



Mid-term evaluation of the Institutional University Cooperation with Arba Minch University

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ANNEXES

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ACRONYMS

AMU	Arba Minch University
BDU	Bahir Dar University
CRGE	Climate Resilient Green Economy strategy
D4D	Digitalization for Development
DAC	Development Assistance Committee
DGD	Directorate-General for Development Cooperation and Humanitarian Actions
FGD	Focus group discussion
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GTP	Growth and Transformation Plan
HRD	Human Resource Development
ICOS	Institutional Coordinator for Development Cooperation
ICT	Information Communication Technology
IR	Intermediate Result
IUC	Institutional University Cooperation
KRI	Key Results Indicator
KUL	Katholieke Universiteit Leuven
JSC	Joint Steering Committee
LSC	Local Steering Committee
MOSHE	Ministry of Science and Higher Education
MoU	Memorandum of Understanding
MSc	Master in Science
MTE	Mid Term Evaluation
MUA	Memorandum of Understanding and Agreement
NRM	Natural Resource Management
OECD	Organisation for Economic Cooperation and Development
ODK	Open Data Kit
P	Project
PC	Project Coordinator
PhD	Doctor of Philosophy
PL	Project Leader

PP	Partner Programme
PSU	Programme Support Unit
RCT	Randomized Controlled Trial
SDG	Sustainable Development Goal
SLM	Sustainable Land Management
ToR	Terms of Reference
VP	Vice-President
VLIR-UOS	Vlaamse Interuniversitaire Raad – Universitaire Ontwikkelingssamenwerking

PREFACE

This report highlights the results of the IUC at Arba Minch University as it is halfway its execution and identifies points of attention. The evaluation team hopes the conclusions and recommendations will contribute to the reflection on the progress made so far and the development of the second phase of the IUC.¹

The evaluators feel privileged to have met very committed and enthusiast academic and other staff of Flemish partner universities and of Arba Minch University. The commitment to the execution of the IUC programme is commendable. The evaluators have enjoyed (online) interaction with AMU staff and thank them for the open exchange of perceptions and experiences.

Nancy Jaspers, Eshetu Demissie and Associate Professor Mesfin Tilahun Gelaye, Mechelen,
February 2021.

¹ The information and views set out in this evaluation report are those of the author(s), independent evaluators, and do not necessarily reflect the opinion of VLIR-UOS or the universities/university colleges involved.

EXECUTIVE SUMMARY

Context and objectives of the evaluation

Arba Minch University (AMU) was founded as the 'Arba Minch Water Technology Institute' in 1986 and became the 'Arba Minch Institute of Technology' in 1997 by the addition of more engineering departments. Arba Minch University became officially a "University" in 2004 by launching four additional colleges under the Arba Minch Institute of Technology. Currently, there are six academic colleges two Institutes (Arba Minch Water Technology Institute and Arba Minch Technology Institute), four schools and one academy. Six research centres and one research institute were also established to strengthen the research activities of the university and its contribution to the region.

The expansion of Arba Minch University originates in the country's ambition – as outlined in the 1st and 2nd Growth and Transformation Plan – to produce skilled and relevant manpower for the economic development of the nation. The university wants to produce highly qualified graduates, gender balanced, at different levels in different disciplines and to conduct relevant research to feed policy improvement and strategic planning. However, the university lacks trained staff at PhD level to contribute to quality research and research-based teaching. **Through the IUC programme with AMU, capacity development in teaching and research aims at empowering AMU and its graduates to design sustainable solutions answering the region's considerable challenges.** This choice is motivated by the fact that the basic economic activities in this area of the country are agriculture, fishing, eco-tourism and small trading. Traditional crop and animal husbandry are characterized by very poor efficiency and low productivity, causing poor livelihoods, food insecurity and poor health status to thrive in many parts of the region. Poor agricultural management has caused severe land degradation, which aggravates terrestrial/aquatic biodiversity loss and challenges sustainable development. Hence, improving agricultural productivity, socio-economic and health status and reversing land degradation are key to sustain livelihood in the target region. Knowledge on how these key aspects interact and drive development is ill developed for the region and insufficiently backed up by academic research. As a matter of fact, most of the research and academic institutions, including AMU, are not sufficiently empowered to undertake quality research to generate policy recommendations on the above issues. As guiding principle in the IUC programme, research will focus on improving ecosystem services while enhancing agricultural productivity in a sustainable way. **With 'livelihood' at the core of the programme, the different specific projects are in line with the (inter)national priorities and those of the VLIR-UOS country strategy.**

This midterm evaluation comes at a moment where the first phase of the VLIR-IUC IUC programme at Arba Minch University enters its fifth and final year (2021). **The evaluation objectives were multiple:** (1) **to feed internal learning** between the North and South partners and VLIR-UOS (what worked well, what didn't and why), (2) **to support decision making processes** related to the formulation of the second phase of the IUC, and (3) **to inform donors** on the current performance of the programme while validating or complementing monitoring data (accountability). The evaluators chose to **focus more on the steering function of the evaluation** in order to formulate recommendations for the second phase of the IUC programme. Next to the evaluation questions related to the 5 OECD Development Assistance Committee (DAC) criteria (with focus on efficiency and effectiveness and attention for scientific quality), the Terms of Reference (ToR) specified a question related to the incorporation of gender and an additional question on internal and external synergy. Next to these evaluation questions, the ToR specified

a question related to the incorporation of gender, and an additional question on internal and external synergy.

Evaluation methodology

The evaluation was executed by an **evaluation team of three persons**: one international evaluator and two evaluators from Ethiopia. Due to the pandemic Covid-19, the evaluation visit to Arba Minch university was coordinated from a distance by the international evaluator. The evaluation followed **three phases: an inception phase, a phase of data-collection and a phase of analysis and reporting**. An **evaluation framework** was developed, composed of evaluation questions related to 4 of the five OECD DAC evaluation criteria. Impact as such was not measured but progress towards impact was assessed as part of overall effectiveness at project and programme level. The evaluation questions consisted of different judgement criteria and guiding questions or points of attention. For each of the judgement criteria an **appreciation scale** was developed as requested in the ToR to assess performance of the programme, at project and programme level. A four-point qualitative scale was used, from poor (1) to excellent (4) performance. This scale did not intend to cover all indicators/guiding questions but was above all helpful in formulating a balanced judgement in a transparent manner. The scores were not intended to compare the projects amongst each other but the overview of scores helped to reflect upon the overall judgement for this IUC.

The main methods used in this evaluation were a **desktop study** and semi-structured **interviews** (either individual or in small groups), an **on-site visit** to Arba Minch university and (a selection of) local external stakeholders, and a **short survey**, based on outcome harvesting. Briefing and debriefing sessions were envisaged as opportunities to discuss findings and to learn from them.

Main findings and conclusions

Programme level						
The relevance of the programme	4					
Progress in achieving its overall objectives	3					
Potential to contribute to impact	3					
Overall (financial) management	3					
Role division	4					
Sustainability of the programme	3					
Project Level	P1	P2	P3	P4	P5	P6
Relevance						
The objectives of the projects are consistent with needs of different stakeholders	4	4	4	4	4	4
Synergy between IUC projects (internal synergy)	3	3	3	3	3	3
External synergy and complementarity	3	3	4	3	3	3
The project is coherent	4	4	3	4	4	3
Effectiveness						
Realization of the specific objectives	4	3	3	3	4	4
Contribution to national development priorities	3	4	3	3	3	4
Scientific quality	3	3	4	3	4	3
Efficiency						
Delivery of intermediary results	3	4	3	3	3	4
Support to ensure quality of research and education	3	3	3	4	3	3
Qualitative assessment on use of means and results	3	4	4	3	4	4

Efficiency of project management	3	3	4	3	3	3
Sustainability						
Academic and institutional sustainability	4	3	3	3	3	3
Financial sustainability	3	3	2	3	3	4

In summary, with most of the scores varying between 'good' and 'excellent', the assessment of the IUC programme at Arba Minch university shows that it is performing quite well. The overall programme and individual projects are **highly relevant** and **perform well** in making progress towards its overall objectives. Promising examples illustrate effects of the application of research results and show that the programme has the potential to contribute to impact. It is early to see effects of the institutional strengthening on the environment and life conditions of people in South Rift Valley. Research is still going on and application of newly gained knowledge and skills is mainly expected by the end of phase I and in phase II. Nevertheless, examples found by the evaluation team illustrate that **progress is made in achieving its overall objectives**, and that the programme has the **potential to contribute to impact**. The findings revealed that already in phase I, initiatives are undertaken to ensure sustainability of the programme, although some aspects need to be taken up in phase II to strengthen this further (for instance lab training, strengthening of resource mobilization skills).

Points of attention at the programme level refer to the **relatively slow progress made in some of the PhD research projects**. In addition, the existence of a gender-sensitive recruitment procedure does not guarantee a gender-balanced PhD student pool, neither is it sufficient to mainstream gender in the organization and research processes. The fact that **gender mainstreaming receives little attention** in general at the university is not helpful either (which also seems to be a general observation in universities in Ethiopia). This seems to be changing somewhat because pressure from the national level is increasing to pay more attention to gender equality.

The **logical framework** serves as a planning and monitoring framework but turns out to be less effective as joint learning instrument and in measuring progress in achieving the overall objectives, due to the existence of mainly quantitative indicators and the unclear link between project and programme indicators. The latter does not allow to reflect on the dynamics at project and programme level (e.g. behavioural change, changes in mindset or attitude).

The contribution of the **transversal project was highly relevant** during phase I of the programme. Nevertheless, project results revealed that alignment with the other projects seemed not sufficiently done at the start of the programme, resulting in some question marks raised during this evaluation regarding the added value of the transversal project. At the same time, AMU has made huge progress with regards to strengthening its ICT capacities, in hardware and software, attracting many users beyond the IUC-project level.

At the **project level, synergy and complementarity have been promoted** within and between projects, resulting in promising examples of multidisciplinary collaboration within the university, and with external stakeholders. Stimulating joint publications may have a positive impact on the quality of research results and the outreach, but the national norm regarding single named publications puts pressure on the potential of joint publishing. These synergy-strengthening processes require time and patience since multidisciplinary cooperation is – traditionally – not actively stimulated between students. Internal and external synergy seem (still) often project-driven and/or based on individual knowledge of and engagement in local and international networks.

Overall, **projects are managed efficiently**. The evaluators point to the complex and tedious procurement system, forcing the IUC team to order lots of items in Belgium, which is sometimes faster, sometimes cheaper and sometimes offering better quality. This also has been on the IUC management agenda since the start, according to the programme coordination, but straightforward, satisfactory solutions do not seem to be within immediate reach. **Internal communication** within and between **projects functions well**. The programme management unit (PSU) supports the projects in different ways (logistics, monitoring, coordination of programme activities among other) which is highly appreciated.

The evaluation could not assess whether examples found, related to the achievement of the IUC overall objective of strengthening research/education capacities, are already common practice or well embedded in the university, although some **mechanisms for influencing the programme on policies could be detected at the university level**, and not only at the project level (such as the e-learning policy).

Recommendations

The recommendations were grouped according to whom they are directed.

At programme and project level, it is suggested to link the formulation of the second phase of the programme explicitly to the desired impact and sustainability at institutional level and beyond since phase II, more than phase I, should focus on sustainability and impact of the programme at university level and beyond towards external stakeholders. To make sure that progress towards achieving the overall objectives can be measured and monitored, **qualitative indicators** that capture better complex changes such as an increased research-based education culture, the application of multidisciplinary approaches, synergetic partnerships could be added. In addition to this, the **alignment between project indicators with programme indicators at overall objective level should be improved** to allow a better insight in how projects contribute to the overall objectives at programme level.

It is suggested to reflect on how internal and external synergies could be reinforced. Although synergy is not an objective in itself and not always relevant to undertake, the evaluation has shown that synergy can support and strengthen progress towards achieving the programme objectives. The added value of a synergetic and complementary collaboration at project and programme level within and outside the university could be enhanced with a **synergy strategy** or plan at programme level, reducing the risk that synergy and collaboration would mainly occur because of individual engagement or (network) contacts of project members. Both approaches, a more organic way of strengthening multidisciplinary collaboration and a more institutional approach, could co-exist and strengthen each other.

To **increase further the impact of the transversal project**, the added value of this project should be more explicitly linked to the needs of the other thematic projects. Progress made in this project could also be more highlighted, possibly resulting in attracting more users of the services, offered by the involved departments and increased attention for the results of the PhD students, involved in project 1.

It is recommended to get more clarity on the concept of gender mainstreaming, first of all at the level of all project leaders and programme coordination. At the same time, it is also crucial that the university management is involved in this process and is committed to invest resources and to actively promote gender equality in the university at different levels (organization, intake of students, education and research processes). It is important to develop a **gender strategy** that is ambitious, but also realistic and feasible to be realized within the given timeframe of phase II of the programme.

At university management level (of Arba Minch), it is suggested to **develop a solid exit plan** that explains how the project activities will be continued and research results rolled out in a sustainable way,

once the programme comes to an end. This should ensure the contribution to development impact and to academic and institutional impact. This plan should include how research results will be further rolled out once the programme ends, how other funding will be attracted to continue the project activities, what capacity strengthening is needed to ensure sustainability of the programme such as enhancement of resource mobilization skills, and the funding and training of lab technicians. In this plan, the university should further describe how it will ensure that the mechanisms for programme influence on university policies will become common practice and integrated in the university (research) processes. In line with this recommendation, it is suggested that the university management actively supports the promotion and application of instruments and tools, developed by several projects, that could attract a broader public within the university and beyond (external stakeholders at governmental level, community level, the private sector etcetera), so to attract more users and to create more possibilities for spinoff and other initiatives with external stakeholders. It is further recommended that the university management of Arba Minch is actively involved in the integration of gender equality in project and university activities to ensure that gender mainstreaming takes place, not only at programme level but also within the university.

At the level of VLIR-UOS, it is recommended to investigate how yearly **budget expenditures** could be done in a more flexible way without jeopardizing the pace of the programme, to further increase the efficient use of the programme budget. Another recommendation is to analyze the current, limited possibility of the **logical framework as a joint learning instrument** and to explore how other tools, next to the existing ones, could complement or fill in this learning gap.

1. Introduction

1.1. Background

1.1.1. What is an IUC?

The ToR for this assignment (in annex 1) clearly describe what an Institutional University Cooperation (IUC) programme is. It is defined as a long-term (12 years) institutional partnership between a university in the South and Flemish universities and university colleges. The programme supports the partner university in its triple function as provider of education, research and extension (also identified as 'societal services'/'outreach'). It aims at empowering the local university to better fulfil its role as a development actor in society.

The objectives and content of an IUC partnership between one partner institution in the South and Flemish universities and university colleges in the North are outlined in a partner programme (technical and financial file). All IUC programmes combine objectives of institutional strengthening and strategic thematic capacity building (linked to both institutional priorities and developmental priorities in a specific country). Each partnership consists of a coherent set of interventions (projects) geared towards the development of the teaching and research capacity of the university, as well as its institutional management.

A **generic Theory of Change for all IUC programmes** is developed, which summarizes the expected output, outcome and impact of the supported change processes and which highlights the importance of the partnership and collaboration between the educational institutions concerned and the interaction between sub-projects. Output refers to deliverables related to education improvement, research deliverables, strengthened research or education capacities, improved infrastructure and equipment, and deliverables related to extension (level of efficiency). These outputs are assumed to contribute to outcomes related to improved research practices, improved education practices and new knowledge, applications or services that are also taken up by relevant stakeholders (level of effectiveness). In the long term, the IUC partner programme aims at contributing to development changes.

IUC programmes are managed by local and Flemish steering committees and a joint North-South steering committee in which VLIR-UOS is also participating. North and South coordinator are managing the programme with the support of a programme manager in the South, and an administrative support, both in North and South. Each project is managed by two project team leaders (North and South) who are taking part in the steering committees.

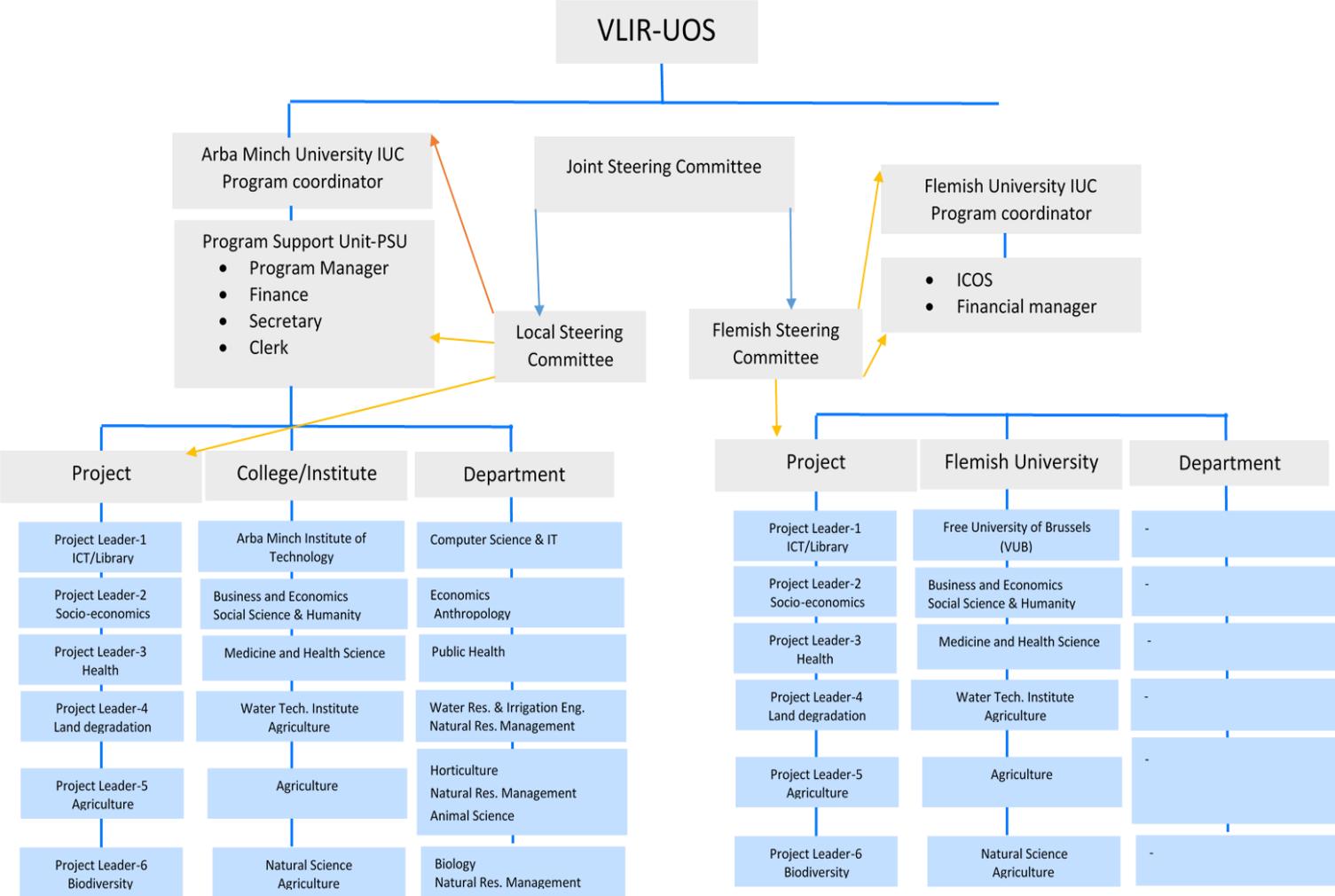
1.1.2. The IUC with AMU

Execution of the IUC with Arba Minch University (AMU). Arba Minch University was founded as the 'Arba Minch Water Technology Institute' in 1986 and became the 'Arba Minch Institute of Technology' in 1997 by the addition of more engineering departments. Arba Minch University became officially a "University" in 2004 by launching four additional colleges under the Arba Minch Institute of Technology. The University is managed by a president and four vice-presidents. Currently, there are six academic

colleges two Institutes (Arba Minch Water Technology Institute and Arba Minch Technology Institute), four schools and one academy. Six research centres and one research institute were also established to strengthen the research activities of the university and its contribution to the region.

The programme with AMU includes 6 projects (see next Table 1), of which one project is transversal in order to strengthen AMU in the field of communication, ICT and library. 4 other projects are developed around health, land degradation, agricultural productivity and biodiversity. These projects are separate projects but also contribute to project 2 (improved livelihood). The IUC was launched in March 2017. 18 PhD students, which all joined the predoctoral or doctoral programme in the respective Belgian Universities, were selected. The organogram below (Fig.1) illustrates the AMU-IUC management structure.

Fig.1: the AMU-IUC management structure



Overview of projects in the IUC-AMU
<p>Project 1: Improving Teaching and Research Processes of AMU by Enhancing ICT and Library Automation</p> <p>This project aims to improve AMU's education and research processes through improved ICT and library services by improving the skills & innovation capacity of ICT & library staff, strengthening the infrastructure & the institutional structures, providing more & better tools and training AMU's staff. AMU's educational and research activities could benefit tremendously from performant ICT and library services. For the moment this is not the case, due to limited financial resources, infrastructure problems, lack of related skills, and limited innovation & research capacity in the ICT & library departments.</p>
<p>Project 2: Living with Uncertainty: Analyzing Rural Livelihoods and Rethinking Sustainability in South Ethiopian Rift Valley</p> <p>The P2 project focuses on livelihoods and aims at stimulating policies and actions to improve the livelihoods of rural households in the light of sustainable development in the Southern Ethiopian Rift Valley. P2 will rise understanding about rural livelihoods and constraints for socio-economic development in the project area among researchers and stakeholders. P2 will improve the capacity in socio-economic and anthropological research, in research-based education, and research-based community services at Arba Minch University.</p>
<p>Project 3: Improving Maternal and Child Health in Southern Ethiopian Rift Valley</p> <p>The project will engage in capacity building in epidemiological and health system research at AMU. Content wise several topics have been selected to strengthen the team: maternal and child health, malaria, cutaneous leishmaniasis and nutrition. The project will generate insights that can be applied by stakeholders to support improved maternal, 'Under Five' and school children's health and their development through evidence based contextual adapted interventions</p>
<p>Project 4: Reducing land degradation through and for sustainable rural land use in the South Ethiopia Rift Valley</p> <p>This project aims at increasing capacities within Arba Minch University to understand and address land degradation processes, including soil fertility loss, sediment production by gullies and landslides and sediment delivery to the lakes. Outcomes include PhD theses, an integrated geodatabase and a meteo-hydrological monitoring network. The Elgo-Sile and Basso-Shafé catchments are used as case study sites. Attention is given to integrate indigenous practices and to develop outreach tools.</p>
<p>Project 5: Improving agricultural productivity in the South Ethiopian Rift Valley</p> <p>The project is designed to modernize the agriculture sector in an ecologically sustainable way. Capacity building will occur in the fields of animal and crop sciences, horticulture and plant sciences. This will go along with research-demand-driven and problem-solving agricultural research and services to increase the efficiency of cropping systems and animal production in a sustainable way. This should in the end improve food security and the livelihood of small-scale farmers by increasing animal and crop productivity.</p>
<p>Project 6: Biodiversity Conservation for Sustainable Development in the South Rift Valley</p> <p>This project engages in capacity building in biodiversity research at AMU and in research on forest and wetland biodiversity, function, and restoration. We will study high- and lowland forests, their biodiversity and function in relation to ecosystem services (e.g. erosion control, water quality). We will also study wetland ecology and function in relation to water quality in lakes Chamo and Abaya. We will generate insights that can be applied by stakeholders to support environmental sustainability and reduced biodiversity loss in the South Ethiopian Rift Valley.</p>

Table 1: Overview of the 6 projects, involved in the IUC AMU (Source: IUC-PP final)

1.1.3. Terms of Reference of the Evaluation

The Terms of Reference (ToR) formulated following evaluation purposes: (i) **learning** - what worked well, what didn't and why? (ii) **steering** - supporting decision making processes, more in particular, this mid-term evaluation should support the actors concerned in the formulation of the second phase of the IUC and (iii) **accountability** - assessing performance of the programme and validating or complementing monitoring data. The formulation of recommendations mainly relates to the development of the second phase of the IUC programme.

Next to the evaluation questions related to the 5 OECD Development Assistance Committee (DAC) criteria (with focus on efficiency and effectiveness and attention for scientific quality), the ToR specified a question related to the incorporation of gender, and an additional question on internal and external synergy.

The evaluation had to consider the effects of the Covid-19 pandemic. The consultant was invited to share a document highlighting how the effects of pandemic would be managed in terms of the organisation of the evaluation mission and in defining the evaluation questions.

1.2. Context

As mentioned in the Terms of Reference for this evaluation, Ethiopia has gone through a transition period, following a period of **political unrest** in 2017-2018. A process of democratization was undertaken. Many challenges remain though, such as lack of jobs especially for young people. Inflation has increased at an alarming rate in 2020, increasing the cost of food and imported items. Land and environmental degradations are major developmental challenges to communities in Ethiopia. Resource degradations are expected to be intensified if Ethiopia follows a conventional development pathway to achieve its vision of becoming a middle-income country by 2025. In response to such challenges, the Ethiopian government developed a **Climate Resilient Green Economy** strategy as a development roadmap. This development strategy revolves around four pillars, including 1/agriculture, 2/ecosystem rehabilitation, 3/renewable energy generation from water resources and 4/make use of advanced technologies such as improved waste management.

In November 2020, **long-rising tensions** between the federal government and the leadership of the northern Tigray region escalated into military confrontation². Prime Minister Abiy Ahmed launched what he called a "law-and-order operation" targeting domestic terrorists, but it involved large deployments of the Ethiopian National Defense Forces and aerial bombardments—a far cry from a domestic law enforcement operation. By November 28, federal forces had taken control of the region's capital and declared victory, but the security situation is unstable in parts of Tigray, and many analysts are concerned about the prospect of a drawn-out insurgency. If Ethiopia fails to consolidate a new political arrangement that accommodates its diverse population of 110 million and ensures basic measures of security and justice, it could be riven by further conflict that prompts a massive and destabilizing refugee crisis. An important voice for African interests on the global stage would be lost, and external actors who view the strategically important region as a venue for proxy conflict would be empowered.

² <https://www.cfr.org/in-brief/conflict-ethiopia-tigray-region-what-know>

The expansion of Arba Minch University originates in the country's ambition – as outlined in the 1st and 2nd Growth and Transformation Plan – to produce skilled and relevant manpower for the economic development of the nation. The university wants to produce highly qualified graduates, gender balanced, at different levels in different disciplines and to conduct relevant research to feed policy improvement and strategic planning. However, the university lacks trained staff at PhD level to contribute to quality research and research-based teaching. Through the IUC with AMU, capacity development in teaching and research aims at empowering AMU and its graduates to design sustainable solutions answering the region's considerable challenges. This choice is motivated by the fact that the basic economic activities in this area of the country are agriculture, fishing, eco-tourism and small trading. Traditional crop and animal husbandry are characterized by very poor efficiency and low productivity, causing poor livelihoods, food insecurity and poor health status to thrive in many parts of the region. Poor agricultural management has caused severe land degradation, which aggravates terrestrial/aquatic biodiversity loss and challenges sustainable development. Hence, improving agricultural productivity, socio-economic and health status and reversing land degradation are key to sustain livelihood in the target region. Knowledge on how these key-aspects interact and drive development is ill-developed for the region and insufficiently backed up by academic research. As a matter of fact, most of the research and academic institutions, including AMU, are not sufficiently empowered to undertake quality research to generate policy recommendations on the above issues.

As guiding principle in the IUC programme, research will focus on improving ecosystem services while enhancing agricultural productivity in a sustainable way. With 'livelihood' at the core of the programme, the different specific projects are in line with the national priorities of Ethiopia and those of VLIR-UOS country strategy.

1.3. Evaluation methodology and process

This evaluation was executed by a team with an evaluator from Belgium (Nancy Jaspers, on behalf of ACE Europe) and two national consultants from Ethiopia (Eshetu Demissie (independent consultant) and Associate Professor Mesfin Tilahun Gelaye (university of Mekelle). In the following, the report highlights the evaluation framework used by the evaluators, the activities undertaken, the limitations of this evaluation and quality assurance.

Evaluation framework - The evaluation was implemented in three phases: an inception phase, a phase of data-collection and a phase of analysis and reporting. During the inception phase an evaluation framework (see annex 2) was developed, composed of evaluation questions related to 4 of the five OECD DAC evaluation criteria (impact as such was not measured but progress towards impact was assessed as part of overall effectiveness) at project and programme level. At programme level, specific attention was given to the integration of gender and to efforts done to improve internal and external synergy.

The evaluation questions were elaborated based on the evaluation questions formulated in the ToR and the assessment criteria used in the self-assessment reports. The evaluation questions consist of different judgement criteria and guiding questions or points of attention. These points of attention clarified what information would be looked for and as such guided the data collection and development of interviews. Under these points of attention, the effects of the Covid-pandemic were taken into account (effects on execution, on relevance, on effectiveness).

For each of the judgement criteria an appreciation scale was developed as requested in the ToR. A four-point qualitative scale was used.

Judgement scale
4 Excellent/very good performance
3 Sufficient/Good performance
2 Insufficient/performing with problems
1 (very) Poor /major difficulties

This scale is not intended to cover all indicators/guiding questions (as some of them are more important or relevant in the final judgement than others, depending on the project content) but was above all helpful in formulating a balanced judgement in a transparent manner. **The scores are not intended to compare the projects amongst each other, the overview of scores simply helps to reflect upon the overall judgement for this IUC.** The evaluation questions as well as the judgement criteria and guiding questions are part of the evaluation framework and an integral part of the inception report, developed prior to the evaluation visit to Arba Minch.

Activities undertaken and methodology – The main methods used in this evaluation were a desktop study, **semi-structured interviews (either individual or in small groups) held during an on-site visit to AMU and in Belgium, and a short survey, based on outcome harvesting.** Briefing and debriefing sessions at Arba Minch were envisaged as opportunities to discuss findings and to learn from them. The methods are briefly described below.

The evaluators made optimal use of existing documentation and in particular of the self-assessment reports. The self-assessment reports were studied and analysed before effective data collection through interviews took place. Other documents consulted were the annual progress reports 2017-2019 (narrative and financial), programme and project planning documents.

Semi-structured interviews were conducted with a variety of internal and external stakeholders. In case the respondents were more than three, the evaluators choose to have a focus group discussion on specific topics proposed by the evaluator. Respondents were in all cases invited to add issues, the evaluators did not ask for but were felt important to them. Key respondents included the IUC coordinators and project leaders, IUC programme manager and ICOS, university leadership, representatives of the academic staff involved in each of the projects and not involved academic staff, post-graduate students involved in the projects, and several external stakeholders (see annex 3 for a complete overview of interviewees).

A number of 'change agents' were identified for the outcome harvesting survey (one per involved institute (department)). The survey focused on two questions: the extent to which the programme has contributed, so far, to increased internal and external synergy and the extent to which the programme has contributed to progress made towards impact (beyond the institutional level). The survey was sent to 19 people, 10 of whom completed the survey.

A debriefing session was organised at the end of the data collection: coordinators and team leaders, together with VLIR-UOS participated in a joint discussion of findings based on written project assessments and a presentation of the overall analysis at programme level. Before the write-up of this report, comments on the project and programme assessment were provided by the project leaders and programme coordination and included in the report.

Limitations of the evaluation – In general, the MTE was very well organised by the IUC South coordinator and the programme manager. Due to the Covid-19 pandemic, the international consultant was not able to participate in the field visit. Next to the exploratory interviews with the programme coordination, ICOS and programme management prior to the inception note, she conducted the online interviews with the overall programme coordinator and North project leaders. The online meetings went very well (technically).

Project reporting and initial quality control took much more time than was planned for, leaving little time for a thorough joint analysis of the findings at project and programme level and for drawing conclusions and recommendations.

Joint analysis between international-national consultants from a distance did not allow to achieve the in-depth level that is normally attained when both international and national evaluators execute the field visit.

Quality assurance – ACE Europe developed a Covid-19 proof approach for its evaluations and shared this with colleagues and with the IUC stakeholders. The combination of different sources (more in particular: interviews, focus group discussions, self-assessments, programme documents, and outcome harvesting) allowed for sufficient triangulation of information.

1.4. Structure of the evaluation report

Next chapter 2 gives an overview of main findings at programme level, followed by the findings at project level. Based on the findings, main conclusions and recommendations were developed in chapter 3.

2. Overall evaluation findings

2.1. General overview

The general overview below (Table 2) is the summary of scores given at project and programme level, based on the evaluation findings and triangulated against different sources of information.

The evaluation questions consist of different judgement criteria and guiding questions or indicators. These indicators and guiding questions indicate what information was looked for and as such guided the data-collection and development of interview guidelines. As explained earlier above, for each of the judgement criteria (unless specified otherwise), a four-point qualitative scale was used. This scale was helpful in formulating a balanced judgement in a transparent manner.

