LASER PULSE

Long-term Assistance and Services for Research (LASER)

Partners for University-Led Solutions Engine (PULSE)

Understanding Ethiopia's Higher Education Institution Research Infrastructure, Research Translation, and Sustainability Mechanisms

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LASER PULSE — Delivering Practical, Research-Driven Solutions to Global Development Challenges

ACKNOWLEDGEMENT

LIST OF ABBREVIATIONS AND ACRONYMS

DFID   Department for International Development

ERT   Embedded Research Translation

HEIs   Higher Education Institutions

LASER   Long-Term Assistance and Services for Research

NFTDA   Netherlands Foreign Trade and Development Agency

NGOs   Non-Governmental Organizations

NORAD   Norwegian Agency for Development Cooperation

PULSE   Partner University-Led Solutions Engine

RFAs   Requests for Applications

USAID   United States Agency for International Development

EXECUTIVE SUMMARY

Background

LASER (Long-term Assistance and SErvices for Research) PULSE (Partners for University-Led Solutions Engine) is a five-year, $70M program funded through USAID's Innovation, Technology, and Research Hub, that delivers research-driven solutions to field-sourced development challenges in USAID interest countries. LASER PULSE is a consortium led by Purdue University, with core partners Catholic Relief Services, Indiana University, Makerere University, and the University of Notre Dame, and is implemented through a growing network of 2,300+ researchers and development practitioners in 56 countries. LASER PULSE collaborates with USAID missions, bureaus, and independent offices and other local stakeholders to identify research needs for critical development challenges, and funds and strengthens capacity of researcher-practitioner teams to co-design solutions that translate into policy and practice.

Makerere University's Resilient Africa Network (RAN) led an assessment to generate information on existing systems, infrastructure, opportunities, and barriers for Ethiopian HEI researchers to engage in research and embedded research translation (ERT).

Approach

The assessment involved key informant interviews with 14 researchers from six public HEIs which included: Jimma University, Addis Ababa University, Bahir Dar University, Hawassa University, and Mekelle University. In the assessment, the team analyzed existing systems, infrastructure, opportunities, and barriers for HEI researchers to engage in ERT.

Findings

All HEIs in Ethiopia are involved in teaching, research, and community service as their core mandate. They all have management structures to support research with the University Board as the supreme governing body, and the Senate as the chief academic organ of the university. Other research support management structures include: 1) the Vice President for Research and Community Service, 2) Director for Research, 3) Director for Community Service and Engagement, and 4) Director for Research Extension.

The majority of HEIs have adopted thematic research approaches to address community needs. This broadly/closely aligns with USAID's priority sectors of 1) democracy, human rights and governance, 2) global health, 3) environment and global climate change, 4) economic growth and trade, 5) agriculture and food security, 6) education, and 7) water and sanitation.

Sources of research funding for HEIs included the government, donors, and private sector. Opportunities for research and research translation included research incentives such as support for publication, financial bonuses, promotion and recognition; affirmative action for female researchers through research grants targeting female recruitment and promotion; and incentives for young researchers such as small grants, mentorship and training. Researchers also reported the existence of several research partnerships between HEIs and other institutions which provided a platform for ERT. Workshops and publications were reported as the main channels for dissemination of research findings. Key barriers to engaging in ERT included heavy workload, inadequate research translation skills, inadequate research funding, weak partnerships, and bureaucratic HEI systems.

Suggested Recommendations

1. Government, donors and other stakeholders should support capacity development programs that focus on developing cultures of, and skills in, embedded research translation within HEIs. These programs should include ERT courses; collaborative research awards between HEI researchers and practitioners; and joint convenings of researchers, policy makers, practitioners and donors to disseminate research findings and share best practices. These capacity building programs should be coordinated by the Office of the Vice President Research and Community Service, which is fully established within the HEIs in Ethiopia.

2. Government, donors, HEIs and other stakeholders should increase funds earmarked for research translation, as well as collaborative research awards between HEI researchers and practitioners; and joint convenings of researchers, policy makers, practitioners and donors to disseminate research findings and share best practices.

3. Support to the Office of the Vice President Research and Community Service, and the research grants office towards effective dissemination of grant management procedures and improvement of disbursement of research funds, reporting and accountability.

4. To institutionalize ERT, HEIs should develop, operationalize and fund a research translation strategy and this should be linked to the existing HEI research policies in order to fully harness the research to translation cycle.

5. HEIs should develop and implement a stakeholder engagement plan to foster collaborative linkages between researchers, practitioners and policy makers at all stages of the research process - from formulation of research questions, implementation to dissemination.

