting models on weather and climate changes and how they impact economic activity at the national and sub-national levels which will be available for potential use by various stakeholders. *Adaptation*. Skills enhancement in economic planning, monitoring and forecasting will embrace capacity development in the integration of national

Component	Activity	Climate Actions
		climate adaptation plans including linkages with line sectors mandated to develop such plans.
Component 2. Strengthening management of the higher education system	Strengthening system level coordination, management and regulations *(sub-component 2.1)*	*Mitigation.* Through the support to TCU and the directorate of higher education, a costed crisis and climate change preparedness and response plan and guidelines will be developed; including ensuring integration of emergency resilience standards of higher education programs in the updated quality assurance and accreditation standards for universities to ensure continuity of learning. *Adaptation*. Implementation of the developed crisis and climate change preparedness and response plan as well as continued assessment of the extent to which developed higher education programs adhere to the emergency resilience standards that guarantee continuation of learning during crisis.
	Strengthening STEM Research Capacity and training *(sub-component 2.2)*	*Mitigation*: Research on climate change mitigation is one of the potential researches and innovation areas that COSTECH will explore in a bid to promote development of technologies for sustainable development. The capacity of staff and leadership of MoEST and its agencies will also be strengthened to include climate change indicators and considerations in their operations across the higher education sub-sector. In addition, there is potential for some of the beneficiaries of the RSIF scholarships to take up graduate programs in STEM programs with substantial course content on climate change. *Adaptation*: Continuous research and promotion of climate smart technological innovations will overtime generate signification contributions to adaptation strategies. The accumulation of skilled personnel with knowledge and skills in climate change management and climate smart techniques will strengthen the system's ability to adapt to emerging challenges.
Component 3. Support for Project Coordination and Management		*Mitigation.* Development of monitoring and evaluation systems for the HEET Project will entail: establishment of solid data backup systems for the TEMIS to ensure data safety at all times; civil works monitoring to ensure adherence to established standards that reduce education facilities' exposure to climate change-induced natural disasters; and capacity strengthening of personnel including skills development in climate change issues and how they affect HEET Project operations. *Adaptation*. Established data systems and skilled personnel will continue to support the management of operations in the higher education subsector during crises beyond HEET Project.

ANNEX 4: Economic and Financial Analysis

Financial Analysis

1. Tanzania's economy has been growing at a steady pace with the real GDP growth rate around 5 to 7 percent since 2010, and it is estimated to grow around 2 to 5 percent[41] in 2020, even with COVID-19. With the economic expansion, the total government spending has been increasing steadily from TZS 13.5 trillion in 2011/12 to TZS 33.1 trillion in FY2019/20 (Table 4-1). This is also reflected in education spending steadily increasing over time; however, the funding allocation to education sector has been below the SADC protocol of 25 percent of budget and 5 percent of GDP.

Table 4-1. Government spending, GDP and education budget (in TZS million)

Year	Government Expenditure	Gross Domestic Product (GDP)	Education budget	Education (% of budget excluding CFS)	Education (% of GDP)
2011/12	13,525,895	57,683,000	2,283,000	16.9	4
2012/13	15,119,644	67,506,000	2,890,149	19.1	4.4
2013/14	18,248,983	76,193,000	3,171,631	17.4	4.2
2014/15	19,649,500	86,485,000	3,465,101	22.7	4.1
2015/16	22,495,500	99,424,000	3,870,178	24.0	4.1
2016/17	29,500,000	108,957,000	4,768,358*	22.2	4.4
2017/18	31,711,986	119,195,000	4,706,362	21.2	4
2018/19	32,475,950	133,119,208^	4,641,498	20.9	3.4^
2019/20	33,105,410	146,153,713^	4,511,789	17.9	3.08^

Source: BEST 2016, Financial statement from Ministry of Finance 2018; AESPR Draft 2019/20; Minister of Finance and Planning Budget Speech; * is projection; ^ GDP value at market price (mp).

General impact of higher education and its relation to economic growth in Tanzania

2. **Through the five-year Education Sector Development Plan (ESDP, 2016/17-2020/21), Tanzania commits to provide twelve years of free and compulsory basic education and the progressive expansions of Technical and Vocational Education and Training for the sufficient stock of skilled human resources to achieve semi-industrialized middle-income country by 2025**. The ESDP report of 2019, however, states that the universalization of basic education has the largest financial implications and simultaneously pursing other potential initiatives such as the expansion of higher education sub-sector, without significantly increasing the proportion of national resources allocated to the education sector will be impossible. In terms of financing source, 91 percent of total budget is planned to be sourced domestically, and the 7 percent sourced from foreign. Total financing gap is around 1.5 percent for the entire education sectors, which is about 180 million USD in gap.

[41] World Bank estimates 2.5 percent GDP growth in 2020. African Development Bank estimates 5.5 percent GDP growth rate.

Table 4-2. Source of Funding and Financing Gap – All Education Sectors

	2016/17	2017/18	2018/19	2019/20	2020/21	Total
Domestic funding						
Total projected costs	4,029	4,810	5,258	5,779	6,312	26,189
Financing from domestic sources	3,682	4,378	4,785	5,220	5,783	23,847
Financing gap on domestic resources	-347	-432	-473	-559	-529	-2,341
Gap as % of projected expenditures	-8.6%	-9.0%	-9.0%	-9.7%	-8.4%	-8.9%
Contributions from DP						
Commitments from partners	383	382	366	411	399	1,941
Remaining financing gap	35	-50	-107	-148	-131	-401
Remaining gap as % of projected expenditures	0.9%	-1.0%	-2.0%	-2.6%	-2.1%	-1.5%
Remaining gap in USD (million)	15.8	-22.5	-47.9	-66.3	-58.5	-179.5

Unit: TZS billion; Source: ESDP 2015/16-2020/21 updated in 2019.

3. **In the first phase of ESDP (2015/16-2020/21), about 9 percent is allocated to higher education out of the total education sector recurrent budget, while the higher education proportion of the development budget is 36 percent of the total development budget**. The high level of the development budget is mainly for financing of student loans – 50 percent of the total higher education budget, and the rest, and only 10 percent of the total higher education budget, is allocated to investment in infrastructure and quality

Table 4-3. Higher Education Budget Allocation in ESDP 2015/16-2020/21

	2016	2017	2018	2019	2020	Total
(1) Total Recurrent	314.3	310.2	326.1	353.6	356.7	1,661.0
(% of HE, out of total recurrent)	10%	9%	9%	9%	8%	9%
(2) Total Operational/development	468.1	527.4	536.3	514.1	514.2	2,559.9
(2.1) Operational Budget - Infrastructure, Quality	40.5	99.8	108.7	86.5	86.6	422.1
(2.2) Student Loans	427.6	427.6	427.6	427.6	427.6	2,137.8
(% of HE, out of total development budget)	52%	43%	36%	31%	29%	36%
(3) Total Budget	782.4	837.6	862.4	867.7	870.9	4,220.9
(% of HE, out of total ESDP)	19%	17%	16%	15%	14%	16%

Unit: billion in TZS; Note: ESDP projected cost based on Government's revised simulation in 2019. Total recurrent includes salary and non-salary recurrent expenditure at universities. HE = higher education

4. **In higher education, Development Partners' (DPs') contribution on the current ESDP is limited in both amount and areas of support.** Only 1 percent of the higher education sector budget is supported by three DPs, compared to the DPs' support for about 7 percent for the entire education sector. Table 3-4 shows that among the three projects supported by DPs, two projects focus on capacity development of teaching professionals by supporting existing teaching universities, and the other one is the ACEII supported by the World Bank, which aims to strengthen specialization and collaborations between university network in the Eastern and Southern African region. For the next phase of the ESDP, up to now, there is no certain commitment from DPs except the proposed HEET.