Judgement scale
4 Excellent/very good performance
3 Sufficient/Good performance
2 Insufficient/performing with problems
1 (very) Poor /major difficulties

Programme level						
The relevance of the programme	4					
Progress in achieving its overall objectives	3					
Potential to contribute to impact	3					
Overall (financial) management	3					
Role division	4					
Sustainability of the programme	3					
Project Level	P1	P2	P3	P4	P5	P6
Relevance						
The objectives of the projects are consistent with needs of different stakeholders	4	4	4	4	4	4
Synergy between IUC projects (internal synergy)	3	3	3	3	3	3
External synergy and complementarity	3	3	4	3	3	3
The project is coherent	4	4	3	4	4	3
Effectiveness						
Realization of the specific objectives	4	3	3	3	4	4
Contribution to national development priorities	3	4	3	3	3	4
Scientific quality	3	3	4	3	4	3
Efficiency						
Delivery of intermediary results	3	4	3	3	3	4
Support to ensure quality of research and education	3	3	3	4	3	3
Qualitative assessment on use of means and results	3	4	4	3	4	4
Efficiency of project management	3	3	4	3	3	3
Sustainability						
Academic and institutional sustainability	4	3	3	3	3	3
Financial sustainability	3	3	2	3	3	4

Table 2. Summary assessment scores given at project and programme level

In summary (see further under 2.2. for more details), with most scores varying between ‘good’ and ‘excellent’, the assessment of the IUC programme at Arba Minch university shows that it is **performing quite well**. The overall programme and individual projects are **highly relevant** and perform well in making progress towards its overall objectives. The findings revealed that already in phase I, initiatives are undertaken to ensure **sustainability** of the programme, although some aspects need to be taken up in phase II to strengthen this further (for instance lab training, strengthening of resource mobilization skills).

Points of attention refer to the relatively slow progress made in some of the PhD projects, the lack of a true gender mainstreaming activity, the unease in the projects ventilated with respect to the M&E system used, not clearly reflecting the dynamics at project and programme level (e.g. behavioural change, changes in mindset or attitude) and focusing too much on numerical indicators.

At the project level, examples illustrate that **internal and external synergy** are sought and realized, but also that these processes require time and patience, since multidisciplinary cooperation is – traditionally – not actively stimulated between students.

Overall, **projects are managed efficiently**. The evaluators point to the complex and tedious procurement system, forcing the IUC team to order lots of items in Belgium, which is sometimes faster, sometimes cheaper and sometimes offering better quality. This also has been on the IUC management agenda since the start, according to the programme coordination, but straightforward, satisfactory solutions do not seem to be within immediate reach.

Internal communication within and between projects functions well. The programme management unit (PSU) supports the projects in different ways (logistics, monitoring, coordination of programme activities among other) which is highly appreciated.

2.2. Evaluation of the programme level

2.2.1. Relevance

At programme level, relevance has been assessed by using one main judgement criterium:

The relevance of the programme can be confirmed from various perspectives	Score 4 (excellent)
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Relevance of the IUC programme at Arba Minch was assessed in different ways, considering relevance from different angles: an important perspective is the extent to which the **leadership** of the university confirms the relevance of the IUC and its different (project) components. Another angle is the extent to which the programme **responds to the needs of communities and other external stakeholders** to improve environment and life conditions of people in the South Rift Valley. Relevance of the programme also relates to the extent to which it aligns with the **national priorities** of Ethiopia and the research strategic plan of AMU, and to the extent to which the IUC programme **adds value** (in terms of budget, approaches) compared to other interventions at AMU (financed by others). Another way to look at relevance relates to the extent to which **gender and environment** are included in the design of the programme. Relevance can also be assessed against the extent to which the programme design allows for **internal and external synergy and joint actions** between the involved stakeholders.

1 Leadership of the university confirms the relevance of the IUC and its (project) components

Interviews with programme coordination, project leadership and institutes within the university confirm that the programme research thematic areas are highly relevant to the university needs and its strategic plan. This plan was developed, based on an internal capacity assessment. The assessment proved that **staff capacity** (predominantly PhD staff) **and lab facilities** are the major gaps for conducting qualitative research. Consistent to this, the IUC programme contributes to further strengthening of the university **institutional capacities**. In addition, the **selected IUC-research topics**, based on a match making exercise between the North partners and AMU, relate to key thematic areas in the university research strategic plan.

2 The programme design is fully consistent with the needs of communities and other external stakeholders to improve environment and life conditions of people in the South Rift Valley

During development of the university research strategic plan, **local communities** were consulted, and their priority needs identified. This indirectly implies that the IUC programme is consistent with the community needs, since the programme aligns with the university research strategic plan.

The programme design strongly responds to **improving environment and life conditions of the people in the South Rift valley** because it intends to improve ecosystem services which is a response to biodiversity loss and challenges related to the environment. From the interviews with respondents, it became clear that during the formulation phase, a lot of discussions were held to make sure that the programme responds to the local people's needs, which could be associated with their livelihood such as agriculture, fishing, ecotourism and small trading.

In addition to this, the IUC programme addresses **external key stakeholders' interests** and needs operating in the programme area such as GIZ, Nechisar National Park and Woreda³ Agricultural office. AMU (IUC) and Woreda Agriculture office signed a MUA to engage and to work together in the research activities, selected for the IUC programme. During IUC stakeholders' meetings, community representatives and stakeholders like GIZ and woreda offices validated the relevance of the programme.

3 The programme is aligned with (inter)national priorities

The AMU-IUC programme proposal reveals that **poverty eradication** is the central target of development efforts of the Ethiopian government. Improving agricultural productivity to **ensure food security** for most of the rural communities is on top of the agenda of the nation to pave ways for an agriculture-led industrial economy. Protecting the **environment** and maintaining a healthy productive community are also given due attention in the country's **Climate Resilient Green Economy strategy**. Additionally, the IUC programme is aligned with the national educational **strategy for higher education**: within the context of this country strategy, the Ministry of Science and Higher Education (MOSHE) emphasizes capacity building to improve scientific research. MOSHE aspires in its 5 years plan to enroll 5000 PhD

³ District level

graduates in the local PhD programmes of the research universities of the country, which is an ambitious plan. Through the strengthening of research/education capacities and investment in lab-capacity and other new research methods, the AMU-IUC programme wants to offer important resources in support of MOSHE's plan.

The self-assessment reports of both North and South coordination give multiple examples to illustrate that the IUC programme is aligned with these national priorities, and this was also confirmed during the field visit. In addition, university leadership confirmed the alignment of the programme with **international priorities** (SDGs, the Africa Agenda 2063, the VLIR-UOS country priorities for Ethiopia, transversal focus topics of the Belgian cooperation such as D4D, gender and environment).

4 Gender and environmental sustainability as transversal themes are taken into account in the programme design

Gender

Gender mainstreaming is included in the programme planning document, to ensure more equal educational participation and access. To this end, AMU aims at achieving a more gender-balanced PhD staff over time. The IUC programme adheres to these principles implementing a **gender-sensitive recruitment procedure** for the selection of both male and female PhD and short-term training candidates. A minimum of one third of female candidates was aimed at, while positive gender discrimination would not be applied when evaluating the candidates.

Gender was also included in the design of several projects like in project 2 (questions on fertility decisions, child labour and child education), project 3 (maternal health) and project 4 (related to rapid population growth and land degradation).

Environment

Environment was included as one of the strategic themes in this IUC programme. The topic environment is prominently visible in the programme: the overall development objective of the programme aims at improving the environment and life conditions of people in the Southern Ethiopian Rift Valley System thanks to application of new knowledge created through research. **Environmental sustainability** is at the core of several projects such as project 4, 5 and 6. For instance project 5 works on maintaining and increasing performance of dairy animals while at the same time developing measures to reduce grazing pressure.

5 The programme allows for internal and external synergy and joint action between the involved stakeholders

Internal synergy

The programme strongly allows for internal synergy and joint actions within and between the different projects. The programme design includes a visual diagram showing the links and relations between the different projects, how they contribute to sustainable development and to ensuring sustainable livelihood in the Southern Ethiopian Rift Valley System. It was a deliberate choice at programme level to work as much as possible in the **same geographical area and catchments**. Project one can be considered as the overall servicing project, supporting all teaching/research efforts of the programme. Examples are

joint monitoring meetings, sharing of logistical means between students, joint data collection and sharing of lab facilities and information between (PhD) students. At the programme level, joint and local steering committee meetings allow project integration and cross-linking between projects.

External synergy

The IUC programme aims at complementing and enhancing several initiatives, set up by AMU outside this programme as explained in the programme document, like the establishment of an agricultural research centre in Chencha district, a Biodiversity Research Centre, a Water Resource Centre and a Renewable Energy Research centre. All these Centres were established to contribute to sustainable development and ecosystems management in the South Ethiopian Rift Valley. In line with these initiatives AMU has established the 'Enset conservation park' project with support from the Christensen Fund.

In addition to this, the IUC programme planned to **collaborate and exchange** with other Ethiopian universities like Mekelle, Jimma, and Bahir Dar, all benefiting from previous or present VLIR-UOS interventions. Objective of these exchanges was to capitalize on experiences and avoid duplication of efforts. The project reports, further below, illustrate the extent to which this external synergy has been established so far. For example, the programme has looked for **joint actions and synergy with external stakeholders aimed at capacity development and outreach of research findings**, for instance the programme works with GIZ, Zone and woreda Agriculture Office, woreda NRM office and Nech Sar National Park administration. The programme also foresees **joint monitoring** with the woreda Agricultural and NRM Office, GIZ, Nech Sar National Park administration and **support through training and technical assistance**.

Overall, **progress related to internal and external synergy is not the same in all projects**. Multiple reasons were given for this: these processes require time and patience; multidisciplinary cooperation is – traditionally seen – not actively stimulated between students, resulting in a culture where knowledge and information is not easily shared with others. Even when there is willingness to do so, some students and project staff need to develop the skills and capacities, required for working in a more multidisciplinary environment. Also, some project leaders have strong local/national/international networks and contacts while others have not. Additionally, between some projects there is more possibility to overlap in research topics and thematic focus and to come to collaboration and a synergetic way of working than in other projects.

6 There is an added value of the IUC programme (in terms of budget, approaches) compared to other interventions at AMU (financed by others)

The added value of the IUC programme compared to other interventions is **multiple** and can be summarized as follows:

- Strengthening of research should have a positive effect on education/teaching. (more **research-based education**);
- There is a combined focus on **strengthening institutional capacities and outreach**: The IUC does not limit itself to strengthening academic capacities and infrastructure, but also includes an objective where the link is made between improved research/education and outreach through application of new acquired knowledge;
- The fact that it is a 10-year programme allows for **transformational changes** (e.g. changes in research culture) and not only changes related to improvement of what already exists;

- The funding spread over 10 years versus short term or punctual funding allows for **deepening working relationships and networking** with Belgian counterparts and other external stakeholders;
- This 10-year period should allow for sufficient time to develop strategies concerning sustainability of the project and programme results and investments made;
- The programme enhances **different disciplines in a complementary and synergetic way** (ICT, library, health, agriculture etcetera).

2.2.2. Effectiveness (progress towards achieving overall objectives)

The evaluation assessed the extent to which progress was made to achieve the overall objectives, by looking at the attainment of the specific objectives at project level and their contributions to the overall objectives (overall effectiveness), and the potential to contribute to impact.

The programme has made progress in achieving its overall objectives	Score 3 (good)
The programme has the potential to contribute to impact	Score 3 (good)

7 Progress has been made in capacity strengthening of research capacities

As stated in the ToR for this evaluation, the current expansion of Arba Minch University originates in the country's ambition – as outlined in the 1st and 2nd Growth and Transformation Plan – to produce skilled and relevant manpower for the economic development of the nation. The university is expected to produce highly qualified graduates, gender balanced, at different levels in different disciplines and to conduct relevant research to feed policy improvement and strategic planning. However, the university lacks trained staff at PhD level to contribute to quality research and research-based teaching.

Phase I of the IUC programme at AMU supports **19 PhD students**. Most of the students are on track with their research, some are expected to graduate in the course of 2022. Next table shows the number of PhD students per project and overall progress made at the moment of the evaluation (end of 2020).

Project	KRI-Number of PhD students (IUC-funded)	Progress made
1 Transversal	2	+/- delay
2 Livelihood	3	On track
3 Health	5	+/- delay
4 Land degradation	3	One on track, others 2 delayed
5 Agriculture	3	On track
6 Biodiversity	3	+/- on track

Table 3. Progress on KRI-targets related to HRD (Source: table IUC-AMU standard indicators (2019))

Part of the students are on track with their research and expected to graduate at the end of phase I; others are expected to graduate in 2022 or 2023 (see table 3 above). Reasons for delay are diverse:

- In some cases, Covid-19 has caused delays in data collection;
- The expertise/knowledge level of starting PhD students is sometimes not sufficient yet to start their PhD study. Some students participate in predoc programmes or follow extra courses in the beginning. This offers a great opportunity for these students to uplift their skills in different areas (research methods, statistics, communication, language etcetera) but also requires time and therefore puts some pressure to finish within the given time period;

- PhD students in the programme are more than 'only' students. As staff members they also have other tasks and responsibilities in the university.

8 (Moderate) progress has been made in education

One of the objectives is to improve the quality of education. The programme aims at strengthening education through developing/updating the MSc programmes and the development of new courses. 4 out of 6 projects had planned to update/develop MSc programmes and/or develop new courses. Project 3 (health) and 5 (agriculture) had not foreseen this in the IUC programme.

The KRI-table at programme level shows (end of 2019) that 2 projects had initially planned to develop or update MSc programmes. At the end of year 3, project 6 had developed one new MSc programme with one more to finish, while project 2 had not yet completed the planned update of 2 MSc programme. Project 4 had developed/updated 2 MSc programmes at the end of year 3, while this was initially not planned (see next table below first 2 columns with KRI's).

Regarding the development of new courses, this seems to be well on track, with exception of project 6 where 1 out of the 7 planned courses was developed at the end of year 3 (thus still 6 to go).

Project	KRI on Education – (Number) of new/ substantially updated Master programmes developed through support of the project		KRI on Education – (Number) of new courses developed through the support of the project	
	Target	Achieved (Y3)	Target	Achieved (Y3)
1 Transversal	0	0	10	8
2 Livelihood	2	0	0	0
3 Health	0	0	0	0
4 Land degradation	0	2	2	2
5 Agriculture	0	0	0	0
6 Biodiversity	2	1	7	1

Table 4. Progress on KRI-targets related to Education (Source: table IUC-AMU standard indicators (2019))

9 So far, little progress has been made in gender mainstreaming

The IUC programme supports 19 PhD students, (16 male and 3 female students), see next table.

Project	KRI-Number of PhD students (IUC-funded)
1 Transversal	2 (no female)
2 Livelihood	3 (no female)
3 Health	5 (one female)
4 Land degradation	3 (one female)
5 Agriculture	3 (no female)
6 Biodiversity	3 (one female)

Table 5. Progress on KRI-targets related to Gender (Source: table IUC-AMU standard indicators (2019))

There are no numbers available about how many of the MSc students supported through the programme, directly (in the research) and indirectly (through education), are female.

Only **16%** of all PhD students, supported through the programme so far, are female. This is a low percentage, given that the programme anticipated on getting a gender balance in the programme, with help of a gender-sensitive recruitment procedure.

The explanation given by interviewed project leaders is that no suitable female candidates could be found, or that – despite the gender-sensitive recruitment procedure, too little efforts were made to communicate the PhD vacancies among the female students at AMU. This means that putting the gender-sensitive recruitment procedure in place does not guarantee (sufficiently) female participation in the programme.

Besides of this gender-sensitive attention to recruitment, the IUC programme does not have a specific (transversal) gender component in the IUC programme. The project neither the programme logframes include specific gender targets or disaggregated M/F indicators. Although one of the North project team members (project 3) is a gender expert, she has no specific role in the AMU-IUC programme (such as she has in the IUC programme at Bahir Dar) to promote gender mainstreaming.

This does not mean that within AMU, there is no attention at all to get gender better integrated in the university. The VLIR-UOS JOINT *project “Towards a more gender sensitive and inclusive academic culture in Ethiopia”* between Mekelle, Bahir Dar and Arba Minch university focuses on increasing academic capacities, with specific attention to gender equality. This initiative includes a yearly summer school (the involved universities rotate the hosting role on a yearly basis) with 50/50 participation of female and male academic staff. The approach applied in this summer school is based on a model also used at Stanford university: fix the numbers (recruitment), fix the organization (working culture and environment) and fix the knowledge (gender equality in each phase of research). This is an innovative project and has resulted, so far, in 5 male and 5 female staff of AMU participating in this initiative. Normally this summer school should have taken place at Arba Minch in 2020 but unfortunately it was cancelled because of Covid-19. It is not sure yet whether the summer school of 2021 (at Bahir Dar university) will take place.

Based on the evaluation results, it can be concluded that efforts have been done to mainstream gender within the projects (e.g. working with female enumerators, consulting female farmers in the communities), but there is still a long way to go, since in Ethiopia (not only at Arba Minch) women are often still seen and mainly respected in their role as mother and wife (even though the national government increasingly pressures that attention should be given to gender equality). Although opinions differ between project leaders and team members at AMU, it seems still a challenge for women to gain respect and to be seen equal to men in their professional life. Solutions that are proposed to integrate gender range from providing different opening hours in labs and libraries to building another library to ensure the safety of women. These solutions do not contribute to gender mainstreaming, on the contrary. It rather shifts the challenges related to gender equality to creating specific environments for women, while gender mainstreaming requires efforts from both men and women. In addition, it requires certain efforts of changes in mindset, attitudes and investments; especially the latter meets with some resistance.

10 All projects contribute to strengthened institutional (research and education) capacities

The evaluation revealed that the different projects have contributed to strengthened research capacities and increased ‘cutting edge’ knowledge. According to respondents (project leaders, team members and students), **new ways of data collection and analysis methods were introduced and applied** during the first phase of the programme, which have contributed to quality research results. The purchase of lab equipment and supplies have also helped in enhancing evidence-based research and education. Internal synergetic activities within and between projects/departments (see further below under sustainability) were also mentioned as contributing to enhancing institutional capacities like e.g. data sharing.

For example, project 6 introduced and applied automatic weather station and satellite imagery. In project 5, the PhD students were supported by local MSc students, contributing to better quality of education through the development of a research-based education culture. This project introduced silage making from Banana pseudo stem and maize stover, aimed at improving dairy productivity. The results of this research were published in a high-ranking journal. In project 3, the research approach related to “clinical trial” was new to the university; a new method of testing parasitology using RCT was introduced in the research process. Also, a video production technique to be used in health and nutrition message training was introduced in project 3. This approach allowed to capitalize the changes in knowledge about maternity. Preliminary result proved that the video techniques brought significant changes on improving maternal health awareness (for more examples, see the project reports below).

11 There is progress towards achieving academic and institutional impact

Mechanisms for programme influence on university policies have been identified e.g. through project 1, the programme has influenced and still does the university in ***adopting ways of working that are more ICT-based*** e.g. the use of tablets when collecting data in the field, the adoption of an e-learning policy, the improvement of an open source policy manual etcetera. New ***participatory research approaches*** like the organization of farmers’ field days, the organization of stakeholders’ workshops aimed at consultation and validation of findings including reception of feedback were introduced in the university research process. ***Joint actions within and between projects*** like joint monitoring and opening minds towards joint publications were brought into the university research programme. In addition to this, some experiences, procedures and guidelines from the IUC programme were adopted during designing curriculum and research activities e.g. future PhD candidates will have to show at least one publication as selection criterium.

Although still in phase I, the IUC programme has started to catch the attention and interest of other, external parties for instance the programme has attracted new funds (from KfW⁴) and caught the interest of other universities (e.g. the Kenyan University of Eldoret and KU Leuven), resulting in the development of new research proposals with these universities and activities with KfW.

Concerning **emerging effects of the volume of new postgraduates, research facilities and infrastructure in AMU**, respondents referred to unfolding impact on the quality of research data and results, and broader on the quality of the research processes within AMU in general.

Also, the impact of the **progress made by the transversal project 1** cannot be underestimated, at project and university level. The quality of internet has been considerably improved in the university with impact on the quality of online meetings and communication with the Belgian counterparts (among others), which is of huge importance in times like these when Covid-19 prevents the Belgian partners to travel to Ethiopia. This transversal project has also established an e-learning lab facility together with the Education Innovation Service Centre of AMU which does not only benefit the IUC-participants but also the whole university. E-learning training has been set up on how to use Moodle for classrooms. Short-term trainings on cyber security and server configuration of hpc have been given to staff and based on this, a mirror data centre has been established at the Chamo Campus of AMU. These are some examples, more are to be found in the project reports (see further below in this report), and the

⁴ A German Development Bank

annual progress and the self-assessment reports developed by the project leaders and coordination of the IUC programme.

12 Progress towards development impact / Improvement of environment and life conditions of people in South Rift Valley thanks to application of new knowledge created through research (development impact) could be identified through examples

Overall, respondents indicated that it is early to see effects of the institutional strengthening on the environment and life conditions of people in South Rift Valley. Research is still going on and application of newly gained knowledge and skills is mainly expected by the end of phase I and in phase II.

Nevertheless, **some examples could be found that already illustrate effects of the application of research results.** For instance, in project 3, the silage making facility was built in one rural community as a demonstration site for up-scaling of the adoption of the technology by other local communities. In project 4, the lab facilities (automatic metrological stations, drone, GIS etcetera) that are installed at the research sites of the PhD students and the quality (high resolution) data generated has already attracted external stakeholders (donors like the KfW financed SLM project). In project 2 for instance, improved techniques of Enset production and processing have brought new knowledge, attracting the attention of regional and zonal agricultural offices among others. Rolling out the research results by these offices is expected to contribute to the regional development programme aimed at addressing food security. Woreda Agriculture office and NRM office requested the university to adopt and implement techniques of SWC (soil & water conservation) management. Another example could be found in project 6, where the research programme, using techniques for removing invasive species, has been recognized by GIZ and Nech Sar National Park. GIZ office signed a MUA with the university and implemented part of the research findings in the Nech Sar National Park, aimed at rehabilitation of indigenous plants in the park. A last but not least promising example shows that beneficiaries of project 5 are willing to adapt their practices e.g. farmers in Gamo highlands showed willingness to use farmyard manure in their farms which will help increasing farm productivity while also helping the reduction of greenhouse gasses emission from manure. Experts from outside the region have also shown interest in these practices.

2.2.3. Efficiency

With regards to efficiency, following judgement criteria were assessed:

Overall management of the execution of the IUC is done in an efficient way	Score 3 (good)
Role division is clear	Score 4 (excellent)
Transparent financial management and support to execution of procurement	Score 3 (good)

13 Overall (financial) management of the execution of the IUC is efficient

The IUC programme has brought a new way of **programme budget administration**, with the introduction of a new financial manual and management system. As compared to other projects executed by the university, the system is relatively efficient in purchasing local materials, managing payments, recruiting staff and producing financial reports. The system produces financial reports which facilitates the close follow up of the project budgets and expenditures. Overall, it was said that financial management is

done efficiently and transparent, although PL in the South do not seem to have insight in the budget, managed by their counterparts in Belgium.

The **university purchasing procedure** is challenging, since it is bureaucratic and causes delays in purchasing goods. Sometimes it is cheaper, sometimes it is more quickly or sometimes the quality is better to purchase certain goods in Belgium than in Ethiopia, so that the purchase of goods and infrastructure regularly takes place in Belgium and not in Ethiopia. This is not an ideal situation since products need to pass customs which also takes time and efforts to pick up products in Addis Abeba and close follow up by the programme management. It also puts pressure on sustainability of installed working procedures.

Overall, the programme does **not show significant over or underspending of the budget**. To some extent, budgets can be shifted between projects in case needed. Covid-19 has caused underspending in all projects, but the Belgian donor has allowed temporary flexibilization of spending deadlines so that budgets, planned to be spent in 2020 can still be used in 2021. Although the programme is a five-year programme, budgets must be developed and spent annually. This is not conducive to the efficiency of the programme, as expenditures are sometimes made in order not to lose any remaining budget at the end of the year.

14 Planning and monitoring are mainly based on numerical indicators

The **programme design, implementation and monitoring system** are supported by different project documents and formats (logical framework, project document, reporting formats, implementation plan etcetera). To some extent, these instruments help the programme to efficiently follow up the project budgets and financial expenditures.

While the self-assessment reports are quite rich in information and useful to understand the dynamics of the progress made and challenges encountered, the **logical framework** is considered by project leaders in North and South as mainly a **planning and monitoring instrument**, but not very helpful as an instrument for joint learning. This because the framework includes quantitative indicators that do not sufficiently capture the project and programme dynamics (such as changes in multidisciplinary approaches, research-based education culture, changing mindsets and attitudes).

The programme framework includes **35 indicators** to measure progress made in the overall objectives. Part of these indicators are not SMART⁵; for other indicators the programme will not be able to measure its contribution for example, mortality 'Under Five', maternal mortality, poverty head count %, life expectancy (years), gross net income per capita and gross domestic product indicators are hard to measure in such a way that the contribution of the programme to these indicators is clear.

When looking at the project level, indicators have been developed at the level of intermediate and objective level. The indicators at IR level are mainly output and quantitative indicators and in general relatively easy to monitor. The indicators at objective level give an indication of the extent to which academic capacities are applied, translated in indicators, quantitative and sometimes qualitative such as the number of PhD, the number of (successful) proposals and publications, the number or presentations in international congresses, the level of teaching, awareness raised in local communities etcetera. It is not

⁵ Specific, Measurable, Attainable, Relevant, Timely

clear how progress in these project indicators at objective level, specifically the qualitative indicators are monitored or measured (no evidence could be found that this monitoring takes place).

With exception of quantitative indicators such as the number of PhD, the number of publications, there is no clear link between the indicators at overall objective level that have been developed at both project and programme level. This makes it challenging to measure progress in achieving the overall objectives at programme level (beyond the project level) in a coherent way.

15 Role division and communication are clear and transparent

The **management manual** of the programme describes the roles, functions and tasks of the main participants in the management of the IUC. This manual is very detailed and seen as a convenient tool when needed. **Internal communication within and between the projects** functions well and is transparent and clear, overall seen. The **local and joint steering committee meetings** are useful and carried out in an efficient way. Decisions are taken in time and project leaders are said to be engaged and supportive. As mentioned earlier, the **contribution of the transversal project 1** has considerably contributed to better online communication through e-mails and online meetings.

Role division between the project coordination, management and project leaders is clear without significant challenges. Project team members do not always know what has been discussed at the JSC or LSC, but they 'blame' this also to themselves (e.g. not remembering if minutes are shared; other priorities etcetera). Some find it unfortunate that PhD students cannot be project leaders at the same time; the PhD students know the project's research inside out which is not the case with all project leaders. Yet there is also understanding for this rule, since project leaders also deal with other matters such as the general coordination and logistic and administrative support of the projects, which is a challenge for these project leaders with less project management experience and skills.

The **programme unit** has established a good working relationship with the projects and programme coordination in North and South, there is a strong working relationship. The programme unit is said to communicate well, to share information with the relevant persons, to closely follow up the progress of the programme and projects and to provide support where needed and relevant.

Interaction with the university leadership at AMU is effective: the university leadership supports the programme and participates in the joint monitoring, provides conference rooms and office facilities to the programme.

Within all projects, **support from the Flemish partners** is highly appreciated, through training, concrete advice, coaching, partnership meetings and follow-up.

2.2.4. Sustainability

The evaluation has looked at the extent to which institutional sustainability has been achieved so far (**including academic and financial sustainability**). Since this is a midterm evaluation, it is still early to assess this criterium. Therefore, the evaluation mainly focused on indications or signs of progress into the direction of sustainability.

Sustainability	Score 3 (good)
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16 Efforts are done to retain staff at AMU

PhD students **sign an agreement** with the university to serve the university at least for several years more after finishing their studies. This helps in reducing staff turn-over which takes place, for example, due to rather low salaries according to project staff. Staff retention also helps in consolidating research and education knowledge and skills. At the same time, respondents indicated that graduated students leaving the university should not necessarily be considered as an indication of not achieving the overall objectives of the programme. When graduated students contribute to the overall objectives of the programme, whether this takes place within the university or at another workplace, this should be considered as a positive effect of the programme.

Overall, the **working environment** is satisfactory; the university undertakes efforts to improve it further (office facilities, internet, transport, etcetera). Staff also gets accommodation for free (though the supply is limited). Most of the project leaders interviewed hope that graduated PhD students will and can continue collaborating in the IUC phase II, as a project team member or staff member at the university, since normally the IUC phase II builds further upon research results, achieved during phase I.

17 Examples of internal and external synergy illustrate progress made in this area, although it could not be assessed to what extent these examples are common practice yet within AMU

To get a better insight in the extent to which internal and external synergy has been achieved so far, with support from the IUC programme, the evaluation team developed a **short survey**, based on outcome harvesting, which was sent to all PhD students. 10 out of 19 students responded.

Internal synergy

Collaboration between projects of the IUC programme has resulted in, for instance,

- *increased ICT capacities* such as digitalization of survey data, using mobile data collection increasing the efficiency (paper free technology) and data quality;
- *the shift from using a more expensive and subscription-based proprietary software to a Free Libre Open Source Software (FLOSS)* resulting in more staff participating in research activities;
- *Master and PhD thesis and research-project findings of AMU that are more accessible* than before through the National Academic Digital Repository of Ethiopia;
- *teachers being more able than before - because of the use of blended e-learning - to realize a student-centered teaching and learning approach* that enhances interaction between teacher and students considerably.

Next to these, examples, project 4 and 6 have published an article together, PhD students support MSc students and vice versa: a MSc student in P6 graduated using data from a PhD student. Academic research staff and students participate in joint monitoring, providing inputs and comments that improve the research process and results. Enumerators are trained together and collect data in several projects which improves efficient spending of the budget. In P4, research within the project is already highly interdisciplinary, including members from 7 different departments from hydrology, to agriculture, soil science, geology and geography. This reflected by the organization of the project into 4 teams (meteorology and hydrology, soil, geology, GIS) which interact with each other.

By working in **overlapping geographical areas and topics**, projects support each other when it comes to data collection in the field, for example through the shared use of cars, lab facilities etcetera.

New tools introduced in one project are also used by other projects e.g. GIS tools are used by several Departments (and not only in the Department of Geography) e.g. in socio-economic research to map the study area, to collect and analyze geospatial data etcetera.

Internal synergy such as **multidisciplinary teamwork** is considered important for communities as this kind of research addresses different concerns, provided the research results are implemented.

By **sharing** data sets between PhD students, PhD students could potentially come to publications of better quality, add more (joint) publications to their name, and more (internal and external) stakeholders could benefit from the results of their research. However, the IUC objective of stimulating joint publications stands in contrast to the national norm that single named publications are more rewarded than joint publications. This makes it hard to introduce another way of working.

External synergy and collaboration

An example of external synergy could be found in project 1, with collaboration established and (training) activities developed with Bahir Dar University and the 4 universities of the NETWORK programme coordinated by Jimma University. It was stated that project 1 has provided an e-learning installation training to Medewelabu university and they are plans to provide the same training to Dire Dawa University.

Examples of external synergy have been given under relevance and can also be found below in the project report sheets. These examples illustrate that- **to enable application of the research findings in practice – it is needed to find ways of collaboration with different types of external actors at different levels** (communities, governmental offices at regional and national level etcetera).

Case 1- Thanks to the nature of the IUC framework, our department has been able to establish cooperation with the Department of Anthropology. As a result of this, the two themes in P2, i.e. Economic and Anthropology theme are working together in analyzing the trade-off between quantity and quality of child-raising in the Southern rift valley system from an interdisciplinary perspective. The changes can be demonstrated in terms of jointly accomplished activities and attained objectives within P2 that are related to fertility decision and a trade-off between quantity and quality of child raising. (Source: extract from outcome harvesting survey, PhD student)

Case 2- Due to the coordination with governmental and non-governmental organizations, it has been possible to make the community more accessible and addressed by the University. The stakeholders involved in the research activities as well as in the project witnessed the changes made by the project. For instance, in our project, we preferred to create an opportunity to present the preliminary findings to different stakeholders through workshops in order to grasp the attention of policy makers to face the problem with their own eyes, rather than to write a regular report.

From the reflection, we have noticed that the bottom-up report from Woreda-Zone-Region-Federal has many gaps and shows a lack in highlighting the problems of the community. We understand that our effort to fill this gap through involvement of multidisciplinary streams and organizations has been fruitful. The suggestion made by the head of the regional office was the following: *“even though I am the head of regional office, I was not able to see the depth and breadth of the problem as it is presented in the workshop. Much of the community’s problem is explained in a clear and easy way, which is an interesting activity. I hope the project plays a big part in explaining to the community about the problem that is being confronted by Gamo people, especially for those who don’t know the area. I believe we can see the change soon if all the stakeholders can work on solving the problems presented at the workshop”*. (Source: extract from outcome harvesting survey, PhD student)

Overall, examples of internal and external synergy could be found, although it could not be assessed to what extent these examples are common practice yet within AMU.

18 It is still (too) early to confirm consolidation of knowledge, tools and spinoff activities developed by AMU to benefit other users within and outside the university

Most of the projects are still in a phase where collected data is being processed by students into papers and publications. It was said that it is **still too early to give concrete examples to show how knowledge and tools acquired will benefit other users** inside and outside the universities, although research results seem to be promising, according to respondents.

Some examples: ICT facilities and infrastructure have considerably improved. New approaches such as e-learning, open source book access, database management for PhD students to store and retrieve data and data collection techniques using ODK/tablet have been introduced. This has brought new methods e.g. of doing lab research and analysis linked to nutrition, soil and aquatic laboratories. Research materials such as automatic weather stations (thermometers, rain gages, data logger) enhanced the university data quality and management system. Lab facilities such as automatic metrological stations, drone, GIS etcetera that are installed at the research sites and the (high resolution) quality of the data generated have already attracted the interest of external stakeholders (for example the KfW financed SLM⁶ project). A point of attention is the fact that the university needs further strengthening in running and maintaining lab facilities; if not, this might have a negative effect on the sustainability of some of the infrastructure investments made.

The experience and level of expertise gained through (P1) workshops and technical training allowed the AMU ICT department to provide professional and remunerated consultancy and expertise for some of the recently established universities, particularly those in the Southern regions (e.g. Jinka University).

