Universities Promoting Linkages for Impactful Training, Innovation and Technology Transfer in Agriculture (UPLIFT-Ag) Project

Report of the 2nd Consortium Meeting held at MontClair Hotel, Nyanga, Zimbabwe

5th-7th March, 2025

ACKNOWLEDGEMENTS

The UPLIFT.Ag. project consortium appreciates the immense support of the hosts of the 2nd Consortium meeting that was organized jointly by the Zimbabwe Open University and the Chinhoyi University of Technology. The partners universities in Kenya (Kenyatta University, Chuka University and Taita Taveta University); in Rwanda (University of Rwanda and UNILAK); in Burundi (University of Burundi and University of Ngozi); and in the EU (HNU in Germany, UCPH in Denmark and UNIVPM in Italy) are greatly appreciated for enabling the various staff to travel and participate in the project activities. Financial support of the European Union through the Erasmus Plus programme and grant to the UPLIFT.Ag. project is gratefully acknowledged.

ABBREVIATIONS

ASNET	Agricultural Sector Network
CU	Chuka University
CUT	Chinhoyi University of Technology
EU	European Union
FABI	Faculty of Agriculture and Biotechnology
FAGRI	Faculty of Agriculture
FSEG	Faculty of Economic Sciences and Management
HNU	Hochschule Neu Ulm (Neu-Ulm University of Applied Sciences)
KU	Kenyatta University
TTU	Taita Taveta University
UCPH	University of Copenhagen
UNILAK	University of Lay Adventists of Kigali
UNIVPM	Università Politecnica delle Marche
UniNgozi	University of Ngozi
UR	University of Rwanda
UB	University of Burundi
VC	Vice-Chancellor
ZOU	Zimbabwe Open University

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INTRODUCTION

The UPLIFT-Ag project aims to raise the standards of teaching agriculture and producing graduates who are well suited for the needs of the agriculture industry in Kenya, Rwanda, Burundi and Zimbabwe. The project activities started in December 2023, with formal launch conducted in February 2024 at Kenyatta University, in Nairobi, Kenya. The project is organized in 5 work packages:

WP1: Project management and coordination
WP2: University industry partners' linkages
WP3: Improved teaching methods and innovative curriculum development
WP4: Innovation and entrepreneurial capacity strengthening
WP5: Communication, Dissemination and Exploitation plan (CDE) of project outputs

The UPLIFT-Ag project members held the second consortium meeting from Wednesday 5th -7th March, 2025 at the Montclair Hotel in Nyanga, Zimbabwe. The conference meeting was attended by 34 participants (27 men and 7 women) representing the 9 African partner institutions, 3 EU partner institutions and industry representative from Zimbabwe. The consortium meeting was mainly focused on work package 3 on design and delivery of innovative curriculum and improvements of agriculture teaching methods in universities. However, progress in work packages 2 (effective industry linkages) and work package 4 (strengthening innovation and entrepreneurial capacity of universities) were reviewed. A key output of the conference was the development of capacity building plans for the various work packages of the project.

CONFERENCE PROCEEDINGS

Conference programme

The conference programme is presented below.

PROGRAMME FOR THE UPLIFT.Ag PROJECT MEETING
Dates: 5TH – 7TH MARCH 2025, Nyanga, Zimbabwe

Tuesday, 4th March, 2025: Arrival and travel to Hotel in Nyanga

Wednesday, 5th March, 2025		
Session 1: Workshop opening		
8.00 – 9.00a.m.	Arrival and registration	Local host
9.00 – 10.00 a.m.	Welcome and Introduction	**Prof. Chiome, ZOU** **Prof. Musundire, CUT**
	Remarks	**DVC/VC (CUT/ZOU)**
	Remarks	Dean (CUT/ ZOU)
	Remarks	**EU partner**
	Official opening	**TBC**
10.00 – 10.30 a.m.	**Photo session**	
	Health Break	
Session 2: Review progress in implementing Work package 3 activities		
10.30 – 12.00noon	**Zimbabwe** Zimbabwe Open University Chinhoyi University of Technology	 - Prof. Chiome - Prof. Robert Musundire
	Kenya Kenyatta University Chuka University Taita Taveta University	- Prof. Maina Mwangi - Prof. Shelmith Munyiri Dr. Chikati/ Dr.Gacheru
	Rwanda University of Rwanda University of Lay Adventists of Kigali	 - Dr. Nathan Taremwa - Dr. Christophe Mupenzi
	Burundi University of Ngozi University of Burundi	 - Delegate - Delegate
12.00-12.30 p.m.	UPLIFT - Ag Project WP 3. Task 3.1- Baseline analysis report highlighting agriculture curriculum content gaps	**WP 3 Task leader / ZOU**
12.30 – 1.00 p.m.	Interactive Session	CUT
1.00 – 2.00p.m.	**Lunch Break**	