1.0 BACKGROUND

Overview of LASER PULSE

USAID's Center for Development Research, through the Higher Education Solutions Network awarded the Long-Term Assistance and Services for Research (LASER) – Partner University-Led Solutions Engine (PULSE) initiative to the Purdue University-led consortium. Other consortium partners are Catholic Relief Services, Indiana University, Makerere University and University of Notre Dame. LASER's objective is to enhance discovery and application in policy and practice of university-sourced, evidence-based solutions to development challenges, with a focus on four key intermediate results: 1) increased Higher Education Institution (HEI) delivery of collaborative and effective development-focused research; 2) increased HEI synthesis, exchange, and translation of research results into useable development products and practices; 3) increased dissemination and use of translated research solutions and policy; and 4) enhanced systems and structures for gender considerations in the HEI network that enable women and minorities to lead and benefit from research.

LASER PULSE supports 'embedded research translation' (ERT) through a global network of 2,300+ researchers and NGO representatives in 56 countries, who partner to support discovery and uptake of field-sourced, evidence-based solutions to development challenges spanning all USAID technical sectors and global geographic regions. LASER PULSE defines ERT as an iterative co-design process among academics, practitioners, and other stakeholders in which research is intentionally applied to a development challenge. Core to this approach are four pillars- partnership, process, product, and dissemination. The LASER PULSE strategy of ERT ensures that applied development research is co-designed with development practitioners, and results in solutions that are useful and usable. LASER does this through awards mechanisms: by involving development practitioners to collaborate with researchers on sector gap identification, carrying out and testing research, and developing translated research products for immediate use.

The goal of this assessment was to generate information on existing systems, infrastructure, opportunities, and barriers for researchers to engage in ERT.

2.0 LITERATURE REVIEW

History and HEI Reforms in Ethiopia

Higher education in modern Ethiopia began in the mid-twentieth century with the establishment of a college, the University College of Addis Ababa (now Addis Ababa University-AAU). By the

1970s, six specialized technical colleges had been established by the imperial regime to address access and manpower deficits that were not met by AAU and Haramaya University which had been in existence since 1954. The education system in the post imperial era from 1974 to the end of the twentieth century was characterized by controlling regimented communist governance, conservative intellectual orientation, limited autonomy, very few academic staff with doctorates, declining educational quality, weak research output, control of academic promotion, prohibition of students' organization, appointment of senior university officers, control of academic promotion and loose connection with global higher education currents. In the late 1990s, the higher education sector was liberalized, which saw the introduction of a number of HEI reforms including the establishment of private HEIs, a trend that has seen a rapid rise over the last twenty years (Alemneh, 2014; Yizengaw, 2003). By 2010, there were 64 non-governmental higher education institutions, accounting for 17.3% of the total HEI enrolment (Mo, 2010). "By 2005, 56 of these HEIs were providing diploma-level education and training, while 41 HEIs were providing degree-level training. The accredited private and non-government higher education institutions in the country accounted for about 9.3 per cent of the degree level enrolments of the system" (Alemneh, 2014). . Furthermore, according to the Ministry of Science and Higher Education, in 2020, there are 45 public universities reporting directly to the Ministry, 261 accredited Private HEIs and 1672 Technical and Vocational Education and Training (TVET) Colleges.

Similar to other countries in Sub Saharan Africa, Higher education in Ethiopia is still faced with countless challenges including access, quality, relevance, finance, and leadership (Yizengaw, 2014). With regard to access, studies have pointed at undeniably a leap-frogging in Ethiopia and low enrolment ratio (GER). "Gross enrolment ratio (GER) for tertiary education in SSA grew at an average rate of 8.6 percent for each year between 1970 and 2008 compared to a global average of 4.6 percent over the same period". Despite the rapid growth, only 6 percent of the tertiary education age cohort was enrolled in tertiary institutions in 2008, compared to the global average of 26 percent. By 2009, tertiary Ethiopia's GER was 3.6% (Alemneh, 2014). According to the MoE Education Statistics Annual Abstract (MoE, 2010), undergraduate enrolment almost doubled from around 311,000 to almost 554,000, and masters and doctorate student enrolment tripled from 10,000 to over 31,000 . Despite these great accomplishments in enrollment, there is a lot to be done in ensuring quality of education, conducting robust and relevant research and exchange knowledge and innovation with the community as the number of academic staff with doctorate degrees, who typically are prepared to engage in research is low (Alemneh, 2014).