19 The IUC programme is said to function as a leverage to attract other donors and funds (although a direct link is not always very clear)

Arba Minch university attracts other funds from VLIR-UOS, other donors and countries, but the link with the IUC programme as a leverage was not always explicitly made when mentioning these examples during the evaluation. Other funds attracted contribute to the programmes' objectives, according to respondents, such as the VLIR-UOS Network programme, the VLIR-UOS Enset Project, the VLIR-UOS JOINT-project with the Kenyan University of Eldoret as main partner and ETH, Zürich and KU Leuven as North partner; and the already above mentioned VLIR-UOS JOINT project "Towards a more gender sensitive and inclusive academic culture in Ethiopia", in collaboration with Mekelle university and Bahir Dar university.

AMU has been able to attract funds for e.g. the DFID Benefit project, the Sustainable Land Management project (KfW fund), the RUNRES project (Ethio- Zurich), for cooperation with GIZ and the Nech Sar National Park among others.

⁶ Sustainable Land Management

20 There exists moderate availability of funds for operations and maintenance of physical infrastructure at university level

At project level, some funds are available for operations and maintenance of physical infrastructure at university level, during the programme implementation and once the programme ends, e.g. at the department of Animal Science there is a course on food processing and conservation technology. A fund will be foreseen to continue for example the research on silage making and related activities.

Some projects indicated that attracting external funds would help in this respect. For instance, in project 2, budget is allocated for preparing new project proposals (IR 7), to ensure the project can continue its research activities after the project ends. At the same time, in most of the projects it was mentioned that resource mobilization capacities are lacking. Within phase I of the programme, no specific training was foreseen to strengthen capacities of project staff or programme management to this end.

2.3. Evaluation per project

2.3.1. Project 1

TITLE OF PROJECT: IMPROVING TEACHING AND RESEARCH PROCESSES OF ARBA MINCH UNIVERSITY BY ENHANCING ICT AND LIBRARY AUTOMATION

Introduction

The main objective of the project is to improve the quality of education and research practices of AMU by enhancing ICT and library services. It also aims to increase the use of improved teaching-learning processes and technologies and to increase the use of improved research support services. The project sets five intermediate results that could lead to the achievement of the stated objective. These include, (1) facilitating technology enabled teaching/learning processes and methodologies, (2) delivering research and library tools, related trainings and support services, (3) improving library and ICT infrastructure, organizational structure, policies and services, (4) improving research and technical skills of ICT & library human resources, and (5) improving training facilities and support services for AMU's academic and technical staff. The project is on the right track and its 2 PhD students will finish their PhD in time, ICT facilities (sitting/conference rooms for PhD students, e-learning facility, mirror data centre and data storage facilities etc) are in place, and short-term trainings (cyber security, server configuration of hpc⁷) have been delivered to ICT staff members. The current project leader South is the third since the start of the project, but he stated that there has not been a problem in execution due to the frequent changes in project leaders.

Factual data

Hosting faculty	AMU Information Communication Technology Centre Directorate (Project leader) + Computer Science Department (PhD students and their local advisors)
Number of staff in research group	131
Status of staff (fixed position, service contract, others)	Fixed Position
Number of PhD finished/ongoing (with VLIR-UOS funding)	2 PhD ongoing with VLIR-UOS funding
Number of PhD finished/ongoing outside VLIR-UOS funding	
Number of publication in peer reviewed journals	One conference paper published. (in Computer Science some conference publications have a reputation as high as journal publications in other fields.)

Evaluation questions

Relevance (EQ 1 – To what extent is the project relevant?)	
1.1. Responds to needs	<p>The mechanisms of interaction with beneficiaries of the project</p> <ul style="list-style-type: none"> - Direct calls and face to face are made in providing the ICT services (maintenance and problems of internet connectivity). Demand driven service provision

⁷ Hpc: High Performance Computer

<p>The objectives of the projects are consistent with the country/local needs, the needs of the university, the VLIR-UOS strategy and donor's policies</p> <p>Score = 4 (Excellent)</p>	<p>is mostly applied. For example, PhD students of P4 and P6 requested data storage service for their big digital files (geo spatial data taken by drones) and P1 has facilitated this and provided the service to the students.</p> <ul style="list-style-type: none"> - P1 has created data storage/sharing platforms, organized PhD sitting and conference rooms and other ICT facilities, but this has not been properly communicated to the university community so that the university community can use the facilities. - There is an initiative to produce a guideline/user manual or catalog on how to use the ICT facilities and the project is in the process of hiring such service provider. - There is an e-learning guideline in soft copy (pdf format) and this has been provided to students and users within the university - There has been smooth interaction with internal (team members, PhD students) and external (local stakeholders here are other project members in the VLIR-UOS IUC) beneficiaries. - Calls for trainings are communicated through e-mail to the relevant staff members considering the needs of the university. - The call, application process, and selection are transparent as per the response from two staffs who got short trainings. - However, some project team members indicated that the level of transparency need to be improved (project documents are not shared to all members) and the requirements for membership to the project are strict. - When projects are designed, planned and implemented, it would be good to communicate to internal stakeholders (including other AMU-VLIR_IUC projects and relevant departments and colleges of AMU). <p>The extent to which advice and indigenous knowledge from communities is sought and taken into account in the research</p> <ul style="list-style-type: none"> - Not applicable <p>Relevance of research findings for external stakeholders at the local and national level</p> <ul style="list-style-type: none"> - Not applicable yet, and students have not published and produced final results <p>The positioning of the project within the respective departments/institutes/units: what are the needs at this level and how are these answered?</p> <p>What have been the dynamics in the departments so far?</p> <ul style="list-style-type: none"> - Departments and VLIR-IUC thematic projects get ICT services from P1. - P1 assists the development of a Health Database which has to be reported to the Bureau of Health of the zone/region. - E-learning platform has been established and is used by all departments of the university. - Website interface of the programme has been developed and each project has an interface where it can upload data and information to share knowledge. <p>The link of the project with the transversal themes of Belgian development cooperation (gender, environment and D4D, digitalisation for development)</p>
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	<ul style="list-style-type: none"> - Environment: P1 is using solar energy, UPS, Diesel Generators, and main line Hydroelectricity to run the ICT facilities and the servers in the different campuses of AMU. The project used mostly the Solar energy and UPS to ensure 24/7 uninterrupted service. - D4D: The project has established an e-learning lab facility together with the Education Innovation Service Centre of AMU. - E-learning training on how to use Moodle for classroom and idea on establishing e-learning facility has been provided to the Education Innovation Service Centre. - Short-term training on cyber security, server configuration of hpc has been given to staff and based on this mirror data centre has been established at Chamo Campus of AMU. <p>Extent to which gender and environmental sustainability are effectively integrated in each project</p> <ul style="list-style-type: none"> - As mentioned above P1 uses mostly clean energy sources to operate servers and ICT facilities. .
<p>1.2. Synergy There have been efforts made to ensure synergy between (thematic) IUC projects (internal synergy)</p> <p>Score = 3 (good)</p>	<p>The extent to which crosscutting coordination/joint action/collaboration exists between projects (particularly between the thematic projects)</p> <ul style="list-style-type: none"> - P1 is a joint effort of several AMU departments, including the ICT department, the Library, the Computer Science faculty, the Educational Sciences department and the Educational Innovation and Support Centre (established by P1). To maximize the synergy, all these AMU departments have P1 project members. The plan is to extend this with the collaboration of the AMU research VP. - Some members and project leader of P1 participated in the joint synergy meetings. - When developing the programme website (P1), PSU provided information about each project for designing the interface on the designed programme website. - The two PhD students are working synergistically, where the system developed by PhD student Alazar serves as a test bed for PhD student Haileyesus's intervention. - The interaction between P1 and thematic projects is both demand and supply driven. Some initiatives are offered from P1 to all the thematic projects, such as research training (e.g. "Information Literacy" and "Systematic review and meta-analysis" for all AMU-IUC PhD scholars) and Library and ICT services (such as High Performance Computing) and infrastructure improvements. Some support was delivered at the request of specific thematic projects. - P1 works in close coordination with P2 and developed for them a data management and storage system. - Once every year, the projects are conducting joint monitoring and evaluation of the project activities, a budget, a work plan and share experience and lessons. This was organized by the Joint steering Committee. This helps to solve key management problems. - P1 has supported the integration of 'Open Data Kit (ODK)' into AMU ICT services and has provided hands-on training about the application. This allows

	<p>AMU researchers and (mainly P2 and P6) PhD students to collect their data offline (e.g.during field survey), and to automatically synchronize to the central database later, when internet connectivity becomes available. The ODK service and the training have been especially of interest for the College of Health Science and Medicine.</p> <p>The extent to which interdisciplinary research practices (involving more than one project) and inherent synergy takes place</p> <ul style="list-style-type: none"> - The two P1 PhD students are doing interdisciplinary research, bridging computer science and educational sciences. They collaborated with the educational sciences departments and the computer science departments from both AMU and the Vrije Universiteit Brussel (VUB). - The P1 PhD students are collaborating with PhD students from the thematic projects for their computing needs, such as AI imaging processing canopy analysis in P6. <p>The extent to which joint research between projects lead to (spinoff) master theses or paper publications</p> <ul style="list-style-type: none"> - P1 tries to contribute to improving research infrastructure and capacity, in the thematic projects and in AMU at large. E.g by improving library services and organizing training initiatives such as “Information Literacy” and “Systematic review and meta-analysis”. The plan is to scale up these research support initiatives and to institutionalize them in a Research Support Centre. - The P1 PhD students have guided master thesis students, e.g., “Moringa plant disease detection using image processing models”. <p>What has been done to improve and consolidate internal synergies? What could be done better in the 2nd phase of the project to further improve internal synergies?</p> <ul style="list-style-type: none"> - The project organized a meeting to show what has been done (in terms of ICT facilities) to the university management and members of the thematic projects to create awareness about the available facilities for use. - There have been regular meetings with project members and virtual meeting with North partners after Covid-19 and there is good communication. - The e-learning platform has created the opportunity for supporting the teaching learning process particularly in the Covid-19 situation. For example, 46000 usernames and passwords (students + staff) were created to give access to the e-learning platform. - However, the level of communication and synergy with thematic projects is not as expected to be and this needs to be improved in the 2nd phase. Most communications are based on needs of PhD students. - Most investments in Phase I are on infrastructure and short-term trainings. - In Phase 2 the project shall focus more on human capacity building of ICT and Library staffs of AMU. - Membership to the project shall be open to interested staffs within the IUC scope.
1.3. Synergy & Complementarity	<p>The extent to which the project is looking for synergy with other VLIR-UOS interventions in the country or at regional level</p>

<p>There have been efforts made to ensure complementarity and synergy with other (externally funded) projects/ (other (Belgian) development actors)</p> <p>Score = 3 good</p>	<ul style="list-style-type: none"> - P1 collaborates strongly with the transversal projects from the Bahir Dar IUC and the 4 Ethiopian universities from the NETWORK programme coordinated by Jimma University. The North project leaders from these 3 programmes are members in each other's projects. Costs are reduced by combining travels for the 3 programmes and by inviting Ethiopian staff to each other's training initiatives. The ICT directors from the 6 involved universities are sharing experiences and planning initiatives together in a mailing list. - Besides national collaboration, relations with the Cuban VLIR-UOS ICT projects have been established and experiences shared through joint training initiatives. <p>The extent to which the project is looking for synergy with projects supported by other donors, more in particular Belgian development actors</p> <ul style="list-style-type: none"> - P1 is collaborating with EthERNet, the Ethiopian Research and Education Network, on initiatives such as improving the academic internet and implementing Eduroam. - P1 has collaborated with the National Academic Digital Repository of Ethiopia and the Ethiopian Educational and Research Network (ETHERNET) to integrate the AMU Institutional Repository in the national repository. This allows AMU research outputs (Master and PhD thesis), which were previously accessible only in AMU (via an intranet service), to be freely and publicly accessible over the internet for use by the global academic and research community as well as the general public by large. Consequently, this increases AMU's institutional visibility while highlighting current thematic research areas to attract other research partners to work in collaboration. - P1 facilitated AMU's access to a research database through the Consortium of Ethiopian Academic and Research Libraries (CEARL). - Inspired by a P1 library training, free access to premium journals was obtained from Research4Life. - P1 South members are collaborating with Gamo Development Association around ICT services. <p>What has been done to improve external synergies?</p> <ul style="list-style-type: none"> - See the answers to the first and second question. - P1 have established a strong and improving collaboration with Ethiopian Educational and Research Network (Ethernet). Accordingly, P1 members are often invited to collaborate or participate in short-term training and courses organized by Ethernet, which are also related to P1's focus areas (e.g., e-learning, ICT). <p>What could be done better in the 2nd phase of the project to further improve external synergies?</p> <ul style="list-style-type: none"> - During phase 2, the project should grow capacity for attracting other donors. - There is a need to build the capacity of staff through training on grant proposal writing and project management.
<p>1.4. Coherence</p> <p>The project is coherent</p>	<p>There is coherence between expected results, specific objectives and the overall objective</p> <ul style="list-style-type: none"> - Yes, there is. The PhD students are on the right track and will finish in time.

<p>Score = 4 (Excellent)</p>	<ul style="list-style-type: none"> - Material installations and configuration have been done and mirror data centre established, e-learning platform developed, and website of the programme designed though projects have to provide data/info to put it in the interface developed for each project on the website of the programme. Link to the website: https://www.amu.edu.et/index.php?option=com_content&view=category&id=83&Itemid=342 <p>Short-term trainings on cyber security, server configuration of hpc have been delivered to ICT staff related to P1.</p> <p>The choice of activities is relevant to obtain results and objectives</p> <ul style="list-style-type: none"> - Yes, it is relevant. <p>The indicators are well chosen to monitor progress and to support learning.</p> <ul style="list-style-type: none"> - Yes, but PL states that the indicators are not well chosen and the log-frame need to be revised (But no evidence from the PL on which indicators are weak and why they are weak as well). <p>Is the formulation of the project still relevant, taking into account changes in context (such as Covid but also changes in the departments, new dynamics?)</p> <ul style="list-style-type: none"> - Yes, it is relevant even in the context of Covid-19 because the e-learning platform developed contributed to some extent to carry out teaching-learning processes.
<p>Final judgement/comments</p>	
<ul style="list-style-type: none"> - The main objective of the project is to improve the quality of education and research practices of AMU by enhancing ICT and library services. As a transversal project the objective of the project and its progress are consistent with AMU's 5-year strategic plan that places emphasis on five core areas (Ensuring educational participation and access; Promoting educational fairness; Improving educational quality, relevance and research activities; Technology transfer and community services; and Improving institutional cooperation and good governance). - The project with its focus on ICT and Library is aligned with Digitization for Development as a cross-cutting theme of VLIR-UOS. - In addition to sharing of experience with other thematic projects through the joint steering committee meetings, the project has internal and external synergy initiatives with other thematic projects and stakeholders. - During developing the programme website for example, the PSU provided information about each project for designing the interface for each thematic project on the designed programme website. - There is no strong interaction though with thematic projects and most interactions are when demand arises from the thematic projects for the ICT- services they need from P1. There is however a strong effort done by the project to create internal synergy. For example, the project organized a meeting to show what has been done (in terms of ICT facilities including the e-learning platform) to the university management and members of the thematic projects to create awareness about the available facilities for use. - In the case of external synergy, the project has collaborated and organized joint training initiatives with Bahir Dar University and the 4 universities of the NETWORK programme coordinated by Jimma University. Members of these universities were invited and have participated at training initiatives organized at AMU, where AMU ICT staff members have shared their specific expertise. 	

- There is a need for joint planning of activities and more intensive collaboration with the other IUC thematic projects to improve both internal and external synergy.
- The respondents also emphasized the need to build the capacity of staff through training on grant proposal writing and project management in addition to ICT related trainings.
- The project is coherent regarding the fact that the human and ICT and library facilities/ capacity building will lead to achieve the objective of the project, which is to improve the quality of education and research practices of AMU by enhancing ICT and library services.

Effectiveness EQ 2 – To what extent have the project’s specific objectives been achieved (effectiveness)?

2.1 Academic
Extent to which the specific objectives of the project with regards to research and education strengthening have been realised

Score = 3 (good)

Progress in indicators developed for the specific objective at project level related at research and education strengthening of capacities and infrastructure

- The 2 PhD students are on the right track and will finish their PhD in time.
- ICT facilities (siting/conference rooms for PhD students, e-learning facility, mirror data centre etc.) are in place.
- Short term trainings (cyber security, server configuration of hpc) have been delivered.

Progress made in gender mainstreaming and environment as cross-cutting issue at project level

- Environment: P1 is using solar energy, UPS, Diesel Generators, and main line Hydroelectricity to run the ICT facilities and the servers in the different campus of AMU. The project used mostly the Solar energy and UPS to ensure 24/7 uninterrupted service.
- D4D: The project has established e-learning lab facility together with the Education Innovation Service Centre of AMU.
- E-learning training on how to use Moodle for classroom and idea on establishing. E-learning facility has been provided to Education Innovation Service Centre.
- Short-term training on cyber security, server configuration of hpc has been given to staff and based on this mirror data centre has been established at Chamo Campus of AMU.

Non-expected effects that have emerged (not specified by indicators)

- None

Factors contributing to the level of achievements at project level (both positive and negative), e.g. the influence of Covid

- Positive Factors:
 - o There has been strong support from PSU, AMU and high commitment of PhD students and the project leaders of North and South.
 - o The training on cyber security has helped the project and staffs to work effectively.
 - o The university management is very supportive in providing classes, chairs, and tables for the established e-learning facility and PhD siting/conference rooms.
- Negative factors
 - o Covid-19, through reducing mobility.

	<ul style="list-style-type: none"> ○ Procurement rule of AMU allows direct purchase of items less than 5000ET while North partners allow up to 5000 EUR; the AMU rule causes delays in procurement of supplies. The project mostly relies on direct purchases from Belgium as solution to such problem of procurement. ○ Shortage of budget for one of the PhD students for his research (The PhD student used the service from Math department of AMU and the IUC rule does not allow to make payments to services provided by AMU staff). The problem was solved through finding support from the university. <p>Appreciation of progress made by respondents involved</p> <ul style="list-style-type: none"> - There is good progress (PL), and PhD students are on the right track. - The beneficiaries of the short-term trainings stated that the knowledge they get from the trainings helped them to be more productive in their work (P1 developed AMU’s open source Journal System, Research Project information system, IUC-AMU website, and P1 gave training about journal system) <p>The extent to which the way forward (as specified in project self-assessments) is sufficiently geared towards the realisation of the specific objective and the overall objective</p> <ul style="list-style-type: none"> - There is very high confidence among the respondents that the specific and overall objectives of the project will be realized as per the plan in the remaining time of the project.
<p>2.2 Development Extent to which the specific objectives of the project with regards to the contribution to national development priorities have been realised</p> <p>Score = 3 (good)</p>	<p>Progress in indicators developed for the specific objective at project level related to the contribution to national development priorities from project perspective</p> <ul style="list-style-type: none"> - The P1 objectives and progress so far are in line with the national ICT policy related to blended learning, which gives more focus on digital teaching and learning. - The Ministry of Science and Higher Education (MOSHE) is planning to invest more on ICT for increasing the coverage of digital teaching learning and introducing educational roaming platform (eduroam) in higher education and the e-learning platform that P1 has established is in line with MOSHE’s direction. <p>Non-expected effects that have emerged (not specified by indicators)</p> <ul style="list-style-type: none"> - None <p>Factors contributing to the level of achievements (both positive and negative), e.g. the influence of Covid</p> <ul style="list-style-type: none"> - Positive Factors: <ul style="list-style-type: none"> ○ There has been strong support from PSU, AMU and high commitment of PhD students and the project leader. ○ The training on cyber security has helped the project and staffs to work effectively. ○ The university management is very supportive in providing classes, chairs, and tables for the established e-learning facility and PhD sitting/conference rooms. - Negative factors <ul style="list-style-type: none"> ○ Covid-19

	<ul style="list-style-type: none"> ○ Procurement rule of AMU allows direct purchase of items less than 5000ET while North partners allow up to 5000 EURs, which the AMU rule causes delays in procurement of supplies. ○ Shortage of budget for one of the PhD students for his research (The PhD student used the service from Maths department of AMU and the IUC rule does not allow to make payments to services provided by AMU staff). This has been solved through funding from the University. <p>Appreciation of external stakeholders</p> <ul style="list-style-type: none"> - PL indicated that an official at MOSHE is aware of the activities of P1 and there is positive feedback on our activities on creating e-learning platform, which is in line with the initiative of MOSHE to invest in digital learning and teaching facilities in public universities of the country. <p>The extent to which the way forward (as specified in self-assessments) is sufficiently geared towards the realisation of the specific objective and the overall objective</p> <ul style="list-style-type: none"> - The project anticipate that the PhD students will successfully finish their studies and all the objectives will be achieved in time. <p>Level of reflection with regards to existing relations and networks (maybe the 2nd phase requires new expertise or networks?)</p> <ul style="list-style-type: none"> - There is a very good relation between project members and with PSU and PL. - But some members stated that there is still a need for creating more awareness of the internal stakeholders about the project. This means that part of them make use of the services but not enough yet and/or more internal stakeholders than today could make use of the services.
<p>2.3 Scientific quality</p> <p>Score = 3 (good)</p>	<p>What information is available about quality of research (e.g. publications) and education (e.g. fellowships received from foundations, job prospects for alumni)</p> <ul style="list-style-type: none"> - Abera, H., & Loeckx, J. (2020). The case for uplift modelling in higher education. In EDULEARN20 Proceedings (pp. 5916-5922). IATED. - Rorisa A., Loeckx J., A systematic review paper on “Conversational intelligent tutoring system” to be submitted to Artificial Intelligence in Education conference - Abera, H., & Loeckx, J. “Predictive models for student success in higher education” article in preparation (to be submitted to Journal of Learning Analytics) - The experience in other transversal projects is that PhD holders with a focus on the interdisciplinary research of computer science and educational science are in extremely high demand at universities and ministries of higher education, even at an international level. To avoid brain drain, a contract has been made between AMU and the PhD students: after graduation they will be at least eight years research and teaching staff members. <p>Does the project refer to ‘cutting edge’ knowledge and what evidence is the project referring to?</p> <ul style="list-style-type: none"> - Yes, the PhD students are using and developing cutting edge Artificial Intelligence methods (e.g. uplift modeling) for improving education through the Intelligent Tutoring System and Student Success System.

	<p>Are there clear examples of quality (to verify during field mission) (optional)</p> <p>In case you have some ideas already:</p> <ul style="list-style-type: none"> - PhD sitting/conference rooms are furnished well and have air conditioning and this is appealing for students to sit and do their work particularly during high temperature. - Student library at the Main campus has also been furnished with air conditioning. <p>What are issues of concern according to you in relation to scientific quality?</p> <ul style="list-style-type: none"> - No issues of concern
Final judgement/comments	
<ul style="list-style-type: none"> - The progress of the 2 PhD students (ICT + Library) is on the right track and it is expected that both will finish in time. Though the PhD students are on the right track, they have not yet published papers. In addition, the progress regarding instalment of the ICT facilities (sitting/conference rooms for PhD students, e-learning facility, mirror data centre etc..) is very good and the short-term trainings given to staff (on cyber security, server configuration of hpc) have contributed to enhance the effectiveness of the project in putting the ICT facilities/systems in place. - The P1 objectives and progress so far are in line with the national ICT policy related to blended learning, which gives more focus on digital teaching and learning. The Ministry of Science and Higher Education (MOSHE) is planning to invest more in ICT for increasing the coverage of digital teaching learning and introducing educational roaming platform (eduroam) in higher education. The e-learning platform that P1 has established is in line with MoSHE's direction. - As a transversal project P1 has encouraged progress that will improve the quality of teaching-learning and research undertakings at AMU. For example, the PhD sitting/conference rooms are furnished well and have airconditioning and this is appealing for students to sit and do their work particularly during high temperatures. Student library at the Main campus has also been furnished with air conditioning. 	

Efficiency (EQ 3 – What is the level of efficiency in the project?)	
<p>3.1 Intermediate results</p> <p>Intermediate results have been delivered</p> <p>Score = 3 (Sufficient/good performance)</p>	<p>Level of realisation of intermediate results according to indicators formulated in the logical framework (with specific attention to the number of topics to be covered in P1 in relation to available resources)</p> <ul style="list-style-type: none"> - The level of realization of most of the IRs is good. - But due to budget constraint, the project could not purchase the ground penetrating tool (fiber detecting tool) that was planned. <p>Factors contributing to the level of achievements (both positive and negative), for e.g. how realistic were the planned results given the resources and time available in the framework of the project?</p> <ul style="list-style-type: none"> - Positive factors <ul style="list-style-type: none"> o The time frame and budget planned for most IR are realistic. o All project members (N & S) participated with commitment. o University management and PSU are supportive. - Negative factors <ul style="list-style-type: none"> o internet blackout and drop in bandwidth of the internet from the service provider (ethio telecom). <p>Outlook towards full achievement of IR in remaining year</p> <ul style="list-style-type: none"> - In the remaining time most of the IRs will be achieved (not further detailed).

<p>3.2 Support was provided to ensure the quality of the research and educational processes</p> <p>Score = 3 (Sufficient/good performance)</p>	<p>The project provides adequate training, support, mentoring and follow-up for students (PhD and MSc, including support in managing effects of Covid-19 on their research)</p> <ul style="list-style-type: none"> - P1 has facilitated the establishment of the e-learning platform. - It also supports PhD students in having access to store their digital data that need big storage space. - P1 has established PhD student siting and conference rooms (3 rooms) and PhD students are using the facilities. - Staffs who got short term trainings on cyber security, server configuration of hpc stated that the trainings were very helpful, and they also shared the knowledge they got to other staff members of relevant departments (ICT). <p>The project provides adequate training and support for students in terms of grant writing and job searches (particularly for MSc students; PhD students are mainly university staff)</p> <ul style="list-style-type: none"> - No - Such a training on grant proposal writing should be given to all project team members and staff of AMU and would be good and need to be planned for the second phase. <p>The project contributes to scientific quality as described under the rationale of efficiency</p> <p>Yes, scientific quality of a research output depends on its inputs and ICT facilities is one of such inputs.</p>
<p>3.3 relationship input-output</p> <p>Relationship between means and results achieved and objectives (qualitative assessment)</p> <p>Score = 3 (good)</p>	<p>Share of missions from the partner in the North, PHD's, trainings, investment costs and operational costs is reasonable in relation to the realisation of the intermediate results</p> <ul style="list-style-type: none"> - The staff members who got the short-term trainings stated above have enhanced their capacity and hence their service delivery including managing the e-learning platform. - The share of all internal and external stakeholders to achieve the IR and the costs involved are somehow reasonable except the shortage of budget for purchase of ground penetrating tool (fiber detecting tool) that was planned. <p>Relevance of the expertise that was mobilised from Flemish universities and other partners</p> <ul style="list-style-type: none"> - The training on data storage and installation was good but it was not up to expectation. Some trainees already have the knowledge and it is simplistic and repetitive for some of us. For example, in the first day of the training there were 20 people but from the 2nd day on it drops sharply. - There was another training on ICINGA Open-source computer system and this was very helpful. <p>Management of spending and rate of over- and/or underspending (and explanatory factors)</p> <ul style="list-style-type: none"> - During the first year there was an overspending of 7345 euro. But this was a budget optimization strategy: buying equipment planned for the following years was done earlier, in order to fill the gap caused by the underspending elsewhere in the programme in the first year. This was rebalanced by P1 underspending the next years and overspending elsewhere in the programme.

	<ul style="list-style-type: none"> - The P1 budget is followed up well, but flexible. The 5-year budget is revised yearly. And also, during the running years, there is a frequent re-evaluation of what is the best budget strategy. Sometimes there were changes to optimize the division of purchases funded by AMU versus funded by P1. E.g. when it became clear that it was easier for AMU to fund and purchase the solar power equipment (planned by P1) than some other equipment not planned by P1, we swapped. - The budget management is efficient, because the IUC includes a programme support unit (this unit works with an independent accountant, finance manager). <p>Choice of activities: cost-effectiveness is being pursued in programme design and management</p> <ul style="list-style-type: none"> - Yes: The project leader stated that as much as possible they are following a cost-effective approach. For example, they purchased access points (supplies for internet) directly from Belgium because the cost/price in Ethiopia is very high.
<p>3.4 Project management Project management is conducive for efficient and effective project implementation</p> <p>Score = 3 (good)</p>	<p>Good working relation within the project team (clear guidelines, transparency, communication flows, timeliness of planning and execution of activities, etc.)</p> <ul style="list-style-type: none"> - Project leader shared the project document, budget, plans and relevant information to some team members but not to all. - The communication flow is good and somehow transparent and there is a good team spirit. - Short term trainings were given to some staffs and those who took the training share their knowledge to others. <p>The extent to which the project teams can be flexible in project execution (taking into account emerging needs, challenges from the context, amongst which Covid 19)</p> <ul style="list-style-type: none"> - As stated above, one PhD student used the service of expert at the Department of Mathematics and because IUC's rule does not allow to cover such costs, this was discussed this with the university management and another funding source from the university could be found to cover such cost. - Because of budget constraints we drop our plan of buying ground penetrating tool. - When training activities could not take place as planned face to face due to Covid-19, the training budget was shifted towards online training (Udemy). <p>Factors hampering efficient management have been identified timely and managed well</p> <ul style="list-style-type: none"> - Yes, when the idea of establishing a data centre was raised it was noticed that a place/house was needed for the generator. This was discussed with the university management and the university provided budget to the construction of the house for the installation of the generator. <p>Bureaucracy related to procurement (equipment purchases, travel approval...) has been managed well by the project team</p> <ul style="list-style-type: none"> - The local procurement procedure and policy at AMU is very lengthy, but the AMU-IUC programme has its own committee that has facilitated/shorten the bureaucracy. - We also do direct purchase from Belgium.

Final judgement/comments

- The progress of PhD students, and activities performed related to ICT and Library (sitting/conference rooms for PhD students, e-learning facility, mirror data centre, programme website, support to PhD students in having access to store their digital data that need big storage space, installing air conditioners in the main campus library etc..) and short-term trainings (eg. on cyber security, server configuration of hpc) are very good and the project is on the right track and will achieve its IRs in the remaining time of Phase 1.
- The staff members who got the short-term trainings stated above confirmed during the interview that the trainings have enhanced their capacity and hence the project's service delivery including managing the e-learning platform. Respondents stated that the share of all internal and external stakeholders to achieve the IR and the costs involved are reasonable. But in terms of the level of expertise mobilized from Flemish universities, we got mixed responses. For example, the training on data storing and installation was good, but it was not up to the expectation of most trainees.
- Some of the trainees already have the knowledge and it is simplistic and repetitive for some. On the other hand, other training on the ICINGA Open-source computer system was very helpful. There respondents suggested that, in the future when expertise are mobilized from Flemish universities for delivering short-term training, it would be more efficient if it is based on the need of the staff at AMU.
- As a transversal project the support that P1 is providing contributes to the scientific quality of education and research outputs at AMU. Respondents confirm that there is a very good working relation within the project and the project is also flexible in supporting PhD students.
- All respondents raised their concerns on the lengthy procurement procedure, but also indicated that direct purchases from Belgium and the fact that AMU-IUC programme has its own committee are the mechanisms used to facilitate/shorten the bureaucracy.

Sustainability EQ 4 – To what extent will the project results continue after the IUC programme is completed (sustainability)?

4.1 Institutional
Level of academic
and institutional
sustainability

Score = 4 (Excellent/Very good performance)

Level of (personal) commitment of stakeholders within the department/school concerned

- The level of commitment of stakeholders (PhD students, team members, PL, PSU, university management, and relevant departments) is very good. For example, one of the team members went to Jima University to bring the servers in the time of much insecurity.
- There has been frequent cyber-attacks and staffs were working overtime to filter the attacks and they have not been paid for the overtime work.
- P1 tries to maximize the post-project sustainability chances by capacity building, Free and Open Source solutions, funds matching (AMU co-funding some P1 initiatives) and institutionalising efforts by the establishments of new support departments such as the Educational Innovation and Support Centre and (planned) the Research Support Centre.

Measures taken for retention of PhDs and trained staff

- There is staff turn-over at AMU due to low salary.
- PhD students have signed agreement with AMU to serve the university after finishing their studies.
- The working environment is good and there are efforts by the university to improve it (example, accommodation for academic staff).

	<ul style="list-style-type: none"> - Staff also get accommodation for free though the supply is limited. <p>Joint research interests for both the Northern and Southern academics involved, are identified and pursued</p> <ul style="list-style-type: none"> - Thanks to the experiences of the P1 PhD students in the VUB AI research group and the trainings organized at AMU, also the AMU Computer Science faculty has established an AI research group. <p>Evolution in networking with other national universities</p> <ul style="list-style-type: none"> - There is collaboration established and (training) activities developed with Bahir Dar University and the 4 universities of the NETWORK programme around Jimma University. - The PL stated that they have provided e-learning installation training to Medewelabu university and they are planning to provide same training to Dire Dawa University.
<p>4.2 Financial</p> <p>Level of financial sustainability</p> <p>Score = 3 (Sufficient/good performance)</p>	<p>Allocation of funds by Flemish universities (e.g. giving fellowships or by allowing academics to go to the field, matching funds)</p> <ul style="list-style-type: none"> - Allocations from Flemish University for Fellowship, field work, infrastructure/equipment, and matching funds from AMU were sufficient to undertake project activities. - The project got matching funds from AMU for purchase of tables, chairs for the PhD sitting/conference rooms and for the construction of the house for the generator. <p>Availability of funds for operations and maintenance of physical infrastructure at university/college level</p> <ul style="list-style-type: none"> - Despite the procurement bureaucracy, there will be funds at university level for operation and maintenance of physical infrastructure. - P1 purchased and installed the data centre power generator and UPS, where the budget for the accessories and installation service costs were covered by the AMU budget. - Currently during the project implementation itself, fuel and maintenance costs for the generator and UPS is covered by the university. <p>Availability of proper funds (at university or college level) to continue all or a number of activities that are important/relevant</p> <ul style="list-style-type: none"> - The purchased ICT equipment are mostly installed in existing facilities of the university and there will be funds from the university to continue the activities. <p>Capacity for resource mobilisation to build on the achievements (Strategy and initiatives to attract external funding (from other donors, government, private sector, ...), skills of staff, task division for resource mobilisation, networks, ...)</p> <ul style="list-style-type: none"> - There is limited capacity for resource mobilization. However, the PL S stated that he has got experience of how to write project proposal, plan activities and implementation plans. - For attracting big external funds, increasing the capacity of staff in grant proposal writing, project planning and management and related short-term trainings would help and shall be planned in phase II.