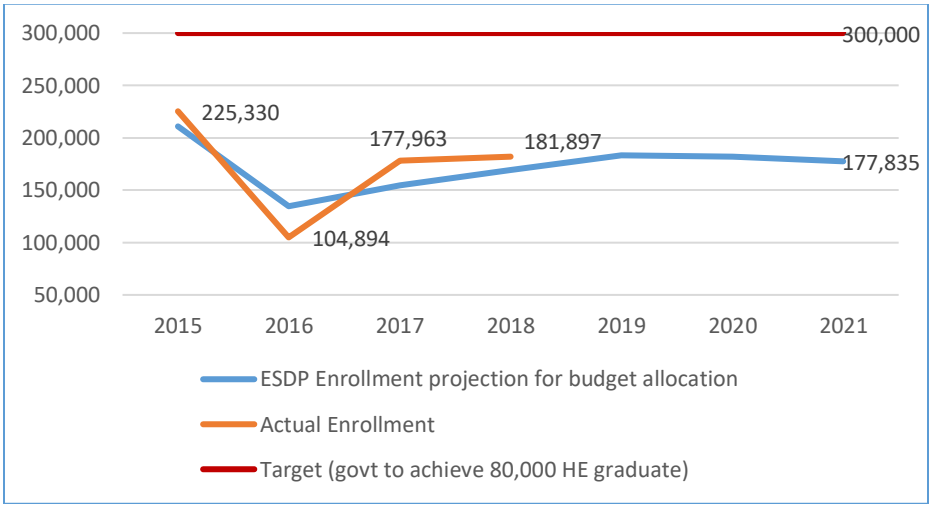
Table 4-4. DP contribution in Higher Education 2015/16-2020/21

DPs	Projects	Amount	Period	Coverage	Implementing partners
Canada	Capacity Development for Mathematics Teaching in Rural and Remote Communities in Tanzania	CAD $3.2 million	2012-17	Dodoma, Morogoro, Iringa	University of Alberta
World Bank	African Centre of Excellence (ACEII)	USD $24 million	2016	National	MoEST/PO-RALG
UNESCO	UNESCO-China Funds-in-Trust Project on "Enhancing Teacher Education for Bridging the Education Quality - Phase II	$234,350	2017-19	National	MoEST/ Open University of Tanzania/ University of Dar es Salaam/ Public Teachers' Colleges

Source: ESDP 2015/16-2020/21 updated in 2019.

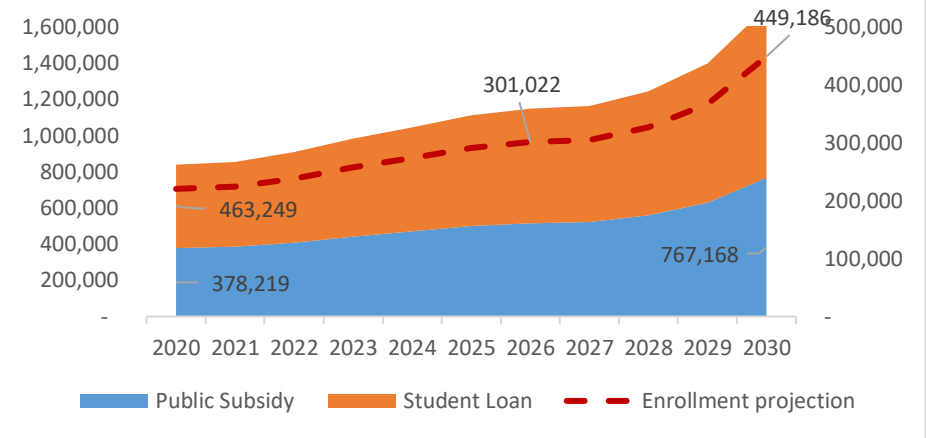
5. **Higher education is already experiencing a huge financing gap to meet increasing demand without substantial investment in infrastructure or quality aspects**. The first phase of the ESDP is budgeted based on lower level of Higher Education enrollment, which is projected to be around 177,835 in 2021, however, the actual enrollment reached 181,897 in 2018/19 and it is expected to increase with increasing secondary education graduation (Figure 4-1). Furthermore, this enrollment level is far too short to achieve the government's development vision. Currently the number of annual higher education graduates is around 40,000; in order to achieve the government's intermediary goal of 80,000 by 2020/2021, approximately 300,000 students are required to enroll in higher education. Given the current enrollment trends along with policies in basic and secondary education and the population growth, it is projected that higher education enrollment could only be expected to reach 300,000 by 2025/26 (Figure 4-2). This enrollment scenario, however, does not reflect the potential negative impact of COVID-19 on enrollment, which will be discussed in a later section.

Figure 4-1. Higher Education Enrollment (number)



6. **Based on the current enrollment trend, it is projected that the total budget will increase substantially in 10 years from TZS 985 billion in 2020 (AESPR budget estimate) to TZS 1710 billion in 2030 (prediction).** This translates into about 5.6 percent increase in annual budget. If we assume the budget increase mirrors the real GDP growth, the 5.6 percent increase in annual budget was in an achievable range before the pre-economic crisis caused by COVID-19. However, this does not include necessary investments for quality improvements or strategic development investments for priority disciplines. Furthermore, this level of annual budget increase seems unlikely, given the fact that real GDP growth rate is estimated to be between 2 and 5 percent in 2020 at most in Tanzania, and the economy is likely to suffer from a global downturn for the next several years. Nevertheless, the COVID-19 impacts on education financing is not conclusive, because of the high uncertainty in enrollments during and post-COVID-19 era, which will be discussed in a later section.

Figure 4-2. Higher Education Budget Projection – 10-year projections (without COVID-19)

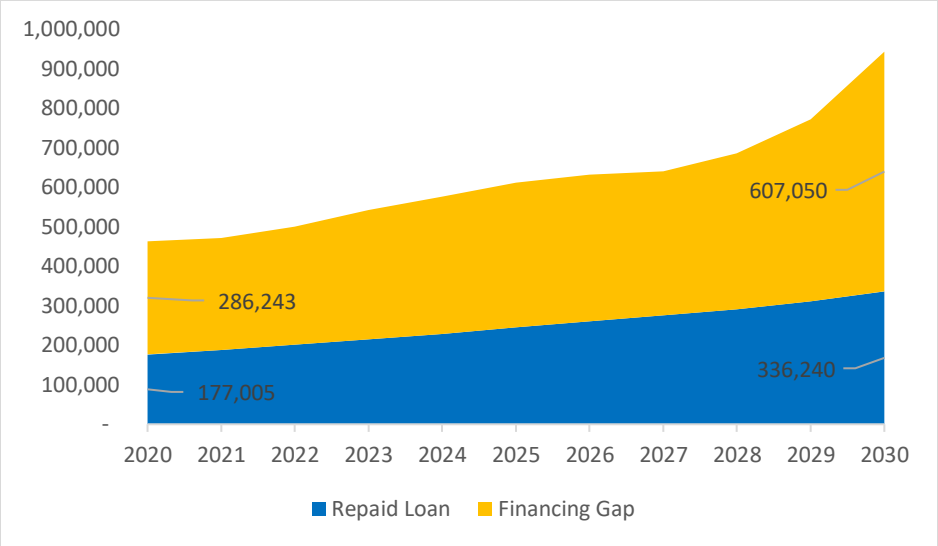


Note: Enrollment simulation from scenario 1 in PER 2019, updated unit-cost for recurrent expenditure (public subsidy)

7. **The student loan financing gap is projected to rise to at least TZS 607 billion by 2030.** Assuming a continuing 4 percent rate of annual recovery of outstanding loans, the rate as of 2018, the value of financing gap is projected to more than double from the 2020 level of TZS 286 billion (Figure 4-3). The recent Public Expenditure Review recommends that in order to respond to the rising demand for student loans, the government needs to continue with their ongoing efforts to increase the repayment rate to the level of 7-10 percent across all borrower cohorts or 50-60 percent of loans currently in active repayment schedules. The HESLB has undertaken substantial reforms in the past eight years to better target students based on financial needs, and improve timely loan repayment from 7 percent in 2010 to 50 percent in 2016. In addition to on-going effort, they will need to refine the targeting mechanism for eligible students (means testing criteria), further strengthen loan recovery efforts and explore options for commercial student loans.[42]

[42] Tanzania Public Expenditure Review FY19: Are Resources and Policies Aligned?