Higher education sector reforms in Ethiopia

Reforms in the higher education sector were brought into existence with the initiation of the Education and Training Policy (ETP). The reforms were aligned with the national growth and poverty reduction strategy, with the aim of using education to transform Ethiopia into a middle-income country (Yizengaw, 2003). The ETP was created to improve quality, access, relevance, and equity in the education system, and is implemented through the Education Sector Development Program (ESDP). Another important HEI reform was the establishment of the 2003Higher Education Proclamation (HEP #351/2003) which was later modified in 2009 (#651/2009), and again in 2019 (#1152/2019). The HEPs established the Ethiopian Higher Education Strategy Center and the Higher Education Relevance and Quality Assurance Agency (HERQA) aimed at ensuring that higher education systems produce a skilled workforce through institutional quality assurance and relevant research.

Financing of HEIs in Ethiopia

HEIs are at the forefront of national development in Ethiopia. The Government has prioritized investment in the education sector with a budget allocation of 21% of on-budget total national expenditure in 2019/20 (Adamu, 2019). Noteworthy, funding of education activities by most African governments depends on their political will and commitment of the government to expand and improve the education system (Teferra, 2013). One of the facets of the higher education reforms was the introduction of cost sharing as a result of increased funding needs for higher education (Yigezu, 2013). Cost sharing has been implemented in higher education institutions since October 2003, following the promulgation of the Higher Education Proclamation (FDRE, 2003) and the Cost Sharing Regulations . According to this policy, any student who has entered into an obligation for repayment and graduated from a public higher education institution is required to share the cost of education and training, and other services in form of a graduate tax (Yizengaw, 2007). The cost sharing policy requires students to pay 15% of tuition fees, while the government met the remaining 85%. Payment of the cost is in a form of a tax (Graduate Tax) payable from the salary or other earnings obtained after graduation. The graduates are required to pay at least 10% of their income to the Ethiopian government, benchmarked on an Income Contingent Repayment System of Australia (Ayalew 2013; Molla 2014).

In addition, HEIs were required to internally generate their own income from consultancy, contract research, and short courses, among others, constituting about 20% of their financial resources.

3.0 METHODOLOGY

3.1 Data collection

The assessment employed qualitative methods of data collection using Key Informant Interviews (KIIs). Between May and June 2020, a total of 64 purposively selected researchers from 10 HEIs in Ethiopia were contacted through email and requested to voluntarily participate in the study through an online interview.

Interviews were conducted via Zoom or telephone by a team from RAN, and saturation was attained after conducting 14 KIIs with researchers from six HEIs. Audio recordings of the interviews were taken with participants' consent. Participating HEIs included: 1) Addis Ababa University, 2) Jimma University, 3) Bahir Dar University, 4) Hawassa University 5) Mekelle University, and 6) Haramaya University. This assessment covered three broad themes: leadership, research translation, and sustainability. The interview guide is presented in Annex 1.

3.2 Data management and analysis

All KIIs were transcribed verbatim and cleaned in preparation for analysis. The transcripts were exported to ATLAS.ti Version 7 software tool for coding and analysis. Rigor was enhanced through triangulation where two groups of two people each independently coded, analyzed, and then compared findings. Qualitative thematic content analysis was used, where categories and themes inductively arose from the data. Confidentiality was enforced through removal of all personal identifiers from all data obtained during the study.

4.0 FINDINGS

4.1 HEI research systems, infrastructure, and opportunities to engage in research

Higher education institutions in Ethiopia are involved in teaching, research, and community service as their core mandate. The universities have adopted a thematic research approach to address community needs of the country, and these broadly align to USAID's priority sectors of 1) democracy, human rights and governance, 2) global health, 3) environment and global climate change, 4) economic growth and trade, 5) agriculture and food security, 6) education, 7) water and sanitation (USAID, 2020).

Institutional management and research support structures

Across all engaged HEIs, researchers reported that there is a clear management structure that supports research. The universities are led by a University President who is assisted by Vice Presidents responsible for the three core functions of the HEI, namely teaching, research and community service. Specifically, the Vice President for Research and Community Services is responsible for managing all research, innovation and technology transfer, and community service activities within an HEI.

> *"There is a President of the University, and above them there is a Board and each of these 3 areas do have Vice Presidents: vice president for teaching and learning, vice president for research and technology transfer, and vice president for community service, and each has the necessary infrastructure in their management areas in the university."*
>
> **Key informant, HEI researcher**