	<ul style="list-style-type: none"> - Much focus shall be given to human capacity building in the 2nd phase and on short term trainings on grant proposal writing and project management. <p>Development of business approaches towards financing</p> <ul style="list-style-type: none"> - The experience and level of expertise gained through P1 workshops and technical training allowed the AMU ICT department to provide professional and remunerated consultancy and expertise for some of the recently established universities, particularly those in the Southern regions (e.g., Jimma University).
Final judgement/comments	
<ul style="list-style-type: none"> - The level of commitment of stakeholders (PhD students, team members, PL, PSU, university management) is very good. For example, one of the team members went to Jimma University to bring the servers in the time of much insecurity and there has been frequent cyber-attack and staffs were working overtime to filter the attacks and they have not been paid for the overtime work. - The project has a good network with few national universities like Jimma University and the PL stated that they have provided e-learning installation training to Medewelabu university and they are planning to provide the same training to Dire Dawa University. - Most respondents stated that fellowship allocations from Flemish universities, field work, infrastructure/equipment, and matching funds from AMU were sufficient to undertake project activities. - There will be funds at university level for operation and maintenance of physical infrastructure and currently during the project implementation itself, fuel and maintenance costs for the generator and UPS is covered by the university. - Moreover, the purchased ICT equipment are installed in existing facilities of the university and there will be funds from the university to continue the activities. The respondents, however, stated that there is limited capacity for resource mobilization and attracting big external funds. This requires increasing the capacity of staff in grant proposal writing, project planning and management and related short-term trainings, which shall be planned in phase II. 	

2.3.2. Project 2

TITLE OF PROJECT: LIVING WITH UNCERTAINTY: ANALYZING RURAL LIVELIHOODS AND RETHINKING SUSTAINABILITY IN SOUTH ETHIOPIAN RIFT VALLEY

INTRODUCTION

The project aims at supporting the agriculture reform agenda through policy support, capacity building, training and technical assistance. The general objective of the project is to stimulate policies and actions to improve the livelihoods of rural households in the light of sustainable development in the South Ethiopian Rift Valley. The project is expected to achieve two specific objectives i.e. improving rural livelihoods through sustainable development and enhancing the capacity of Arba Minch University in socio-economic and anthropological research. The project has seven interconnected Intermediate Results (IR) focusing on survey and analysis of rural household, agriculture and environment, strengthening the capacity of staff in research and other relevant actors. Each intermediate result is consisting of a number of activities and sub-activities which are detailed in the project logical framework (LF). The project involves the College of Business & Economics and the College of Social Sciences & Humanities. Directly involved actors in the overall project implementation include the Department of Economics and the Department of Sociology and Social Anthropology, North and South project leaders, PhD Students, project members, and field course participants.

There is no major change in the execution of the project activities except delay in organizing consultative workshops at AMU due to Covid-19.

FACTUAL DATA

Hosting faculty	College of Business & Economics and the College of Social Sciences & Humanities
Number of staff in research group	9
Status of staff (fixed position, service contract, others)	All are fixed
Number of PhD finished/ongoing (with VLIR-UOS funding)	3 on going
Number of PhD finished/ongoing outside VLIR-UOS funding	None
Number of publications in peer reviewed journals	None

EVALUATION QUESTIONS

Relevance (EQ 1 – To what extent is the project relevant?)	
1.1 Responds to needs 1. The objectives of the projects are consistent with the country/local	<p>The mechanisms of interaction with beneficiaries of the project</p> <ul style="list-style-type: none"> - The project actively communicates and interacts with project beneficiaries. - Letters, organizing awareness raising workshops/seminars, various trainings, face to face communication and working through development agents were the major communication and interaction mechanisms. The key evidence includes:

needs, the needs of the university, the VLIR-UOS strategy and donor's policies

Score: 4=Excellent

- Before commencing the project activities, key stakeholders such as zone and woreda agricultural office, NRM office, tourism, culture and sport office were communicated through letters about the project objective. These offices also participated in awareness raising workshops/seminars;
- These stakeholders were briefed about the project in their office. As a result they were actively participating in the project implementation, for instance zone and woreda agricultural office wrote a letter to agriculture development (DAs) agents located in kebele (research sites) to support the project research activities. As a result, DAs communicated the local community during selection of survey respondents, research sites etc;
- DAs were the key interaction mechanism with project beneficiaries. Before and during data collection from the communities, households were informed and communicated about the project concept and objective through DAs;
- The project has planned to share the research findings through publications, result dissemination workshops, trainings and a website developed by P-1.

The extent to which advice and indigenous knowledge from communities is sought and taken into account in the research

The project integrates indigenous knowledge, because:

- Through a rural household survey, the perception of the community and leaders towards risk and uncertainty, coping mechanisms, the available soil and water conservation technologies were assessed. Moreover, in the long-term ethnographic research that focus on a study of Class and uncertainty, various community members, community elders, community leaders, religious fathers were participated. Their opinion regarding different cultural and religious practices, social class and identity formation, methods of conflict resolution, social class and livelihood strategies, how social class, risk and vulnerability are related was collected synthesized and integrated into research.

Relevance of research findings for external stakeholders at the local and national level

- The research problems and findings are relevant to the local stakeholders needs at the local level. The key evidence includes:
 - As discussed with woreda offices, knowledge and skills about the main cause of land degradation/land sliding, unsustainable rural livelihood and reasons for poor agricultural productivity in the area are their main priority. Knowing more about this help the woreda to provide practical training to the local community.
 - Initially the research agenda came from the local communities and stakeholders. Because before developing P-2 research topics, AMU consulted with the local stakeholders and identified research priority areas. Project 2 topics align to these identified research areas and responds to these felt needs.

- As discussed with woreda Tourism, Culture and Sport Office offices, study on Gamo socio-cultural system is one of the woreda 2017 annual development plan. Accordingly, one of P2 research topics dealing anthropological study of socio-culture variables and hence aligned to the woreda plan.
- The project is progressing towards identifying highly relevant policies and strategies at national level. The research findings respond to the key regional and national development priority strategy and actors engaged in rural livelihood for instance:
 - Response from GIZ, and Ethiopian Wildlife Conservation Authority (EWCA) proved that - analyzing rural livelihoods in South Ethiopian Rift Valley- especially issues associated with siltation in the Lake Chamo and sustainable livelihood are the top national and regional agenda. In response to this, the regional state and relevant zonal offices had developed an action plan. The project research findings provide evidence, data for monitoring and evaluation, which are relevant to the regional programme.

The positioning of the project within the respective departments/institutes/units: what are the needs at this level and how are these answered? What have been the dynamics in the departments so far? This is particularly interesting for P1 (TISP) as transversal project.

- The positioning of the project within other projects is strong because the project has strong linkages and collaboration with P1, P3, P5, P4 and other projects that involve different departments and institutes, for instance:
 - P1 has allocated and reserved data storage space for PhD student research data. So far, P2 has collected data from more than 850HH in the first-round survey and 834 in the second round and P1 has developed a data storage server for the data and the capacity needs to be improved as the data is big. The data is safely stored and retrieved for analysis. P1 supported an online data collection entry interphase for P2. P1 has developed a website (institutional repository) that will help P2 and other projects to share the research findings.
 - P4 assisted P2 during designing SWC experimental design. Furthermore, tablets and GPS purchased by P2 are used by P4 and other projects. Besides, P2 provides technical assistance to other projects during application and use of these materials.
 - P2 has collected and analysed information/data about fertility decisions and ready to share with P3.

The link of the project with the transversal themes of Belgian development cooperation (gender, environment and D4D, digitalisation for development)

The project integrates environment, D4D and gender elements in the research process, because:

	<ul style="list-style-type: none"> - One of the key components of the project research agenda is to find scientific solutions to the main causes of poor agricultural productivity, SWC problems, risk and uncertainties in the project site. This responds to environment issues. - The project has invested in digitalizing the data management system and application of better data collection systems using online records. Massive data having different variables are systematically collected from more than 850 HH (male, female) in the first round survey and 834 HH in the second round. This use of data is indispensable for developing scientific findings. Furthermore, the system will give opportunity to other projects, partners (digital for inclusive societies) for setting up development intervention. - During the research process (socio-economic survey) gender opinions were collected and included in the analysis. <p>Extent to which gender and environmental sustainability are effectively integrated in each project:</p> <ul style="list-style-type: none"> - Gender and environmental sustainability element are well integrated in the project component, as evidenced by: <ul style="list-style-type: none"> - The project IR3 states “Analysis and deeper understanding of family structures, fertility decisions, and child-raising”. Here the research findings focus on key gender elements; - During data collection women data collectors were participating. Opinions and responses were collected from women representatives through FGD and individual interviews; - Parts of the research preliminary findings were presented during an anthropological workshop. During this presentation opinions from women were collected. The response will be included in the research findings; - Socially acceptable and economically viable endogenous knowledge about SWC methods such as stone bund construction methods are included in the research activities. This substantially contributes to environmental sustainability of the project. - Project respondents mentioned that the project needs to develop a gender mainstream strategy.
<p>1.2 Synergy</p> <p>There have been efforts made to ensure synergy between (thematic) IUC projects (internal synergy)</p> <p>Score:3= Good</p>	<p>The extent to which crosscutting coordination/joint action/collaboration exists between projects (particularly between the thematic projects)</p> <ul style="list-style-type: none"> - The project has made joint action and collaboration with projects. The key evidence includes: <ul style="list-style-type: none"> - P2 works in close coordination with P1 and developed a data management and storage system; - P2 works with P4 and developed a SWC experimental design;

- Once every year, the projects are conducting joint monitoring and evaluation of the project activities, a budget, a work plan and share experience and lessons. This was organized by the Joint steering committee. This helps to solve key management problems;
- Every year there is an annual meeting for planning and sharing experiences, this improved joint planning actions for sharing resources such as vehicles, tablets, GPS, lab facilities etc.
- Even though there was joint monitoring, the project does not have a comprehensive monitoring and evaluation plan. Because of this, lessons gained from joint monitoring and action points are not shared on time or not shared to all project members.

The extent to which interdisciplinary research practices (involving more than one project) and inherent synergy takes place

- The project jointly works with other projects (share information/data and practices) and creates synergy, for example the project received support and information from P4 project about how to design environmental, land use/ecosystem experiments.

The extent to which joint research between projects lead to (spinoff) master theses or paper publications.

- The project results to a master thesis but no joint paper publications. However, there is a plan to develop join publication with project-4 after students finish their PhD.
- The project organized an interdisciplinary field course, this activity increased the research capacity of students for conducting good quality MSc thesis research.

What has been done to improve and consolidate internal synergies? What could be done better in the 2nd phase of the project to further improve internal synergies?

- The project made joint action, interaction, organized workshops and meetings. This improved internal synergy. For the next phase, it was stated that:
 - o First it is necessary to define “what synergy” means within the project context because there is a different meaning and understanding among staffs, then “a comprehensive synergy plan” with a clear budget and operational plan should be developed.
 - o The project plan to develop an integrated vision on synergies between socio-economic, environmental, ecosystem and agricultural productivity dynamics is a good plan but details about how to conduct should be further developed.
 - o The project needs to develop a “communication strategy and plan” so that the synergy/joint actions and learning could be easily communicated and shared. This will improve the added value of having synergy in the university.

	<ul style="list-style-type: none"> o The project needs to develop multi-disciplinary research topics.
<p>1.3. Synergy & Complementarity</p> <p>There have been efforts made to ensure complementarity and synergy with other (externally funded) projects/ (other (Belgian) development actors)</p> <p>Score: 3= Good</p>	<p>The extent to which the project is looking for synergy with other VLIR-UOS interventions in the country or at regional level</p> <ul style="list-style-type: none"> - The project has created synergy and made complementarities with other VLIR-UOS JOINT projects because: <ul style="list-style-type: none"> - Annually, Masters Students from Development Economics, and Agricultural Economics receive field courses about sustainable rural development in cooperation with KU Leuven at the University of Eldoret, Kenya. This is a regional programme supported by other VLIR-UOS interventions. <p>The extent to which the project is looking for synergy with projects supported by other donors, more in particular Belgian development actors</p> <ul style="list-style-type: none"> - The project created synergy with other donor but not with Belgian development cooperation. The key evidence includes: <ul style="list-style-type: none"> - The project has established linkages with Wageningen University and Washington State University. The PhD student dealing with rural livelihood strategies and the role of risk and uncertainty received advice from Wageningen University. Similarly, the PhD student dealing family structures, fertility decisions, and child-raising advisor received advice from Washington State University. <p>What has been done to improve external synergies?</p> <ul style="list-style-type: none"> - In fact, there is no detailed plan and activities so far; the above synergies are created based on individual interest and contact. However, during steering committee meetings, the importance of creating synergy was elaborated and potential areas of collaboration were identified. <p>What could be done better in the 2nd phase of the project to further improve external synergies?</p> <ul style="list-style-type: none"> - Donor mapping and possible areas of synergy have to be developed; - Develop a communication strategy, containing a section that explains how to improve external synergy; - Training about communication, grant proposal writing; - The steering committee at local level should take the responsibility and develop a ToR for this future synergy action/plan.
<p>1.3 Coherence</p> <p>The project is coherent</p> <p>Score:4=Excellent</p>	<p>There is coherence between expected results, specific objectives and the overall objective.The project problem analysis and the intervention logic model, as it is stated in the project LF, were coherent and logically interlinked. The seven IR are interlinked and contribute to the general objective: Stimulating policies and actions to improve the livelihoods of rural households in the light of sustainable development in the South Ethiopian Rift Valley. This objective is a bit ambitious within the project planned period,</p>

- The project LF shows that the design of the project is effective in terms of quality of problem analysis and presentation of the project's intervention logic. This is mainly because before and during implementation, the project organized workshops and made consultations with different stakeholders and validated the project results. Due to this, throughout the implementation period the nature of the project results and implementation approach originally identified have not significantly changed.

The choice of activities is relevant to obtain results and objectives Almost all the activities are relevant, linked to each respective intermediate result, except only one activity related to cooperative study under result 4. During implementation of the project, the researcher identified that there are many studies about cooperatives and its linkage to IR4 was weak. This activity was replaced by studies related to land titling and certification, soil and water conservation (SWC) technology adoption which will contribute better to the project results. This change has not significantly affected the project intervention logic.

The indicators are well chosen to monitor progress and to support learning

Generally, the indicators are well chosen but some indicators need improvement: some indicators refer to numbers even for higher level results. For example, indicators related to “increased capacity of AMU staff in research, research-based education and research-based community services” are numbers but changes in the capacity of AMU can maybe be better captured through changes in new skills/knowledge/ practices. The University received material support, new technology. The effect of this has to be captured in one way or another.

- The project did not use the existing logframe to monitor the progress. This limits the measurement of the project progress based on indicators.

Is the formulation of the project still relevant, taking into account changes in context (such as Covid but also changes in the departments, new dynamics?)

- The formulation of the project is relevant and implemented as per the operational plan except activities related to organizing workshops due to Covid-19.
- The project integrates the effect of Covid-19 under rural livelihood strategies and the role of risk and uncertainty research activity, which is improving the dynamics of the research activity.

Final judgement/comments

- The project actively communicates and interacts with project beneficiaries.
- The project integrates indigenous knowledge.
- The research problems and findings are relevant to the local stakeholders needs at the local and national levels.
- The positioning of the project within other projects is strong because the project has strong linkages and collaboration with P1, P3, P5 P4 and other projects that involve different departments and institutes.

- The project integrate environment, D4D and gender element in the research process. Gender and environmental sustainability element are well integrated in the project component.
- The project has made joint action and collaboration with projects.
- The project jointly works with other (share information/data and practices) and creates synergy.
- The project leads to a master thesis but not a joint paper publication.
- The project has created synergy and made complementarities with a VLIR-UOS JOINT project.
- The project problem analysis and the intervention logic model are translated into the project Logical Framework (LF): generally, the indicators are good, but some indicators need improvement.
- The formulation of the project is relevant and implemented as per the operational plan except activities related to organizing workshops due to Covid-19.

Effectiveness EQ 2 – To what extent have the project’s specific objectives been achieved (effectiveness)?

2.1 Academic

Extent to which the specific objectives of the project with regards to research and education strengthening have been realised

Score: 3=Good

Progress in indicators developed for the specific objective at project level related at research and education strengthening of capacities and infrastructure

- The project activities are going well and progress in indicators are as per the project operational plan because:
 - All the 3 PhD students have completed the course work, they have completed pre-doctoral school, and now they are attending conferences, and doing the research activities i.e. predominantly analysis.
 - The researchers have gained new knowledge and insights in scientific articles; they have organized one dissemination and reached different stakeholders.
 - The project improved the capacity of the university in doing scientific research and capacity development. New way of working such as data collection using tablets were introduced, new techniques of qualitative data collection and analysis introduced and adopted, techniques of education-based research activities introduced and important materials for research such as GPS, Tabs, lab facilities, licensed STATA software supplied to the project. This improved the university research capacity.

Progress made in gender mainstreaming and environment as cross-cutting issue at project level.The project integrates gender and environment component in the overall project activities. For example, a gender study that supports IR3 (analysis and deeper understanding of family structures, fertility decisions, and child-raising) is included in the research. But the project needs to design a gender mainstreaming strategy so that the project can monitor effects of gender.

Non-expected effects that have emerged (not specified by indicators)

N/A

Factors contributing to the level of achievements at project level (both positive and negative), e.g. the influence of Covid-19

- Factors that positively contributed to the achievement of the project includes:

- IUC has an independent programme support unit. The unit facilitates timely purchase and supply of materials (GPS, tabs, camera etcetera), important for the research. Besides, the unit provides efficient financial and logistic support.
- The materials and technical skills provided to the project significantly contribute to the smooth implementation, for instance the project is able to collect massive research data by using tablets.
- PhD selection procedures and criteria help to select the best candidates. Furthermore, PhD student's commitments help to attend and finish pre-doctoral school on time. All the three PhD students finished their pre-doctoral school.
- In total the project trained 50 enumerators. These enumerators travel to remote area, communicate the local community with local languages and collect massive data.
- The data collection approaches and technology significantly contribute to collecting quality data.
- Practical short-term training to staffs such as application and use of STATA, improved research capacity.
- The below factors delayed or affect the project activities:
 - As the PhD student work at the same time in different research sites, organizing vehicle support for all at the same time is difficult.
 - The 2018 political unrest delayed the research activities, specially the data collection activity.
 - The project small per diem rate (that was prepared about 3 years) limits researchers to travel to main city (i.e. Addis Ababa) and attend seminars, make consultation with relevant stakeholders.
 - Covid-19 limits the data collection process, that requires face to face contact with the community.
 - Irregular internet connection interruption affected data collection and regular communication with Belgian partners.

Appreciation of progress made by respondents involved

- Project members, project leaders, PhD students and stakeholders highly appreciate the project progress, know the project objective well, participate in the implementation process and are committed to contribute to the project overall objectives;

The extent to which the way forward (as specified in project self-assessments) is sufficiently geared towards the realisation of the specific objective and the overall objective

- The project has sufficient plan and strategy to realize the project specific objectives and overall objectives. This is evidenced by:

	<ul style="list-style-type: none"> - The project has a clear plan to design development projects based on the results of the first phase under IR7. However, respondents mentioned that project staffs need support on techniques regarding project design and writing grant proposal. - Sharing the project findings through publications, website, seminars and workshops are planned, and some workshops are being undertaken. This is a good start. It was stated that a detailed communication strategy/plan is needed so that the research findings will be shared to public on time and influence the public policy, attract donors etc. - The project collected massive data. The data is stored in the data centre, this data can be used for further similar research activities, articles that can complement and support the research objectives in the future
<p>2.2 Development</p> <p>Extent to which the specific objectives of the project with regards to the contribution to national development priorities have been realised</p> <p>Score: 4=Excellent</p>	<p>Progress in indicators developed for the specific objective at project level related to the contribution to national development priorities from project perspective</p> <ul style="list-style-type: none"> - Though it is still early to say, the research progress and findings are contributing to the national development priority, for there are many evidences: <ul style="list-style-type: none"> - One of the development national priorities of the Ministry of Science and Technology is to improve the research capacity of AMU. In 2019, the university is recognized as one of the research institute in the country. AMU aspires to be one of the leading research universities in Ethiopia by 2030, for which, it will vigorously be involved in generation and incubation, transfer of appropriate technologies and knowledge and partnering with stakeholders on problem-solving research that will stimulate economic growth of the nation. For this, the project brought new data collection technologies, analysis methods, knowledge and skills and materials. This is enhancing the university research capacity which intern contributes to the national development priority programmes. - The research findings that address agriculture productivity and marketing, (which is the main priority of the national programme) will significantly contribute to the top priority of the national development programmes stated in the Growth and Transpiration Plan-II, objective I (ensuring rapid, sustainable & broad-based growth through enhancing productivity of agriculture) - Based on the research findings, the Project plans to design an “Agriculture and Rural Development project”. This again, contributes to the national development programme. <p>So far, the research agenda is the top priority of the national programme. Stimulating policies and actions to improve the livelihoods of rural households in the light of sustainable development in the South Ethiopian Rift Valley is the key contribution of the project at national level. This will be achieved through consultative workshops after the research findings.</p>

Factors contributing to the level of achievements (both positive and negative), e.g. the influence of Covid-19

- Zone and Woreda sector offices facilitate the research process. The offices wrote a letter to development agents (who has direct contact the community) to support the research activities during data collection, discussion, site selection etc; and
- The university provided due attention and support to the project research activities, because the university leadership wants to learn from the research implementation process and research findings for informing the university research strategy and action.

Appreciation of external stakeholders

- Almost all consulted stakeholders appreciated the project, for instance, zone/woreda offices appreciated the research topics, support the process, at Federal and Regional NRM Bureau appreciated land title and certification study and provided required data and information. The research is the first in its kind and will be an eye opener to the regional Bureau to inform land policy direction, which is a hot issue at national level.

The extent to which the way forward (as specified in project self-assessments) is sufficiently geared towards the realisation of the specific objective and the overall objective.

- The project has a clear plan and specified activities towards the realisation of the specific objective and the overall objective. But the project needs to develop more networking and collaboration with different stakeholders and donors. There is a need to start preparing development projects, design more consultative meetings/workshops so that the research findings can influence the policy directions.

Level of reflection with regards to existing relations and networks (maybe the 2nd phase requires new expertise or networks?)

- The level of interaction with the local stakeholders, government offices is good, for example woreda offices provide conference rooms and facilitate community discussions.
- Networks with relevant stakeholders need improvement, the project leaders and project members needs additional knowledge and skills about communication and creating networking.
- During the project formulation period, the project network approach with the North was institutional and strong. But during implementation, the network approach with North was more individual than institutional. When the network approach is individual, staff in the project are not well aware and participate less.
Institutional networks have to be improved for better impact, sustained interaction and sharing learning for all staffs.

2.3 Scientific quality

Score: 3=Good

What information is available about quality of research (e.g. publications) and education (e.g. fellowships received from foundations, job prospects for alumni)

- All the research activities are going well, two articles are ready for submission but there is no publication yet.
- There is a huge job prospect after the PhD student graduate, but there is an agreement between the university and PhD student. After graduation the student will resume the work (teaching and research) and will be committed to serve the university for consecutive 8 years.
- After graduation, the students will focus more on research, become project members, promoters, and publish more researches. They will be exempted of certain credit. These incentives encourage the students.

Does the project refer to 'cutting edge' knowledge and what evidence is the project referring to?

- One of the PhD students participated in inset related research within another project

Are there clear examples of quality (to verify during field mission) (optional) In case you have some ideas already:

- The project research process passes through quality measures, because:
 - Quality is ensured during the data collection process. The PhD students usually go in the field and supervise the data collection process. Well trained supervisors and enumerators engage in the data collection process. These activities improve the final quality of the project findings.
 - PhD students receive close regular assistance and technical support from the North in research activities.
 - The techniques applied in the research process such as data collection using tables, GPS further improve the data quality, and will intern improve the research findings.
 - Always, there is field report from PhD student after field survey. This report ensures that the research activities are undertaking with close follow up and required quality.

What are issues of concern according to you in relation to scientific quality?

- It is highly recommended to conduct more consultative meetings before publication so that the research findings will be improved and validated by different expertise.

Final judgement/comments

- The project activities are going well including progress in indicators as per the project operational plan because:
- The project integrates the gender and environment component in the overall project activities.

- Project members, project leaders, PhD students and stakeholders highly appreciate the project progress.
- The project has a sufficient plan and strategy to realize the project specific objectives and overall objectives.
- Though it is early to judge, the research progress and findings are contributing to the national development priority.
- So far, the research agenda is the top priority of the national programme.
- Most of the consulted stakeholders appreciate the project.
- The project has a clear plan and specified activities towards the realisation of the specific objective and the overall objective. But the project needs to develop stronger networking and collaboration with different stakeholders and donors.
- The level of interaction with the local stakeholders, government offices is good.
- All the research activities are going well but so far there is no document ready for publication yet.

Efficiency (EQ 3 – What is the level of efficiency in the project?)

3.1 Intermedi-
ate results

Intermediate re-
sults have been
delivered

Score: 4= Ex-
cellent

Level of realisation of intermediate results according to indicators formulated in the logical framework (with specific attention to the number of topics to be covered in P1 in relation to available resources)

- As measured by the project indicators, the project intermediate results are under progress and going well. The project developed a survey design, survey tools, a completed part of the data collection, the PhD student completed pre-doctoral school, and workshops are organized at local level. The remaining activities such as, consultative workshops, conference, publications, producing development project proposals are planned.

Factors contributing to the level of achievements (both positive and negative), for e.g. how realistic were the planned results given the resources and time available in the framework of the project?

- In terms of the financial resources, the project clearly identified and quantified the project resources despite not quantifying and recording other stakeholder's contributions, for example the woreda agricultural office provided conference rooms, assigned development agents to facilitate the data collection etc, So far, the project did not face any financial constraints that limits the implementation of the project activities.
- The project design, planning and implementation approach is good, the project results and operational plan are realistic. Part of the project results are achieved and the remaining will be achieved as per the operational plan.

Outlook towards full achievement of IR in remaining year

- The project activities will be completed on time, and project IR achieved as planned, because:
 - PhD student research that deals with "Rural livelihoods with uncertainty from anthropological point of view" data collection is completed, analysis and write up will be completed on time. The other two student's research activities are

	<p>going well. The data collection is underway and will be completed in December 2020, which means the key project/research activities will be completed on time. The remaining activities such as workshops, seminars, publication will be completed in 2021. Within the first two months of 2022 the PhD student will graduate, which is quite reasonable within the project operational plan.</p>
<p>3.2 relationship input-output</p> <p>Relationship between means and results achieved and objectives (qualitative assessment)</p> <p>Score: 4= Excellent</p>	<p>Share of missions from the partner in the North, PHD's, trainings, investment costs and operational costs is reasonable in relation to the realisation of the intermediate results</p> <ul style="list-style-type: none"> - Share of missions and investment cost from North partner is reasonable, because: <ul style="list-style-type: none"> - The three advisors are from the North and play a significant role in providing training and technical advice, for example during the first survey process, their support was very crucial, they designed the survey process, provided training to enumerators and PhD students. This significantly contributed to the project intermediate results. - North leaders participated in a field research- based education course and shared their experience. - North participated in the research process, went to the field and provided technical assistance and advisory services. <p>Relevance of the expertise that was mobilised from Flemish universities and other partners</p> <ul style="list-style-type: none"> - North advisors have very relevant expertise pertinent to the research activities. Promoters of students in economic research theme are from economics department, and one advisor is an anthropologist useful for the research topic related to rural livelihoods uncertainty from an anthropological point of view. <p>Management of spending and rate of over- and/or underspending (and explanatory factors)</p> <ul style="list-style-type: none"> - Initially, when the project was started, spending was a bit (too) low, but now there is no under or over-spending. The project spends the budget according to the allocated budget. - The budget management is efficient, because the project includes a programme support unit (this unit works with an independent accountant, finance manager), which is unique in the university management system. <p>Choice of activities: cost-effectiveness is being pursued in programme design and management</p> <ul style="list-style-type: none"> - The project financial management and choices of activities are very efficient because: <ul style="list-style-type: none"> - During designing, the project allocated a proper budget and plan to use some resources together with all other thematic projects, for example the vehicle. - During implementation, the project purchased research materials (GPS, tablets power bank etc.) directly from Belgium assisted by North advisors. This

	<p>significantly reduced unnecessary cost (Inland Revenue tax) and lengthy procurement process. This reduced the cost and enabled to purchase good quality materials.</p> <ul style="list-style-type: none"> - During implementation, the project used a vehicle millage system (which is quite unique in the university), which reduced operational costs associated with travel.
<p>3.3</p> <p>Support was provided to ensure the quality of the research and educational processes</p> <p>Score: 4= Excellent</p>	<p>The project provides adequate training, support, mentoring and follow-up for students (PhD and MSc, including support in managing effects of Covid-19 on their research)</p> <ul style="list-style-type: none"> - Trainings are conducted on time, PhD students are attending and receiving training and follow up. Because of this the research activities are implemented as per the schedule. - Whenever there is any update/change about the management of the project, the project staffs are communicated, for example the financial guide developed for the project was communicated. <p>The project provides adequate training and support for students in terms of grant writing and job searches (particularly for MSc students; PhD students are mainly university staff)</p> <ul style="list-style-type: none"> - When designing the project, an expert from the North provided training about grant writing and project proposal development. But after that no one received this type of training anymore which is very crucial though for resource mobilization. <p>The project contributes to scientific quality as described under the rationale of efficiency</p> <ul style="list-style-type: none"> - Though it is early to judge already, the project will significantly contribute to scientific quality because the research responds to the community felt needs, areas where there are limited scientific research findings. Besides, the research process integrates different research protocols and procedures complemented by new and improved techniques.
<p>3.4 Project management</p> <p>Project management is conducive for efficient and effective project implementation</p> <p>Score: 3= Good</p>	<p>Good working relation within the project team (clear guidelines, transparency, communication flows, timeliness of planning and execution of activities, etc.)</p> <ul style="list-style-type: none"> - Since there is a financial guideline, working procedures, forms (budget request form, settlement form, contract form, progress report form, vehicle request form), clear roles and responsibilities, the working relations are smooth. Furthermore, there is transparency and a clear communication flow. The project budget and operational plan is shared with project leaders, members and others. This improved the project transparency and execution of activities on time. However, some project members did not receive the budget and operational plan. <p>The extent to which the project teams can be flexible in project execution (taking into account emerging needs, challenges from the context, amongst which Covid 19)</p>

- The project management/team is very flexible in the execution of project activities as well as budget management. For example, Covid-19 was unforeseen but because of this pandemic, the project allocated some budget to risk and uncertainty research activities, to study the effect of Covid-19.

- When there is budget shortage for a certain research activity, the management is flexible to shift and allocate budget within a certain budget limit (15%). For example, in between the data collection processes budget required for enumerators was limited. Some budget was shifted to this line.

Factors hampering efficient management have been identified timely and managed well

- The project management is efficient but, in some cases, it is hard to organize field work and provide a vehicle to a researcher when all students need transport at the same time. Besides, the project research sites are situated in different locations. Due to this, it is sometimes challenging to provide a vehicle to different researchers at the same time.

Bureaucracy related to procurement (equipment purchases, travel approval...) has been managed well by the project team

- The university procurement procedure is very lengthy and bureaucratic, this has to be improved. Travel approval and financial management is efficient and quite good.

Final judgement/comments

- The project intermediate results are under progress and on track.
- The project clearly identified and quantified the project resources despite not quantifying and recording other stakeholders' contributions.
- The project activities will be completed on time, and project IR achieved as planned.
- Share of missions and investment cost from North partner was reasonable.
- North advisors have very relevant expertise and pertinent for the research activities.
- Initially, when the project was started, there was some underspending, but now there is no under- or over-spending.
- The project financial management and choices of activities are very efficient.
- During designing of the project, an expert from the North provided training about grant writing and project proposal development. But after that no one received these types of training.
- Although it is early to judge already, it looks like the project will contribute to scientific quality.
- The project management/team is very flexible in the execution of project activities as well as in budget management.
- The project management is efficient but in some cases, it is challenging to organize field work and provide vehicle to researcher.
- The university procurement procedure is very lengthy and bureaucratic.

Sustainability EQ 4 – To what extent will the project results continue after the IUC programme is completed (sustainability)?