Figure 4-3. Student Loan Financing Gap, 10-year projection



Economic Analysis

8. **The economic analysis shows that the proposed project is economically viable with NPV of US$64,078 million and IRR of 28 percent.** It uses cost-benefit analysis with NPV and IRR for the proposed project. The direct economic benefit of the project combines the present value of increased lifelong earnings of the project beneficiaries who would not have completed the program without the HEET project through increased employment rate and increased wages due to quality improvement and market relevant research activities boosting local economies. The primary direct project beneficiary is students enrolled in degree-granting programs in priority disciplines in selected public universities through Component 1. It is assumed that the project will have a positive impact on enrollment rate in priority disciplines (annual increase of 25 percent, 76,000 at baseline to 185,000 at completion) during the project periods (2021-2026) as well as internal efficiency gain (university degree completion rate increase from 70 percent to 73 percent due to the project). In addition, the improvement in teaching quality and labor market relevance along with more research and industry partnership will have an impact on overall labor market outcomes (better employment and wage) for the beneficiaries. The cost of the project includes the estimated project expenditure plus the private cost of higher education including tuition and maintenance for 4 years and the foregone earnings during the average 2 additional years of education.

Expected impacts of the proposed project

9. **The investment in various aspects of the learning process (physical investment in space and learning technology as well as teaching professionals' quality) can increase the students' satisfaction and expectations of the benefits of university education, resulting in higher demands for the priority disciplines in the selected universities and increasing retention through the university cycle**. It is empirically shown that the improvement in learning environment in university has positive impact on students' perception on teaching quality,[43] and the students' perception is shown to be a strong predictor of college retention, especially during the first and the second years.[44.]

[43] Hill, Mary C., and Kathryn K. Epps. "The Impact of Physical Classroom Environment on Student Satisfaction and Student Evaluation of Teaching in the University Environment." Academy of Educational Leadership Journal 14.4 (2010): 65-79.
44 Schreiner, Laurie A. "Linking Student Satisfaction and Retention." Azusa Pacific University. (2009)

10. **Collaboration between universities and university-industry partnership will have positive impact on local economy, generating demand for high skilled workers.** University-industry partnership has shown positive impacts in various aspects for both research institutes and industries. This includes synergies between basic and applied science, lowering labor cost, raising revenues from innovative products, improvement of market oriented research capacity and positive societal spillovers across health, sanitation, agriculture, food, energy, and etc.[45] Also, incentivizing university patenting is empirically shown to have large long run employment and payroll per worker around the universities, with 0.5 standard deviation increase in payroll and 0.04 standard deviation increase in employment number with respect to 1 standard deviation increase in industry intensity[46.]

Assumptions and Parameters

11. **The assumptions and parameters used to calculate the economic benefit and cost of the HEET is shown in Table 3-5.** Given the uncertainty of its impacts in terms of the magnitude, the NPV and IRRs are calculated from low (15 percent annual increase in beneficiary numbers and 0.5 percent wage premium) to high (20 percent annual increase in beneficiary numbers and 1 percent wage premium) impact scenarios.

Table 4-5. Input parameters

	Value	Note
Impact on enrollment and retention		
Increase in students enrolled in priority disciplines in the project supported universities	76,000 at baseline to 185,000 at completion (base scenario)	25% annual increase; sensitivity analysis of 20 to 30% annual increase
Increase in completion rate	3%	Completion rate: 70% (current) to 73% (2 years after the project starts)
Labor market impact		
Increasing employment	1.5%	7% unemployment rate for university graduate, ILFS 2014
Increasing salary (wage premium)	0.5%	Monthly income for university graduate: TZS 1,000,626 in 2014, ILFS 2014 Monthly income for no university level tertiary education: TZS 610,704 in 2014, ILFS 2014
Cost		
Private cost	**4,629,815**	**Tuition plus maintenance cost,**

45 Adams, J., E., Chiang and J. Jensen "The Influence of federal laboratory R&D on industrial research", NBER working paper 7612. (2000)
Azoulay, P., Ding, W., Stuart, T. "The Effect of Academic Patenting on (Public) Research Output." NBER Working Paper 11917 (2006)
Bishop, K., D'Este, P., and Neely, A. "Gaining from interactions with universities: multiple methods for nurturing absorptive capacity", Research Policy, 40 (1), (2010)
Pluvia Zuniga, "The State of Patenting at Research Institutions in Developing Countries", World Intellectual Property
Zucker, L.G., Darby, M.R., Brewer, M.B. "Intellectual Human Capital and the Birth of U.S. biotechnology Enterprises." American Economic Review, 88 (1), (1998)
46 Hausman, Naomi. "University innovation, Local Economic Growth, and Entrepreneurship" Harvard University (2012)
Industry intensity measures the extent to which an industry is likely to be affected by innovation produced at nearby universities.

		yearly (TZS)
Opportunity cost (forgone earnings)	610,704	Opportunity cost of 4 year university degree: Monthly income for no university level tertiary for 2 years (TZS)
Other parameters		
Inflation rate	6%	10 year average, CPI from World Bank
discount rate	9%	Long term interest rate, Bank of Tanzania
exchange rate	0.00043	USD:TZS (January 2021)

12. **Under the base scenario 20 percent increase in student beneficiaries, the NPV of the project is US$48.2 million and the IRR is 28 percent.** The lowest impact scenario yields NPV of US$34.4 million and IRR of 28 percent, and the highest impact scenario yields NPV of US$62.7 million and IRR of 29 percent. This result justifies the investment made through the HEET project.

Table 4-6. NPV and IRR across the scenarios

			Annual increase of students enrolled in priority disciplines		
			20%	25%	30%
Wage premium	0.5%	NPV	US$ 49,586	US$ 64,078	US$ 80,345
		IRR	28.1%	28.3%	28.5%
	1%	NPV	US$ 50,999	US$ 65,719	US$ 82,241
		IRR	28.6%	28.8%	29%

Unit: in thousand US$

Tanzanian Economic outlook with COVID-19 pandemic

13. **Due to the COVID-19 pandemic, Tanzania economy grew only 1.9 percent (projected real GDP growth) in 2020, down by 5 percentage points from pre-pandemic level of economic growth (IMF 2021).** The greater exposure to oil and mining prices, agro-commodity, tourism, supply chain disruption, the more vulnerable the economy is to the COVID-19 disruption. Tanzania has relative low exposures to commodity and its trade share with China, however, reduced tourism and the second-hand exposures to commodity and supply chain disruption by restrictions of its large import export trading partners (India, South Africa, EU, and China) will result in contraction of the economy through 2020 and 2021. Decrease in Foreign Direct Investment and remittances will shrink the economy further.

14. **The debt level in Tanzania has been relatively low, with a small increase since 2012, which shows efficient management of public debt before COVID-19 crisis.** Such efficient management would make the expansion of fiscal policy (income support or public health spending) to cope with the COVID-19 more endurable without straining the long-term sustainability of public debt management. Before the COVID-19 challenges, the government had discussed the issues of increasing spending in education and health along with improvement of efficiency in spending as well as removing regulatory barriers and building skilled labor force for long term economic growth and fiscal sustainability.[47]

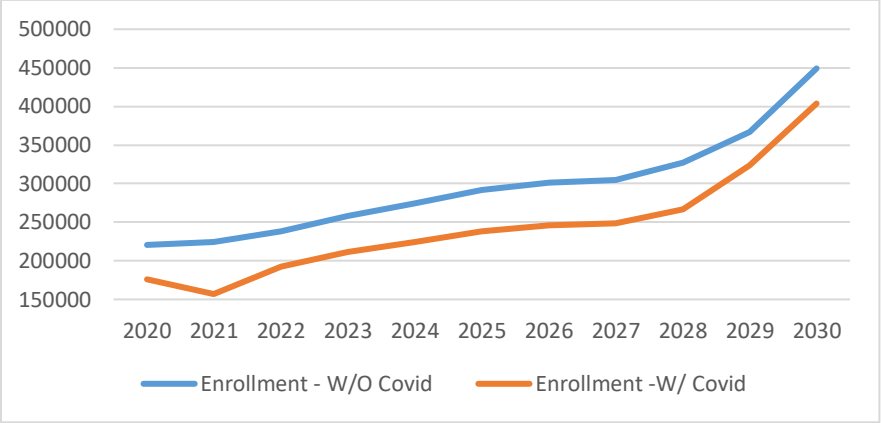
[47] International Monetary Fund, 2020

COVID-19 impact on Higher Education Sector and Financing

15. Tanzanian economy, in 2020, grew the lowest ever since 1995, which is likely to result in contraction of education sector financing. Up until now, the increasing financing demand for education, due to young population growth and expansion of free and universal basic education policies, has been followed by increases in GDP growth in Tanzania with annual growth rate of 5 to 7 percent. However, the negative COVID-19 impact on the Tanzanian economy potentially means the education budget in the current and following years would freeze without external support. The global economic downturn and implementation of public health crisis preventive measures, such as school closures, will likely cause decreases in enrollment across all the education cycles, resulting in a reduction to financing needs. In Higher Education, the recurrent budget is likely to be allocated to public universities regardless of the dip in enrollment numbers, while the financing of student loans is likely to diminish due to decreasing demand.