Session 3: Focus on improved teaching methods for agriculture ● Highlight the improved methods identified from work package 3 baseline survey. ● Industry representatives contribute to the discussions here on how to improve agriculture teaching		
2.00 – 3.30 p.m.	● Work based learning ● Computer simulation/ gaming ● Flipped classroom ● Collaborative learning ● Project based learning ● Competence based education ● Problem based learning	Facilitators with input of: Dr. Silvia Sabbadini, UNIVPM Dr. Luca Mazzoni, UNIVPM
3.30 - 4.30 pm	Review capacity building plan for work package 3 in 2025 onwards	Moderator
4.30 p.m.	Close and evaluate day 1	
Thursday, 6th March, 2025		
Session 4: Review progress and 2025 activities for Work package 2 and 4		
8.30 - 9.00 a.m.	Updates on progress in Work package 2: Strengthening University-Industry linkages	WP 2 group leader: Prof. S. Munyiri
9.00 - 10.30 a.m.	**Work package 2:** ● Present / review training materials ● Discussion on capacity building plan	Prof. T. Bayer
10.30 – 11.00 a.m.	**Health Break**	
11.00 -1.00 pm	**Work package 4:** ● Updates on baseline study findings	Prof. Nico Carsten Dr. Andrea Landi Dr. Nathan Taremwa
	● Discussion on capacity building plan, training materials etc	
1.00 – 2.00 pm	**Lunch break**	
Session 5:		
2.00 – 2.30 pm	UPLIFt.Ag Communication and dissemination plan + Repository view	Prof. Maina Mwangi
2.30 – 3.00 pm	Update on planned visit to UNIVPM Update on planned visit to UCPH	
3.00 – 4.00 pm	UPLIFT.Ag. Annual general meeting	
4.00 – 4.15pm	Conference closing session	Host team
Friday, 7th March 2025		
All day	**Field visit to agro-industries and farming communities in Hauna, Nyanga area.**	

Summary proceedings

Day 1: Opening session on 5th March, 2025

The meeting started with a word of prayer by Prof. Tichaona Mapohsa from ZOU.
Prof. Chiome of ZOU welcomed the members and called for introductions.

- Montclair hotel staffs were introduced as part of the hosting team. They included Mungai, Tatenda, Nonsa, Chimande, Blessing, Godfrey and Brian Nyakutombwa-General Manager.
- Prof. Chiome introduced the Consortium Leader-Prof. Maina Mwangi, the VC ZOU- Prof. Paul Henry Gundani and invited other members to introduce themselves.

In his remarks, Prof.Chrispen Chiome:

- Noted the diversity of the members present and encouraged the team to work together to achieve the goal of the UPLIFT-Ag project.
- Noted that Agriculture is the cornerstone of the economy across Africa.
- Acknowledged the involvement of the EU partners to see this project through.
- He invited the Acting Dean of Agricultural Sciences and Technology at Chinhoyi University to give remarks.

In her remarks the Ag. Dean, CUT

- Remarked that Agriculture is the key to food security across the world.
- Industrial development has led to evolution of technologies in Agriculture.
- All the associated areas of Agriculture have experienced growth of technologies for the past ten years, which requires that we be on top of our game in teaching Agriculture.
- The teaching of Agriculture in every region should be specialized and because of the diversity of the project members, the workshop will bring out ways on how to improve Agriculture.
- She emphasized the importance of the UPLIFT-Ag project and how well it aligns with Zimbabwe's education framework which integrates teaching, community engagement, research and innovation and industrialization.

In his remarks, Prof. Thomas Bayer of HNU, Germany:

- Assured that the EU Partners are greatly honored to be in the meeting.
- Reported that his University is very much involved in industry incubation.
- Noted that when the members come together they will bring out the best in Agriculture.
- Encouraged University-Industry involvement in the project.
- Commended the presence of an industrial partner underscoring the importance of making education more relevant to industrial needs.

His remarks, Prof. Nico of UCPH, Denmark:

- Acknowledged that there are different ways in which members have implemented the project and as partners they will be very useful in learning from each other.
- They will assist to share solutions developed in the meeting.

In her remarks, Dr. Silvia of UNIVPM, Italy:

- Thanked the members for involving them.
- Informed that at their University they give a lot of importance in improving curriculum.

- Noted the connection between private industries and students is key for quality learning.

In his remarks, Prof. Gundani, VC of ZOU:

- Welcomed the team to Zimbabwe.
- Conveyed the apologies of the Mayor of Nyanja and VC of Chinhoyi noting that they are in support of the agenda of the UPLIFT-Ag. Project.
- Acknowledged the EU, African Universities present and the Management of ZOU.
- Gave a brief history of his Christianity and impressed to members that God is supreme.
- He shared his speech which highlighted the importance of the project and how it will help to solve many problems.
- Expressed delight to host this consortium meeting.
- Was encouraged that the project seeks to bring together many stakeholders of diverse strengths to help understand the technicalities and challenges in Agriculture.
- Expressed confidence in the expertise reposed in the consortium is to industrialize Africa.
- Noted the venue resonates well with the conference theme, Montclair is within the heritage of cultural and tourism interest.
- Invited members to a visit around some local industries where members will see what the region has to offer and give more recommendations to exploit the local resources better.
- Highlighted the importance of graduates who can combine theory and practice to solve problems in the industry.
- Remarked that Agriculture is the cornerstone of food security across the globe.
- Impressed participants on the need to come up with technologies that make the word better, develop sustainable practices, exchange ideas and cutting edge research to transform teaching in higher education institutions.