HEIs in Ethiopia are governed by a 7-member University Administrative Board. The 2009 HEP gave HEIs the autonomy to nominate University Board members. However, the practice is that the Minister of Education in consultation with Federal Authorities and the existing University Boards are responsible for selecting University Board members (Adamu, 2019). HEIs also have a Senate which is the chief academic organ of the University. We reviewed HEI management structures in Ethiopia and constructed an organogram as shown in Figure 1.
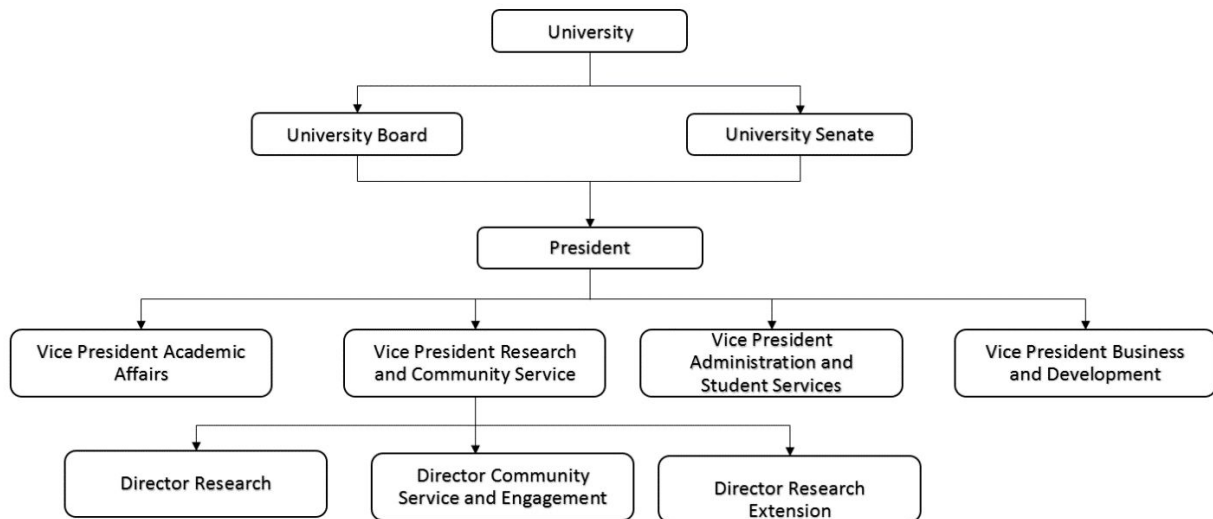

Figure 1: Basic University Management Structure in Ethiopia

Researchers reported that the management structure of HEIs is decentralized to academic units at colleges, departments, research centers, and institutes through establishment of Directorates. Some of these include: 1) Directorate of Research, 2) Directorate of Community

Service and Engagement, and 3) Directorate of Research Extension. The Directorate of Research manages all research and supports research implementation, development of research guidelines, sharing research funding announcements, research capacity building, identification of research thematic areas, HEI research networks, knowledge transfer and financial management. The Directorate of Community Service and Engagement is responsible for community development, while the Directorate of Research Extension is responsible for management of research outputs such as publications, policy briefs, dissemination workshops and conferences.

"… there are three Directors; one is for research, the other is for university linkage and the third is for community service. … the university linkage and community service Directors, we can call them translation experts." **Key informant, HEI researcher**	*"We have a very experienced institutional arrangement. At the highest macro level, there is a Vice President for research and development. The Vice President for research is directly accountable to the University President. There is a Director for Research who is responsible for management of research projects and capacity building.*" **Key informant, HEI researcher**

Research Financial Management

Researchers reported that there are clear financial controls for research funds at both university and college levels. Project funds are managed at either university or college level depending on the research agreements signed between the HEI and the funding agency, the total amount of funds, and discussions between the project principal investigator (PI) and university management. Noteworthy, both technical and financial progress reports are submitted to the Office of the Vice President for Research and Community Service, who is responsible for ensuring maximum transparency and integrity of the university research transactions and systems. They are responsible for provision of financial management support, including approval of research funds from both the Government and donors. At college, institute and department levels, Research Directors approve and monitor utility of funds.

> *"How grants are managed, they come through the university under the vice president for research and community service, and then bank accounts are opened up for such grants. When the researchers want to utilize the funds, they submit a requisition to the vice president for approval."*
>
> **Key informant, HEI researcher**

HEI Research Generation

Respondents reported that universities have adopted a thematic approach to research with a view to addressing national, regional, and local community research priorities. This is achieved through consultation with relevant stakeholders/sectors on priority research areas and topics, while taking into consideration relevant international trends. Researchers mentioned that priority thematic areas include: 1) Food Security and Livelihood, 2) Health, 3) Environment and Climate Change, 4) Education, 5) Social Justice and Democracy, 6) Institutional Innovations and Management, 7) Technology Adaptation and Transfer, and 8) Bridging Science for Research and Development. These themes are further broken down into smaller sub-themes through which research proposals are prepared. During proposal development, applications from multi-disciplinary faculty teams are encouraged as problems are usually complex and require multidisciplinary solutions.