16. Without COVID-19, Tanzania had the potential to reach its intermediary goal of 40,000 graduates (approximately 300,000 enrollees) by 2026; however, the COVID-19 impacts could delay reaching the goal for another 3 years (Figure 4-4). This COVID-19 scenario assumes an overall 15 percent decrease in enrollment numbers across all education cycle in 2020 and 5 percent decrease in 2021. It is anticipated, thereafter, that enrollment figures will recover toward normal enrollment trends. However, the effect of COVID-19 on the stock of higher education enrollees will persist for the next 15 years until the youngest COVID-19 cohort becomes old enough to finish education cycle because of the permanent loss of enrollment opportunities during the earlier years.

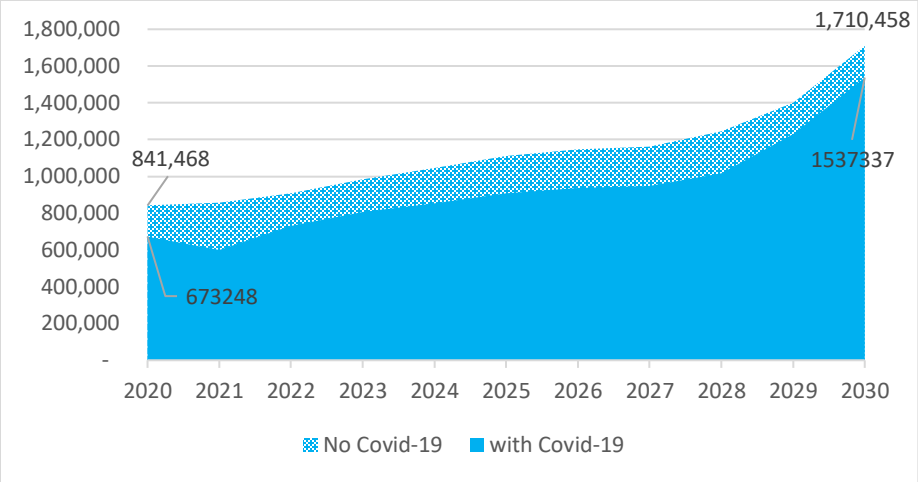
Figure 4-4. Higher Education Enrollment Simulation with COVID-19



Source: World Bank estimates

17. The COVID-19 impact on the education financing is not conclusive because of the high uncertainty in enrollment during and after the COVID-19 era and its economic impacts. With COVID-19, the projected budget for the recurrent and student loan expenditures will reduce by 20 percent in the first year then to 30 percent in the following year, and the gap in budget between COVID-19 and no COVID-19 case will reduce slowly.

Figure 4-5. Total Recurrent and Student loan budget projection – With or Without COVID-19



Source: World Bank estimates

ANNEX 5: Fiduciary Arrangements

Financial Management

1. **Introduction.** The FM assessment for the project was carried out for the 18 proposed implementing institutions in accordance with the **World Bank Directive**: Financial Management Manual for World Bank Investment Project Financing Operations issued on February 10, 2017 and effective retrospectively from March 1, 2010; and the **World Bank Guidance**: Financial Management in World Bank Investment Project Financing Operations issued on February 28, 2017 and effective retrospectively from February 24, 2015. The FM assessment considers the degree to which: (a) the budgeted expenditures are realistic, prepared with due regard to relevant policies, and executed in an orderly and predictable manner; (b) reasonable records are maintained and financial reports produced and disseminated for decision-making, management, and reporting; (c) adequate funds are available to finance the Project; (d) there are reasonable controls over Project funds; and (e) independent and competent audit arrangements are in place.

2. **Financial management risk assessment and mitigation measures.** The overall financial management risk for the Project is assessed as **Substantial.** Key risks include:

(i) Coordination of multiple project implementation units (PIUs) to ensure compliance to FM reporting and auditing requirements;
(ii) Channeling of funds disbursed to the PIUs in a timely manner to avoid possible delays in project implementation;
(iii) Different levels of capacity of the FM staff in the hosting institution which may impact proper maintenance of accounting records;
(iv) Different capacities of PIUs internal control systems including available policies and procedures in place to safeguard project funds;
(v) Limited capacity of internal audit teams in different institutions to frequently conduct internal audit reviews.

3. These challenges have been proposed to be addressed by ensuring the PIUs (NPIU for MoEST, APIUs for MoEST agencies and UPIUs for universities) will have qualified staff for the coordination of FM matters including disbursements, financial reporting and auditing. The MoEST, agency and institution-level PIUs should each have a qualified Project Accountant with experience in managing project financial requirements.

4. **FM Arrangements.** Specific FM arrangements are as follows:

5. **Planning and Budgeting:**

a. Hosting institutions will prepare a work plan and budget on an annual basis and submit to the NSC for approval. The approved budget will be submitted to the World Bank before the beginning of the fiscal year (by June each year). The project budget will be prepared in line with the government budget calendar, Budget Act of 2015, and Budget Regulations of 2015. The budget preparation process will be championed by the Planning and Budgeting departments of respective institutions. The *MoEST will develop a timeframe for institutions to submit their budget for consolidation and inclusion in the Medium-Term Expenditure Framework (MTEF) of MoEST.*
b. Budget allocation will be identified by the project budget code. Budget execution will be traced by reporting expenditure in respective project budget codes in the integrated financial management information system

(IFMIS). In addition, each implementing agency will maintain copies of the project budget and budget execution records in their financial accounting systems.

c. The World Bank will monitor budget performance on quarterly basis by analyzing the budget to actual costs. Budget performance and explanations for significant variation will be reported to the World Bank through unaudited interim financial reports (IFRs) on a quarterly basis. In case the project will require budget reallocation during project execution, a concurrence from the World Bank will be requested.

6. **Accounting arrangements:**

c. **Accounting Staff:** Each institution- and agency-level PIU will have dedicated Project Accountants responsible for supporting project implementation. Project Accountants will be responsible for all accounting tasks including processing of disbursement requests, maintenance of proper accounting records and financial reporting. The responsible Accountant should be experienced in managing project finances. The ***qualification and experience of appointed Accountants will be communicated to the World Bank prior to the request for first disbursement for clearance.***

d. This assessment identified the following staff capacity gaps: (i) Newly formed institution, Mwalimu Julius K. Nyerere University of Agriculture and Technology (MJNUAT) has three staff who joined the institutions in a period of less than two years. These staff do not have job descriptions defining their duties and responsibilities; (ii) some institutions have less than four Accountants, thus an additional duty of running the project may be burdensome (for example, Mbeya University of Science and Technology (MUST), Dar es Salaam University College of Education (DUCE), Higher Education Students Loans Board (HESLB)). ***Such institutions will be required to hire experienced Accountants dedicated for the project. In addition, to strengthen the capacity, the World Bank will conduct project FM training for appointed project Accountants within the first year of operation.***

e. **Accounting systems:** FM procedures are broadly guided by the Public Finance Act of 2001 (revised 2004), its regulations and other circulars issued by MoFP from time to time. Detailed processes to be followed at the institutional level are documented in Financial Procedure Manuals which will consider general accounting practices including approval hierarchies and segregation of duties, management of bank accounts including payment process and bank reconciliations.