UPLIFT-Ag. 2nd Consortium Meeting on 6th March, 2025

SESSION 2: REVIEW OF PROGRESS IN IMPLEMENTING WORK PACKAGE 3

1. **Zimbabwe Open University**

Report presented by Prof. Edmore Masama, Dean, Faculty of Agriculture, ZOU

- ZOU have come up with study guides review for their University. There are several programmes that are awaiting review.
- Under the Agricultural courses several aspects have been identified to be included in the reviewed curriculum: Macroeconomics Agriculture, they have introduced a module on Agricultural Law, Agriculture economics, Horticulture, Animal Breeding, Irrigation and Water Management, Precision Agriculture, Animal Crop Production, among others.
- Other emerging topics to be added include: agrarian reforms, climate change, artificial intelligence and social structures.
- Streamlining some content in courses that have too much content so that they can focus on the student more and give them time for research.
- Program reviews are being done in line with regulatory body (ZIMCHE)

Reactions

- Cutting on the content will give students time to be involved in research and practical. It will also give students flexibility of courses to be able to choose areas of interest like organic programs.
- The consideration of adding soft skills to the students is underway. They are etched in the Five Pillars of Education in Zimbabwe.
- They intend to add more value addition skills to the students to give them a sharper edge in the market.
- There was a question on the limit of changes during curriculum review. In ZOU review of courses is up to 20%.
- The aspect of reducing the content can give them leeway to bring in new content.

2. **Chinhoyi University of Technology**

Presented by Prof. Simbarashe Munikwa

- CUT has identified several areas to review the curriculum based on the survey findings.

- There are mechanisms put in place to provide training for instructional delivery, review curriculum to ensure more balanced inclusion of diverse specializations and create space for other topics, develop module guides and construct training of the less utilized teaching methods, invest in acquisition of modern teaching infrastructure (drones, sensors, incubation services, simulation, AI applications; automation and precision agriculture technology) and improve collaborations with industry through research, co-teaching, sabbatical visits and attract industry to support innovation and entrepreneurial initiatives.

- To enhance teaching methods CUT proposes all its academicians to go through Post Graduate Diploma in Education to enhance teaching, encouraging inter-disciplinary collaboration among different faculties, pairing junior lecturers with senior lecturers for mentorship, Academy of Teaching and learning to develop guidelines in less used teaching methods, conduct training workshops to enhance utilization of the teaching approaches that are less utilized like ICT simulations, flipped classrooms, game based learning, rope in external expertise to impart the requisite competences and teach innovation and entrepreneurship.

- Curriculum review will involve making a 60% commitment to practical and 40% to theory, enhance experiential learning and put emphasis on research outputs into goods and services.

- University-Industry linkages: CUT and ZOU have jointly conducted one University-Industry workshop, targets to improve cooperation in teaching and research /partnerships/ improve agriculture

curriculum content in existing programmes, communication platform created and plans to increase engagement are at advanced stage.

- There are plans to improve teaching facilities: Demonstration irrigation facility at the university Farm (enhance experiential learning, innovation & entrepreneurial competences), crop science research unit student plots, agro-industrial park, innovation hub and green technology for breeding and production of black soldier fly.

- Gaps for improvement: Emerging technologies, precision agriculture, biotechnology, sustainability, climate resilience, business management skills, agri-business education, practical skills development, hands-on training, research methodologies, innovation and entrepreneurship, start-up culture, overemphasis on exams and lack of feedback and assessment.

- Proposed solutions: Industry needs assessment, curriculum mapping, interdisciplinary approaches, continuous quality, pedagogical training, mentorship programs, teaching communities, engagement with key stakeholders, competence-based assessment, moving from overreliance on exams.

Reactions

- Assessment of practical needs more vigilance.
- 60% of the effort will consider practical assessment while 40% is theory in both exam and CATs.

3. **Kenyatta University**

Presented by Prof. Maina Mwangi

Engagement with undergraduate students (Wednesday 12th February, 2025)

- Student's union leadership convened the meeting.
- Issues impacting on quality of teaching/ learning were discussed.
- Teaching facilities adequacy (crowding and sharing of equipment affecting practical teaching.
- Teaching facilities need upgrading to modernize.
- Conduct and competence of some staff in conducting teaching was raised.
- Students club were highlighted as platforms to engage
- Field trips planning and implementation issues presented.
- Internships and the challenges students encounter
- High incidences of students' involvement in examinations irregularities were discussed.

Engagement with postgraduate students (+staff) (21st February 2025)

- Supervision arrangements
- Graduate training processes
- Research planning and execution
- New guidelines on research sub-units
- Re-training needs (data analysis, writing, publishing, …..)
- Publishing requirements
- Student support measures
- Reviewing postgraduate training admin processes in Dept and Schools

Digital and virtual programmes review (28th February 2025)

- Practical training management

- Lecturer hours/ interaction
- Course materials/ modules updating
- Field trips
- Research projects
- Internships
- Examinations management

Field internships and Research projects review

- How to make internships more impactful and relevant, adding value to learning
- How students identify topics for terminal research project
- Student to identify during attachment
- Supervisors to identify topics when interacting with industry
- Industry can send in topics of interest (need platform to interact with us)
- Review appraisal criteria for both
- Aim to acquire research skills, address industry needs, gain entrepreneurial skills etc

Department led curriculum reviews started in 2024, pending approval

- Enrich industry roles in teaching, e.g. seminars, co-teaching, visits
- Enrich the diversity of teaching methods
- New units proposed, e.g. on entrepreneurship, digital tools,
- Reviewed internships, research courses,
- Enhanced the taught content

Engagement with staff (17th January 2025):

- staffing (teaching, non-teaching, at Main and Kitui campus)
- programmes across departments
- student profiles (BS, postgrads) and across modes
- Capacities (expertise, facilities, partnerships,)
- research activities
- visibility
- nich(es)
- Administration structure and processes

Improved school farm (starting June 2024)

Students of Agriculture at Kenyatta University in the farm established through the project and below a lecturer conducts practical training at the farm.