<p>4.1 Institutional</p> <p>Level of academic and institutional sustainability</p> <p>Score: 3= Good</p>	<p>Level of (personal) commitment of stakeholders within the department/school concerned</p> <ul style="list-style-type: none"> - The level of stakeholders' commitment is good, with departments supporting and facilitating the research process during data collection. - Project members, leaders, PhD students participated in the research process for example research members engage during one month continuously in data collection, which is quite unique in the university. - The university has assigned an independent study room to PhD students, which shows that the university is very committed to the project activities. <p>Measures taken for retention of PhDs and trained staff</p> <ul style="list-style-type: none"> - There are measures to retain PhD students. After graduation the PhD staff will work as a permanent staff, resume his/her work, do teaching and research work. The students commit themselves to serve the university for consecutive 8 years. The staff will engage more on research activities, work as a promoter, advisor and publish more documents. The staff will be exempted from certain credit. <p>joint research interests for both the Northern and Southern academics involved, are identified and pursued</p> <ul style="list-style-type: none"> - The AMU developed the research agenda and shared it to the North academics. The North developed interest. Together with the South the research topics was decided upon. During this evaluation period, joint research interest was not developed yet for next phase. <p>Evolution in networking with other national universities</p> <ul style="list-style-type: none"> - There is no initiative about networking (lack of communication/networking skills).
<p>3.2 Financial</p> <p>Level of financial sustainability</p> <p>Score: Good</p>	<p>Allocation of funds by Flemish universities (e.g. giving fellowships or by allowing academics to go to the field, matching funds)</p> <ul style="list-style-type: none"> - The North partners are managing their fund if they want to go to the field. <p>Availability of funds for operations and maintenance of physical infrastructure at university/college level</p> <ul style="list-style-type: none"> - The fund allocated is enough for operations and maintenance for the remaining project period. The university needs to plan sustainability strategy or funding mechanism for operation and maintenance after the project ended. <p>Availability of proper funds (at university or college level) to continue all or a number of activities that are important/relevant</p> <ul style="list-style-type: none"> - So far, the budget allocated is sufficient to continue the remaining activities. Furthermore, there is budget allocated for preparing development project proposal under IR7. This activity will support the project to continue the research activities after the research project ends. <p>Capacity for resource mobilisation to build on the achievements (Strategy and initiatives to attract external funding (from other donors, government, private sector, ...), skills of staff, task division for resource mobilisation, networks, ...)</p> <ul style="list-style-type: none"> - Capacity for resource mobilisation to build on the achievements (Strategy and initiatives) and to attract external funding needs attention. This is the area where

	<p>the project is not yet engaged due to lack of technical skills and experience. But there is a huge potential and interest from donors, like GIZ.</p> <p>Development of business approaches towards financing</p> <ul style="list-style-type: none"> - Similar to the above case, this is the area where the project is not yet engaged in.
Final judgement/comments	
<ul style="list-style-type: none"> - The level of stakeholders' commitment is good, departments supporting and facilitating the research process during data collection. - There are measures to retain PhD students. - the research topic was developed together, with participation of the North and the South. - There is no initiative (yet) about networking with other universities. - The fund allocated is enough for operations and maintenance for the remaining project period. But the university needs to plan a sustainability strategy or a funding mechanism for operations and maintenance after the project ends. - Capacity for resource mobilisation to build on the achievements (Strategy and initiatives) to attract external funding needs is (still) weak. 	

POINTS OF ATTENTION - RECOMMENDATIONS

- The project motivates and inspires university staff to design multi-disciplinary research.
- Issues related to gender integration in the project needs a real strategy and more attention.
- The university has received infrastructure like lab materials, equipment (example thermometer, barometers). These facilities will provide data and information to different universities and institutions in the country. This needs to be communicated and promoted to a wider community. The university can develop a business plan and attract donors, even income.
- Female staff is included in the project team. The project also encourages female students to participate in the field course organized annually by the programme.
- When projects are designed, more female students or a gender expert have to participate, so that the project can have a better gender focus.
- The project realized that there is some gap in developing a communication strategy, project sustainability and gender inclusion approaches. Phase II has to include and consider this.
- The project monitoring and evaluation approach needs a better system and plan.

2.3.3. Project 3

TITLE OF PROJECT: IMPROVING MATERNAL AND CHILD HEALTH IN SOUTH ETHIOPIAN RIFT VALLEY

Introduction

The general objective of the project is children thrive well and do not die prematurely. The project has two specific objectives i.e. improve maternal, under five and school age children's health through contextual adapted improved nutrition, service utilization, and prevention and control of diseases and enhance the academic capacity of AMU-CMHS staff to conduct academic activities (research, education and service delivery). The project has seven interconnected Intermediate Results (IR) that focuses on study on child feeding practice, maternal nutritional and health status, malaria control, Neglected Tropical Diseases (NTD) and strengthening staff and institutional research capacity. Each intermediate result is consisting of a number of activities and sub-activities which are detailed in the project logical framework (LF). North and South project leaders, promoters, PhD students and project member actively participated in the project implementation. During implementation there were changes in the project approaches. These are:

- i) Making a clinical trial on cutaneous leishmaniasis was sought by promoters as a big challenge in terms of availability of funds, recruiting international observers and the difficulty of getting willing pharmaceuticals to produce the drug for trial. Therefore, the title has been changed from cutaneous leishmaniasis: trials for effective disease management and reducing the social impacts of the disease to Cutaneous leishmaniasis: The Epidemiology, the Psycho-social Impacts and the Health Seeking Behavior in the South-Ethiopian Rift Valley;
- ii) There was a change in the approach to address the problem of the TBA study. First it was aimed to use Traditional Birth Attendants (TBAs) as a strategy to improve the skilled care utilization. However, most TBAs in the area didn't want to explicitly tell the researchers that they are practicing home birth attendance. This could face problems in achieving the study objectives and the intervention won't be feasible to advocate at a larger scale for potential stakeholders. Therefore, a new formulation was sought to achieve the IR3 which is promoting the use of Maternity Waiting Homes and upgrading the existing services.
- iii) The under five children research target population was placed with school age children because iron deficiency was discovered in all ages. So there was no need to make a distinction in age.

Covid-19 significantly delayed the data collection activity because the data collected need physical contact. One of the main activities of the nutrition research was collecting longitudinal data (data collected at a given interval time) and comparing the result at different period. Covid-19 significantly affected these activities.

Factual data

Hosting faculty	Collage of Medicine and Health Sciences
Number of staff in research group	19
Status of staff (fixed position, service contract, others)	All fixed
Number of PhD finished/ongoing (with VLIR-UOS funding)	5

Number of PhD finished/ongoing outside VLIR-UOS funding	0
Number of publications in peer reviewed journals	By the end of 2020 5 papers were published (1 in 2019 and 4 in 2020) 3 are ongoing

Evaluation questions

Relevance (EQ 1 – To what extent is the project relevant?)	
<p>1.1.Responds to needs</p> <p>The objectives of the projects are consistent with the country/local needs, the needs of the university, the VLIR-UOS strategy and donor's policies</p> <p>Score: 4=Excellent</p>	<p>The mechanisms of interaction with beneficiaries of the project</p> <ul style="list-style-type: none"> - The main interaction and communication approaches are good. In-depth discussion, consultation, training and workshops were realized and include: <ul style="list-style-type: none"> - Discussions with key actors like schools, health post, health extension workers, and community were made. School teachers and health extension workers serve as the main communication agent to the research activities. - AMU health and demographic surveillance survey sites enumerators are also the key communication agents. The enumerators collect relevant data for the research activity. - Repeated discussion and consultation were made with parents (community), their consent was received, and blood samples were taken from students. - Midwife and woreda health practitioners also provide support to the research and facilitate community discussion. - Before the research started, Ethical clearance certificate was received from NHREC and AMU ethical review board. This facilitated the research programme interaction and communication with region, zone and woreda health offices. - Dissemination workshop was organized in Arba Minch. Here, involving different stakeholders improved the communication approaches. <p>The extent to which advice and indigenous knowledge from communities is sought and taken into account in the research</p> <ul style="list-style-type: none"> - The project integrated indigenous knowledge from communities, because: <ul style="list-style-type: none"> - Traditional medicine used to treat leishmaniasis is included in the study. Furthermore, in-depth discussion and consultations were made with traditional healers and the types of medicine they used. - Socio-cultural advice about how to approach the community, school children were used in the survey process, which was very helpful to take sample from students. - Traditional Birth Attendants (TBA) were consulted, their advice on why many women are interested to give birth in home is included in the research area.

Relevance of research findings for external stakeholders at the local and national level

- The research findings are very relevant to external stakeholders both at local and national level. Because, as it was proved by the evaluation,
 - At local level, nutrition, maternity health and malaria- leishmaniasis is key for woreda, region and the zone health development plan and programme.
 - The research came from an already identified problem, for example iron deficiency and leishmaniasis (which left scars to human body) is the top health problem in schools.

The positioning of the project within the respective departments/institutes/units: what are the needs at this level and how are these answered? What have been the dynamics in the departments so far? This is particularly interesting for P1 (TISP) as transversal project.

- The positioning of the project within the respective projects /departments is strong because the project has a good linkage with other projects managed by different departments:
 - The project is working with P6, receives data and information about Lake Chamo that are used for analysis of leishmaniasis study.
 - Sharing of data and information with P2 about socio-economic factors.
 - Together with P2, the project received a video production training about how to use a video education system for health programmes.

The link of the project with the transversal themes of Belgian development cooperation (gender, environment and D4D, digitalisation for development)

- The project results are linked with Belgian development cooperation gender and environment, as evidenced by:
 - The research study predominantly focused on gender because it addresses maternity, nutrition and malaria issues, which mostly affect women.
 - Study participants (about 1050) are predominantly women, their responses are included in the research. Furthermore, data collectors are predominantly women and capture responses from women.
 - Since the research includes WASH determinants the project directly responds to environmental issues. As the research also deals with Malaria determinants in low-land area, it directly links with the effect of environment on aquatic water (lake Chamo).
 - Massive data is collected and analysed using the improved data management system for monitoring and evaluation of the project results, this is linked to a D4D thematic area.

Extent to which gender and environmental sustainability are effectively integrated in each project

	<ul style="list-style-type: none"> - Gender and environmental sustainability are effectively integrated in the project because WASH determinants are dealt with in the research process. The effect of climate change on health research needs more study, it could be a research agenda in the next phase. Gender is also included in the research, but this topic needs a more detailed strategy for measuring and mainstreaming gender.
<p>1.2.Synergy</p> <p>There have been efforts made to ensure synergy between (thematic) IUC projects (internal synergy)</p> <p>Score: 3=Good</p>	<p>The extent to which crosscutting coordination/joint action/collaboration exists between projects (particularly between the thematic projects)</p> <ul style="list-style-type: none"> - The project has made joint action and cooperation with other projects and departments, because <ul style="list-style-type: none"> - The project jointly trains enumerators at the same time, in most cases use the same enumerators for data collection. This improves the data quality and timely collection of the data. - The project cooperates with P2 - Development of online data collection system with P1. <p>The extent to which interdisciplinary research practices (involving more than one project) and inherent synergy takes place</p> <ul style="list-style-type: none"> - There is evidence that shows the project applied interdisciplinary practices, because the project deals with health-related research that needs practices, data and information from other research for instance, parasitology unit (leishmaniasis research) applied nutrition unit practices. Similarly, this research uses and applies P6 research data and practices measuring water quality practices. <p>The extent to which joint research between projects lead to (spinoff) master theses or paper publications</p> <ul style="list-style-type: none"> - The project has resulted in master theses and several paper publications (see factual data above related to this project assessment). The PhD students engage postgraduate students in the research activities and share their experiences into a MSc students' thesis. Furthermore, graduate students are using facilities supplied by the project. Besides this, one of the students (MSc in Medical Parasitology) got an additional research topic from the PhD student and carried out a research study. <p>What has been done to improve and consolidate internal synergies? What could be done better in the 2nd phase of the project to further improve internal synergies?</p> <ul style="list-style-type: none"> - Workshops, seminars and trainings were the major activities made so far. Besides, working in close coordination and cooperation with other projects improved the synergy. - In the second phase the project needs to, according to respondents: <ul style="list-style-type: none"> - To assign a focal person (could be from the project member) responsible for synergy.

	<ul style="list-style-type: none"> - Motivate the project members and develop a ToR that describes the role and responsibility about how project members could and should create internal synergy. - Research questions should contain an interdisciplinary research agenda so that synergy will be created. - Allocate more budget to synergy activities. - Having different compound/research campus in different location limits the synergy activity;
<p>1.3. Synergy & Complementarity</p> <p>There have been efforts made to ensure complementarity and synergy with other (externally funded) projects/ (other (Belgian) development actors)</p> <p>Score: 4=Excellent</p>	<p>The extent to which the project is looking for synergy with other VLIR-UOS interventions in the country or at regional level</p> <ul style="list-style-type: none"> - Working towards synergy with other VLIR-UOS interventions in the country or at regional level was not realized. <p>The extent to which the project is looking for synergy with projects supported by other donors, more in particular Belgian development actors</p> <ul style="list-style-type: none"> - Looking for synergy with other donors was good. For example, the Global Mind Fund supports the project nutrition research and improves the capacity for assessing cognitive development and school achievement of children. Ghent University, Department of Virology, Parasitology and Immunology (Laboratory of Parasitology) provide support for validating a study of the diagnosis of soil-transmitted helminthes. The university also supports a workshop on cognitive development assessment. <p>What has been done to improve external synergies?</p> <ul style="list-style-type: none"> - Organizing discussion forums such as workshops, trainings were the major activities. Furthermore, joint monitoring activities with other stakeholders such as health offices were conducted. <p>What could be done better in the 2nd phase of the project to further improve external synergies?</p> <ul style="list-style-type: none"> - A North-South communication strategy needs to be developed. - Provide training about communication approaches. - Encourage North partners to present their work more (through presentations e.g.) to the South. This could create a good opportunity to craft joint research agendas.
<p>1.4 Coherence</p> <p>The project is coherent</p> <p>Score: 3=Good</p>	<p>There is coherence between expected results, specific objectives and the overall objective</p> <ul style="list-style-type: none"> - The project result chains i.e. expected results, specific objectives and overall objectives are coherent. However, there was a change in the project implementation approaches. During the treatment, the clinical trial was changed to a psycho-social train. Consistent to this IR result activities are slightly changed, similarly IR5 was changed after the target population (which was under five children) changed to school age children.

	<p>The choice of activities is relevant to obtain results and objectives</p> <ul style="list-style-type: none"> - The activities are relevant. The project has a baseline, a midterm and final assessment. This helps refining and adjusting the project activities towards the results. <p>The indicators are well chosen to monitor progress and to support learning.</p> <ul style="list-style-type: none"> - The indicators capture the project progress, but they need improvement. Some indicators look at activities for example for IR-1 “Knowledge on child feeding practice is created and extended” the indicator is “Nutritional caring practice of the care givers for their child assessed”. We propose for this indicator “Nutritional caring practice for care givers assessment document produced”. <p>Is the formulation of the project still relevant, taking into account changes in context (such as Covid but also changes in the departments, new dynamics?)</p> <ul style="list-style-type: none"> - The formulation of the project is still relevant because AMU plans to open a nutrition department which will improve the university research dynamics. The research agendas are still the university, region and federal health programme top priorities. Furthermore, the research received ethical clearance by government office and university who acknowledge the relevance of the project (formulation).
Final judgement/comments	
<ul style="list-style-type: none"> - The main interaction and communication approaches are good. - The project integrates indigenous knowledge from communities. - The research findings are very relevant to external stakeholders both at local and national level. - The positioning of the project within the respective projects /departments is strong because the project has a good linkage with other projects managed by different departments. - The project results are linked with Belgian development cooperation crosscutting themes like gender and environment. - Gender and environmental sustainability are effectively integrated in the project. - The project has made joint action and cooperation with other project and departments. - There is evidence that shows the project applied interdisciplinary practices. - The projects resulted in master theses but no paper publications (yet). - Looking for synergy with donors resulted well. - The project result chains i.e. expected results, specific objectives and overall objectives are coherent. - The activities are relevant. The project has a baseline, midterm and final assessment. This makes it possible to refine and adjust the project activities to the project results. - The indicators capture the project progress, but they need improvement. - The formulation of the project is still relevant because AMU plans to open a nutrition department. 	

Effectiveness EQ 2 – To what extent have the project’s specific objectives been achieved (effectiveness)?

2.1 Academic

Extent to which the specific objectives of the project with regards to research and education strengthening have been realised

Score: 3=Good

Progress in indicators developed for the specific objective at project level related at research and education strengthening of capacities and infrastructure

- The project is on the right track and progress towards achieving the project specific objectives, however because of covid-19, PhD’s might not finish their research on time. The research activity will be delayed by 8 months because longitudinal survey related to iron deficiency survey was interrupted due to Covid-19.

Progress made in gender mainstreaming and environment as cross-cutting issue at project level

- Gender is integrated in the project implementation process and in fact, the research findings focus on responding gender issues, because:
 - There are female PhD student and female project members.
 - The research responds to maternity, decision making and iron deficiency root causes.
 - In the research process, almost 50% of research participants are women, and all health extension workers (100% are women) are involved in the research activities.
 - Gender information is collected in the research processes through socio-economic data, the data is disaggregated and analysed by gender.

Non-expected effects that have emerged (not specified by indicators)

N/A

Factors contributing to the level of achievements at project level (both positive and negative), e.g. the influence of Covid

- The positive factors include:
 - Good North-South communication.
 - North partners were committed, provide immense technical support.
 - Strong working team, and commitment of project members, for instance project members were facilitating the data collection.
 - PhD student selection procedures, criteria and student commitment were excellent.
 - The university leadership was committed for example, PhD students are exempted from handing any teaching courses, the leadership provides conference room, PhD student reserves reading rooms.
- Covid-19 and changes in the research approaches delayed the research activities

Appreciation of progress made by respondents involved

- Many respondents highly appreciate the progress made, because all the PhD students are on the right track and research activities are going well.

	<p>The extent to which the way forward (as specified in project self-assessments) is sufficiently geared towards the realisation of the specific objective and the overall objective</p> <ul style="list-style-type: none"> - It is highly likely that the project will realize the specific and overall objective in the remaining project period, because: <ul style="list-style-type: none"> - The major activities of the project are already completed. The remaining activities are related to collecting the remaining data, analyzing the data, producing the research findings and sharing the findings and influence the policy makers. These activities are well planned and have sufficient budget. - Project members discussed the remaining activities, developed a plan and monitoring mechanisms.
<p>2.2 Development</p> <p>Extent to which the specific objectives of the project with regards to the contribution to national development priorities have been realised</p> <p>Score: 3=Good</p>	<p>Progress in indicators developed for the specific objective at project level related to the contribution to national development priorities from project perspective</p> <ul style="list-style-type: none"> - The project contributes to the national development priorities, especially GTP-II objective-II and The Ethiopian Health Sector Transformation Plan II, because: <ul style="list-style-type: none"> - The research agenda came from scientifically identified problems that address the mothers and children health needs which is listed in the national top priority in national health programme and sustainable development goal. - The country is now developing a nutrition policy, and nutrition is the top priority at national level. Similarly, maternity health and malaria are the top priority list in the national health programme. The project findings considerably contribute to this agenda. - Currently, AMU is about to open a MSc programme in nutrition, this study improves the university capacity in nutrition, which internalizes the national research priority needs and problems. <p>Factors contributing to the level of achievements (both positive and negative), e.g. the influence of Covid-19</p> <ul style="list-style-type: none"> - The university leadership supports students to focus on research activities only; improved teamwork, and commitment of project members are the major positive contributing factors. - The influence of Covid-19 and - In some cases, the lengthy procurement procedures delayed the project activities. - Covid-19 and changes in the implementation approach related to Intermediate Results (IR) 'knowledge on child feeding practice is created and extended' have caused some delays. <p>Appreciation of external stakeholders</p>

	<ul style="list-style-type: none"> - All the consulted external stakeholders appreciated the project activities and results, furthermore they strongly recommend to the project to improve coordination with external actors because the research topics and findings demand engagement of different actors such as the water office. <p>Level of reflection with regards to existing relations and networks (maybe the 2nd phase requires new expertise or networks?)</p> <ul style="list-style-type: none"> - The project creates good relations with different key actors, such as the health office and education office. - Furthermore, the project needs to strengthen interaction with the women and children affairs office (responsible for women and children affairs), NGOs, private health actors, other universities. Involvement of different actors based on their areas of focus could contribute more in realizing the project objectives.
<p>2.3. Scientific quality</p> <p>Score: 4=excellent</p>	<p>What information is available about quality of research (e.g. publications) and education (e.g. fellowships received from foundations, job prospects for alumni)</p> <ul style="list-style-type: none"> - There are 3 papers ready for publication; one publication is already accepted for publication. - There is no fellowship received with this project. <p>Does the project refer to ‘cutting edge’ knowledge and what evidence is the project referring to?</p> <ul style="list-style-type: none"> - The project has brought new knowledge because the project applied new and improved techniques: <ul style="list-style-type: none"> - The project research approach related to “clinical trial” is new to the university. - A new method of testing parasitology using RCT is introduced in the university research process. This result will bring new knowledge. - New qualitative data collection approach and techniques were applied, as a result the research findings will be robust and new. - Video production for health and nutrition message training received and introduced in the research process is a new approach. This approach brought to testing the effect of change in knowledge about maternity. Preliminary result proved that the video techniques brought significant change in maternal health awareness. <p>Are there clear examples of quality (to verify during field mission) (optional) In case you have some ideas already:</p> <ul style="list-style-type: none"> - The data collection process, lab facilities supplies and analysis techniques introduced improved the quality of the research findings. <p>What are issues of concern according to you in relation to scientific quality?</p> <ul style="list-style-type: none"> - So far, there are no issues associated to scientific quality.

Final judgement/comments

- The project is on the right track and progress towards achieving the project specific objectives.
- Gender is integrated in the project implementation process: women were consulted and participate during data collection.
- Many respondents highly appreciated the progress made.
It is highly likely that the project will realize the specific and overall objective in the remaining project period, because the project is contributing to the national development priorities, especially GTP-II objective-II and The Ethiopian Health Sector Transformation Plan II.
- All the consulted external stakeholders appreciated the project activities and results.
- The project creates a good relationship with key actors such as the health office and education office.
- The project has brought new knowledge e.g. through the project new and improved techniques were introduced and applied.
- The data collection process, lab facilities supplied and analysis techniques introduced improved the quality of the research findings.

Efficiency (EQ 3 – What is the level of efficiency in the project?)

3.1 Intermediate results

Intermediate results have been delivered

Score: 3= Good

Level of realisation of intermediate results according to indicators formulated in the logical framework (with specific attention to the number of topics to be covered in P1 in relation to available resources)

- The project will achieve the project intermediate results because all the PhD successfully completed pre-doctoral schools, almost major research outputs are completed and the remaining are going well, the capacity of the AMU staff is enhanced.

Factors contributing to the level of achievements (both positive and negative), for e.g. how realistic were the planned results given the resources and time available in the framework of the project?

- The project formulation/design, operational plan and budget are realistic to achieve the project results. But Covid-19 affected the research data collection to some extent. As a result, some of the research will be delayed.

Outlook towards full achievement of IR in remaining year

- The project will complete all the planned results in the remaining year without any budget constraint, except delay in realizing some of the research results such as e.g. **IR3-Quality of maternal health care model identified and recommended.**

3.2 Support was provided to ensure the quality of the research and educational processes

Score: 3=Good

The project provides adequate training, support, mentoring and follow-up for students (PhD and MSc, including support in managing effects of Covid-19 on their research)

- The project has provided adequate training, support; mentoring and follow up, especially the North provided strong follow up and technical assistance in the research project sites and managing lab activities. This support was excellent.

	<p>The project provides adequate training and support for students in terms of grant writing and job searches (particularly for MSc students; PhD students are mainly university staff)</p> <ul style="list-style-type: none"> - During project designing adequate training and technical support was made to grant proposal, then after there was no support and training.
<p>3.3 relationship input-output</p> <p>Relationship between means and results achieved and objectives (qualitative assessment)</p> <p>Score:4= Excellent</p>	<p>Share of missions from the partner in the North, PHD's, trainings, investment costs and operational costs is reasonable in relation to the realisation of the intermediate results</p> <ul style="list-style-type: none"> - Share of North in providing new training and technical advice was immense. In fact, without North support it is hard to design, implement and realize the result results, according to the respondents, because: <ul style="list-style-type: none"> - They brought new techniques such as randomized control trial (RCT), and developed the research design, provided technical assistance how to conduct RCT. - They recommended assisted and linked suppliers to the purchase of lab facilities that are important to the research and new to the university. - Without North assistance it is impossible to conduct clinical trial. <p>Relevance of the expertise that was mobilised from Flemish universities and other partners</p> <ul style="list-style-type: none"> - The expertise mobilized from Flemish universities is professional, they have relevant experience and qualification, for instance the advisors are epidemiologists, nutritionist, and qualitative data experts. North partners also invite relevant experts that support the research activities, for example they brought a lab technician that provide relevant training and technical assistance. <p>Management of spending and rate of over- and/or underspending (and explanatory factors)</p> <ul style="list-style-type: none"> - The project is a bit under spending because data was not collected for some research activities due to Covid-19, but in the next implementation period this under spending will be improved. <p>Choice of activities: cost-effectiveness is being pursued in programme design and management</p> <ul style="list-style-type: none"> - The programme design and management is cost effective, because: <ul style="list-style-type: none"> - The project uses and shares resources with other projects such as vehicles, fuel. - The project trained and used the enumerators for two or three PhD students in support of their research activities. - The project purchased lab facilities from Belgium against low costs, as compared to purchasing in Ethiopia.

<p>3.4 Project management</p> <p>Project management is conducive for efficient and effective project implementation</p> <p>Score: 4=Excellent</p>	<p>Good working relation within the project team (clear guidelines, transparency, communication flows, timeliness of planning and execution of activities, etc.)</p> <p>There is a good working relationship within the project, because: the programme support unit coordinates the overall implementation, organizes meetings whenever there is a need to solve problem, shares guidelines (financial guidelines, financial forms), organizes and follows up the annual planning. These activities improve the working relation and support developing good team working spirits.</p> <p>The extent to which the project teams can be flexible in project execution (taking into account emerging needs, challenges from the context, amongst which Covid 19).</p> <ul style="list-style-type: none"> - The project team is flexible in project execution. The key evidence includes: <ul style="list-style-type: none"> - Some of the data collection activity delayed due to Covid-19 was postponed. This data collection is planned in the remaining project period. - Whenever there is a change in the project, the PhD student adopts and implements the new approaches. <p>Factors hampering efficient management have been identified timely and managed well</p> <ul style="list-style-type: none"> - Factors that are hampering efficient management of the project have been identified early and managed well, for example: <ul style="list-style-type: none"> - Vehicle shortage was identified during implementation and the management purchased an additional vehicle. - The management provided intensive and additional lab training to lab technicians after examining the challenge in managing some lab activities. <p>Bureaucracy related to procurement (equipment purchases, travel approval...) has been managed well by the project team</p> <ul style="list-style-type: none"> - The project managed the university lengthy procurement process very well. After understanding the lengthy procurement procedure in the University, the management brought lab and other materials from Belgium.
<p>Final judgement/comments</p> <ul style="list-style-type: none"> - The project formulation/design, operational plan and budget are realistic to achieve the project results. - The project will complete all the planned results in the remaining period without any budget constraints. - Share of North in providing new training and technical advice has been immense. - The expertise mobilized from Flemish universities is professional; North advisors have relevant experience and qualification. - The project is a bit under-spending because data was not collected for some research activities due to Covid-19. - The programme design and management are cost-effective. - The project has provided adequate training, support, mentoring and follow up, especially the North provided strong follow up and technical support. 	

- There is a good working relationship within the project.
- The project team is flexible in project execution.

Sustainability EQ 4 – To what extent will the project results continue after the IUC programme is completed (sustainability)?

<p>4.1 Institutional</p> <p>Level of academic and institutional sustainability</p> <p>Score: 3=Good</p>	<p>Level of (personal) commitment of stakeholders within the department/school concerned</p> <ul style="list-style-type: none"> - The level of commitment is good because project members are well involved in all communication and the project activities but still, they do have complaints about the PhD student selection process (those who participated in the project proposal development were selected, as indicated by the respondents). <p>Measures taken for retention of PhDs and trained staff</p> <ul style="list-style-type: none"> - After graduation PhD student will work as a permanent staff member. The students signed an agreement to work in the university for 8 years from the moment of graduation; they will engage more on research activities, work as a promoter, advisor and publish more documents. <p>joint research interests for both the Northern and Southern academics involved, are identified and pursued</p> <ul style="list-style-type: none"> - The project research agendas were developed together. For the next phase, the project has not planned and developed a research agenda yet. <p>Evolution in networking with other national universities</p> <ul style="list-style-type: none"> - There is no strong network developed with other national universities
<p>4.2 Financial</p> <p>Level of financial sustainability</p> <p>Score: 2= limitations</p>	<p>Allocation of funds by Flemish universities (e.g. giving fellowships or by allowing academics to go to the field, matching funds)</p> <ul style="list-style-type: none"> - There is no fund allocated from the Flemish university apart from VLIR-UOS project fund. The Flemish university manages their own budget and respondents don't have insight in this. <p>Availability of funds for operations and maintenance of physical infrastructure at university/college level</p> <ul style="list-style-type: none"> - During the project period, the allocation of fund for operations and maintenance for physical infrastructure is good, but once the project ends, there could be limitations especially the budget for operating lab materials facilities. <p>Availability of proper funds (at university or college level) to continue all or a number of activities that are important/relevant</p> <ul style="list-style-type: none"> - There are enough funds to continue all the remaining activities of the project during the programme period; after that, funds are not assured. <p>Capacity for resource mobilisation to build on the achievements (Strategy and initiatives to attract external funding (from other donors, government,</p>

	<p>private sector, ...), skills of staff, task division for resource mobilisation, networks, ...)</p> <ul style="list-style-type: none"> - Capacity of the project for resource mobilization is limited because of lack of skill and experience in grant proposal writing. <p>Development of business approaches towards financing</p> <ul style="list-style-type: none"> - So far, there is no development business approach towards financing but there is a huge potential because of lab facilities, skills and knowledge gained due to IUC programme
Final judgement/comments	
<ul style="list-style-type: none"> - The level of commitment was good because there is a good communication and involvement of project members in the project. - The project research agendas were developed together. - There is no strong network developed with other national universities. - There is no fund allocated from Flemish university apart from VLIR-UOS project fund. - During the project period, the allocation of fund for operation and maintenance for physical infrastructure is good, but after the project ends, there could be limitations. - There are enough funds to continue all the remaining activities of the project. - Capacity of the project for resource mobilization is limited. 	

POINTS OF ATTENTION

- Respondents indicate that the project design needs more time, there is a need to involve more actors and need in-depth discussions with the North,
- The North role and responsibilities have to be defined from the onset of the beginning, there might be a need to develop a ToR for this,
- The project revolutionized the University data collection system and techniques. After the IUC, the university will collect the tablets so that these could be re-used in other research supported by the university and other donors.

2.3.4. Project 4

TITLE OF PROJECT: REDUCING LAND DEGRADATION THROUGH AND FOR SUSTAINABLE RURAL LAND USE IN THE SOUTH ETHIOPIA RIFT VALLEY

Introduction

The main objective of the project is to improve land use and land management practices to support sustainable rural livelihoods and environment in the South Ethiopian Rift Valley. The research activities of the project focus on an in-depth understanding of the land degradation processes, their controlling factors and impacts as well as the interconnections between sediment production, transport and deposition processes. It also aims at identifying, assessing and disseminating effective land use and land management practices (soil conservation measures) to relevant stakeholders so as to reduce land degradation in a sustainable manner. The main outputs of the project in phase I include training of staffs at PhD (3) and MSc (4) levels, strengthening infrastructure (e.g. installing high resolution automatic weather stations at the research sites), and conducting outreach activities based on research results. P4 has also installed hydrological stations, piezometers, acquired drone, rainfall simulator, etcetera. 2 additional PhDs are being supported for their field and lab activities. Except for possible delays in meeting publication targets and delivering of all outreach activities, PhD and MSc students are on the right track and will finish their studies in the remaining time. The project has managed to install automatic weather stations at its research sites, which are instrumental in collecting quality data.

Changes at project management level include twice a change of the project leader South. The first project leader was coordinating the project while working as Vice president in the university management. Due to the high workload the project leadership has been changed for the 2nd time and the current project leader is also involved at a college level namely in a management position at the College of Agricultural Sciences. Therefore, the project has a deputy project leader and this has improved communication and implementation of the project.

Factual data

Involved departments	Natural Resource Management, Water Resources and Irrigation engineering, Geography and Environmental Studies, Plant Science, Horticulture, Geology, and Hydrology and Metrology
Number of staff in research group	166
Status of staff (fixed position, service contract, others)	Mostly fixed Position with some service contract of expatriates
Number of PhD finished/ongoing (with VLIR-UOS funding)	(3 PhD with VLIR-UOS funding + 2 PhD with local scholarship as team members to the project)
Number of PhD finished/ongoing outside VLIR-UOS funding	19
Number of publications in peer reviewed journals	No publications yet by the students with VLIR-UOS funding but papers are submitted.