f. Allocation of accounts codes in Chart of Accounts is broadly guided by the Accountant General coding system. However, each institution uses a different accounting package. The package mostly used is the Votebook financial management system which is a locally developed software to suit education operations**.** The central government uses a new integrated FM system with effect from the current fiscal year 2020/2021. The new system, 'Mfumo wa Ulipaji Serikalini' (MUSE) is developed inhouse by MoFP. The previously used IFMIS Epicor has been phased out.

g. Some institutions do not have accounting software and maintain accounting records in Excel (for example, Mwalimu Julius Nyerere University of Agriculture and Technology (MJNUAT) and State University of Zanzibar (SUZA)). ***In order to keep track of project accounting records, institutions will maintain separate project records depending on the capacity of the accounting software in place. PIUs will ensure institutional financial accounting records and the MoEST IFMIS are regularly updated with project affairs.***

7. **Internal controls including internal audits**

c. **Internal controls.** Each institution will be responsible for developing internal controls system with the aim of ensuring the project objectives are achieved in an effective and efficient manner, the project produces reliable

financial reports and observes compliance with the financing agreement, laws and regulations governing the project. Project-specific internal control systems to manage project financial risks and safeguard project assets will be documented in the Project Operations Manual (POM) including oversight mechanisms, delegation of authorities and responsibilities, competency requirements for the project finance team, financial policies and procedures to be followed by the project, record keeping arrangements and reporting protocols. ***The MoEST will enter into performance-based agreements with implementing institutions. The agreements will provide guidance on financial operations including detailed budget processes and timeframes and fund flow arrangements.***

d. **Internal audit.** Operational effectiveness of the internal controls systems will be monitored by the internal audit departments of respective institutions. The internal audit departments will use guidelines and tools issued by the Internal Auditor General. Results of internal audit reviews will be communicated to the Audit Committee of respective institution for further action. The scope of the internal audit approach will be based on risks perceived by the internal audit department of the respective institutions. It is expected that internal audit reviews for the project will be conducted at least twice per annum.

e. In most institutions, internal audit departments are understaffed with the number of staff ranging between 1 to 4 staff. The adequacy of capacity of internal audit staff will be compensated by additional site visit reviews to the implementing institutions conducted by the internal audit team of the Ministry. ***Internal audit reviews conducted by the Ministry will use the existing reporting framework to the Ministry Audit Committee, however copies of their reports should be communicated and shared with the respective institutions for further follow up and implementation of audit recommendations.***

8. **Funds flow arrangement**

a. Each implementing institution will operate a designated project bank account at the Bank of Tanzania (BOT) in USD currency. Requests of funds from the World Bank HEET project will be disbursed from the World Bank into the respective Designated Account at BOT based on the terms defined between MoEST and the implementing institution, at least in part via new performance-based agreements. Each institution will maintain a project specific bank account in commercial banks for local currency transactions. Payments to contractors and suppliers in USD will be made directly from either the Designated Account, the MoEST or by the World Bank upon request (*refer to available Direct Payment and Special Commitment methods below)*.

b. Disbursement requests are lodged to the World Bank through the client connection system. When requesting disbursement of funds from the World Bank, institutions will prepare and submit via MoFP, cash forecast based on activity and expenditure plans on a quarterly basis. In parallel with the use of the client connection system, the project will be registered in D-Fund (Direct to Project funds) Management Information System hosted by MoFP where records of all issues pertaining to project activities, budget, receipts and payments of funds from BOT designated account will be maintained. The project will retain all original documents and records of payments made. ***Detailed procedures, responsible personnel and timelines for funds requisition and transfers will be defined in the POM and performance agreements with implementing institutions.***

c. **Disbursement methods:** Depending on the need, PIUs can apply any of the options below to request for disbursement: (i) Advance method – where disbursement to the project will be made by submitting a withdrawal application request to the World Bank with a six months cash forecast. The initial cash forecast will be prepared based on an annual work plan and procurement plan submitted to the World Bank for approval. Subsequent withdrawal applications will be based on rolling six months forecast reported in quarterly unaudited IFRs and in line with the annual work plan and budget. ***However, due to current restrictions over lapsed loans in country portfolio, initial advance method will only be used once restrictions***

are lifted; (ii) Reimbursement method - will be used to reimburse the project for the pre-financed eligible expenditure; (iii) Direct payment method - will be used when the project requests the World Bank to make payments directly to third party (contractors or service providers) for eligible expenditures; and (iv) Special commitment method - the World Bank may pay amounts to a third party for eligible expenditures under special commitments entered into, in writing, at the Borrower's request and on terms and conditions agreed between the World Bank and the Borrower. More detailed disbursement arrangements are provided in the **Disbursements and Financial Information Letter (DFIL).**

9. **Financial reporting**

a. Project implementing agencies will prepare and submit to the World Bank two sets of reports: (i) unaudited IFRs for disbursement purposes; and (ii) audited annual financial statements.

b. Project implementing agencies will submit to the Bank unaudited IFRs not later than 45 days after the end of each quarter. IFRs will be submitted to the Bank through the client connection system. ***IFRs are expected to include (i) a statement of sources and uses of funds; (ii) explanations of variations between budget and actual expenditure; (iii) bank reconciliation statements; (iv) designated account reconciliation with World Bank records in client connection; and (v) cash forecast for the next six month. The format and contents of the IFR are included in the DFIL.***

c. Project annual financial statements will be prepared in accordance with International Public Sector Accounting Standards (IPSAS) accrual basis of accounting issued by the International Federation of Accountants (IFAC).

10. **External audits**

a. The Controller and Auditor General (CAG) of the United Republic of Tanzania has a mandate to audit all public institutions and projects. The exclusive powers are mandated in Article 143 of the Constitution of the United Republic of Tanzania of 1977, Public Audit Act no. 11 of 2008 and the Public Audit Regulations of 2009. The CAG discharges this responsibility either directly or through private auditors contracted as agents. The CAG conducts the audit in accordance with International Standards of Supreme Audit Institutions (ISSAIs). ***The MoEST will contract the CAG to audit the annual financial statements of the project. Terms of Reference for the external audit will be developed after the project is effective.***

b. Audited financial statements and management letters will be submitted by the PIUs to the Bank through the client connection system within six months after the end of financial year. While management letters will remain confidential, audited financial statements submitted to the World Bank will be made available to the public in accordance with the *'World Bank Policy on Access to Information'*.

11. **Financial management action plan.** The World Bank's FM team will provide capacity building and implementation support over the project's lifetime. The project will be supervised on a risk-based approach. Supervision will cover but not be limited to desk review of audit reports and IFRs. Site visits will be conducted at least twice per annum based on current assessed risks and may be adjusted when the need arises.

Table 5-1: Specific actions required for the project

Responsible Institution	Required action	Due date	Conditionality
All institutions	Capacity building training on World Bank Financial management procedures	Within three months after effectiveness	Not applicable
All institutions	Submission of proposed project accountants (names and qualifications) to WB for clearance. Project Accountant will be a key contact person on matters pertaining to disbursement, financial reporting and auditing.	Before first disbursement request made.	Condition for disbursements
MoEST in collaboration with implementing agencies	Establishment of detailed budget mechanism, fund flow and reporting framework between MoEST and other implementing agencies. The arrangements will be included in project POM.	By project effective date	Effectiveness
MoEST	Contract CAG to audit the project. TORs for the audit should be cleared by the World Bank	Within three months after effectiveness	Not applicable

Procurement

12. **Procurements under the proposed project will be carried out in accordance with the following World Bank procedures**: (a) the World Bank Procurement Regulations for IPF Borrowers (July 2016, revised November 2017 and August 2018) and (b) 'Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants', dated October 15, 2006, and revised in January 2011 and revised as of July 1, 2016, and other provisions stipulated in the Financing Agreements.