Lessons

- Need to carry everyone along

- Involve stakeholders : teaching and non-teaching staff, students, administrators
- Change will be through many different things, not one big thing
- Don't assume what you want to do is understood, explain
- Be open to new ideas, don't restrict to what was in the proposal
- Identify and sue existing resources

Reactions

- A concern was raised concerning the challenge of 'ivory tower' mentality of resistance to learning Agriculture from the rural areas. It is noted that proper equipment s important, if it were taken to the rural places then students may be interested in learning from there.
- The delays in examination of postgraduate theses is a major cause of delays in completion.
- There is need for more effective monitoring and quality assurance in the issues of pending students who haven't graduated and are delaying beyond study period.
- Noted that incorporating completion rates as part of performance targets can help to address the issue.
- In Zimbabwe the target is 90% completion rates and the Ministry demands that the remaining bit of 10% be accounted for.
- When restructuring the curriculum it is necessary to include competence based skills to ensure students finish research on time.
- The field trips being minimized can be overcome by organizing virtual field trips.

4. **Chuka University**

Presented by Prof. Stephen Wambugu

- The UPLIFT project survey findings were presented to University Management and Faculty of Agriculture staff on 22nd January, 2025 and to Industry on 5th February, 2025.
- Two programmes have been identified to be reviewed. BSc Agriculture and BSc Horticulture.
- Ares for consideration during review will be to enhance Industry involvement in teaching, enhanced internships and placement, experiential learning, resources, utilization of advanced equipment and resources, development of learner-centered teaching farms.
- In the implementation of innovative curricula there will be consideration of multidisciplinary approaches including: core skills development, region-specific content, cross cutting courses and leadership and management.
- There will be training of HEI staff and industry partners on the new teaching methods and curriculum. The workshops will aim at: training of academic staff, industry partners and administration and students on active and problem-oriented learning.
- In establishing modern teaching facilities, the project is going to buy the following machines identified as needed in the Faculty of Agriculture: ELISA reader, soil tester, portable hydrometer, printers, laptop, projector and desktop computer.

Reactions:

- Aim at improving the existing Agricultural courses rather than adding more courses.
- Include Competency Based Education learners in Agriculture to nurture them from a young age into Agriculture.
- Members agreed that there is need for government policies and priorities to support agricultural education and extension.

5. **Taita Taveta University**

Presented by Dr. James Gacheru

- TTU aims to develop, test and adapt innovative agriculture teaching curriculum emphasizing employability, entrepreneurship and self-reliance.
- To implement policy and other reforms to entrench roles of industry actors in.
- Progress made has been on the following:
- Training on e-learning/Teaching: three trainings in January 2025 on how to upload and utilize data links covering a range of interactive information such as assignments, books, chats, database among others. This will allow timely feedback and improvement from the lecturer.
- Curriculum development for BSc Forestry, MSc Plant breeding, MSc Plant Pathology and Extension and MSc. Agricultural Education and Extension.
- There are two key things to be achieved. Infusion of 21st century skills (Communication and collaboration, Critical thinking and problem solving, Imagination and creativity, Citizenship, Learning to learn, Self-efficacy and Digital literacy) and Industry engagement.
- Curriculum Reviewed: BSc Agriculture Education has been reviewed.

Reactions

- Highlighted potential challenges on accreditation of the programme reviewed.
- Noted TTU brought in a curriculum developer and sent to CUE, changes were made, they gave a checklist of books, resources, equipment and infrastructure and they approved.
- TTU used strategies like adding biology units and coded them to read biology units. This advantaged the approval of the curriculum reviewed.

6. **UNILAK**

Presented by Dr. Ephrard Rulinda

- Baseline analysis was done.
- Developing and testing new teaching methods and resources
- 'Living Lab' initiated for connecting students with real world with emphasis on learning by doing, experiential learning, considering various stakeholders: learners, institution, lecturers, partners and the content.
- New teaching method was tested during last semester, had sent lecturers to South Korea.
- Developing, testing and implementation of innovative curriculum - selected a team of experts and signed a contract with them and by March they expect the new curriculum to be approved.
- Capacity building not yet done but training tool will be used.
- Improved basic teaching facilities: improving the existing incubation center, acquired a new 20 acre teaching farm and equipment's to be installed, installing smart boards in all classrooms, internet and power access.
- The importance of internet connectivity for effective teaching was noted, observed that the government is supporting initiatives to improve internet access in institutions.