Evaluation questions

Relevance (EQ 1 – To what extent is the project relevant?)	
<p>1.1 Responds to needs</p> <p>The objectives of the projects are consistent with the country/local needs, the needs of the university, the VLIR-UOS strategy and donor's policies</p> <p>Score = 4 (excellent)</p>	<p>The mechanisms of interaction with beneficiaries of the project</p> <ul style="list-style-type: none"> - The selection process of PhD candidates from staff was merit based and transparent. - Main direct beneficiaries of the project are PhD students and project team members. - The PhD students and project team members are organized in four teams (GIS, Geology, Soil, and Metrology and hydrology), this has facilitated interaction of the project with the team members in the implementation of project activities. - There has been a participatory approach in planning and decision making that helped the project team members to get experience in field research and in office activities. - PhD students stated that except for the problem(shortage) of cars for field work, which has been partly solved through coordinating and jointly planning field activities with PhD students in other Projects, their interaction with the PL and PSU has been good and they work in a friendly atmosphere + acquisition of a motor bike for the project to access remote field location. - The main objective of the project is to improve land use and land management practices to support sustainable rural livelihoods and environment in the South Ethiopian Rift Valley. This is in line with the country's climate resilient green economy strategy where sustainable natural resource management, particularly land resources, has been one of the priority pathways for the country to achieve its development objectives and improve the livelihood and food security of rural people. - The capacity building in human and lab-facilities and the research themes of the project are in line with the strategic mission of AMU which are providing quality education, research and community services. <p>The extent to which advice and indigenous knowledge from communities is sought and taken into account in the research</p> <ul style="list-style-type: none"> - Focus group discussions and face to face interviews with key informants of communities in the study sites were conducted to identify problems (sediment transportation, Siltation, salinity, land/soil degradation, landslides, and other problems in the watersheds of lake Abaya and Chamo catchment areas) and land management history of the catchments. These problems were taken into account in the research works of the PhD students. <p>Relevance of research findings for external stakeholders at the local and national level</p> <ul style="list-style-type: none"> - The research findings are relevant for local communities as external stakeholders of the project. - For example, the study on landslides hazard risk assessment by a local PhD student with logistic support from the project factors for landslide

	<p>have been identified, buffer and land slide risky areas are delineated, and communities are communicated through outreach seminar/workshop.</p> <p>The positioning of the project within the respective departments/institutes/units: what are the needs at this level and how are these answered? What have been the dynamics in the departments so far?</p> <ul style="list-style-type: none"> - The departments whose staff are engaged as either PhD students and/or team members include seven departments. - Capacity building for staffs of these departments through PhD and short-term trainings, has been given and local PhD students have access to data. We consider that 5 PhD are benefiting from the project training: 3 supported by P4 scholarships, two that are supported for research activities and supervision. - The research undertakings by PhD students of the project and the lab facilities are contributing in undertaking research-based teaching (for example, students are learning about watershed management at the sites of the PhD students, the PhD students are also advising and consulting local MSc and BSc students and share their experiences) - Members of the project in the departments have got experience of organizing trainings. - In the course of assisting PhD students at their field work, junior staff members have got field research experiences. <p>The link of the project with the transversal themes of Belgian development cooperation (gender, environment and D4D, digitalisation for development)</p> <ul style="list-style-type: none"> - Environment: The PhD research themes focus on siltation, soil salinity and salinity reclamation, landslides and soil erosion as environmental problem in the study sites. - Gender: The project has 1 female PhD student out of 3 with VLIR-UOS funding. - D4D: The project is able to install high resolution weather stations (8 automatic 3 manual rainfall and weather stations) and drones for mapping. This has helped in collecting quality data for example, that help to identify landslide prone areas, flooding damages on infrastructure, level of soil/land degradation in the study sites though GIS mapping that will help to prioritize for interventions. <p>Extent to which gender and environmental sustainability are effectively integrated in each project</p> <ul style="list-style-type: none"> - The project does not explicitly show how gender and environmental sustainability are effectively integrated. - Respondents are aware that their research findings will contribute to designing interventions for the sustainable management of the Chamo and Abaya lakes catchments, which are important for the livelihood of rural communities particularly women.
<p>1.2 Synergy There have been efforts made to ensure synergy</p>	<p>The extent to which crosscutting coordination/joint action/collaboration exists between projects (particularly between the thematic projects)</p>

between (thematic) IUC projects (internal synergy)

Score = 3 (good)

- The thematic research areas of P2, P4, P5 and P6 are related and there has been data sharing among these projects.
- There are 2 PhD students in the local PhD programme and they have got access to data in the data sharing.
- For example, PhD students of P4 share data (which include metrological data, GIS data, and data on soil type and parent materials) to PhD students of P2, P4, and P6.
- There was no formal agreement or sort of joint planning for creating internal synergy. The synergy in terms of data sharing is based on the needs of individual PhD students.

The extent to which interdisciplinary research practices (involving more than one project) and inherent synergy takes place

- There has been a discussion and plan for joint publication with PhD students that shared data, particularly among PhD students of P2, P4 and P6
- Research within the project is already highly inter-disciplinary, including members from 7 different departments from hydrology, to agriculture, soil science, geology and geography. This reflected by the organization of the project into 4 teams (meteorology and hydrology, soil, geology, GIS) which interact with each other.

The extent to which joint research between projects lead to (spinoff) master theses or paper publications

- Joined paper publication with members of P2 and P6 are being planned based on existing collaborations.
- The PhD students of P4 in total have been supervising the theses of 4 MSc students from Belgian Universities and another 4 MSc students from AMU.
- The project has also shared meteorological data to 1 MSc student of P5.
- Another 2 local MSc students studying on watershed management at the department of Water Resources and Engineering have got access to data.

What has been done to improve and consolidate internal synergies? What could be done better in the 2nd phase of the project to further improve internal synergies?

- There have been synergy meetings, but the frequency of the synergy meeting needs to be increased in phase II, according to respondents.
- It will be very helpful if the thematic projects undertake joint planning and monitoring of activities with jointly allocated budget that will create more internal synergy.
- A web-based database creation has been started with the help of P1 and only the interface has been developed. It is important to use the created interface for enhancing the data sharing and this requires creating awareness among the stakeholders (local post graduate students, staffs etc).
- P4 has conducted an outreach programme and project team members participated. Research staff from relevant department within AMU were also invited and participated in this outreach.

	<ul style="list-style-type: none"> - Several senior AMU staffs are part of the project members (Dr. Dereje, Dr. Thomas, Dr. Guchie, Dr. Teshome, Dr. Yechale, Dr. Efrem, Dr. Demelash. Mr. Alemu, Mr. Yared, Mr. Yibeltal) . The participation of some of them is limited but other are highly involved.
<p>1.3. Synergy & Complementarity</p> <p>There have been efforts made to ensure complementarity and synergy with other (externally funded) projects/ (other (Belgian) development actors)</p> <p>Score = 3 (good)</p>	<p>The extent to which the project is looking for synergy with other VLIR-UOS interventions in the country or at regional level</p> <ul style="list-style-type: none"> - Two PhD students went to Bahir Dar to share experiences (eg. On Runoff plot design and Pisometer installation). - One PhD student went to Mekelle University (Network) to share their experience on (gender). <p>The extent to which the project is looking for synergy with projects supported by other donors, more in particular Belgian development actors</p> <ul style="list-style-type: none"> - In the International Integrated Field Course programme that is jointly organized by AMU, KU-Leuven, Kenya Eldorate and ETH Zurich, members of P4 participated both in the training and also delivered a soil related course. - A new 5-year project on Sustainable Land Management in the Lack Abaya and Lake Chamo watershed area has been designed and fund amounting 25 Million Euros has been secured from German Development Bank (KfW) . The research results and quality data from the installed facilities contributed in attracting such a big project. AMU is one of the stakeholders in this project. <p>What has been done to improve external synergies?</p> <ul style="list-style-type: none"> - An outreach workshop has been conducted to show the results (for example the result of the study of landslide hazard and risk assessment). - Feedback has been collected from local stakeholders (bureau of agriculture, Agricultural Research Centre, Nechsar National park). <p>What could be done better in the 2nd phase of the project to further improve external synergies?</p> <ul style="list-style-type: none"> - The level of efforts made so far is good but there is a need for joint planning of activities and more collaboration to improve both internal and external synergy. - Training on Grant Proposal Writing*, Project Planning and Management to staff of P4 and to the extent possible staff of AMU (beyond the projects) would enhance capacity that can be used to attract funding and external synergy. *Such a training was planned in year 4 but was postponed before of Covid. A reflection is required on whether such general training activity should be organized at project level or initiated at level of the overall programme.
<p>1.4. Coherence</p> <p>The project is coherent</p> <p>Score = 4 (excellent)</p>	<p>There is coherence between expected results, specific objectives and the overall objective</p> <ul style="list-style-type: none"> - Yes, there is. <p>The choice of activities is relevant to obtain results and objectives</p> <ul style="list-style-type: none"> - Yes it is relevant <p>The indicators are well chosen to monitor progress and to support learning.</p>

	<ul style="list-style-type: none"> - Most of the indicators are quantifiable but there are sometimes difficulties in getting baseline data or some indicators. - It would be good if qualitative indicators are included for those IR which are difficult to measure by using numbers. <p>Is the formulation of the project still relevant, taking into account changes in context (such as Covid but also changes in the departments, new dynamics?)</p> <ul style="list-style-type: none"> - Yes it is relevant - Despite changes in context (Covid- 19, political instability in the country, natural disasters like flooding that affected experimental materials installed at our sites) activities of the project are not delayed.
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Final judgement/comments

- The main objective of the project is to improve land use and land management practices to support sustainable rural livelihoods and environment in the South Ethiopian Rift Valley. This is in line with the country's climate resilient green economy strategy where sustainable natural resource management, particularly land resources, has been one of the priority pathways for the country to achieve its development objectives and improve the livelihood and food security of rural people.
- The PhD research topics are focused on an in-depth understanding of the land degradation processes, their controlling factors and impacts as well as the interconnections between sediment production, transport and deposition processes, which are all environmental issues.
- The fact that 1 out of the 3 PhD students is female implies that the project addresses two of the transversal themes (environment and gender (to some extent)) of the Belgian Development cooperation. In relation to the third thematic focus (Digitization for Development), the project is able to install high resolution weather stations and applying drones for mapping. This has helped in collecting quality data for example, and to help to identify landslide prone areas, flooding damages on infrastructure, level of soil/land degradation in the study sites through GIS mapping that will help to prioritize for interventions.
- In addition to the sharing of experience with other thematic projects through the joint steering committee meetings and joint excursions, the project has some internal synergy with thematic projects in terms of sharing data. For example, PhD students of P4 share data (which include metrological data, GIS data, and data on soil type and parent materials) to PhD students of P2, P4, and P6. There was, however, no formal agreement or sort of joint planning for creating internal synergy. The synergy in terms of data sharing is based on the needs of individual PhD students. In terms of external synergy, the project has made commendable effort. For example, the research results and quality data from the installed facilities contributed in attracting a 5 year project on sustainable land management funded by KfW Germany in which AMU is a partner. In addition, in the International Integrated Field Course programme that is jointly organized by AMU, KU-Leuven, Kenya Eldoret and ETH Zurich (=Swiss Federal Institute of Technology in Zurich), members of P4 participated both in the training and also in delivering soil related course.
- The project has delivered an outreach workshop to show the results (for example the result of the study of landslide hazard and risk assessment, which is a study by a local PhD student who is team member of P4) and feedback has been collected from local stakeholders (bureau of agriculture). The level of effort made so far is good but there is a need for joint planning of activities and for more collaboration to improve both internal and external synergy.

- The project is coherent in a way that the IRs have both academic and development objectives. Respondents stated, however, that most of the indicators are numerical but there are sometimes difficulties in getting baseline data or some good indicators and therefore they suggested that it would be good if qualitative indicators were to be included for those IR difficult to measure by using numbers.

Effectiveness EQ 2 – To what extent have the project’s specific objectives been achieved (effectiveness)?

2.1 Academic
Extent to which the specific objectives of the project with regards to research and education strengthening have been realised

Score = 3 (good)

Progress in indicators developed for the specific objective at project level related at research and education strengthening of capacities and infrastructure

- PhD and MSc students are on track and most of them should finish their studies soon after the end of phase I. Only 1 PhD student has already submitted papers: 2 accepted, 1 in review. This is a PhD supported locally, not one of the 3 PhD that receive a scholarship from the project.
- One female PhD student may not finish her study in time because of maternity leave.
- The infrastructure (Metrology stations, lab facilities, Drone etc) helped the project to generate quality data.
- Short term trainings on GIS, allocation software (Phyton) have been provided to project team members, PhD students of other projects and PhD students studying at the local PhD programme of AMU.
- Short term trainings on GIS, programming software (Python), UAV survey have been provided to project team members, PhD students of other projects and PhD students studying at the local PhD programme of AMU.
- The project conducted an outreach workshop as stated above.

Progress made in gender mainstreaming and environment as cross-cutting issue at project level

- The female PhD student conducted FGD with communities in the study area and female key informants took part in the FGD.
- Females also took part in the outreach workshop as stakeholders.
- All the themes of the PhD topics are directly related to environmental issues (land degradation, salinity of soils, landslides etc..).

Non-expected effects that have emerged (not specified by indicators)

- None

Factors contributing to the level of achievements at project level (both positive and negative), e.g. the influence of Covid

- Positive Factors:
 - o There has been strong support from PSU, AMU leadership/management in facilitating the core activities of the project (PhD student research works).
 - o PhD students are dedicated to their work and there is a good internal team spirit among members of the project.
 - o Local communities are very supportive to PhD students during their field work in terms of (for example: guiding direction, landslide prone and hotspot areas/places)
- Negative factors

	<ul style="list-style-type: none"> ○ Shortage of vehicle for field work though the problem is minimized through coordinating field activities with other PhD students of other projects. ○ Natural disaster/flooding has created damage and loss of equipments installed at the hydrological stations/study sites. ○ Covid-19 state of emergency made it difficult to conduct field work and surveys during the state of emergency. <p>Appreciation of progress made by respondents involved</p> <ul style="list-style-type: none"> - There is good progress (PL), also the PhD students stated that the progress is very good. <p>The extent to which the way forward (as specified in project self-assessments) is sufficiently geared towards the realisation of the specific objective and the overall objective</p> <ul style="list-style-type: none"> - Except for the limitation in terms of creating more internal and external synergies, most of the objectives will be realized within the remaining time of the project. - PhD students have indicated that it may take 4 years to finish their PhD from the time they have been admitted as PhD student. With an additional 6 month pre-doc programme included, they may not finish within the project time of Phase I. - There is a strong follow-up from the North partners through regular e-mail communication.
<p>2.2 Development Extent to which the specific objectives of the project with regards to the contribution to national development priorities have been realised</p> <p>Score = 3 (good)</p>	<p>Progress in indicators developed for the specific objective at project level related to the contribution to national development priorities from project perspective</p> <ul style="list-style-type: none"> - Sustainable land management and achieving food security are among the national development priorities. The PhD research topics (eg. On soil/land degradation, siltation and salinity, landslides etc..) and objectives they want to achieve are related to the national objectives. - Results in terms of publications are not yet realized to inform policy makers as the PhD students are yet in the process of writing draft papers and only 4 papers are submitted for publication so far. <p>Non-expected effects that have emerged (not specified by indicators)</p> <ul style="list-style-type: none"> - None <p>Factors contributing to the level of achievements (both positive and negative), e.g. the influence of Covid</p> <ul style="list-style-type: none"> - Not applicable as there are no results/evidences yet that can show the extent to which achieved objectives contribute to national development priorities. <p>Appreciation of external stakeholders</p> <ul style="list-style-type: none"> - Local communities and local government (e.g.Bureau of agriculture, Arba Minch Agricultural Research Centre, Nechsar National park) are very supportive and appreciate the works of P4 and we observe this from the outreach workshop. <p>The extent to which the way forward (as specified in self-assessments) is sufficiently geared towards the realisation of the specific objective and the overall objective</p>

	<ul style="list-style-type: none"> - We anticipate that the PhD students will successfully finish their studies and the specific and overall objectives will be achieved and research results will contribute to the national development priorities (specifically sustainable natural resource management in the Lake Chamo and Abay watersheds) and inform policy makers once the results are available. <p>Level of reflection with regards to existing relations and networks (maybe the 2nd phase requires new expertise or networks?)</p> <ul style="list-style-type: none"> - The relations and network are good but there is a need to improve these further in order to improve both the internal and external synergies. - The existing relations are based on data needs/data sharing but it would be more productive if the relations are scaled up. There is interdisciplinarity within the project. Collaboration with other projects can be further enhanced but doing everything together (planning, implementation, monitoring) is not realistic and goes against the philosophy of having different projects.
<p>2.3 Scientific quality</p> <p>Score = 3 (good)</p>	<p>What information is available about quality of research (e.g. publications) and education (e.g. fellowships received from foundations, job prospects for alumni)</p> <ul style="list-style-type: none"> - There are already multiple conference contributions and 3 papers submitted by 1 PhD (as mentioned in previous section). Papers takes time to publish; it can be questioned if it is reasonable to expect these less than 3 years after effective start of PhD. - The lab facilities (automatic metrological stations, drone, GIS etc) that are installed at the research sites of the PhD students and the quality (high resolution) data generated has attracted already external stakeholders (donors, example the KfW financed SLM project) <p>Does the project refer to ‘cutting edge’ knowledge and what evidence is the project referring to?</p> <ul style="list-style-type: none"> - Not yet <p>Are there clear examples of quality (to verify during field mission) (optional) In case you have some ideas already:</p> <ul style="list-style-type: none"> - The facilities and the data sharing are improving the delivery of practical education and research-based education in the local undergraduate and post graduate programmes <p>What are issues of concern according to you in relation to scientific quality?</p> <ul style="list-style-type: none"> - No
<p>Final judgement/comments</p>	
<ul style="list-style-type: none"> - The progress of the project is very good in a way that the 3 PhD and 4 local MSc students are on the right track and most of them will finish their studies in time. However, one female PhD student may not finish her study in time. - The infrastructure (Meteorology and hydrological stations, piezometers, rainfall simulator, lab facilities, Drone etc) helped the project to generate quality data. Short term trainings on GIS, research software (Python) and UAV survey have been provided to project team members, PhD students of other projects and PhD students studying at the local PhD programme of AMU. The project has also conducted an outreach workshop as stated above. - Though students have not published yet, there is evidence that the scientific quality of research and education at AMU is enhanced. For example, the lab facilities (automatic metrological stations, 	

drone, GIS etc) that are installed at the research sites of the PhD students and the quality (high resolution) data generated which has attracted already external stakeholders (donors, example the KfW financed SLM project). The facilities and the data sharing practice of the project is improving delivery of practical education and research-based education in the local undergraduate and post graduate programmes at AMU.

Efficiency (EQ 3 – What is the level of efficiency in the project?)	
<p>3.1 Intermediate results</p> <p>Intermediate results have been delivered</p> <p>Score = 3 (good)</p>	<p>Level of realisation of intermediate results according to indicators formulated in the logical framework (with specific attention to the number of topics to be covered in P1 in relation to available resources)</p> <ul style="list-style-type: none"> - The level of realization of most of the IRs is good. - Most of the PhD students will finish their studies in the time remaining for Phase I except one student. <p>Factors contributing to the level of achievements (both positive and negative), for e.g. how realistic were the planned results given the resources and time available in the framework of the project?</p> <ul style="list-style-type: none"> - Refer 2.1 - PhD students had to go through a pre-doc programme and they need at least 4 years since addition to PhD programme, according to them, so the programme period seems tight in which PhD's have to finish their studies. <p>Outlook towards full achievement of IR in remaining year</p> <ul style="list-style-type: none"> - In the remaining time most of the IRs will be achieved.
<p>3.2</p> <p>Support was provided to ensure the quality of the research and educational processes</p> <p>Score = 4 (excellent)</p>	<p>The project provides adequate training, support, mentoring and follow-up for students (PhD and MSc, including support in managing effects of Covid-19 on their research)</p> <ul style="list-style-type: none"> - The project provided training to team members and local staff for example on GIS, programming software (Python), UAV and photogrammetry. - All PhD students submit back-to-office reports for their field research activities. <p>The project provides adequate training and support for students in terms of grant writing and job searches (particularly for MSc students; PhD students are mainly university staff)</p> <ul style="list-style-type: none"> - Some PhD students have taken a course on grant proposal writing as a course in Belgium. Such a training on grant proposal writing should be given to all project team members and staff of AMU; it would be good to plan this in the second phase of the programme. <p>The project contributes to scientific quality as described under the rationale of efficiency</p> <ul style="list-style-type: none"> - It is anticipated that the project will contribute to scientific quality. However, the papers have not yet published.
<p>3.3 Relationship input-output</p> <p>Relationship between means and results achieved and</p>	<p>Share of missions from the partner in the North, PHD's, trainings, investment costs and operational costs is reasonable in relation to the realisation of the intermediate results</p> <ul style="list-style-type: none"> - Investment (inputs) are reasonable in relation to realized intermediate results. - The short-term trainings on GIS, statistical software application (Phyton) were very helpful.

<p>objectives (qualitative assessment)</p> <p>Score = 3 (good)</p>	<ul style="list-style-type: none"> - Most meetings were held in the South (at AMU); it would be good, according to respondents, if joint steering committees are also held in the North partner universities. <p>Relevance of the expertise that was mobilised from Flemish universities and other partners</p> <ul style="list-style-type: none"> - The expertise that was mobilized from Flemish universities is very relevant to the needs of P4. They share their expertise and resources in terms of indoor seminars/workshops and field practical trainings during their mission and for/while supervising PhD students. <p>Management of spending and rate of over- and/or underspending (and explanatory factors)</p> <ul style="list-style-type: none"> - During the first year of the project implementation, there was underspending due to lack of proper implementation of activities. - The spending rate has improved from the 2nd year onwards. <p>Choice of activities: cost-effectiveness is being pursued in programme design and management</p> <ul style="list-style-type: none"> - Yes
<p>3.4 Project management</p> <p>Project management is conducive for efficient and effective project implementation</p> <p>Score = 3 (good)</p>	<p>Good working relations within the project team (clear guidelines, transparency, communication flows, timeliness of planning and execution of activities, etc.)</p> <ul style="list-style-type: none"> - Project leader shares the project document, budget, plans and relevant information to team members via e-mail. - The communication flow is good and somehow transparent. - There are monthly meetings and sometimes also an urgent meeting when the need arises. - The programme has guidelines however not communicated to team members. - There are good working relations within the project team. <p>The extent to which the project teams can be flexible in project execution (taking into account emerging needs, challenges from the context, amongst which Covid 19)</p> <ul style="list-style-type: none"> - There is flexibility in the execution of activities. For example, facilities of metrological stations were lost by flood about 3 times; within the project the problem was discussed and additional budget allocated to purchase and reestablish the equipment lost/damaged. - There is a problem/shortage of car for field activities; the project lead understands this and solved the problem through coordination and joint planning of field activities with other projects. - One of the project's weather stations is 147-206 km from Arba Minch depending the route and sometimes roads are damaged due to natural hazards (flooding). This causes loss of data and due to such an incident weather data of 47 days were lost in the past. To solve such possible future problem, the project has purchased a motor bicycle for a better follow up. <p>Factors hampering efficient management have been identified timely and managed well</p> <ul style="list-style-type: none"> - There were changes of project leaders; there were 2 project leaders before the current PL.

	<ul style="list-style-type: none"> - Project leaders have other leadership responsibilities and in order to solve their burden, the project has a deputy project leader. - Sometimes supplies (chemicals) may not be available in the local market. In such a case the project purchases from Belgium with the support of North partners. <p>Bureaucracy related to procurement (equipment purchases, travel approval...) has been managed well by the project team</p> <ul style="list-style-type: none"> - Travel approvals are managed well but procurement of equipment locally is somehow bureaucratic.
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Final judgement/comments

<ul style="list-style-type: none"> - The progress of all the MSc students and the PhD students is good. The project will achieve almost all IRs of the project in the remaining time of phase I. However, PhD students are likely to lag in terms of achieving all the publication targets. As a result, although some outreach activity is done already, it may be less likely that the project will accomplish all planned outreach activities within the remaining time. - Therefore, in phase 2 of the project it is important to focus on consolidating results of phase I and undertaking outreach activities so as to meet its objective of improving land use and land management practices and supporting sustainable rural livelihoods and environment in the South Ethiopian Rift Valley. The investments (inputs) are reasonable in relation to realized intermediate results. Respondents indicated that the expertise that were mobilized from Flemish universities are highly relevant; this expertise is shared with the local staff. The project provides adequate support, mentoring, and follow-up to all the PhD and MSc students. - During phase I, the project provided short-term training to team members and local staff for example on GIS and Statistical software (Phyton). In addition to what has been delivered, most respondents suggest the need for training on grant proposal writing in the 2nd phase. Most respondents confirm that there exists a very good working relationship in the project and the project is also flexible in managing emerging needs except the shortage of cars for field activities. All respondents, however, raise their concerns on the lengthy procurement procedure at AMU that needs improvement.

Sustainability EQ 4 – To what extent will the project results continue after the IUC programme is completed (sustainability)?

<p>4.1 Institutional Level of academic and institutional sustainability</p> <p>Score = 3 (good)</p>	<p>Level of (personal) commitment of stakeholders within the department/school concerned</p> <ul style="list-style-type: none"> - The level of commitment of stakeholders (PhD students, team members, PL, PSU, university management, and relevant departments) is very good. <p>Measures taken for retention of PhDs and trained staff</p> <ul style="list-style-type: none"> - There is staff turn-over at AMU due to low salary. - PhD students have signed agreement with AMU to serve the university after finishing their studies. - The working environment is good and there are efforts by the university to improve it. <p>Other comments regarding sustainability of institutional capacities</p> <ul style="list-style-type: none"> - The university is weak in terms of running lab facilities and more human capacity is needed to run the lab. - The project shall engage senior staffs as team members in the 2nd phase. - Focus on joint planning and monitoring of activities by thematic projects to improve internal and external synergies.
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	<ul style="list-style-type: none"> - Some PhD students may not finish within the remaining time of the project and operational costs for such (unforeseen) delays need to be foreseen in advance. <p>Joint research interests for both the Northern and Southern academics involved, are identified and pursued</p> <ul style="list-style-type: none"> - One PhD project has been funded (KULeuven-AMU) to investigate long term environmental changes along the rift border. - Clear common research interests have been identified to develop new research avenues in second phase of the project. <p>Evolution in networking with other national universities</p> <ul style="list-style-type: none"> - At project level there is no evidence of networking with other universities; however, PhD students of P4 went to BDU, Jima University and Mekelle University for experience sharing.
<p>4.2 Financial</p> <p>Level of financial sustainability</p> <p>Score = 3 (good)</p>	<p>Allocation of funds by Flemish universities (e.g. giving fellowships or by allowing academics to go to the field, matching funds)</p> <ul style="list-style-type: none"> - In general, funds allocated to 3 PhD students are enough, although students indicated that the budget for soil data analysis is not sufficient. - The project also allocated a small research budget for 2 PhD students in the local PhD programme. - There was a plan for training a lab technician, but this plan was cancelled. This depends on the existing lab facilities at AMU and the actual identification of the needs. There have been long delays in the development of the lab at AMU. Things have improved recently. <p>Availability of funds for operations and maintenance of physical infrastructure at university/college level</p> <ul style="list-style-type: none"> - Yes, but soliciting a research fund through grant application would help and this requires more training on grant proposal writing to staff of AMU. <p>Other comments from respondents related to financial sustainability</p> <ul style="list-style-type: none"> - Budget was and is available, but lab facility was not available at AMU and no clear strategy for lab development was proposed. Things have improved recently and the project has contributed to purchase consumable for the lab - It is important also to make the financial system more efficient. There is a lengthy bureaucratic procurement procedure. <p>Availability of proper funds (at university or college level) to continue all or a number of activities that are important/relevant</p> <ul style="list-style-type: none"> - Yes, at least for some activities but soliciting research fund through grant application would help and this requires more training on grant proposal writing to staff of AMU. <p>Capacity for resource mobilisation to build on the achievements (Strategy and initiatives to attract external funding (from other donors, government, private sector, ...), skills of staff, task division for resource mobilisation, networks, ...)</p> <ul style="list-style-type: none"> - There is a weak capacity for resource mobilization. - For attracting big external funds, increasing the capacity of staff in grant proposal writing, project planning and management and related short-term trainings would help and shall be planned in phase II.

	<p>Development of business approaches towards financing</p> <ul style="list-style-type: none"> - Not applicable (not seeing the potential).
<p>Final judgement/comments</p> <ul style="list-style-type: none"> - The level of commitment of stakeholders (PhD students, team members, PL, PSU, university management, and relevant departments) is very good. The project has not yet identified joint research interests for the 2nd phase together with its North partners and this needs to start as early as possible so as to facilitate the designing of a good project for the 2nd phase. The project also needs to strengthen its network with national universities in addition to what it has with Bahir Dar, Jimma, and Mekelle Universities. - Most respondents stated that the fund allocation for PhD students and for short term trainings and purchase of equipment is sufficient. However, for maintaining the installed automatic weather stations and continuing research activities, respondents argued that there might be funding from the university but that this may not be sufficient and that there is a need for mobilizing funds through grant proposal writing and application for funding. However, there is limited capacity in this regard and there is a need for organizing and training staff with short-term trainings on grant proposal writing, project planning and project management. 	

2.3.5. Project 5

TITLE OF PROJECT: IMPROVING AGRICULTURAL PRODUCTIVITY IN THE SOUTH ETHIOPIAN RIFT VALLEY

Introduction

The main objective of the project is to increase agricultural productivity by increasing efficiency of cropping systems and animal production in a sustainable way in the South Ethiopian Rift Valley. The research activities of the project focus on three interlinked transformation strategies for curbing the current land degradation spiral. These are (1) improve productivity of high-biomass mixed farming systems in the poverty-stricken highlands, with high year-round land cover and year-round food and fodder production by improved agronomical insights on soil-plant, plant-plant and plant-pathogen interactions; (2) reduce the numbers of grazing cattle significantly and urgently by making a more attractive and efficient dairy farming system through efficient conversion of fodder into milk; and (3) restore soil quality by reverting free-grazing systems to more efficient feed production and preservation strategies. The main outputs of the project in phase I include training of staffs at PhD (3) and MSc (1) levels, strengthening infrastructure (lab equipment for the animal science and biology labs), and conducting outreach activities based on research results. The project is on the right track in terms of progress made by PhD and MSc students, publications, and outreach activities.

Factual data

Hosting faculty	College of Agricultural Sciences
Number of staff in research group	166
Status of staff (fixed position, service contract, others)	Mostly fixed Position with some service contract of expatriates
Number of PhD finished/ongoing (with VLIR-UOS funding)	3 PhD students with VLIR-UOS funding and 4 PhD with local scholarships as team members of P5
Number of PhD finished/ongoing outside VLIR-UOS funding	19
Number of publication in peer reviewed journals	2 publications published by PhD students of P5 with VLIR-UOS funding

Evaluation questions

Relevance (EQ 1 – To what extent is the project relevant?)	
1.1. Responds to needs The objectives of the projects are consistent with the country/local needs, the needs of the university, the VLIR-UOS	<p>The mechanisms of interaction with beneficiaries of the project</p> <ul style="list-style-type: none"> - There has been smooth interaction with internal (team members, PhD students) and external (local stakeholders) beneficiaries. - Although there is shortage of cars for field activities, the beneficiaries (PhD students) understand the constraint and they manage to plan their field activities with PhD students of other projects. <p>The extent to which advice and indigenous knowledge from communities is sought and taken into account in the research</p>

strategy and donor's policies

Score = 4 (good)

- Need assessment involving farmers was conducted and their advices were taken into account in designing the research themes of the project and during the implementation of the project.
- For example: focus group discussions were held to assess indigenous knowledge on Enset farming and manure management both during project formulation and implementation. Low Enset productivity and poor manure management were identified as problems.
- Based on the need assessment, the project identified low productivity in crop/horticulture and livestock production and research on dairy nutrition/feed, Enset farming, and feed technology were identified as the research themes of the project.

Relevance of research findings for external stakeholders at the local and national level

- Two PhD students have published two papers (note 1 published + 1 accepted for publication) in high-ranking journals.
- The research findings on dairy nutrition, feed technology, and Enset farming are used to train agricultural experts from the Bureau of Agriculture in the ministry working at local community level.
- Short term trainings in feed/silage technology, dairy nutrition (ration formation) have been given to local stakeholders (model farmers, local agricultural experts, zone and woreda experts) as part of the outreach plan of the project.
- One of the PhD student studying on the link between bacterial wilt of crops due to poor manure management that negatively affects the soil biome (mycorrhiza) with negative implication on productivity and hence food security of local stakeholders.
- The objective of the project is to increase agricultural productivity by increasing efficiency of cropping systems and animal production in a sustainable way in the South Ethiopian Rift Valley. This is in line with the country's climate resilient green economy strategy where increasing agricultural productivity, has been one of the priority pathways for the country to achieve its development objectives and improve the livelihood and food security of rural people. The capacity building in research and lab facilities as well as the research undertakings of the project are in line with the mission of AMU in providing quality education, research and community services.

The positioning of the project within the respective departments/institutes/units: what are the needs at this level and how are these answered? What have been the dynamics in the departments so far?

- The department of Animal Science, and Department of Biology have got some lab equipment (eg. Fodder chopper machine) that will help to undertake practical (research-based) teaching to students in their undergraduate and post graduate programmes.

	<p>The link of the project with the transversal themes of Belgian development cooperation (gender, environment and D4D, digitalisation for development)</p> <ul style="list-style-type: none"> - Gender: Scholarship wise it was difficult to get competent female candidates. The project envisages this more in phase II because there is a better pool of female candidates. The research results on inset farming, diary nutrition, silage making, and feed rationing, will have positive impact on the income and livelihood of rural women. The dairy nutrition training for stakeholders was mainly given to female farmers. - Environment: The PhD research on the link between bacterial wilt and manure application deals on assessing the effect of poor manure management on soil biome (mycorrhiza) and the need for fertilizer/manure balancing without harming soil biomes is an example on how the project deals with environment. The silage making (using banana leftover and maize Stover) reduces solid waste and is one way of waste management. - Based on the Fodder Chopper Machine purchased, a PhD student has made some modification and produced a locally modified chopper machine, which could be taken as effect of the project for technology transfer. - D4D: The project has got an equipment of field digestible analyzer., which is and will be used for practical teaching-learning and enhance evidence-based education. <p>Extent to which gender and environmental sustainability are effectively integrated in each project</p> <ul style="list-style-type: none"> - As stated above the research activities of the project somehow integrated gender and environmental sustainability in the research undertakings. .
<p>1.2. Synergy There have been efforts made to ensure synergy between (thematic) IUC projects (internal synergy)</p> <p>Score = 3 (good)</p>	<p>The extent to which crosscutting coordination/joint action/collaboration exists between projects (particularly between the thematic projects)</p> <ul style="list-style-type: none"> - PhD students of the project give priority to the IRs of their own project; this affects the synergy with other thematic projects. - There is some synergy in terms of sharing data with P2 and P4 PhD students and the use of lab facilities of P6 (Health Science Lab for example PhD student of P5 used Health Lab for Root DNA Observation research and Soil lab of P4 for soil analysis). <p>The extent to which interdisciplinary research practices (involving more than one project) and inherent synergy takes place</p> <p>The research topics identified in Phase I are very specific for project 5 and are not interdisciplinary. Therefore, the synergy with other thematic projects is not strong but rather weak.</p> <ul style="list-style-type: none"> - There is an agreement among the key respondents on the need to create more synergy with other thematic projects in the 2nd phase.