13. **A Project Procurement Strategy for Development (PPSD) and the Procurement Plans (PP)** for each Implementing Institution has been prepared. The Borrower prepared a PPSD identifying optimum procurement strategies for meeting the development objectives of the project, based on which the PP for the first 18 months for each Implementing Institution has been prepared, setting the selection methods to be used by the borrower in the procurement of goods, works, non-consulting services, and consulting services under the project. The PP for each Implementing Institution will be updated at least every 12 months, or as required, to reflect the actual project implementation needs. Each update shall require World Bank approval and will be publicly disclosed in accordance with the World Bank disclosure policy.

14. **Systematic Tracking of Exchanges in Procurement (STEP).** The World Bank's STEP system will be used to prepare, clear, and update PPs and conduct all procurement transactions for all implementing institutions of the project.

15. **Procurement templates.** The World Bank's Standard Procurement Documents (SPDs) shall be used for procurement of goods, works, and non-consulting services under the Open International Competitive Procurement

(OICP) approach. Similarly, selection of consultant firms shall use the World Bank's SPDs, in line with procedures described in the Procurement Regulations. While approaching the national market using NPP, the National Standard Bidding Documents may be used with appropriate modifications acceptable to the Bank and additional annexes to incorporate the Bank's Anti-Corruption Guidelines, universal eligibility, and the Bank's right to inspection and audit.

16. **National Open Competitive Procedures (NOCP). NOCP may also be used, provided that such procedures** are consistent with the following requirements as provided in paragraph 5.4 of the Procurement Regulations: (a) there is open advertising of the procurement opportunity at the national level; (b) the procurement is open to eligible firms from any country; (c) the request for bids/request for proposals document shall require that bidders/proposers submitting bids/proposals present a signed acceptance at the time of bidding, to be incorporated in any resulting contracts, confirming application of, and compliance with, the World Bank's Anticorruption Guidelines, including without limitation the World Bank's right to sanction and the World Bank's inspection and audit rights; (d) procurement documents include provisions, as agreed with the World Bank, intended to adequately mitigate against environmental, social (including SEA and gender-based violence [GBV]), health, and safety ('ESHS') risks and impacts; (e) contracts have an appropriate allocation of responsibilities, risks, and liabilities; (f) contract award information is published; (g) the World Bank has rights to review procurement documentation and activities; (h) there is an effective complaints handling mechanism; and (i) records of the procurement process are maintained. If necessary, the World Bank's SPDs may be used for NOCP, in agreement by the World Bank.

17. **Other national procurement arrangements** (other than NOCP) that may be applied by the Borrower (such as limited/restricted competitive bidding, request for quotation/shopping, direct contracting) shall be consistent with the World Bank's core procurement principles set out in paragraph 5.3 of the Procurement Regulations and ensure that the World Bank's Anticorruption Guidelines and Sanctions Framework and contractual remedies set out in its Legal Agreement apply.

18. **Publication (advertising).** The borrower is required to prepare and submit to the World Bank a General Procurement Notice which will be published in United Nations Development Business online (UNDB online) and on the World Bank's external website through STEP. Specific Procurement Notices (SPNs) for all procurement under International Competitive Procedures and Requests for Expressions of Interest for all consulting services estimated to equivalent to US$300,000 and above shall be published in UNDB online and the World Bank's external website through STEP and at least one newspaper of national circulation in the borrower's country or in the official gazette or on a widely used website or electronic portal with free national and international access.

19. **The new act has been reviewed by the World Bank and found to be satisfactory to a large extent, except for the following provisions:** (a) there will be no preference accorded to domestic suppliers and contractors under National Competitive Bidding for goods, non-consulting services, and works under this project; (b) there should be no mandatory requirements for inclusion of local experts and firms for the consulting assignments; (c) negotiations with the lowest evaluated bidder to reduce price in the case of goods, works, and non-consulting services where competitive methods have been used shall not be allowed; (d) the fixed budget method shall not be used for goods, works, and non-consulting services; and (e) procurement standards established and approved by the Government may be used, provided that they are not restrictive. Furthermore, in accordance with paragraph 5.4 of the Procurement Regulations, the following shall be observed: (a) the request for bids/request for proposals document shall require that bidders/proposers submitting bids/proposals present a signed acceptance at the time of bidding, to be incorporated in any resulting contracts, confirming application of, and compliance with, the World Bank's Anti-Corruption Guidelines, including without limitation to the World Bank's right to sanction and the World Bank's inspection and audit rights, and (b) rights for the

World Bank to review the borrower's procurement documentation and activities.

20. **A Procurement Capacity Assessment of the Implementing Institutions was carried out in April 2020 (will be updated at the Appraisal Stage):** The assessment reviewed the organizational structure for implementing the project, functions, staff skills and experiences, adequacy for implementing the project, and the interaction between the project's staff responsible for procurement activities and the relevant departments within the agencies and other government agencies. The assessment revealed that some of the Implementing Institutions have no prior experience in World Bank operations. Furthermore, the assessment revealed that (i) PIUs staff have inadequate experience in managing procurement of complex works, goods and consulting works; in accordance with World Bank procurement guidelines/regulations and procedures; (ii) inadequate staff to couple with volume of procurement transactions; (iii) PIUs and User Departments staff have inadequate knowledge and skills/experience in contract management; (iv) inadequate records management system; (v) inadequate office space and office facilities; (iv) low capacity in managing /supervising ESHS and Sexual Exploitation and Abuse (SEA) in the procurement process both borrower and construction industry.

21. I**dentified risks, mitigation measures, capacity building and action plan agreed.** The overall project procurement risk was assessed to be "High". The residual risks after the implementation of the mitigation measures is "Substantial". To address capacity gap and mitigate the risks identified, procurement capacity of the Implementing Institutions needs to be strengthened. To ensure sustainability, apart from recruiting Procurement Consultant to build internal capacity and assisting managing procurement activities, all Implementing Institutions will prepare a capacity-building program for the PIUs and User Departments which will articulate areas to be strengthened, capacity strengthening activities to be undertaken, and the duration of each activity.

Table 5-2. Procurement Risks and Mitigation Measures

Risk	Mitigation Measure	Time Frame	Responsibility
PIU staff have inadequate experience in managing procurement of complex works, goods, and consulting works, in accordance with World Bank procurement guidelines/regulations and procedures**.**	Provide training in World Bank procurement procedures and processes. For sustainability reasons, IAs will prepare a capacity-building plan for the PIUs and technical departments.	Throughout project implementation	MoEST/Universities
Inadequate staff to couple with volume of procurement transactions	Deploy/Recruit enough staff with the knowledge and experience of the World Bank procurement procedures.	After project effectiveness	MoEST/Universities
Inadequate skills and knowledge in contract management, disputes, and claims management	Conduct trainings tailored for contract management, disputes, and claims management for PIUs and technical departments' staff.	Throughout project implementation	MoEST/Universities
Inadequate storage and record management system	Establish a sound filing and records management system.	Throughout project implementation	MoEST/Universities
Lack of awareness and low capacity of the local construction industry to comply with ESHS requirements.	Create awareness and conduct a training on ESHS to the potential contractors and consulting firms. Further, contracts should have adequate provisions of ESHS requirements and effective contract management	Throughout project implementation	MoEST/Universities

22. **Procurement oversight and monitoring arrangements.** The World Bank exercises its procurement oversight through a risk-based approach comprising prior and post reviews as appropriate. The World Bank sets mandatory thresholds for prior review based on the procurement risk rating of the project. The requirement for a prior or post review shall be specified in the PP. The World Bank will carry out post reviews of procurement activities undertaken by the borrower to determine whether they comply with the requirements of the Legal Agreement. The World Bank may also use the services of the PPRA for carrying out post reviews for the project.

23. **Since the assessed procurement risk rating is 'High'**, the Borrower shall seek the World Bank's prior review for contracts of value equivalent to the thresholds as detailed in Table 5-3.

Table 5-3: Thresholds for procurement approaches and methods

Thresholds for Procurement Approaches and Methods (US$ millions)–Goods, Works, and Non-Consulting Services				
Category	**Prior Review (US$ millions)**	**Open International**	**Open National**	**Request for Quotation (RfQ)**
Works	≥ 5	≥ 15.0	< 15	≤ 0.2
Goods, IT, and non-consulting services	≥ 1.5	≥ 5	< 5	≤ 0.1

Thresholds for Procurement Approaches and Methods (US$, millions) – Consulting Services			
Category	**Prior Revie (US$, millions)**	**Short List of National Consultants**	
		Consulting Services	**Engineering and Construction Supervision**
Consultants (Firms)	≥ 0.5	≤ 0.3	≤ 0.3
Individual Consultants	≥ 0.2	n.a.	n.a.