> *"The research agendas of the university are highly aligned with the national agendas. What we normally do at the research center and college level is to review the national priorities, unpack them into the center thematic agendas."*
>
> ***Key informant, HEI researcher***

HEI Research Funding Sources

Participants reported that all public universities receive annual funding from the Government of Ethiopia to conduct thematic research. In turn, the universities prepare and issue competitive requests for proposals (RFPs). All HEIs have established proposal submission guidelines that stipulate the requirements for proposal development, submission, and evaluation. These guidelines aim at identifying and approving proposals that align with priorities under the National Development Plan. In addition, the guidelines specify implementation and reporting requirements which researchers are expected to adhere to at college and university levels.

> *"In terms of resources, the Office of the Vice President for Research has a budget for research allotted by the government. Researchers develop proposals and compete for these resources."*
>
> ***Key informant, HEI researcher.***

Additionally, researchers reported that some HEIs have established an internal research fund using money internally generated from research overheads, short courses, and consultancies, among others. This is part of the first proclamation (351/2003) to encourage HEIs to diversify funding sources and innovatively generate more income (Alemneh, 2007; Boateng, 2020). The

public Higher Education Institutional income generating Enterprise Establishment Council of Ministers Regulation (No.456/2019) provides guidance for HEIs to generate more financial resources to support their research efforts (MoSHE, 2019). The funds are partly used to support faculty research projects aligned to the university's priority areas.

> *"Sure, there is a fund, but you know we have this small grant funding from the university thematic researches and they are almost announced twice a year. There are also adaptive small research that are mostly open for individual faculty members."*
>
> **Key informant, HEI researcher**

It is also important to note the policy document on the development agenda of the Ethiopian Government, known as the Growth and Transformation Plan (GTP) 2010 – 2011 to 2014 – 2015, was published by the Ministry of Finance and Economic Development (MOFED, 2010). With regard to HEIs, the plan underlines mechanisms that enable universities to raise their own internal revenues to help them improve the quality and relevance of education provided. One of the objectives during the period of the GTP will be "to establish higher education institutions that are focused on result-oriented management, administration and performance" (FDRE, 2010). To meet the objectives stated in the policy document, a series of strategies is outlined, including decentralization of the management of education, and introduction of sustainable educational financing. The strategies were translated into successive plans of actions through the Educational Sector Development Plans (ESDPs).

Additionally, respondents reported that foreign aid is another source of funding for research conducted by HEIs. Several donor agencies including the United States Agency for International Development (USAID), the Norwegian Agency for Development Cooperation (NORAD), the Department for International Development (DFID), and Netherlands Foreign Trade and Development Agency (NFTDA) among others have continued to commit research funds to HEIs. The key tenets for foreign aid were partnerships between institutions in the global north and south responding to a research call. For example, the USAID funded research to understand the state of African Resilience was a partnership between HEIs in sub-Saharan Africa and Tulane University (Cooke, 2015).

> *"As I mentioned earlier, our university has established some links with some foreign countries and through that partnership, several projects are being implemented."*
>
> **Key informant, HEI researcher**

Other sources of research funding for HEIs are partnerships with the private sector and non-governmental organizations (NGOs). Respondents mentioned that there are instances where the private sector works with HEIs to address community challenges through a range of interventions. These community initiatives are implemented collaboratively and funded by the private sector.

> *"Yes, we have been interacting with some NGOs; we normally produce proposals and ask them for some kind of donation. For example, there is a program with one of our partners at the college that supports food security."*
>
> **Key informant, HEI researcher.**

Research Incentives

Overall, all respondents reported that publications were a key incentive for researchers to engage in research, partly because individuals that are seeking tenure into the universities as well as promotions are evaluated based on their research publications, teaching, and community service among other aspects. Therefore, faculty are prompted to engage in research as a partial fulfillment of this purpose.

> *"…. but the only incentive is publication, if the researcher publishes their findings in a reputable journal, he or she can use it for promotion purposes."*
>
> **Key informant, HEI researcher**

Researchers also reported that they are incentivized to publish their findings as each publication attracts a financial bonus. Financial incentives to publish vary considerably across HEIs. Additionally, some departments recognize and reward researchers with the most publications at the end of the year.

> *"The other thing is that if you publish in a reputable journal within the country or internationally, there is a small incentive of about 12,000 to 15,000 Birr."* **Key informant, HEI researcher**

It was also reported that some HEIs offer publication waivers to researchers that publish their work in journals established within HEIs. Additionally, some HEIs have membership to journals where article processing charges are waived. This has allowed HEIs with constrained resources to publish and further access journal articles at no cost. These arrangements have facilitated wider dissemination of research, reduced barriers to accessing research articles, and consequently stimulated research within HEIs.