7. **University of Ngozi**

Presented by Dr. Fulgence Twizerimana

- The University has conducted three workshops, organized business café where partners were invited to discuss vital partnership between the University of Ngozi (UNG) and local industries, within the agricultural sector. Various obstacles hindering effective partnerships were identified

and ways of strengthening local-industries and University to enhance training and research in agriculture, and established priority steps for implementation.

- Areas of partnership:
- Agri-food production, processing, conditioning and conservation, promotional activities and scientific publications.
- Priority Steps: Develop a formal framework of exchanges, strengthening of existing partnerships, dissemination, and lobbying and advocacy.
- Targeted curriculum areas are Raw material production, Agro-food processing, laboratory analysis and marketing, standardization and certification.
- Identified methods to improve are through project based learning, problem-based learning, effective internship organization and to integrate practical work.

Significant obstacles identified are:

Obstacles: There were two categories of obstacles:

- Personal (student demotivation, resistance to change, lack of awareness of innovation, resistance to mutual training and superiority/inferiority complexes among leaders). Interns lacked adequate knowledge leading to difficulties in their training and reduced internship opportunities for other candidates
- Institutional (HR, specialized facilities, limited finances, discrepancies between basic education programmes and University tracks, lack of national educational policy, teacher-to-student ratio). Low level of awareness of the benefits of partnerships, lack of funding, weak managerial leadership, absence of incubation center for technology transfer and weak policies and insufficient support from relevant decision makers

Solutions:

- Joint projects with companies, Strengthening large-group pedagogy skills, Trainer training and exchange of experiences between higher education institutions (national, regional, etc.)
- Initiation of higher education institution-company collaboration platforms, advocacy/lobbying for national sectorial policies supporting higher education institution-company collaboration, alignment of basic and higher education, diversification of partnerships, Practice-centered education policies and giving a place to industrial indications on research themes.

Reactions:

- The issue of competent students in the industry. If the industry has high expectations from students, or the students are not aware of what they can gain from the industry. There is need for awareness on both ends.
- Improving pedagogical methods and integration of real-world problems into teaching can better prepare the students for industry.
- Agriculture curriculum should be from an early stage. Students should be introduced into agriculture from a young age before University education level.
- The teaching staff should be mixed between education experts (full timers) and part-timers (from industry) into programmes that require academic and practical experience.
- For educationists, they can include guest lectures, industry visits, expose students to practical problems, and facilitate student-industry interactions.
- Lecturers can go for Sabbatical around 6 months and be involved in industry then come back with the new knowledge.
- In Germany lecturers can apply for a semester of practical knowledge in the industry and it is acknowledged and approved.

- University can develop strong policies of university and Industry linkages.

8**: University of Burundi**

Presented by Dr. Alfred Irambona

- Workshop was conducted at UB on 28th February, 2025 to share feedback of the baseline survey.
- Participants identified weaknesses and opportunities for improvement in agricultural training programs.
- Recommendations were proposed to develop concrete proposals for improving curricula, taking into account market needs and employer expectations. The participants were Admin, lecturers, agricultural sector actors, students, and industry.
- Outcomes of the workshop were improved understanding of the state of Agriculture and areas of improvement in curricula and teaching methods. These include:
- Food science-2 courses (Food technology and Quality assurance)
- Seed production-6 (Plant biotechnology, Phytopathology, Soil sciences, Smart agriculture, phytochemical techniques and Plant breeding)
- Teaching methods identified: Field experiments, industry tours, internships, Inquiry based learning, Collaborative learning, Competence based approach and Experiential learning.
- Teaching methods to be improved: Project based learning, alternate education, computer simulation/modelling and flipped classroom.
- In future they plan to have capacity building for teachers.
- On 14th March, 2025 there was a workshop with the administration of the University, lecturers/researchers, members of FABI and FSEG (ECORU Department) and industry partners.

Obstacles to effective University-industry linkages:

- Lack of appropriate communication and collaboration mechanisms;
- Lack of established procedures within the university for collaboration;
- Insufficient face-to-face contacts;
- Differences in objectives between the parties;
- Lack of mutual understanding of expectations/priorities;
- Research that is not linked to the needs and interests of industrialists;
- Disparity between university knowledge and business requirements.

The following was resolved:

- Raising awareness on changing mentalities;
- Setting up an industry and FABI platform;
- Shared identification of priority areas of interest for research;
- Involving manufacturers in improving curricula for a training-employment match;
- Establishing Memoranda of Understanding

9. **Zimbabwe Open University**

Presentation done by Prof. Chiome

- ZOU did the survey and came up with ways of reviewing curriculum
- The gender, age and other things were involved in curriculum review consideration.
- The analysis showed that there is more lecturer assistance in terms of capacity building.
- The qualification of the delivery, the Lecturers are not well exposed beyond University education.

- The issue of the content in the future.

Suggestions:

- There is need for practical learning experience
- Stronger industry collaboration
- Updated curriculum that reflects current Agricultural trends
- Preparing future professionals who are not just informed but also adaptable in the field.
- The CBC should prioritize skills in real world application, problem solving mindset.