24. **Frequency of Procurement Supervision.** In addition to the prior review supervision to be carried out by the Bank, the capacity assessment of the implementing agencies recommends one supervision mission every six months to visit the field to carry out post review of procurement actions.

ANNEX 6: Environmental and Social Arrangements

1. **The project will apply the Environmental and Social Framework (ESF) through the Environmental and Social Standards (ESSs) for environmental and social risk (E&S) management.**

2. **The E&S risks for the proposed project activities are rated as Substantial due to likely impacts anticipated during project implementation and the limited experience of the implementing agencies in applying the ESSs.** The main impacts of the project will emanate from the physical construction activities proposed in the participating institutions. The cumulative impact, which is likely from the works and presence of contractors and machinery at each targeted institution, calls for careful supervision to avoid occupational health and safety incidences.

3. **Component 1 of the project will finance construction of critical university infrastructure (such as lecture halls, labs, dormitories, staff offices, etc.), which are likely to generate unfavourable and site-specific construction related E&S risks and impacts**. The proposed investments will be built on sites within the premises of the beneficiary institutions in accordance with the existing masterplans. Potential impacts at the participating institutions are related to: (i) waste generated at construction sites which can pollute land and water bodies (cement mixing areas, metal, wood and paint residues, diesel, used electronics equipment and other residues); (ii) open pits (for construction materials, waste or water can cause accidents); (iii) food residues, which can attract disease causing organisms; (iv) cutting of trees for building material; (v) noise from machinery and exhaust from diesel engines of transport trucks (transporting equipment and materials); (vi) occupational health and safety incidents; and (vii) traffic disruption and road accidents; amongst others. Component 2 will focus on strengthening key higher education agencies and building strategic regional partnerships for effective research and labor market relevance, whereas Component 3 will focus on Project Coordination. Unlike Component 1, these two project components are not anticipated to lead to physical E&S footprints.

4. **The main potential social issues, that can be mitigated/managed are related to:** (i) labor and working conditions of construction contractors as delineated under ESS2; (ii) community health and safety as indicated in ESS4; (iii) potential loss of crops or assets in University land or requiring acquisition of extra land; (iv) potential impacts to vulnerable groups in terms of curricula development as defined under ESS7; and (v) risks related to exclusion of stakeholders consultations and engagement as implied in ESS10. Other risks are related to gender-based violence/sexual exploitation and abuse (GBV/SEA) of students and workers at university, related to disabilities and inclusion or exclusion (mainly during operation), and transmission of diseases. These potential impacts and risks will be site-specific and are unlikely to cause serious adverse effects to communities and the environment if appropriate mitigation and management measures are in place.

5. **E&S Management.** The HEET project is anticipated to comply with requirements of all the ESSs (ESS 1 - ESS10) with exception of ESS 9 which is not considered relevant.[48] On the Borrower's side, key national regulatory requirements for E&S that will be applicable to the project activities will be also be observed to ensure that potential mitigation measures are adequately covered. All participating institutions in the project will be responsible for the application and

[48] ESS 1: Assessment and Management of Environmental and Social Risks and Impacts; ESS 2: Labor and Working Conditions; ESS 3: Resource Efficiency and Pollution Prevention and Management; ESS 4: Community Health and Safety; ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement; ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities; ESS 8: Cultural Heritage; and ESS 10: Stakeholder Engagement and Information Disclosure. ESS 9 on Financial Intermediaries is not considered relevant under this project.

compliance with the ESF and ESSs.

6. **Five instruments have been prepared by the project to manage the E&S risks**. These are: (i) Environmental and Social Management Framework (ESMF); (ii) Resettlement Policy Framework (RPF); (iii) Labor Management Procedures (LMP); (iv) Stakeholder Engagement Plan (SEP); and (v) Environmental and Social Commitment Plan (ESCP). With the exception of the LMP, all the instruments have been consulted upon, finalized and will be disclosed both in country and in the Bank website prior to project appraisal. The project will also strengthen sexual harassment policies at the participating universities to address GBV/SEA and strengthen prevention and response in a university context through both the project design as well as complementary actions in a Project GBV Action Plan to be ready prior to approval of the project by the World Bank Board of Directors.

7. **A review of compliance with the ESSs will be regularly undertaken at the level of the implementing institution.** Each institution will be responsible for managing E&S requirements under their mandate. Since the designs of the proposed investments, their exact location, and core areas of impacts, extent, magnitude, and duration of impacts are yet to be specified, the project has prepared an ESMF. The assessment of E&S risks and impacts of all proposed project investments/activities will be guided by the ESMF.

8. **The project ESMF includes**: (i) screening criteria to identify any subprojects with potential significant irreversible adverse impacts on natural habitats, physical cultural resources and existing land uses so that alternative sites can be identified or if necessary exclude the subproject; (ii) supervision and reporting procedures; (iii) mitigation measures etc.; and (iv) guidance on engagement as per the SEP. The borrower will assess the subprojects according to the same risk categories described in ESS1 and manage, supervise and monitor the environmental risks and impacts of the subprojects through the project life cycle. Thus, Environmental and Social Impact Assessments (ESIAs) and or Environmental and Social Management Plans (ESMPs) will be guided by the E&S screening criteria from the ESMF. All subprojects will be required to develop a site-specific ESMP taking into consideration the Environmental, Health and Safety Guidelines (EHSGs) of the Bank to define specific mitigation and prevention measures to prevent and reduce risks and impacts. Social Impact Assessment (SIA) will be conducted to determine the extent of the social risks related to inclusion and discrimination of vulnerable individuals and groups including people with disabilities. The project will mainly be implemented within universities' boundaries thus an RPF has been prepared to provide guidance on preparation of site-specific Resettlement Action Plans (RAPs) if universities need extra land outside their compound or for mitigating the loss of crops or assets in existing land. Site specific ESMPs (and RAPs where applicable) will need to be approved and implemented in line with the respective schedules before the construction activities can start.

9. **The implementing agencies will deploy these tools accordingly during all phases of the project/sub-project cycle, i.e. from design to decommissioning phase.** Both existing and those impacts that may be generated during implementation phase will be mitigated and monitored to ensure compliance with the World Bank ESF and the national environmental permitting requirements. Moreover, these tools will be applied to ensure that the E&S concerns are integrated into decision making process and foster desirable project outcomes in all spheres.

10. **The capacity of the MoEST and implementing institutions in managing environmental and social risks based on the implementation of previous education projects involving infrastructure activities is inadequate**. Capacity concerns will need to be addressed as part of project implementation. Institutional arrangements and coordination of E&S aspects/ ESF at the ministry will need to be enhanced during project implementation. Each implementing institution will have E&S staff responsible for managing, monitoring and reporting on the implementation of E&S measures.

11. **Strengthening of capacities and definition of roles and responsibilities on E&S management will be defined in E&S safeguard documents and other operational manuals.** The ESMF has provided roles and responsibilities and an institutional arrangement for E&S management under the project. These roles and arrangements will be further defined in the POM. It is understandable that since the ESF is new and there are several actors involved in the project, with limited knowledge of the ESF as well in E&S issues, there will be a need for additional resources for training and capacity building at all project levels.