> *"If they want to publish in our journal, we again give them priority because we have a journal of development research at our college, so we give them some sort of priority to publish."*
>
> ***Key informant, HEI researcher***

Whereas emphasis is put on publications in peer reviewed journals and proceedings of presentations, in workshops and conferences, researchers seemed less involved in developing policy briefs, newsletters or brochures. Historically, policy briefs, newsletters, procures and program interventions are less emphasized by the academic community because they need more peer-reviewed journal publications for professional career development and academic promotions. For effective application of research findings, policy briefs and research outputs like program recommendations designed using a format of easily understandable prints for easier adoption and dissemination should be emphasized.

Participation of female researchers

Respondents mentioned that there is affirmative action by the government and HEIs aimed at increasing participation of female faculty in research. For instance, there are deliberate actions in the recruitment and promotion of female faculty. HEIs have also developed and disseminated special research grants targeting female researchers. These affirmative actions followed an observation that the majority of HEIs had few female researchers participating in research. Support of female faculty is critical in addressing under representation among minority researchers and building capacity for research and innovation.

> *"Yes of course female researchers are highly encouraged and motivated by the university to engage in research. In addition, there are special grants for female academic staff for which they compete. Female researchers are highly encouraged to engage in both academics and research."*
>
> ***Key informant, HEI researcher***

The Educational Sector Development Programme (ESDP) IV set objectives to strengthen representation and leadership of women academics in universities. It aimed to have over 20% of top academic staff positions filled by females. Affirmative action and women's rights are also enshrined in the Ethiopian Constitution. By 2013, 16 females had risen to top academic positions according to an assessment carried out in 13 universities in Ethiopia (van Eerdewijk et al., 2015). However, the same study documented multiple challenges faced by female academicians. These challenges include: 1) negative attitudes towards women in public roles; 2)

strong norms that women are not capable to perform and succeed; 3) balancing work and private life; and 4) harassment and insecurity, both on campus and in surrounding communities.

Additionally, the Gender-related Development Index (GDI) indicates that Ethiopian women are severely disadvantaged, with Ethiopia ranked 129 out of 187 countries (UNDP, 2019). Gendered cultural ideologies limit access to education for girls in Ethiopia. Practices like child marriage, a disproportionate work burden for girls, early pregnancy, and social isolation inhibit full participation of female students in education (Hailu, 2019). The plight of many girls in Ethiopian families reflects broader cultural norms and expectations for women in Ethiopian societies.

Participation of young researchers

Respondents reported that there are small grant opportunities that target young researchers within HEIs. It was also mentioned that young researchers are often attached to research projects led by senior faculty, giving the former opportunities to acquire skills and build a career through mentorship.

> *"The young faculty are encouraged to work with senior researchers in implementing research projects. So, there is opportunity [sic] for young researchers to be part of research teams."*
>
> **Key informant, HEI researcher**

The establishment of mentorship programs, small grants and training opportunities are avenues that increase motivation for participation in research and career advancement for young researchers.

Research Partnerships and Collaborations

Researchers reported that there are several internal collaborations and partnerships across colleges, departments, and institutes. Internal collaborative partnerships are partly aimed at attracting multidisciplinary teams to respond to the HEI's thematic research funded by the Government of Ethiopia.

> *"…for the case of thematic research, it is a bit wider. It is not only the faculty members from our college that are involved in the preparation of proposals and competition. We are supposed to create some kind of link with other colleges across the University to develop joint proposals."*
>
> **Key informant, HEI researcher**

HEIs in Ethiopia have forged several research partnerships and collaborations with various national and international organizations, research institutes, and universities. This is due to the increasing demand for HEIs to engage in collaborations and leverage resources, knowledge, and competencies. These partnerships offer opportunities for joint proposal development, technical support, overseas training, institutional capacity development, and implementing joint research projects. Collective research and practice are essential for addressing pressing community challenges and building the capacity of HEIs in aspects of teaching, research, and community service. Such partnerships vary from informal to formal (e.g. memoranda of understanding).

> *"Government is encouraging universities to come together and jointly do research to minimize costs. There is what we call the university-industry linkage, it is not yet established but universities are encouraged to work together with donors and partners that need research."*
>
> ***Key informant, HEI researcher***

Researchers also reported that they were partnering with practitioners from NGOs and community-based organizations (CBOs). These partnerships are formed for purposes of research, consultancies, and capacity building training provided by researchers to practitioners. The partnerships offer opportunities for academics and practitioners to jointly get involved in research activities within the community. Benefits include enhanced knowledge and skills to partnership participants and the community.