10. **University of Copenhagen**

*Presented **by Prof. Nico Hjortso***

- Introduced the use of cases in teaching as an effective teaching methodology.
- Defined cases as descriptions of a specific activity, event, or problem drawn from the real world of professional practice.
- Cases provide accounts of real situations, often imbued with complexity and dilemmas that can be analyzed from various perspectives. These case types are based on four ways of embedding practice contexts in learning processes, distinguished by a different aim (exemplars, simulation of practice, situated practice knowledge and real life collaboration) that operates in different learning environments (in-class engagement and community engagement) and privileges a different learning orientation (knowledge-orientation and action-orientation).
- Each of these four categories of cases can be played out in different forms.

	In-class engagement	**Community engagement**
Action-oriented	Cases for simulation of practice	Cases for real-life collaboration
Knowledge-oriented	Cases as exemplars	Cases for situated practice knowledge

- Cases as exemplars: Cases as exemplars provide key examples of actual practices or models of typical practice.
- Cases for situated practice knowledge: his type of case aims for providing students with practice knowledge that is situated in real-life settings. Rather than translating out-of-context knowledge and its application from a classroom to sites of application
- Cases for simulation of practice- Cases for simulation of practice are constructed as a means for strengthening action oriented learning about the complexities in a given topic. In contrast to clean 'paper cases', this case type lets students immerse themselves in simulations of actual problems, practices and decisions
- Cases for real-life collaboration-Whereas cases for simulation of practice seek to simulate real-life scenarios in the case content and in the case activities of students, this type of case takes its starting point in having students engage with a partner organization and act within a professional setting in the community. Thus, cases for real-life collaboration are 'live case cooperation' revolving around a challenge that is shared.
- Selecting between or combining these case types depends on the instructor's learning objectives, learning orientation and access to different learning environments.
- UCPH also shared a document on the case study of KU Incubation centre, encouraging teams on the need to study cases and learning from them.

11. **UNIVPM**

Presented by Dr.Silvia Sabbadini

- There was emphasis on the need to have websites updated and to include information on the profile of Lecturers, the qualifications of the lecturer and the courses taught.
- Description of the course:
- Syllabus (program topics, length, how to develop examinations) writing the content of the courses to avoid overlap, and make each course more focused on specific issues.
- The E-learning platform allows one to upload the structure of the course and activities and select the type of activity e.g quiz.

The teaching methods:

- classroom lessons and in-depth seminars (where they invite external experts), lab and field activities (chemical analysis lab, microbial biotechnology lab, sensory analysis lab, computer teaching lab, experimental greenhouse, didactic and experimental farms and botanical gardens), educational visits to specialized private companies and events, practical-applicative internships in private companies (150hrs) where in the end students write a report.
- Online teaching classes
- Use of Microsoft Teams App online classes which allows room to chat with students, you can put material, create activities, free access to hundreds of scientific videos.
- A platform called 'jove' has hundreds of videos on many different scientific arguments and activities, and has a more interesting method to catch the attention of the students.
- UNIVPM has used innovative ways to attract students to agriculture. Making some interesting online videos for showcasing high precision learning, showing students on what the faculty is about, showing equipment and products of the practical learning methods, makes the students and potential students be more encouraged to study in their university.
- UNIVPM has created lasting collaborations with private companies that facilitate job placement post-graduation.

Reactions

- Students are accompanied by professors to field visits
- On internships students write a report on main points and weak points so that they can say if the company assisted them or not.
- In most African Universities, there is constant changing of Agriculture lecturers which means there is not a clear identification of a lecturer's niche of who teaches what.
- Our curriculum are very similar since they are borrowed from one organization to another.
- Where do we feature the industries we have partnered with in our website?
- The research activities should be featured too not just what is taught.
- There should be trainings for industry people who get employed to teach on how to teach.
- The feedback on how lecturers teach students, through students' evaluation.
- Module, lecturers are reluctant to put their material for use by all. The content can only be availed to students studying the course. But the course description is for public to view.
- Kenyan Universities have evaluation for lecturers but no action is taken on poor performance in the evaluation of lecturers.
- Lecturers who score poorly should be offered support in teaching.

- They should be bound by a periodic commitment of teaching like half yearly. This will make lecturers be committed to improvement.
- Teaching is learnt more through experience.

Delegates catch up after a session, and Dr. Silvia of UNIVPM during one of the sessions, in the background is Dr. Andrea Landi of UCPH Denmark.

NEW AGRICULTURE TEACHING METHODS DISCUSSED

1. **Computer simulation/Gaming: case in University of Rwanda**

- Computer simulation can be used in agriculture. A program developed in computer science is used in agricultural research. They have a set-up of Computer Science students who developed an artificial information technology that is exchanged with students in agriculture and it tells the findings in data analysis.
- Computer simulation is the science used in doing an experiment in a controlled environment before the technology is taken to the field. This means Agriculture is experimented in a controlled environment or a game in agricultural commercialization promotion that can help to boost attitude towards agricultural.

2. **Flipped Classroom: discussed by Chinhoyi University of Technology**

This is when students take the role of the lecturer and they teach and share what they researched and the lecturer is a facilitator. They can have a pre-recorded task to go research on it then come to present and discuss in class what they researched. They go and gain more information on their own. It saves time when they can work extra hours on their own.