	<ul style="list-style-type: none"> - Data is also shared with other projects and one local PhD student of Horticulture department got data on soil fertility with a plan of joint publication with a PHD student of P4, but there is no publication yet. <p>The extent to which joint research between projects lead to (spinoff) master theses or paper publications</p> <ul style="list-style-type: none"> - One MSc thesis on Enset propagation is completed from project 5 but not because of synergy with other projects <p>What has been done to improve and consolidate internal synergies?What could be done better in the 2nd phase of the project to further improve internal synergies?</p> <ul style="list-style-type: none"> - There have been 2-3 meetings to create awareness on the need to create synergy. - There is a need for joint planning with other thematic projects for identification of activities that could create more synergies, and joint implementation and monitoring plans as well. - PhD topics shall be multidisciplinary in the 2nd phase.
<p>1.3. Synergy & Complementarity</p> <p>There have been efforts made to ensure complementarity and synergy with other (externally funded) projects/ (other (Belgian) development actors)</p> <p>Score = 3 (good)</p>	<p>The extent to which the project is looking for synergy with other VLIR-UOS interventions in the country or at regional level</p> <ul style="list-style-type: none"> - There was a research project on Enset financed by an essential AMU-VLIR-UOS Team/Enset Project. Project 5 has a strong cooperation with the AMU-VLIR-UOS Team project. - There is no other synergy with VLIR-UOS interventions in the country/region. <p>The extent to which the project is looking for synergy with projects supported by other donors, more in particular Belgian development actors</p> <ul style="list-style-type: none"> - In two projects (Benefit Realize Project on Agronomy and Livestock supported by The Netherlands Government, and Bright Future in Agriculture Project) the project leader of P5 is also involved in these two projects and he stated that his experience from VLIR-IUC has helped him to attract these projects. <p>What has been done to improve external synergies?</p> <ul style="list-style-type: none"> - An outreach workshop has been conducted to show the results (for example the result of the study on silage making/feed rationing and dairy nutrition) to local stakeholders/communities. - There is an MoU signed between AMU and the local/regional government. <p>What could be done better in the 2nd phase of the project to further improve external synergies?</p> <ul style="list-style-type: none"> - The level of effort made so far can be better; there is a need for joint planning of activities and work more to improve external synergy. - There is a need to build the capacity of staff and lab facilities and training on grant proposal writing
<p>1.4.Coherence</p>	<p>There is coherence between expected results, specific objectives and the overall objective</p> <ul style="list-style-type: none"> - Yes, there is. The PhD students are on the right track and will finish in time.

<p>The project is coherent</p> <p>Score = 4 (Excellent)</p>	<p>The choice of activities is relevant to obtain results and objectives</p> <ul style="list-style-type: none"> - Yes it is relevant. For example, feed formulation and designing of a feeding strategy were the activities carried out and the research results indicate that these activities enhance milk yield at least at experimental level and that this needs to be promoted. <p>The indicators are well chosen to monitor progress and to support learning.</p> <ul style="list-style-type: none"> - Yes, for example the number of publications is one of the indicators; so far two papers have been published as stated before. - PhD students will also finish in time; they are on the right track. <p>Is the formulation of the project still relevant, taking into account changes in context (such as Covid but also changes in the departments, new dynamics?)</p> <ul style="list-style-type: none"> - Yes it is relevant despite Covid-19 and the political situation in the country that have somehow limited student mobility and activities that need face to face meeting.
<p>Final judgement/comments</p>	
<ul style="list-style-type: none"> - The main objective of the project is to increase agricultural productivity by increasing efficiency of cropping systems and animal production in a sustainable way in the South Ethiopian Rift Valley. This is in line with the country's climate resilient green economy strategy where increasing agricultural productivity has been one of the priority pathways for the country to achieve its development objectives and improve the livelihood and food security of rural people. - The PhD research topics focus on improving high-biomass mixed farming systems, reducing grazing through efficient conversion of fodder into milk, and restoring soil quality, which are all linked to environment that is one of the transversal themes of the Belgian Development cooperation. - Although scholarship wise it was difficult to get competent female candidates, the research results on ensete farming, dairy nutrition, silage making, and feed rationing, will have positive impact on the income and livelihood of rural women if disseminated well through outreach activities to stakeholders. - The dairy nutrition training for stakeholders was mainly given to female farmers. - In relation to the third thematic focus (Digitization for Development), the project is able to get an equipment called field digestible analyser, which is and will be used for practical teaching-learning and enhance evidence-based education. - In addition to the sharing of experience with other thematic projects through the joint steering committee meetings and joint excursions, the project has some internal synergy with thematic projects in terms of sharing data. For example, there is some synergy in terms of sharing data with P2 and P4, PhD students of P5 use lab facilities of P6 (Health Science Lab for example PhD student of P5 used Health Lab for Root DNA Observation research and Soil lab of P4 for soil analysis). - The synergy in terms of data sharing is based on the needs of individual PhD students. The project has also contributed in terms of creating external synergy. For example, in two projects (Benefit Realize Project on Agronomy and Livestock supported by The Netherlands Government, and Bright Future in Agriculture Project) the project leader of P5 is also involved in these two projects and he stated that his experience from VLIR-IUC has helped him to attract these projects. - The project has delivered an outreach workshop to show the results to stakeholders (through giving training on dairy nutrition to stakeholders). 	

- The level of effort made so far is very good but there is a need for joint planning of activities and to strengthen more internal and external synergy.
- The project is coherent regarding the fact that the IRs have both academic and development objectives. For example, feed formulation and designing of feeding strategy were the activities carried out and the research results indicate that these activities enhance milk yield at least at experimental level and need to be promoted.

Effectiveness EQ 2 – To what extent have the project’s specific objectives been achieved (effectiveness)?

<p>2.1 Academic Extent to which the specific objectives of the project with regards to research and education strengthening have been realised</p> <p>Score = 4 (Excellent)</p>	<p>Progress in indicators developed for the specific objective at project level related at research and education strengthening of capacities and infrastructure</p> <ul style="list-style-type: none"> - The 3 PhD students have completed their field data collection work and are on the right track and will finish their PhD in time. - Two of the PhD students have published 2 papers in high-ranking journals. - One of the PhD students has already started preparing his PhD dissertation. - An outreach workshop was conducted and model farmers and local agricultural experts were trained with silage making and feed rationing. <p>Progress made in gender mainstreaming and environment as cross-cutting issue at project level</p> <ul style="list-style-type: none"> - see under relevance. <p>Non-expected effects that have emerged (not specified by indicators)</p> <ul style="list-style-type: none"> - None <p>Factors contributing to the level of achievements at project level (both positive and negative), e.g. the influence of Covid</p> <ul style="list-style-type: none"> - Positive Factors: <ul style="list-style-type: none"> o There has been strong support from PSU, AMU and high commitment of PhD students and project leader. o Local stakeholders, particularly communities, are very supportive in terms of for example giving plots to establish silage making demonstration site, and on farm research plots. - Negative factors <ul style="list-style-type: none"> o Shortage of vehicle for field work o Covid 19 o Political situation in the country <p>Appreciation of progress made by respondents involved</p> <ul style="list-style-type: none"> - There is a very good progress (PL), and PhD students will finish their studies in time. <p>The extent to which the way forward (as specified in project self-assessments) is sufficiently geared towards the realisation of the specific objective and the overall objective</p>
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	<ul style="list-style-type: none"> - There is very high confidence among the respondents that the specific and over all objectives of the project will be realized as per the plan in the remaining time of the project.
<p>2.2 Development Extent to which the specific objectives of the project with regards to the contribution to national development priorities have been realised</p> <p>Score = 3 (good)</p>	<p>Progress in indicators developed for the specific objective at project level related to the contribution to national development priorities from project perspective</p> <ul style="list-style-type: none"> - Research works of the project on feed security as a means for food security (through research results of the project on silage making, feed ration formulation, inset farming, and dairy productivity) are very relevant and could contribute to food security, which is one of the national development priorities of the country. However, it requires (more) promoting and upscaling the level of outreach of the research results in cooperation with relevant stakeholders. <p>Non-expected effects that have emerged (not specified by indicators)</p> <ul style="list-style-type: none"> - None <p>Factors contributing to the level of achievements (both positive and negative), e.g. the influence of Covid</p> <ul style="list-style-type: none"> - Positive Factors: <ul style="list-style-type: none"> o There has been strong support from PSU, AMU and high commitment of PhD students and the project leader o Local stakeholders, particularly communities, are very supportive in terms of for example giving plots to establish silage making demonstration site, and on farm research plots - Negative factors <ul style="list-style-type: none"> o Shortage of vehicle for field work o Covid 19 o Political situation in the country <p>Appreciation of external stakeholders</p> <ul style="list-style-type: none"> - Two female agricultural development agents (DAs) from the government, working in two local communities stated that the training they got on silage making from banana leftovers and maize Stover and on feed ration formulation for enhancing dairy productivity were very relevant and they have plans to introducing/promoting and upscale the adoption of the technology by more local farmers. - One of the DAs responded that the technologies are new and she appreciates very much the importance and practicality of the training to her work. She has a plan to use the established silage making demonstration facility built by the project in her village to train more farmers to adopt the technology. - A PhD student appreciates the support he gets from local communities in terms of their support to let him access to take samples from their Enset farms including the free labor support he gets in taking samples.

	<ul style="list-style-type: none"> - He also appreciates the local school on his site where he has established a green-house plot and he gets free access to tap water to irrigate his experimental materials. <p>The extent to which the way forward (as specified in self-assessments) is sufficiently geared towards the realisation of the specific objective and the overall objective</p> <ul style="list-style-type: none"> - The project anticipates that the PhD students will successfully finish their studies in time and all the objectives will be achieved in time. <p>Level of reflection with regards to existing relations and networks (maybe the 2nd phase requires new expertise or networks?)</p> <ul style="list-style-type: none"> - There is a very good working relation with project members, PSU and PL. - There is also a good relationship with local stakeholders and communities.
<p>2.3 Scientific quality</p> <p>Score = 4 (Excellent)</p>	<p>What information is available about quality of research (e.g. publications) and education (e.g. fellowships received from foundations, job prospects for alumni)</p> <ul style="list-style-type: none"> - Two papers are published in high-ranking journals. - The lab equipment and supplies purchased are helping the relevant departments in enhancing evidence-based teaching and learning. - PhD students when doing their field research are accompanied by local MSc. This is contributing to improving quality of education through developing the culture of research-based education. <p>Does the project refer to 'cutting edge' knowledge and what evidence is the project referring to?</p> <ul style="list-style-type: none"> - Yes: Silage making from Banana Pseudo stem and maize Stover is a new finding that could improve dairy productivity. The result has been published in a high-ranking journal. <p>Are there clear examples of quality (to verify during field mission) (optional)</p> <ul style="list-style-type: none"> - Yes: The 2 published papers and the lab facilities and silage making facility built in one rural community as a demonstration site for up-scaling of the adoption of the technology by local communities. <p>What are issues of concern according to you in relation to scientific quality?</p> <ul style="list-style-type: none"> - There is still shortage of lab facilities to undertake more and advanced research. - Most samples are analyzed in Belgium. - In Phase II, more focus should be given to local capacity in terms of lab facilities. This would improve the scientific quality of the research at AMU.
<p>Final judgement/comments</p>	
<ul style="list-style-type: none"> - The progress of the project is very good regarding the fact that the 3 PhD students are on the right track and they will finish their studies in time. Two of the PhD students have published 2 papers on high-ranking journals and one of the PhD students has already started preparing his PhD dissertation. The infrastructure (lab equipment in the animal science and biology labs) is supporting the 	

practical teaching-learning and research at AMU. The project has also conducted an outreach workshop and provided training to stakeholders as stated above.

- The research work of the project on feed security as a means for food security (through research results of the project on silage making, feed ration formulation, ensete farming, and dairy productivity) is very relevant and could contribute to food security, which is one of the national development priorities of the country. However, it requires promoting and upscaling the level of outreach of the research results in cooperation with relevant stakeholders.
- Students have also published 2 papers in high impact factor journals indicating evidence of scientific quality of research.
- The lab facilities and the data sharing practice of the project are also improving delivery of practical education and research-based education in the local undergraduate and post graduate programmes at AMU.

Efficiency (EQ 3 – What is the level of efficiency in the project?)

<p>3.1 Intermediate results</p> <p>Intermediate results have been delivered</p> <p>Score = 3 (good)</p>	<p>Level of realisation of intermediate results according to indicators formulated in the logical framework (with specific attention to the number of topics to be covered in P1 in relation to available resources)</p> <ul style="list-style-type: none"> - The level of realization of most of the IRs is very good. - PhD students will finish their studies in the time remaining for Phase I. <p>Factors contributing to the level of achievements (both positive and negative), for e.g. how realistic were the planned results given the resources and time available in the framework of the project?</p> <ul style="list-style-type: none"> - The time frame and budget planned for each IR are realistic. - The project has done an outreach workshop and expects that PhD students will finish in time. <p>Outlook towards full achievement of IR in remaining year</p> <ul style="list-style-type: none"> - In the remaining time most of the IRs will be achieved except the IR on Range land ecology monitoring and evaluation This topic did not seem to be included in a PhD research during phase I and therefore it was not taken up (no priority given). It is proposed to move this component to phase II and include it in a PhD research.
<p>3.2 relationship input-output</p> <p>Relationship between means and results achieved and objectives (qualitative assessment)</p>	<p>Share of missions from the partner in the North, PHD's, trainings, investment costs and operational costs is reasonable in relation to the realisation of the intermediate results</p> <ul style="list-style-type: none"> - The budget share of the different stakeholders in relation to the realized IRs are reasonable and optimal. - In terms of training, local PhD students got training on animal nutrition (in vitro gas production test and digestibility, and amino acid analysis of feeds). The trainings were held at Holeta Agricultural Research Institute and Ethiopian Public Health Research Institute. - These practical trainings helped PhD students in understanding and designing research methods.

<p>Score = 4 (Excellent)</p>	<p>Relevance of the expertise that was mobilised from Flemish universities and other partners</p> <ul style="list-style-type: none"> - A Flemish Professor gave seminars on Feed scarcity and coping mechanisms, Energy and protein metabolism and animal feeds. - The seminars were relevant to the local PhD course work and sufficiently broad and led to updated knowledge sharing and sharing of materials by the professor. - North promoters of PhD students, when coming to AMU have been giving trainings to local staffs (example: scientific writing, statistical software application, feed formulation). <p>Management of spending and rate of over- and/or underspending (and explanatory factors)</p> <ul style="list-style-type: none"> - During the first year of the project implementation, there was underspending due to lack of proper implementation of activities and lack of proper communication. - The spending rate has improved from the 2nd year onwards. <p>Choice of activities: cost-effectiveness is being pursued in programme design and management</p> <ul style="list-style-type: none"> - Yes: for example, the project purchased a low-cost Feed Chopper Machine with multiple duties. We further made a prototype of a locally modified feed chopper matching to increase durability.
<p>3.3 Support was provided to ensure the quality of the research and educational processes</p> <p>Score = 3 (good)</p>	<p>The project provides adequate training, support, mentoring and follow-up for students (PhD and MSc, including support in managing effects of Covid-19 on their research)</p> <ul style="list-style-type: none"> - In terms of training, local PhD students got training on animal nutrition (invitro gas production test and digestibility, and amino acid analysis of feeds). The trainings were held at Holeta Agricultural Research Institute and Ethiopian Public Health Research Institute. - These practical trainings helped PhD students in understanding and designing research methods. <p>The project provides adequate training and support for students in terms of grant writing and job searches (particularly for MSc students; PhD students are mainly university staff)</p> <ul style="list-style-type: none"> - No - Such a training on grant proposal writing should be given to all project team members and staff of AMU; it would be good to plan this for the second phase. <p>The project contributes to scientific quality as described under the rationale of efficiency</p> <ul style="list-style-type: none"> - Yes, 2 papers are published on high-ranking journals.
<p>3.4 Project management</p>	<p>Good working relation within the project team (clear guidelines, transparency, communication flows, timeliness of planning and execution of activities, etc.)</p>

<p>Project management is conducive for efficient and effective project implementation</p> <p>Score = 3 (good)</p>	<ul style="list-style-type: none"> - The project leader shared the project document, budget, plans and relevant information to team members via e-mail. - The communication flow is good and somehow transparent (project documents are not fully shared to all members). - There are monthly meetings and sometimes urgent meetings when the need arises. - The programme has its guidelines and the project follows the guideline. <p>The extent to which the project teams can be flexible in project execution (taking into account emerging needs, challenges from the context, amongst which Covid 19)</p> <ul style="list-style-type: none"> - There is flexibility in execution of activities. For example, due to Covid- 19, field works were not done as planned but through discussion plans and activities are adjusted and conducted according to the revised plan. - There is a problem/shortage of car for field activities and the project understands this and solves the problem through coordination and joint planning of field activities with other projects. <p>Factors hampering efficient management have been identified timely and managed well</p> <ul style="list-style-type: none"> - No, except the effect of Covid-19 and political situation that somehow limited student mobility. This has been solved by revising plans of activities and implementing as per the revised plan. <p>Bureaucracy related to procurement (equipment purchases, travel approval...) has been managed well by the project team</p> <ul style="list-style-type: none"> - The local procurement procedure and policy at AMU is very lengthy. - But the AMU-IUC programme has its own committee that has facilitated/shortened the bureaucracy. - We also do direct purchase from Belgium.
Final judgement/comments	
<ul style="list-style-type: none"> - The progress of the 3PhD students is very good and the project anticipates that they will finish in time; the project will achieve almost all its IRs <i>except the IR on Range land ecology monitoring and evaluation</i>, which may not be achieved and could be considered as a PhD topic in Phase II. - In addition, the PhD students have started publishing (2 publications so far), but they are likely to lag in terms of achieving all the publication targets. - As a result, although some outreach activity is done already, it may be less likely that the project will disseminate all the research results to stakeholders within the remaining time. Therefore, in the beginning of phase 2 of the project it is important to focus on consolidating all results of phase I and undertaking more outreach activities so as to meet its objective of increasing agricultural productivity by increasing efficiency of cropping systems and animal production in a sustainable way in the South Ethiopian Rift Valley. 	

- The investments (inputs) are reasonable in relation to realized intermediate results. Respondents indicated that the expertise that was mobilized from Flemish universities is highly relevant and important to share with local staff. For example, a Flemish Professor gave seminars on Feed scarcity and coping mechanisms, energy and protein metabolism and animal feeds.
- North promoters of PhD students, when coming to AMU have been giving trainings to local staffs (example: scientific writing, statistical software application, feed formulation). The seminars were relevant to the local PhDs and resulted in updated knowledge sharing.
- The project provides adequate support, mentoring, and follow-up to all the PhD students. The project, however, did not provided short-term training to team members and/or local staff. Most respondents suggest the need for training on grant proposal writing in the 2nd phase. Most respondents confirm that there are very good working relations in the project. The project is also flexible in managing emerging needs except the shortage of cars for field activities. All respondents raise their concerns on the lengthy procurement procedure at AMU that needs improvement.

Sustainability EQ 4 – To what extent will the project results continue after the IUC programme is completed (sustainability)?

<p>4.1 Institutional Level of academic and institutional sustainability</p> <p>Score = 3 (good)</p>	<p>Level of (personal) commitment of stakeholders within the department/school concerned</p> <ul style="list-style-type: none"> - The level of commitment of stakeholders (PhD students, team members, PL, PSU, university management, and relevant departments) is very good. - The departments of Horticulture, Animal Science, and Plant Science and senior staffs at these departments are members of the project. They have a high level of commitment. For example, in the absence of PhD students (during their stay in Belgium) the local staff/team members of the project follow the data collection from the farming research and silage demonstration plots. <p>Measures taken for retention of PhDs and trained staff</p> <ul style="list-style-type: none"> - There is staff turn-over at AMU due to low salaries. - PhD students have signed an agreement with AMU to serve the university after finishing their studies. - The working environment is good and there are efforts done by the university to improve it (office facilities, internet, transport, etc). - Staff also gets accommodation for free though the supply is limited. <p>Joint research interests for both the Northern and Southern academics involved, are identified and pursued</p> <ul style="list-style-type: none"> - There is a plan for co-authorship of papers between project team members and PhD students and north partners(promotors). - The project identified research topics for the 2nd phase which have been sent to the North partners for further discussion. - It is anticipated that at least 3 PhD scholarships will be assigned in phase II with a focus on gender mainstreaming. - It would be good to organize short term trainings to staffs on grant proposal writing and project management, in phase II.
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	<ul style="list-style-type: none"> - Human capacity building on lab operations is needed as well as improvement of lab facilities. <p>Evolution in networking with other national universities</p> <ul style="list-style-type: none"> - At project level the project leader went to Mekelle University for sharing experiences. - Similar networking exists with Jima University, Bahir Dar University, Addis Ababa University and Hawassa University.
<p>4.2 Financial</p> <p>Level of financial sustainability</p> <p>Score: 3=good</p>	<p>Allocation of funds by Flemish universities (e.g. giving fellowships or by allowing academics to go to the field, matching funds)</p> <ul style="list-style-type: none"> - Allocations from Flemish University for fellowship, field work, and matching funds were sufficient to undertake project activities. <p>Availability of funds for operations and maintenance of physical infrastructure at university/college level</p> <ul style="list-style-type: none"> - Despite the procurement bureaucracy, there will be funds at College/university level for operations and maintenance of physical infrastructure. - The fact that AMU is designated as a research university is also expected to attract more funding from the government. - But soliciting research fund through grant application would help and this requires more training on grant proposal writing to staffs of AMU. <p>Availability of proper funds (at university or college level) to continue all or a number of activities that are important/relevant</p> <ul style="list-style-type: none"> - At the department of Animal science there is a course on feed processing and conservation technology at UG and PG levels. There will be fund from the university to continue for example the research on silage making and relevant activities. <p>Capacity for resource mobilisation to build on the achievements (Strategy and initiatives to attract external funding (from other donors, government, private sector, ...), skills of staff, task division for resource mobilisation, networks, ...)</p> <ul style="list-style-type: none"> - There is limited capacity at AMU and the project level for resource mobilization. - For attracting big external funds, increasing the capacity of staff in grant proposal writing, project planning and management and related short term trainings would help and shall be planned in phase II. <p>Development of business approaches towards financing</p> <ul style="list-style-type: none"> - The project does not see potential (yet)
<p>Final judgement/comments</p>	
<ul style="list-style-type: none"> - The level of commitment of stakeholders (PhD students, team members, PL, PSU, university management, and relevant departments) is very good. There is a plan for co-authorship of papers between project team members and PhD students and North partners(promoters). There has been very good mutual understanding with north partners and local team members and this has to continue. 	

- The project has identified research topics for the 2nd phase, approved by the local steering committee, and sent these to the North partners.
- At project level the project leader went to Mekelle University for sharing experiences with MU-VLIR-UOS IUC; similar network exists with Jimma University, Bahir Dar University, Addis Ababa University and Hawassa University. However, the project needs to strengthen its network further with national universities in addition to the existing networks it has already established.
- Most respondents stated that the fund allocation for PhD students and purchase of equipment is sufficient. For maintaining the installed lab equipment and continuing research activities, respondents argue that there might be funding from the university but that may not be sufficient and there is a need for mobilizing funds through grant proposal writing and application for funding. However, there is limited capacity in this regard and there is a need for organizing and training staff with short-term trainings on grant proposal writing, project planning and management.

2.3.6. Project 6

TITLE OF PROJECT: BIODIVERSITY CONSERVATION FOR SUSTAINABLE DEVELOPMENT IN THE SOUTH RIFT VALLEY

INTRODUCTION

The aim of the project is biodiversity conservation, forest restoration, eradication of invasive species and saving Lake Chamo from sedimentation to support sustainable land use, food production and fisheries. To achieve this objective, the project aimed at enhancing the performance of biodiversity research in terrestrial and aquatic ecosystems and facilitates the uptake of the new knowledge on biodiversity. To reach these results, the project is working on understanding i) the relationship between functional diversity and ecosystems services, ii) wetland ecology and diversity and its link to water quality, Leishmaniasis infections and iii) integrating vision on cross-cutting socio-economic, environmental, land use, ecosystem and agricultural production dynamics".

The project was formulated through continuous consultations with the local and regional government offices. College of Natural Sciences and Department of Biology are responsible for overseeing the project implementation. PhD students, project leader, and other team members were involved in the financial, operational and strategic planning of the project. Besides, Nech Sar National Park and – district forestry department in the highland are the key external actors engaged in the research activities.

Since the commencement of the project there were no major challenges that significantly affected the execution of the project activities, but the project made modifications in its Logical Framework: IR2 was slightly changed. The project changed 2.3 result "Quantifying functional diversity in lowland forest in relation to erosion control and water quality" into "Estimating the effect of *Dichrostachys cinerea* encroachment on ecosystem functions of savanna plains of Nech Sar park" because there is no serious erosion in the lowland forest. Besides, the project preliminary assessment proved that it is important to give more attention and priority to conservation of the park than other research. Because encroachment of the invasive shrub *Dichrostachys* seems by far the most important threat to the biodiversity in the park and the ecosystem services it provides, it was decided to refocus the PhD research on this issue.

FACTUAL DATA

Hosting faculty	College of Natural Sciences, Department of Biology
Number of staff in research group	14
Status of staff (fixed position, service contract, others)	Fixed
Number of PhD finished/ongoing (with VLIR-UOS funding)	3
Number of PhD finished/ongoing outside VLIR-UOS funding	13
Number of publications in peer reviewed journals	1

EVALUATION QUESTIONS

Relevance (EQ 1 – To what extent is the project relevant?)	
<p>1.1. Responds to needs</p> <p>The objectives of the projects are consistent with the country/local needs, the needs of the university, the VLIR-UOS strategy and donor's policies</p> <p>Score:4= Excellent</p>	<p>The mechanisms of interaction with beneficiaries of the project</p> <ul style="list-style-type: none"> – The project effectively communicates and interacts with the project beneficiaries. – The mechanism of interaction with project beneficiaries is very effective and efficient because the project uses different approaches and mechanisms, such as: <ul style="list-style-type: none"> – Organizing regular field meetings, using emails and face to face discussions. – Meetings with different actors during field days organized by the woreda and zone environmental day. – Project staff meets and discusses the project activities with different actors including donors (GIZ, UNEP offices etc.) and government officials. – Meetings with individuals through already established networks and fora, i.e. the Rift Valley Lakes Network. <p>The extent to which advice and indigenous knowledge from communities is sought and taken into account in the research</p> <ul style="list-style-type: none"> – The project integrates indigenous knowledge and advice from the local communities in the research process. The key evidence includes: <ul style="list-style-type: none"> – Local fishermen were consulted their experience and knowledge about why the fish volume is declined over time, where the fish is located, lay their eggs in the water etc. These ideas were very helpful to enrich the research findings. – Local experience and advice on how the community identifies plant species, specifically medicinal plants were consulted and integrated in the research process. – Information on plant population size, coverage, diversity, local name was also consulted and included in the research. <p>Relevance of research findings for external stakeholders at the local and national level</p>

- The research findings are very relevant to the external stakeholders both at the local and national level, because
 - Consultation with the local community indicated that the research is relevant to their livelihood, specifically the research related to fish. Communities living in the highland mentioned that the research will improve regeneration of indigenous species, this is very important to improve their livelihood. As discussed with the community, finding solutions for removing invasive species and identification of plants for soil and water conservation are their priority.
 - Woreda NRM offices, Ethiopian Wildlife Conservation Authority indicated that removing invasive species from Nech Sar Park, protecting Lake Chamo and reserving biodiversity are the objective of the offices strategic plan.
 - Many respondents agreed that the project is relevant to AMU research thematic area linked to biodiversity conservation.
 - Similarly, the project is relevant to the national GTP-II programme, the SDGs, Goal 1, 14 and 15.

The positioning of the project within the respective departments/institutes/units: what are the needs at this level and how are these answered?

What have been the dynamics in the departments so far? This is particularly interesting for P1 (TISP) as transversal project.

- The positioning of the project within departments is strong because the project improved the lab facilities that can also support other departments and projects in their research, as well as education programmes.

The link of the project with the transversal themes of Belgian development cooperation (gender, environment and D4D, digitalisation for development)

- The project is relevant to Belgian development themes, because:
 - The research findings relate to land degradation, aquatic water and biodiversity responding directly to environmental concerns.
 - The research process introduces improved techniques and data collection and management. This improves the project monitoring and sharing information for programme development, which is linked to D4D.
 - The research findings respond to gender economic empowerment (mainly women are involved in selling fish), for instance the research activities related to increasing fish volume will benefit women engaged in the fish value chain.

Extent to which gender and environmental sustainability are effectively integrated in each project

- The research sufficiently integrates environmental sustainability, because, by design the project is intended to respond to environmental needs.
- The project considers gender because one of the PhD students is a woman, almost 40% of the data collectors are women, women were consulted and discussed during data collection, meetings and workshop. But the project needs to develop gender mainstream strategy for sustained impact.

<p>1.2 Synergy</p> <p>There have been efforts made to ensure synergy between (thematic) IUC projects (internal synergy)</p> <p>Score: 3=Good</p>	<p>The extent to which crosscutting coordination/joint action/collaboration exists between projects (particularly between the thematic projects)</p> <ul style="list-style-type: none"> – There was joint monitoring and joint collaboration for sharing data and information within the project and with other projects. The main evidence includes: <ul style="list-style-type: none"> – The project made a field survey and did data collection in close coordination with project 4; the project collaborates in sharing lab facilities, automatic weather station, and other materials. – PhD student 1 and PhD student 2 jointly made a plant diversity survey. <p>The extent to which interdisciplinary research practices (involving more than one project) and inherent synergy takes place</p> <ul style="list-style-type: none"> – The project practiced interdisciplinary research activities with other projects and within the project, the project shared data, lab management practices, shared data and information with project 4, project 3 and project 5. <p>The extent to which joint research between projects lead to (spinoff) master theses or paper publications</p> <ul style="list-style-type: none"> – The research activities and preliminary findings lead to master theses and publication, because: <ul style="list-style-type: none"> – Aquatic research findings lead to write a master paper called “nutrient and sediment retention capacity of Wallo wet land”. Similarly, a master student from Belgium used the findings/data and produced a master paper about assessment of victoria vegetation of Lake Chamo. – PhD student1 and PhD6 student jointly published a paper. <p>What has been done to improve and consolidate internal synergies?</p> <ul style="list-style-type: none"> – Workshops, different meetings, filed demonstration, joint monitoring, and joint data collection were made to improve internal synergy as explained above. <p>What could be done better in the 2nd phase of the project to further improve internal synergies?</p> <ul style="list-style-type: none"> – Select relevant and important topics that attract and give interest to different project/ programme staffs. – Provide training and advice about how to organize and make synergy such as meetings, workshops. – Plan synergy from the onset of the project formulation, develop clear roles and responsibilities and give assignments.
<p>1.3. Synergy & Complementarity</p> <p>There have been efforts made to ensure complementarity and synergy with other (externally funded) projects/ (other (Belgian) development actors)</p>	<p>The extent to which the project is looking for synergy with other VLIR-UOS interventions in the country or at regional level</p> <ul style="list-style-type: none"> – So far, there is no linkage established with other VLIR-UOS interventions <p>The extent to which the project is looking for synergy with projects supported by other donors, more in particular Belgian development actors</p> <ul style="list-style-type: none"> – The project established linkages with Belgian development actors, NORAD and GIZ. <ul style="list-style-type: none"> – With Belgian development actors the project is working on improving Enset agronomic research. – The project created linkages with the NORAD fund. NORAD is supporting lab activities. – GIZ supports aquatic and land degradation research activities.

<p>Score: Good</p>	<p>What has been done to improve external synergies?</p> <ul style="list-style-type: none"> – Different workshops, meetings and joint monitoring were done but it was not enough as compared to the need to share the research preliminary findings with other stakeholders. – Bringing and engaging different actors in the research process need more activity and resources. <p>What could be done better in the 2nd phase of the project to further improve external synergies?</p> <ul style="list-style-type: none"> – There is a need to publish more papers and organize more workshops. – Create mechanisms to develop joint publications that involves different actors, including external actors. – Training about how to organize workshops, seminars, communication with external actors will be very helpful.
<p>1.4.Coherence</p> <p>The project is coherent</p> <p>Score: 3=Good</p>	<p>There is coherence between expected results, specific objectives and the overall objective</p> <ul style="list-style-type: none"> – The project results are coherent, strongly linked with specific objectives and overall objectives. Because of this the project did not make any significant change on the results, except IR-3 after a baseline survey. This, in fact again, strongly aligned the project results to the project objectives. <p>The choice of activities is relevant to obtain results and objectives</p> <ul style="list-style-type: none"> – All the project activities are relevant and lead to the project results. <p>The indicators are well chosen to monitor progress and to support learning.</p> <ul style="list-style-type: none"> – The project indicators were revised but still need improvement, especially high-level indicators, for example the project specific objective 2 indicator is “Awareness of key stakeholders on environmental issues related to forest decline and deterioration of Lake Chamo and Lake Abaya”. It is difficult to measure this indicator; moreover, it is more an IR indicator than a specific objective indicator. The other indicators for this specific objective are “Number of participants of demonstration sessions”, which is not ideal to measure high level indicator with numbers. This is more an activity indicator. <p>Is the formulation of the project still relevant, taking into account changes in context (such as Covid but also changes in the departments, new dynamics?)</p> <ul style="list-style-type: none"> – The formulation of the project is still highly relevant to the existing conditions. Covid-19 did not significantly affect the research process including the data collection activities. – Biodiversity conservation and management are one of the centres of excellence of the university and the PhD training on biodiversity conservation will continue in the university programme.
<p>Final judgement/comments</p>	
<ul style="list-style-type: none"> - The project effectively communicates and interacts with the project beneficiaries. - The project integrates indigenous knowledge and advice from the local communities in the research process. 	