12. **Citizen engagement.** The project design will ensure that the stakeholder engagement process is broad enough to include those who may be affected, those who are potential beneficiaries, also those with interests in the project activities. The SEP has identified stakeholders noting that this process will continue throughout implementation and methods for engagement. With meaningful consultations project stakeholders will have chance to express their views, feedback, concerns, risks and proposed changes and mitigation measures for the project activities. These consultations will be documented and disclosed in the format agreed with the World Bank. The SEP also articulates a Grievance Redress Mechanism (GRM) that enables any potential grievances to be captured at the initial stage and addressed prior to seeking recourse through the formal legal justice system. The project will review and strengthen the GRM at the implementing institutions to ensure that all project beneficiaries and community members, especially vulnerable groups have access to it. The GRM will also be responsive to GBV/SEA issues. Once the site-specific sub-projects are defined, public consultations will be organized within the project area to target project beneficiaries and the surrounding community and integrate their feedback into interventions. These consultations will also inform project beneficiaries and affected communities about the existence of the GRM, its procedures, communication channels, entry points and response times. Citizen engagement under the project will be monitored by measuring institutions' resolution rates of grievances, i.e. share of registered grievances registered that are addressed or resolved within the stipulated timeframe and service standard. Institutions will public periodic GRM reports showing the grievances registered, resolution rates and how the issues were resolved.

ANNEX 7: Adjustments to the Country Program in Response to COVID-19

Impact of the COVID-19 pandemic on the country and government response

1. **The COVID-19 pandemic has had significant negative impacts on Tanzania's growing economy with substantial economic costs.** For example, Tourism, which has been one of the main contributors to GDP growth, has declined significantly despite the country reopening for tourist arrivals in June 2020 and is expected to have underperformed during the peak season of July–October 2020. The situation has strained foreign investment and the overall environment for domestic private sector activity, with a dampened external environment expected to persist. The economic impact of COVID-19 on Tanzania is still evolving but is expected to erode the gains made in recent years with current assessment indicate GDP growth rate slowing to 2.5 percent[49] in 2020, compared to 6.0 percent in 2019.

2. **Health impact.** A full assessment of COVID-19 health situation in Tanzania has proven to be difficult. Tanzania reported its first COVID-19 case on March 16, 2020, and as of April 29, 2020, recorded a total of 509 cases with 21 deaths. Since then, the Government has stopped sharing data on COVID-19 cases and deaths, which has limited understanding of the state of pandemic. Tanzania, as almost all countries of Africa, appears to have lower morbidity and mortality than the global trend, including Europe and North America. Anecdotal evidence indicates COVID-19 cases and deaths are still happening, but the numbers continue to be low despite lifting of most restrictions. Since then, the global pandemic has substantially changed its course and the Government has been advised by the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) and various development partners—including the Bank—to continue tracking and ensuring timely reporting of COVID-19 related information on new infections and deaths to ensure interventions are adapted to the epidemiological trends.

3. **Economic impact**. Official data show that (i) real GDP growth slowed down to 5.7 percent in Q1 of 2020 from 6.3 percent a year earlier; and (ii) the current account deficit has narrowed to below 1 percent of GDP in June 2020 from 3.8 percent last year. Tourism, transport and manufacturing activities recorded the highest slowdown. Leading indicators of private consumption and private investment (e.g. domestic credit growth, tax revenues, import of capital goods) show a deceleration. Growth is projected to decelerate to 2.5 percent in 2020 due to the impact of coronavirus in the global economy, with an expected rebound near 6 percent over the medium-term. A full recovery in 2021-2022 requires government attention to reforms to improve the business environment as a key input to bolster recovery of the private sector. Headline inflation was 3.3 percent in August 2020, well below the authorities' ceiling of 5 percent. Inflation is projected to remain low and stable over the medium-term. Higher gold prices have alleviated the loss in exports of manufactured goods and services (tourism) while the steep decline in oil prices has reduced the import bill. Official gross reserves have remained at relatively high levels of about US$5.2 billion as of June 2020, enough to cover 6 months of projected import of goods and services. The Tanzanian shilling has remained relatively stable against the currencies of major trading partners.

4. **Distributional impact**. The poverty impact of COVID-19 is considerable, albeit less severe than in other countries. Cell phone location data suggest that in Tanzania reductions in people's mobility were more moderate than in other Sub-Saharan African countries. However, 14 percent of businesses had workers laid off, and around 8 percent of workers have lost their job, according to a recent enterprise phone survey. With one quarter of the poor relying on the non-farm sector for their income, poverty is likely to increase by 1-2 percent in 2020.

5. **Government response.** Tanzania's COVID response was reasonably robust as it implemented critical mitigation

[49] World Bank Tanzania Economic Update, June 2020

measures to limit the spread of the virus without national lockdown and enhanced its preparedness/containment capacity. Government established three coordination committees to oversee the response at country level; initiated detection and surveillance at points of entry including at airports and border crossings, closed schools and airports, suspended public meetings, sporting and social events and international passenger flights and encouraged people to avoid unnecessary movements, practice hands hygiene and social distancing; and designated public and private hospitals to serve as COVID-19 treatment centers. In addition, the Government of Tanzania operationalized contact tracing, quarantining of contacts in designated places, and strengthened laboratory capacity to collect samples and test for COVID-19. A National Response Plan for COVID-19 was developed, aligned to the WHO's COVID-19 Global Strategic Preparedness and Response Plan. It mobilized support from development Partners mostly grant financing of US$ 68 million. The restrictive measures were eased from May 2020 as Government claimed a drastic drop in COVID-19 infections. Tanzania could have done more from domestic resources given its favorable macroeconomic conditions by further strengthening health response and transparency to save lives and protecting livelihoods and the future.

6. **Participation in the DSSI**. A preliminary DSA update (April 2020) indicates that Tanzania remains at low risk of debt distress. Official bilateral and multilateral creditors continue to be the major financiers. Tanzania is participating in the COVID-19 Debt Service Suspension Initiative (DSSI) of the G20, which should free about US$148.9 million (0.2 percent of 2019 GDP).

World Bank Group (WBG) response for responding to the crisis

7. **WBG Response.** The Government did not seek financing from COVID-19 MPA. The World Bank present COVID 19 support includes: a) US$3.79 million COVID-19 Pandemic Emergency Financing Facility Project (P174366), to strengthen capacity for laboratory diagnosis and management of COVID-19 cases, financed under the Pandemic Emergency Financing Facility; and b) through the Strengthening Primary Health Care for Results (P152736), the Bank is a contributor to the Health Basket Fund which has provided US$6.5 million to support provision of personal protective equipment to primary health care facilities countrywide. In addition, Tanzania Urban Resilience Program (TURP) has supported promoting risk awareness in urban areas with the IEC package including animated videos and posters carrying messages for COVID-19. WBG in coordination with DPs agreed to temporarily suspend the health and education conditionalities linked to the payment of cash transfers for poor households besides supporting on an exceptional basis, a double payment for Productive Social Safety Net (PSSN) project beneficiaries, to provide them with an extra buffer during a time of crisis. In addition, the Human Development group have provided analytical input to support Government of Tanzania's response including a note outlining impact of COVID-19 through a social protection lens, and policy options to respond to the pandemic to protect poor and vulnerable households.

8. All project's Implementation Status and Results Reports (ISRs) include a consideration of socio-economic impacts of COVID-19, and all pipeline operations, additional financing and restructurings are being screened for potential COVID-19 response focus. The Bank is leveraging on its Advisory Services and Analytics (ASA) portfolio to strengthen the evidence base to influence COVID-19 sensitivity in in development programming, including the forthcoming Performance and Learning Review (PLR) for the Tanzania CPF.

9. **Use of IDA19 resources**. Tanzania Indicative IDA19 PBA is around US$2.1 billion. Consultations are underway to confirm Government's borrowing priorities under the IDA19 and a final response from Government is expected after the general elections of October 28, 2020. The Bank will ensure that projects to be financed under Tanzania's IDA19 country allocation are well aligned with both the objectives of the CPF (FY18-22) and key IDA19 priorities including a strong focus on human capital and infrastructure that directly benefits the poorest. Tanzania could use financing

available under COVID-19 MPA for COVID-19 vaccination, however at present it has not yet indicated interest in MPA financing for vaccination.

Selectivity, Complementarity, Partnerships

10. **Development partners.** Burden-sharing is distributed among donors to the government's response plan. Donor financing includes the International Monetary Fund (IMF, US$14.3 million under CCRT), Arab Bank for Economic Development in Africa (BADEA,US$1.7million), European Union (EU,US$44.2million), South Korea (US$0.5million), Global Fund for AIDS, Tuberculosis and Malaria (GFATM, US$6.2million), Others (US$1.5million).