3. **Competence based education: discussed by Kenyatta University**

The new Competency Based Education model being introduced in Kenya was highlighted. The aim of the CBE model is to ensure learners acquire hands on skills that enable them to be effective in performing their careers of choice. It was noted that agriculture teaching universities in Kenya have an opportunity to re-invent the curriculum and make it more effective and align to the needs of industry.

Review capacity building plan for work package 3 in 2025 onwards

Led by Prof. Maina Mwangi

At consortium and institutional levels, need to consider the following:

1. Which topics do we want to train on?
2. Who will facilitate them?

3. What training materials do we need? (for learners and trainers)
4. Who will develop the materials?
5. When will the materials be developed?
6. When do we start? Timelines for different activities.

Identification of capacity building topics for Work package 3 and the facilitators

S/No.	Consortium Level	Topics	Facilitators
1.	Curricula development	-Needs assessment -Define goals of the programme, objectives and outcomes -Design the curriculum -Implementation --Evaluation of feedback -Continuous improvement	Dr. S. Munikwa Prof. Wambugu Prof. Chiome Dr. Mwende Ngie Dr. Alfred Irambona Dr. Ephrard Rulinda Prof. Mapolisa
2.	Teaching methods	-Collaborative learning -Interactive lectures -Experiential learning -Project based learning -Technology-based learning (AI) -Assessment	Dr. Constantino Pedzisai Prof. Shelmith Munyiri Dr. Cecilia Mwangi Dr. Edlight Mutungwe Dr. Edna Too
3.	Digital education/ e-Learning	- Digital Content development -Content planning strategy -Content formats and tools -Digital content creation tools -Learning management - system-Moodle, jove -Quality assurance in digital learning -Assessment	Dr. David Chikati Dr. Rumbidzai Makanda Dr. Armand Digiface facilitators Prof. Maria Tsvere Nico and Silvia (Italy)
4.	Policy communication and advocacy	-Identification of policy relevant problems -Convening Policy Dialogues -Packaging information into Policy Briefs -Role of Networks -Negotiations and Advocacy in Influencing policy	J. T. Karugia (ILRI) Prof . Wambugu (CU) Anne-Marie Nyamu Ditto

Proposed training materials to be developed (for learners and trainers)

S/No.	Area of Training	Materials needed for learners/Trainers

1.	Curricula development	● Open-ended Questionnaire ● Focus group discussion guide ● Document analysis guide ● Blooms' Taxonomy ● Examples of clear aims, SMART objectives and Learning outcomes ● MBks ● Stakeholder feedback report ● Training materials ● Reviewed curriculum ● Teaching materials
2.	Teaching methods	● PPT slides, ● Laptops, ● Learning Management Systems (LMS): Platforms like Canvas, Blackboard, or Moodle that support course management and delivery, ● Educational Software: Tools like Kahoot, Quizlet, or Duolingo that provide interactive learning experiences, ● Multimedia Resources: Websites like TED-Ed, Crash Course, or Khan Academy that offer educational videos and resources. ● Online, Collaboration Tools: Platforms like Google Docs, Trello, or Asana that facilitate collaboration and communication among students and teachers. ● Assessment tools
3.	Digital Content development	● Powerpoint ● Moodle ● Selected websites
4.	Policy communication and advocacy	● Sample policy briefs ● PP Slides ● Notes ● AGRIFOSE 2030 Training materials on Translating Scientific Findings into Policy and Practice

Proposed addition of Postgraduate supervision training by Dr. David Chikati

- There is content offered on Digiface platform
- Eight weeks programe-1 hour per week
- Interested parties to liaise with him to be linked to the Digiface platform.

Proposed timelines for different activities

S/No.	Area of Training	When we start
1.	Curricula development	End of April or Early May (I hour each)
2.	Teaching methods	Early May

3.	Digital Content development	May and June (4 weeks)
4.	Policy communication and advocacy	1st and 2nd week of April Each session, 1hr

Day 2 proceedings: 6th March, 2025

The conference meeting started with a word of prayer by Dr. Edlight Mutungwe
The discussion about capacity building continued moderated by Dr. Kumbirai Musiyiwa

1. Policy communication and advocacy presented by Prof. Wambugu
2. Teaching Methods by Dr. Constantino Pedzisai
3. Curricula development by Dr. S. Munikwa
4. Digital Content development by Dr. David Chikati

The teams were tasked with developing the topics, sourcing for trainers and implementing the training within the targeted timelines.

UPDATES ON PROGRESS IN WORK PACKAGE 2: STRENGTHENING UNIVERSITY INDUSTRY LINKAGES

Presented by Prof. Shelmith Munyiri

WP2 activities

- Assessing HEIs capacity to access and use partnerships for effective teaching and research in agriculture
- Organizing University-Industry engagement forums, events and conferences culminating in a long term engagement platform.
- Capacity building of University and industry partners in effective partnerships and collaboration
- Improving the management systems and policies in HEIs to enable industry partnerships and efficient service delivery

Chuka University WP2 Report

- Surveys done in May and September 2024
- Feedback presentation to Management-29th October 2024
- Feedback to FAGRI-22nd January 2025
- Feedback to Industry-5th February 2025
- Policy discussions are ongoing
- Curriculum reviews on BSc Agriculture and Horticulture ongoing
- Key points learning
- Students demotivation
- Lack of soft skills
- AI and Agriculture
- Sustaining the forum

Kenyatta University WP2 Report

- Had a meeting with ASNET
- Establishment of the Deans Forum for sustainability
- Will participate in the National Agricultural Forum
- Outreach to high school students through 4K Clubs.