> *"Sometimes NGOs come to us to do consultancy research for them. They come with research interests, topics and consult with university researchers and in that way they pay you some money for consultancy. We do the research, submit our findings and in that way, they utilize our findings through translation to the end users."*
>
> ***Key informant, HEI researcher.***

Furthermore, respondents reported that a number of partnerships exist between HEIs and the private sector. The universities are relevant in the generation of knowledge, evidence, and technologies for the private sector through research. Researchers mentioned that partnerships with business groups, corporations, social service agencies and financial institutions are part of HEI community service and are aimed at providing support to local communities.

> *"…I have been working on several research initiatives with the regional government institutions and the private sector. I develop research or business plans for companies."*
>
> **Key informant, HEI researcher.**

Research Dissemination

HEIs have a variety of methods for sharing research results among stakeholders, the community, media, advocacy groups, and policy makers. Participants mentioned that the main dissemination channels for research findings are through workshops and publications. Dissemination workshops are organized at the community, university, and national levels. One of the benefits of dissemination workshops is that they strengthen the relationship for collaborative work between researchers, policy makers, and other stakeholders. On the other hand, publications in peer reviewed journals tend to target the scientific community and have benefits of enhancing research collaborations and improving research productivity for HEIs.

"Normally the Universities and Colleges have the mandate to organize national research symposia where research outputs are presented to stakeholders. The symposia present an opportunity to disseminate research findings and contribution to policies." ***Key informant, HEI researcher.***	*"We publish the workshop results in proceedings, books or journal articles. We also disseminate the findings with different types of stakeholders such as government and NGOs, and our expectation is that they utilize these findings in their areas of interest."* ***Key informant, HEI researcher***

4.2 Barriers for HEI researchers to engage in embedded research translation

Heavy workload

A heavy teaching load was reported by researchers as a barrier for faculty to engage in research and research translation. Many institutions in sub-Saharan Africa have a high student to faculty ratio in excess of their capacity. This increases the teaching workload, thereby hindering faculty participation in research.

Inadequate skills for research translation

Respondents reported that faculty often lack adequate skills to meaningfully participate in research translation. As such, much research produced by HEIs does not reach potential end-users or is otherwise underutilized. Limited skill to translate research findings into different products hinders the use of research findings, especially for evidence-based decision making.

"…what we lack in Ethiopia is the translation capacity. A lot of research is done but remains in the shelves, so your project should support the development of a research translation strategy, and training of researchers on research translation. This will improve our performance because our experience in translation is low." ***Key informant, HEI researcher.***

Additionally, respondents reported that some HEIs and faculty lack strategies to follow up on research utility by end-users. Researchers mostly end at dissemination or sharing of policy briefs, yet these do not guarantee community uptake of recommendations which partly explains the low uptake of research findings.

> *"In our experience at the university, we just recommend, present and then write some policy papers but we do not follow up after that. We do not have the follow up mechanisms to go and check if people have taken up the research findings."*
>
> **Key informant, HEI researcher.**

Inadequate funding for research translation

Respondents reported that HEIs have inadequate funds to support efforts to link research to action. Knowledge translation in research depends on continuous collaboration between researchers, policy makers, and funders. This process requires funds to collaboratively design and implement research activities. Additionally, some HEIs lack a clear research translation policy and strategy, and therefore are not committed to funding knowledge translation, making it dependent on funding agencies. However, the introduction of thematic research in HEIs has increased engagements between researchers and other stakeholders.

Institutional Research Administration/Management systems

Researchers reported that one of the challenges they face is the overly bureaucratic research approval process within HEIs. Reforms in research by HEIs in Ethiopia created an administrative burden. Authorization must be sought from various research offices starting at the department to the office of the Vice President for Research. This authorization involves solicitation for letters of support, requisition for funds, and approval of research outputs. This was reported to slow down the research process.

"Sometimes these processes may start from the lower units where the staff are located, and move to the college, directorate and the Vice President for approval." **Key informant, HEI researcher**	*"... there are many signatories right from the department, to the thematic area leader, research director and finally to the Vice President in charge of Research and Community Service. It is a lengthy process."* **Key informant, HEI researcher**

Weak partnerships between researchers, policy makers and practitioners

Researchers reported that there are barriers to engage and communicate research findings to policy makers. The interaction between researchers and policy makers is uncommon, despite the obvious link between knowledge generation and action. Traditionally, research findings are disseminated through publications that tend to target the scientific community, and yet some of the main information sources for policy makers are expert opinions, reports, policy briefs, and benchmarking. This is a major hindrance to evidence-based decision making due to weaker linkages between researchers and policy makers.