- The research findings are very relevant to the external stakeholders both at the local and national level, because the positioning of the project within departments is good, the project is relevant to Belgian development themes and the research sufficiently integrated environmental sustainability.
- The project includes joint monitoring and joint collaboration for sharing data and information within the project and other projects.
- The project practices interdisciplinary research activities, shared data and information with projects
- The research activities and preliminary findings lead to master theses and publication.
- So far, there is no linkage established with other VLIR-UOS interventions.
- The project establishes linkages with Belgian development actors, NORAD and GIZ.
- The project results are coherent, strongly linked with specific objectives and overall objectives. All the project activities are relevant and lead to the project results. The project indicators were revised but still need improvement.
- The formulation of the project is still highly relevant to the existing conditions.

Effectiveness EQ 2 – To what extent have the project’s specific objectives been achieved (effectiveness)?

2.1 Academic
Extent to which the specific objectives of the project with regards to research and education strengthening have been realised

Score: 4=Excellent

Progress in indicators developed for the specific objective at project level related at research and education strengthening of capacities and infrastructure

- It is too early to report this but there are indicators indicating results, for instance:
 - Research data about water quality of Lake Chamo is collected and analysed, the remaining activities are: producing the report and sharing the findings.
 - Different research activities on creating vegetation buffer zones along water and forest bodies are going well. The project has brought some changes in improving extent of vegetation cover.
 - Research activities on exclosures has increased extent of regeneration in the forest areas, this will increase forest cover.
 - All the research activities are undergoing well, one research paper was published, several others are in preparation;
 - Awareness of key stakeholders on environmental issues related to forest decline and deterioration of Lake Chamo and Lake Abaya was made.

Progress made in gender mainstreaming and environment as cross-cutting issue at project level

- At project level, the research process and findings integrate gender and environment. Women were consulted and their opinion is integrated in the research process. By design, the research strongly integrates environmental issues and research activities are going well.

Factors contributing to the level of achievements at project level (both positive and negative), e.g. the influence of Covid-s9

- The key positive contributing factors include:
 - Having independent IUC management facilitates the overall research activities.

	<ul style="list-style-type: none"> – Continued and unreserved North support made the research process excellent. – Logistic support, lab facilities, research materials such as data logger and metrological materials helped to conduct the research activities on time. – University commitment in providing independent meeting rooms and offices helped to organize meetings and do the research work. – Flood in the wetland and unexpected lake water level increase in Lake Chamo delayed the data collection. <p>Appreciation of progress made by respondents involved</p> <ul style="list-style-type: none"> – Many respondents appreciated the progress because the preliminary research findings brought some results, for instance the fish volume of the enclosed area has been increased, forest regeneration improved in the enclosure areas. <p>The extent to which the way forward (as specified in project self-assessments) is sufficiently geared towards the realisation of the specific objective and the overall objective</p> <ul style="list-style-type: none"> – The project will realize the objective in the remaining period, but a more detailed strategy is needed for rolling out the results.
<p>2.2 Development Extent to which the specific objectives of the project with regards to the contribution to national development priorities have been realised</p> <p>Score: 4=Excellent</p>	<p>Progress in indicators developed for the specific objective at project level related to the contribution to national development priorities from project perspective</p> <ul style="list-style-type: none"> – It is too early to judge but there are indications, for example: <ul style="list-style-type: none"> – Creating vegetation buffer zones and awareness of key stakeholders on environment have contributed to the national green economy development activities that focus on tree plantation, forest restoration and protection. – In part of the reserved Lake Chamo area, the fish volume is increasing, this increase will improve the food supply which is directly linked to the national food security strategy that focuses on diversifying and improving food supply production. <p>Factors contributing to the level of achievements (both positive and negative), e.g. the influence of Covid</p> <ul style="list-style-type: none"> – Key stakeholders (i.e. Nech Sar National Park, woreda forestry department, Fishery Associations) support was vital to conduct field activities; – University leadership support, staff commitment and North support was important to achieve the project results. – Covid-19 has affected travel (both local and international). <p>Appreciation of external stakeholders</p> <ul style="list-style-type: none"> – Many respondents highly appreciated the research activities, in fact some external stakeholders like GIZ and woreda NRM office used the research preliminary findings/practices. <p>Level of reflection with regards to existing relations and networks (maybe the 2nd phase requires new expertise or networks?)</p> <ul style="list-style-type: none"> – The existing relationship with relevant stakeholders is good but still more work is needed on creating a network with different actors. The network concept is new in the project.

2.3 Scientific quality

Score: 3=Good

What information is available about quality of research (e.g. publications) and education (e.g. fellowships received from foundations, job prospects for alumni)

- There is one publication in the project and more are in the pipeline.
- There is a high job prospect; the students will resume their job after completing the PhD programme.
- Fellowship was not received from any foundation.

Does the project refer to 'cutting edge' knowledge and what evidence is the project referring to?

- The project has introduced new knowledge and skills. The key evidence includes:
 - New ways of data collection and analysis methods introduced and applied, this will result in better research results.
 - Use and application of some new lab techniques and methods, use of automatic weather station and data logger is new in the university. Data and information collected using these materials bring new knowledge.

Are there clear examples of quality (to verify during field mission)

(optional) In case you have some ideas already:

- The application and the use of automatic weather station, satellite imagery (mapping Water hyacinth 50 years ago and now in Lake Chamo) are the best examples applied in this project.

What are issues of concern according to you in relation to scientific quality?

- There is no critical issue.

Final judgement/comments

- The research process and findings integrate gender and environment.
- The project will realize the objective in the remaining period, but a detailed strategy is needed for rolling out the research results. At the same time, many respondents highly appreciate the research activities, in fact some external stakeholders like GIZ and woreda NRM office used already the research preliminary findings/practices.
- Key stakeholders (i.e. Nech Sar National Park, woreda forestry department, Fishery Associations) support was vital to conduct field activities;
- University leadership support, staff commitment and North support was important to achieve the project results.
- The existing relation with relevant stakeholders is good but still more work is needed on creating network with different actors. The network concept is new in the project.
- There is one publication in the project and more are in the pipeline.
- Fellowship was not received from any foundation.
- The project has introduced new knowledge and skills.
- Application and the use of automatic weather station, satellite imagery (mapping Water hyacinth 50 years ago and now in Lake Chamo) are the best examples that are applied in this project.

Efficiency (EQ 3 – What is the level of efficiency in the project?)	
<p>3.1 Intermediate results</p> <p>Intermediate results have been delivered</p> <p>Score: 4=Excellent</p>	<p>Level of realisation of intermediate results according to indicators formulated in the logical framework (with specific attention to the number of topics to be covered in P1 in relation to available resources)</p> <ul style="list-style-type: none"> – The project will realize the project results according to the operational plan, because the research activities are going well and support given to the university improves the capacity of the university. <p>Factors contributing to the level of achievements (both positive and negative), for e.g. how realistic were the planned results given the resources and time available in the framework of the project?</p> <ul style="list-style-type: none"> – Project formulation, planned results and operational plan are realistic. – Progress on project results and resource allocated are regularly reviewed. – A key contributing factor for the project achievements is having the IUC AMU independent management unit. The unit facilitates, supports and monitors the overall project activities effectively. <p>Outlook towards full achievement of IR in remaining year</p> <p>All project activities will be implemented, and the results will be achieved. To further upscale and implement the findings more resources and time are required. which need more time and resources.</p>
<p>3.2 Relationship input-output</p> <p>Relationship between means and results achieved and objectives (qualitative assessment)</p> <p>Score: 4=Excellent</p>	<p>Share of missions from the partner in the North, PHD's, trainings, investment costs and operational costs is reasonable in relation to the realisation of the intermediate results</p> <ul style="list-style-type: none"> – The share of North mission was good, they provided technical advice and monitoring of the project progress. – North provided sufficient training but in some cases they respond late in giving comments on the students' research paper. This caused delays in consecutive activities of the research activities. <p>Relevance of the expertise that was mobilised from Flemish universities and other partners</p> <ul style="list-style-type: none"> – All the experts mobilized from the North are relevant, highly qualified and provide professional support. <p>Management of spending and rate of over- and/or underspending (and explanatory factors)</p> <ul style="list-style-type: none"> – Generally, the project is spending according to the budget plan, there is no over and under spending because there is regular monitoring. The programme support unit provides budget and expenditure reports. This allows the project leader to take action on time. <p>Choice of activities: cost-effectiveness is being pursued in programme design and management</p> <ul style="list-style-type: none"> – The project activities and implementation arrangement are cost effective, the project used a vehicle together with other projects, purchased lab and other materials from Belgium, which enables the project to be exempted from tax payment.

<p>3.3 Support was provided to ensure the quality of the research and educational processes Score: 3=Good</p>	<p>The project provides adequate training, support, mentoring and follow-up for students (PhD and MSc, including support in managing effects of Covid-19 on their research)</p> <ul style="list-style-type: none"> - The project provided adequate training (both short and long-term training), that is very important to implement the project activities, specially the research work. However, still more training is needed for managing lab activities and some materials such as data logger. <p>The project provides adequate training and support for students in terms of grant writing and job searches (particularly for MSc students; PhD students are mainly university staff)</p> <ul style="list-style-type: none"> - The project did not provide training about grant writing techniques or job search. This is a missed opportunity. Grant writing skill is important for the project outreach plan. <p>The project contributes to scientific quality as described under the rationale of efficiency</p> <ul style="list-style-type: none"> - The project will significantly contribute to scientific quality because improved and new techniques of doing research are introduced and implemented, such as data collection and analysis techniques.
<p>3.4 Project management Project management is conducive for efficient and effective project implementation Score: 3=Good</p>	<p>Good working relation within the project team (clear guidelines, transparency, communication flows, timeliness of planning and execution of activities, etc.)</p> <ul style="list-style-type: none"> - One of the key strengths of the project is teamwork; there is a clear financial guideline, financial forms, and reporting forms after field work. The project leader developed a good working relationship with the team members. Annually the project leader makes a plan and shares this to all project staff for monitoring. Financial reports are shared on time. <p>The extent to which the project teams can be flexible in project execution (taking into account emerging needs, challenges from the context, amongst which Covid 19)</p> <ul style="list-style-type: none"> - There is flexibility in the implementation of the project activities, for example IR3 was changed after baseline and emerging need. <p>Factors hampering efficient management have been identified timely and managed well</p> <ul style="list-style-type: none"> - The project management effectively facilitates and manages the project implementation and solves problems whenever there is a challenge, for example, the project had to look for an additional vehicle used in data collection when all students needed to travel; Procurement was managed from Belgium to solve the lengthy procurement process problem in the university. <p>Bureaucracy related to procurement (equipment purchases, travel approval...) has been managed well by the project team</p> <ul style="list-style-type: none"> - The project is working under the umbrella of the university, in some cases procurement procedures, goods and items causing lengthy registration bureaucracy are the biggest challenge and beyond the project authority.
<p>Final judgement/comments</p>	
<ul style="list-style-type: none"> - The project will realize the project results according to the operational plan. 	

- The share of North mission is good and the experts mobilized from the North are relevant, highly qualified and providing professional support.
- Generally, the project is spending according to the budget plan, there is not over and under spending.
- The project activities and implementation arrangement are cost effective.
- The project provided adequate training (both short and long-term training).
- The project did not provide training about grant writing techniques or job search (for MSc students).
- The project will contribute scientific quality because improved and new techniques of doing research are introduced and implemented,
- One of the key strengths of the project is working as a team.
- There is a clear financial guideline, financial forms, and reporting forms after field work.
- There is flexibility in the implementation of the project activities.
- The project management effectively facilitates and manages the project implementation and solves problems whenever there is a challenge.

Sustainability EQ 4 – To what extent will the project results continue after the IUC programme is completed (sustainability)?

<p>4.1 Institutional Level of academic and institutional sustainability</p> <p>Score: 3= Good</p>	<p>Level of (personal) commitment of stakeholders within the department/school concerned</p> <ul style="list-style-type: none"> - The university is highly committed, for example the university provides an independent study room, laboratory facilities and facilitates meetings, supports joint monitoring and provides inputs etc. Department heads are committed and support during data collection, provide a reading room to students, assist during lab analysis etc. <p>Measures taken for retention of PhDs and trained staff</p> <ul style="list-style-type: none"> - There are measures to retain PhD students. After graduation the PhD student will work as a permanent staff and agreed to serve the University for consecutive 8 years. They will engage more in research activities. <p>Joint research interests for both the Northern and Southern academics involved, are identified and pursued</p> <ul style="list-style-type: none"> - Initially, AMU developed the research agenda and shared it with the North. The North refined it. Both North and South have the same interests. - For the next phase, discussions have been done and focus areas were identified. <p>Evolution in networking with other national universities</p> <ul style="list-style-type: none"> - There is a very good link with Addis Ababa University; Joint PhD (local PhD students in Biodiversity Management and Conservation) supervision, and research projects.
<p>4.2 Financial Level of financial sustainability</p> <p>Score: 4= Excellent</p>	<p>Allocation of funds by Flemish universities (e.g. giving fellowships or by allowing academics to go to the field, matching funds)</p> <ul style="list-style-type: none"> - Based on the project agreement and design, the North manages their own fund. <p>Availability of funds for operations and maintenance of physical infrastructure at university/college level</p>

	<ul style="list-style-type: none"> - One of the university excellences is Biodiversity and the leadership is committed to allocate more budget to it. There is sufficient budget to continue operations and maintenance cost, because biodiversity research is one of the university focus areas in the coming period. <p>Availability of proper funds (at university or college level) to continue all or a number of activities that are important/relevant</p> <ul style="list-style-type: none"> - Sufficient budget is allocated to continue all project activities, because the research topics are a priority of the university and the national government. Protecting Lake Chamo and catchment area is one of the regional and national government and university priority areas. <p>Capacity for resource mobilisation to build on the achievements (Strategy and initiatives to attract external funding (from other donors, government, private sector, ...), skills of staff, task division for resource mobilisation, networks, ...)</p> <ul style="list-style-type: none"> - Capacity for resource mobilization is very limited. Grant writing skills, communication skills and creating networking capacity need improvement. <p>Development of business approaches towards financing</p> <ul style="list-style-type: none"> - There is no development business approach, but there is potential because scientific data is collected, materials and lab facilities are improved.
	<ul style="list-style-type: none"> - The university is highly committed and supports the project activities and there are measures to retain the PhD students. - There is no initiative about networking with other universities. - Sufficient budget is allocated to continue all project activities once the project ends. - Capacity for resource mobilization is very limited. - There is no development business approach (yet), but there is potential because scientific data is collected, materials and lab facilities are improved.

POINTS OF ATTENTION

- Integrating climate issues in the project (measuring extreme heavy rain, prediction model) is a missed opportunity in the research process.
- How to work with the North, how to develop cooperation, how to work with the community and importance of having independent management unit are the best practices of this project, according to respondents.

3. Conclusions and lessons learned

1 The IUC programme at Arba Minch university is highly relevant and responds to the needs of involved stakeholders at different levels (local, regional and (inter)national level)

When designing the programme, relevance was considered from different angles: from the perspective of institutional needs at Arba Minch such as academic, research and education needs, confirmed by the leadership of AMU university, and needs of communities and other external stakeholders to improve environment and life conditions of people in the South Rift Valley. Based on the findings, the programme is highly relevant because it aligns with the national priorities of Ethiopia, international development priorities and the five-year strategic plan of AMU. The programme also adds value (in terms of budget, approaches) compared to other interventions at AMU (financed by others).

Another perspective to look at relevance is the extent to which gender and environment is included in the design of the programme. Environment is at the core of the programme, while gender mainstreaming is included in the selection procedure of PhD students. Relevance of the programme was also assessed against the extent to which the programme design allows for internal and external synergy and joint actions between the involved stakeholders.

2 The programme shows progress in achieving its overall objectives. Promising examples show that the programme has the potential to contribute to impact

Based on the findings, it can be concluded that **considerable progress has been made** within Arba Minch in the implementation of the programme and results achieved so far, although **not all PhD students are on track with their research**; it is expected that several students working in different projects will graduate with some delay (= not within phase I). The evaluation revealed that the different projects contribute to strengthening research capacities and increasing '**cutting edge**' knowledge. New ways of data collection and analysis methods were introduced and applied during the first phase of the programme, which have contributed to quality research results. The purchase of lab equipment and supplies have also helped in enhancing evidence-based research and education. Internal synergetic activities within and between projects/departments (see further below under sustainability) have contributed to enhancing institutional capacities like e.g. data sharing.

With regards to **education**, within several projects MSc programmes have been developed and/or adapted and/or new courses developed.

Examples were found that **projects are contributing to strengthened institutional/academic capacities**, through the introduction of new methods, lab-facilities, new instruments and tools resulting in new research approaches, knowledge and skills. Although it was stated that it is still too early to assess impact, some examples were found that illustrate that research findings are being rolled out with involvement of external stakeholders.

The evaluation could not assess whether the strengthened education/research capacities have already attracted more **local PhD students** than before. The extent to which this institutional capacity building actually leads to more local PhD students should be easier to assess at the end of phase II of the programme.

The evaluation could not assess whether examples found, related to the achievement of the IUC overall objective of strengthening research/education capacities, are already common practice or well embedded in the university, although **some mechanisms for influencing the programme on policies could be detected at the university level**, and not only at the project level e.g. e-learning policy. These overall policies should contribute to more widespread use of e.g. ICT services offered. The development and specifically the application of policies will be relevant to assess at the end of phase II of the programme.

Synergy and complementarity have been promoted within and between projects, resulting in **promising examples of multidisciplinary collaboration within the university and with external stakeholders**. Stimulating joint publications may have a positive impact on the quality of research results and the outreach, but the national norm regarding single named publications puts pressure on the potential of joint publishing. Internal and external synergy seem (still) mainly project-driven and/or based on individual knowledge of and engagement in local and international networks.

Gender mainstreaming, as transversal theme, is not a specific (cross-cutting) component in the programme and has not shown as much progress and results as expected (see also conclusion 5.).

3 It is still (too) early to assess academic and financial sustainability of the programme, but initiatives that are undertaken to contribute to sustainability look promising

The evaluation findings reveal that sustainability in terms of embedment of research results, of ensuring the application of knowledge achieved within and outside the university, of setting up spinoff initiatives is **still too early to assess**, since the programme has just finished its fourth year of implementation. Nevertheless, initiatives are undertaken that support retention of staff, which contributes to sustainability in terms of HR-capacities.

The **deliberate choice at the start of the programme to work in overlapping geographical areas and topics** allows to develop and apply multidisciplinary approaches, with possibly more impact and outreach towards more external stakeholders than in the case of single discipline research.

Examples of internal and external synergies within and between projects and with external stakeholders look promising for achieving institutional sustainability.

4 The implementation of the IUC programme is influenced by both internal and external factors, contributing or hindering progress towards achieving the overall objectives

Factors influencing positively progress made up till now are mainly and overall related to the strong support from the PSU unit at AMU and support provided by the North and South programme coordination; the motivation and engagement of the PhD students and the engagement and (senior) expertise of project coordination and leaders North and South; university management of AMU being overall very supportive in providing logistics such as conference rooms etcetera; ownership for the programme by North and South partners including the university level.

Hindering or limiting factors have been, so far, the (slow and bureaucratic) procurement procedure of AMU, the fact that gender integration/mainstreaming lacks a clear strategy, approach and engagement of all university staff (including the programme and project level), the fact that attaining synergy and complementarity require resources (capacities, time, sometimes funding) which are not always

available and contextual factors such as Covid-19, resulting in reduced mobility (North -South and to the communities), and political tensions (specially in 2020), resulting, among other, in increased risks for students doing field work and reduced mobility of university staff and students.

5 The existence of a gender-sensitive recruitment procedure does not guarantee a gender-balanced PhD student pool, neither is it sufficient to mainstream gender in the organization and research processes.

The evaluation findings reveal that the existence of a gender-sensitive recruitment procedure does not guarantee a gender-balanced PhD student pool. Reasons for this are that no sufficient suitable female candidates could be found, and– despite the gender-sensitive recruitment procedure – in some cases too little efforts were made to communicate the PhD vacancies among the female staff at AMU. It is understandable that selection of female PhD students may not come at the cost of the quality or level of the selected students. To some extent, the predoc programme or extra courses offered in Belgium solved this challenge. However, this did not solve the low intake of female students.

Overall, **gender mainstreaming –as a transversal topic - does not have a meaningful role in the programme implementation.** It is a positive sign that some projects take gender into account in their project design (e.g. inclusion of women when consulting community members), the project on health is women-oriented, and some training-activities were organized at AMU that were meant to enhance gender equality. Gender mainstreaming is not a widespread practice though and solutions introduced to improve gender mainstreaming in the university e.g. different opening hours of the library for women, indicate that the concept of gender mainstreaming is not (yet) well understood and should be revisited with regards to gender integration in the organization, the intake of female students and research processes.

6 Working towards internal and external synergy and multidisciplinary collaboration is a process that needs time: 'it is important to learn how to walk first before learning how to run'

Overall, the evaluation illustrates that working together in a joint and synergetic way takes already place, within and between projects, and with external stakeholders as well. It takes time though to see the benefits of joint collaboration and to let go the tradition of not sharing collected data or information with others and not working together, or, as mentioned by a participant in the IUC programme *"before we can run, we need to learn first how to walk"*. Students are not used to work together towards joint publications; the national norm that rewards publications under one name is even putting pressure on this practice.

However, students understand the benefits of a more multidisciplinary approach and indicated that the programme has contributed (i) to more willingness for collaboration between departments and across colleges of AMU, (ii) to increased motivation to initiate and establish working relationships with other departments and other partners, (iii) to the creation of positive energy supporting the search for possible collaboration with others, (iv) to increased efficiency (shared monitoring, shared logistics, digitalization of data etc.) and (v) to considering the possibility of joint publications increasing the potential of increased outreach towards external stakeholders that will use the research results.

In summary internal and external synergetic actions and multidisciplinary practices are considered as an added value but these need time to develop and apply. From this point of view, interdisciplinary research topics, although very interesting, may be difficult to achieve within the scope of the IUC-programme (at least in phase I), since this would set the standard (too) high for the selection of suitable PhD students from the outset. Perhaps an IUC programme could result, in phase II or after ending the IUC programme, in specific projects/programmes that are specifically aimed at promoting interdisciplinary research, not only in practices but integrated from the start in the research process.

7 Overall (financial) management of the execution of the IUC programme is done in an efficient way, with clear division of roles and transparent communication between North and South

Development and use of manuals, project documents and templates for reporting, a new way of programme budget administration as well as **support provided by the PSU and programme management in Belgium** allow efficient (financial) management of the programme and the projects. The programme does not show significant under or overspending, although Covid-19 has caused some delays in spending of the project budgets.

The fact that the five-year programme works with **yearly budgets** that need to be spent within the year is **not very conducive to the overall efficiency**: this sometimes results in less necessary expenses within a year (the budget 'must' be spent) while unforeseen expenditures are limited to the boundary of the annual budget.

Overall, it was said that **financial management is done efficiently and transparently**, although the local project leaders do not seem to have insight in the budget managed in Belgium.

Project staff and students are encouraged to collaborate beyond the own project resulting in joint monitoring, digitalization of data and digitalized data collection (less paper use), shared use of logistics. Investments done within one project are also used by other projects or in general during research processes e.g. tablets for data collection. **These joint efforts have a positive effect on the overall efficiency of the programme**

The existing manuals also allow for **a clear division of roles**, although in some projects it was suggested to clarify better the roles of involved actors, for instance through a Terms of Reference. Joint and local steering committees contribute to **communication** between the projects and between North and South partners. The transversal project 1 has considerably supported, through ICT investments in hardware and building of skills, the improvement of online communication such as online meetings and e-mail communication.

8 The logical framework serves as a planning and monitoring framework, but turns out to be less effective as joint learning instrument and in measuring progress in achieving the overall objectives

Both at project and programme level, **the logical framework is used** by the project leaders and programme coordination and management **to plan and monitor progress in achieving the overall objectives**. At the project level, indicators at (intermediate) result level are quantitative and mainly capture the progress made by the project at output level. Project indicators at overall objective level are often quantitative and sometimes qualitative. At the programme level, indicators to monitor progress in achieving the overall objectives level are quantitative. These quantitative indicators only capture part of the

desired changes at overall level. Quality of institutional capacity strengthening is hardly monitored. Additionally, it is not clear how the qualitative indicators at project level contribute in a coherent way to the overall objectives at programme level, specifically with regard to outreach of research results (development objective).

The **standard indicators (KRIs) at programme level** give an indication of the institutional progress made in the areas of HRD, strengthening of research and education and extension services. These indicators are quantitative and interesting to monitor overall progress made at institutional level, although they do not capture the quality of the progress made, with exception of indicator 1 (Number of articles published in international peer reviewed journals (through the support of the project)).

4. Recommendations

In line with the findings and conclusions following recommendations were developed. The recommendations are grouped according to whom they are directed.

4.1. Recommendations for programme and projects

1 It is suggested to link the formulation of the second phase of the programme explicitly to the desired impact and sustainability at institutional level and beyond

Although the IUC programme is highly relevant, it is suggested to make sure that all relevant stakeholders are present or involved in the design of phase II of the programme, including external and local stakeholders. This is relevant since phase II, more than phase I, should **focus on sustainability and impact of the programme at university level and beyond** towards external stakeholders. This means that sufficient time is needed for in-depth discussions with North and South partners.

Phase II should build upon experiences and results from phase I to further **enhance or develop multi-disciplinary approaches** (where relevant), since these approaches seem to have the potential to gain impact and outreach to more external stakeholders, compared to single discipline research.

2 It is recommended to not take the added value of the transversal project for granted but to align expected results better to the needs of other projects + make progress made in the transversal project more visible at project and university level (and beyond)

The contribution of the transversal project 1 was highly relevant during phase I of the programme. Nevertheless, project results revealed that **alignment with the other projects** seemed not sufficiently done at the start of the programme, resulting in some question marks raised during this evaluation regarding the added value of the transversal project. At the same time, AMU has made huge progress with regards to strengthening its ICT capacities, in hardware and software, attracting many users beyond the IUC-project level. The recommendation to align project 1 better with the other projects and **to highlight more explicitly the progress made so far** could result in attracting more users of the services, offered by the involved departments and in increased attention for the research results of the 2 PhD students, involved in project 1.

3 It is suggested to reflect on how internal and external synergies could be supported (better) at the IUC programme level

The evaluation revealed the added value of a synergetic way of working, based on examples that illustrate that this may contribute to increased outreach to more stakeholders, further efficiency and possibly more impact. Since this approach requests a certain mindset and time to grow into this way of working, this should not be imposed. These practices could develop organically and bottom up.

Nevertheless, a synergy strategy at programme level could help in supporting internal and external synergies and to enhance and support these projects with less knowledge of and involvement in local, national and international contacts and networks. Lifting this way of working to the programme level, in addition to the project level, would also reduce the risk that the creation of synergy and collaboration

would mainly occur because of engagement or knowledge of individual project members. Working this way, this could create opportunities where otherwise they may remain unexploited. To this end, **joint learning from successes and failures and sharing good practices** during LSC and JSC meetings or other events could also help to get inspired by each other. Both approaches, **an 'organic' way of strengthening multidisciplinary collaboration next to a more institutional approach**, could co-exist and strengthen each other.

If feasible and realistic, some research topics for phase II could include an interdisciplinary agenda from the outset (beyond the own project).

4 It is recommended to include gender as a transversal component in the programme, and to revisit the concept of gender mainstreaming

The progress made on gender does not reflect a well thought understanding of gender mainstreaming in most of the projects and at programme level. The fact that gender mainstreaming receives little attention in general at the university is not helpful either (which also seems to be a general observation in universities in Ethiopia). This seems to be changing because pressure from the national level is increasing to pay more attention to gender equality.

It is recommended to get more clarity on the concept of gender mainstreaming, first of all at the level of all project leaders and programme coordination. On this basis a **gender strategy** can be worked out. The JOINT VLIR-UOS project that teaches how gender can be better integrated in research, the organization and intake of staff/students, can be inspiring in this. At the same time, it is also crucial that the university management is involved in this process and is committed to invest resources and to actively promote gender equality in the university at different levels (organization, intake of students, education and research processes).

It is important to develop a gender strategy that is ambitious, but also realistic and feasible to be realized within the given timeframe of phase II of the programme. Consequently, the programme should develop achievable targets to which the programme can work step by step.

Last but not least, during the evaluation it was suggested to include **more active participation of women in the formulation phase of the programme**, to ensure that their voice will be sufficiently heard and taken into account in the design of phase II. Although female participation in the design of the next programme does not guarantee yet a stronger gender focus of the programme, it could help in having more attention paid to it (as long as this participation is also done in a sufficiently gender-oriented way).

5 Indicators at overall objective level in the logical framework should be developed in a more coherent way with the indicators at project level and capture better the desired changes at institutional level and beyond

To make sure that progress towards achieving the overall objectives can be measured and monitored in such a way that it not only captures part of the desired changes at institutional level as it does now (the quantitative indicators at institutional level), but also the changes that are more difficult to measure (e.g. changes in terms of an increased research based education culture, multidisciplinary approaches, synergetic partnerships at university level etcetera), other **(qualitative) indicators** could be added.

In addition, it is recommended to **align better the project indicators with the programme indicators** at overall objective level, to allow a better insight in how the projects contribute to desired changes at

the overall objective programme level. This could mean that e.g. the existing indicators with regard to overall objective 1 should be extended with other (more qualitative) indicators and that the **existing indicators under overall objective 2 should be replaced by other indicators.**

Next to the existing PMEAL- tools, it should be analysed if **other tools could be used that can measure the contribution of the programme to the desired impact** at the end of the programme at the level of involved external (local) stakeholders, such as, among other, outcome harvesting, the most significant change tool etcetera.

4.2. Recommendations for Arba Minch overall university management

6 An overall exit plan should be developed that explains how project activities can be consolidated and research results rolled out in a sustainable way, once the programme comes to an end. This should ensure the contribution to development impact and to academic and institutional impact.

This plan should include how research results will be further rolled out once the programme ends, how other funding will be attracted to continue the project activities.

This plan should also include what kind of capacity strengthening is needed to ensure sustainability of the programme such as enhancement of resource mobilization skills, and the funding and training of lab technicians.

In this plan, and in line with the ambition that the university develops further as a research university, the university should further describe how it will ensure that the mechanisms for programme influence on university policies will become common practice and integrated in the university (research) processes.

7 In line with recommendation 2, it is suggested that the university management actively supports the promotion and application of instruments and tools, developed by several projects, that could attract a broader public within the university and beyond (external stakeholders at governmental level, community level, the private sector etcetera)

This to attract more users (e.g. of ICT and (digital) library services within the university) and to create more possibilities for spinoff initiatives and collaboration with other external stakeholders, nationally and internationally.

8 In line with recommendation 5, it is suggested to actively involve the overall university management in the integration of gender equality in project and university activities

This can be done from the start, i.e. working with university management towards a common understanding of gender equality and gender mainstreaming, and later when a gender strategy needs to be endorsed and actively promoted. The university management level should be an active supporter of

gender mainstreaming. Without this engagement, gender mainstreaming will be much more difficult to realize.

4.3. Recommendations for VLIR-UOS

9 It is suggested to reflect how budgets could be used in a more flexible way, allowing more tailormade spending within the overall programme period of 5 years.

This to respond to the conclusion that planning and spending budgets on a yearly basis, with only a limited margin to shift budget to the year thereafter, sometimes resulting in less efficient use of budgets.

10 It is suggested that VLIR-UOS rethinks the use and application of the logical framework as a joint learning instrument

The recommendation does not want to eliminate the logical framework, as it is considered useful by the programme management and coordination to follow up overall progress of the projects.

However, the logical framework with only quantitative indicators is not sufficient to measure the more complex changes at the level of the general objectives at project and programme level. Moreover, the current framework does not allow for the measurement of impact at the level of local stakeholders outside the university.

To promote mutual learning and at the same time monitor and measure the more complex changes, it is recommended that VLIR-UOS considers which tools could complement the logical framework.

ANNEXES

- Annex 1: Terms of Reference
- Annex 2: Evaluation framework
- Annex 3: Programme on-site visit to AMU
- Annex 4 : List of persons consulted
- Annex 5: List of documents consulted

ABOUT VLIR-UOS

VLIR-UOS supports partnerships between universities and university colleges in Flanders and the South that seek innovative responses to global and local challenges.

We fund cooperation projects between professors, researchers and teachers. In addition, we award scholarships to students and professionals in Flanders and the South. Lastly, we contribute to strengthening higher education in the South and internationalising higher education in Flanders.

The information and views set out in this evaluation report are those of the author(s), independent evaluators, and do not necessarily reflect the opinion of VLIR-UOS or the universities/university colleges involved.

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