> *"The problem with Ethiopia is that policy makers and researchers rarely come together. Most of the policy makers in Africa are driven by their own ideologies that are not linked to the research produced by universities. There is a lot of information and research ideas in the university, but it's rarely used for policy making and implementation."*
>
> ***Key informant, HEI researcher.***

Furthermore, researchers noted that there is a gap in the process of bringing together researchers, policy makers, and other stakeholders to facilitate information sharing throughout the research process. For instance, identification of research questions and the development of evidenced based decisions is sometimes siloed. As a result, there are weak relationships among stakeholders which hinder collaboration and partnership.

> *"…but what is lacking is sharing or setting a research agenda together with the universities. Personally, I recall non-state actors coming to the university to discuss joint research projects.*
>
> *One of the problems I can mention is that all of our research is conducted purely by university faculty; we have to engage stakeholders from different offices such as the community and NGOs. We have to engage them in our research activities to familiarize the importance of actors taking part in research."*
>
> ***Key informant, HEI researcher***

5.0 SUGGESTED RECOMMENDATIONS

1. Government, donors and other stakeholders should support capacity development programs that focus on developing cultures of, and skills in, embedded research translation within HEIs, including for example:
   a. ERT Strategies and Communication;
   b. Stakeholder and Network building and sustainability;

c. Project and research grant management;

d. Financial management and resource diversification/mobilization;

e. Manuscript and Policy Brief writing;

f. Empowerment of female and young researchers, including mentorship and long-term training;

g. University leadership and management, with special focus on staff of Directorate of Community Service and Engagement, and Directorate of Research Extension;

h. Improvement of qualities of national journals

2. To increase funding for research translation, HEIs should embed research translation costs into the annual research grants provided by the government. Additionally, donors and other stakeholders should increase grants earmarked for research translation.

3. The Office of the Vice President Research and Community Service and the research grants office should be supported to enable them disseminate grant management procedures and to effectively disburse research funds, manage reporting and accountability. This will help to address the overly bureaucratic research approval process and grants management within HEIs.

4. To institutionalize ERT, HEIs should develop, operationalize and fund a research translation strategy. This should be linked to the existing HEI research policies to fully harness the research to translation cycle. As part of the strategy, research translation should be embedded in all requests for research proposals that are issued by HEIs. Furthermore, the translation strategy should be linked to the existing HEI research policies in order to fully harness the research to translation cycle.

5. HEIs should develop and implement a stakeholder engagement plan to foster collaborative linkages between researchers, practitioners and policy makers at all stages of the research process - from formulation of research questions, implementation to dissemination. This will promote early buy-in of research findings by key stakeholders for sustainability and ownership.

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ANNEX1: KEY INFORMANT INTERVIEW GUIDE

Introduction

1. Tell me about yourself and your role in the University

2. Tell me about the HEI/university systems and infrastructure in Ethiopia that support research

     a. How do faculty participate in development research?

Leadership

3. Tell us about the research leadership within your university.

4. How is research managed at the university level and within the academic units/departments?

5. How is research generated and utilized by the university, policy makers, program implementers and other stakeholders?

6. How does research align to the national/government development strategies?

7. How is research funded?

Research Translation

8. Tell us about existing systems for research translation at your University.

a. What are the incentives for research and research translation?

b. What are the incentives for female faculty to engage in research? Are there any conditions that discourage female faculty from the research enterprise?

c. What are the incentives for young faculty to participate in Research?

d. What are the gaps/barriers for research translation/applicability (dissemination, translation process and/or commercialization, translation products, partnerships and M&E)?

e. What measures and/or incentives would you suggest to overcome these barriers?

f. Describe the relationship between your University and the Government; including situations where Government has channeled its research needs directly to your University

g. Describe the relationship between your University and non-government partners (private sector, donors, NGOs etc.); including situations where these partners have channeled research needs directly to your University

h. Comment on whether your institution has adequate number of research translation experts/units to support researchers in developing research translation products

i. Does your university/department have a research translation strategy in place? What are your views regarding the strategy in addressing research needs for current development challenges in Ethiopia?

j. As a researcher, how have you been working with practitioners (NGOs, policy makers, private sector etc.) to translate research?

k. What are the existing/anticipated barriers to collaboration with these practitioners?

Sustainability

9. Describe the sustainability mechanisms for research and research translation at your University

10. What mechanisms are available to support research collaborations including funding and networks with other partners (universities, NGOs, donors, private sector, policy makers etc.)

   a. What agencies are currently funding research and research translation in areas of resilience and civic engagement?

   b. What opportunities are available for researchers to engage policy-makers, program implementers/development practitioners at a national level for uptake of research for development?

   c. In your opinion, what are the key individual and institutional prerequisites for facilitating collaboration on research translation between researchers, such as yourself, and development practitioners (NGOs and/or government agencies)?