Taita-Taveta University WP2 Report

- Working with Kenya Red Cross
- Working with KEFRI
- Working with CABI-Setting up business café

University of Rwanda WP2 Report

- Held academia-industry workshop funded by HNU
- Revisited MoUs of established partners
- Making new deals with industries
- Tech transfer is being discussed.
- March 20th workshop with industry partners so that there can be a forum for sustainability.
- Strengthen existing forums to make a place for agriculture and industry linkage

UNILAK WP2 Report

- Surveys were done
- Data was shared with partners
- Have forums of collaboration with partners through MoUs
- Have a National Level Conference
- Concern of the University action taken

University of Burundi WP2 Report

- Survey was already was done
- Planned workshop by Friday 14th February, 2025 was conducted.
- They identified partnerships as a challenge, to establish a platform of FABI of agricultural companies and MoUs
- Inviting industries at National level

University of Ngozi WP2 Report

- Awareness to management and lecturers
- They have a series of oncoming events to strengthen university-industry collaboration
- Marketing their labs, conferences and activities involving students
- There is a workshop with industry partners especially in food science (not met quality standards)
- Have presented findings of the survey in February to partners and chatted more avenues of partnerships with Industry partners.
- There more activities being planned
- There are plans to partner with other HEI to create a Deans forum for sustainability

Zimbabwe Open University WP2 Report

- Have conducted a survey

- Pending sharing findings with industry partners, they have been done
- Have forums with the government
- Have identified need to include soft skills training to their students.
- They have involved lab teaching methods

Chinhoyi University of Technology

- CUT has scheduled a workshop with industrial partners in February with an agenda of discussing the current state of University- Industry linkages practical ways to build sustainable partnerships.
- There are plans to have joint research, incentives needed for collaboration
- They had a career fair and discussion on MoUs that are working and not working, looking for solutions
- They chatted how to incorporate guests lecturing and topics of interest beyond curriculum design.
- Need to build collaborations drawn from existing forums Agricultural Research Council forum-deals with all the value chains and Deans of Agriculture group forum-discusses institutional matters

Summary points

- Strategies adopted by individual Universities should be documented as ways to move forward e.g. the idea of having a business café
- Institutions should produce database showing industries and partners mobilized so far.
- Institutions should also produce documentation supporting their progress for purposes of reporting to the EU.
- Universities should help to organize, package capacity their capacity when meeting the industry partners.
- Universities should produce a plan, and show frequency of the proposed partner meetings or events in the future
- Those that are yet to hold feedback seminars /additional forums for meaningful dialogue with other important stakeholders such as students who are becoming increasingly involved in feedback processes.

UPDATES ON WP4: INCUBATORS AND TTOS STRENGTHENING (WP4)

Presentation by Dr. Nathan Taremwa (UR), Prof. Nico Hjortso and Dr. Andrea Landi (UCPH)

Task Overview

Task 4.1: Developing capacity of existing and new incubation centers in HEIs to manage and commercialize university intellectual property

Task 4.2: Identifying and contextualizing operational guidelines and sustainable business models for incubators

Task 4.3: Incubation of green innovations and start-ups

Implementation

- Baseline study-identify issues
- Six capacity development teams established to produce manuals

- Self-assessment strategy
- Implementation

WP4 Baseline Survey

- Status of the baseline study: report not yet finalized.
- Request of first draft of the description from Universities
- First draft of University descriptions in November
- Sent to university informants (incubator and TTOs responsible)
- Few responses to the request
- New interview round in February-March 2025
- New write up in process
- Additional follow up interviews to clarify last issues
- Final approval of the Descriptions-New interview in Feb-march 2025

Aspects being mapped/ documented during survey

Country, current no. of incubatees, maturity age, foundation year, government relations/policy driver, name, organizational affiliation level, board of directors, number of incubator units within the university, main current challenge, business model focus, strategy document, operational guidelines, degree of specialization, dedicated staffing, mentors and trainers associated type of mentorship, focus clients, incubation phase focus, funding source, non-for-profit/for-profit and initial funding

Preliminary findings

Incubators and Technology transfer

- Significant variance between universities
- Capacity development differences
- Operational guidelines lacking

Recommendations for incubator management proposed in the baseline study

- Business model strategy-find a niche, sustainability, flexibility and responsiveness to emerging issues, organizational structure and mandate needs, align ambitions with expected outcomes with resources available.
- Management
- Funding

What we can use recommendations for?

- Sensitize new and established incubators
- Identify strategic issues to be addressed
- Share experiences and think about how we address these issues.

Six thematic areas and work groups identified for work package 4

1. Strategy development team
2. Communication team
3. Facility design team
4. Incubator management team
5. Service development team

6. Mentorship and training skills team

Teams tasks

- Agree on what you want to achieve together
- Divide roles and responsibilities
- Identify resources within the network
- Plan experience exchange events
- Plan training-find trainers
- Prepare reports on achievements

Operational Manual- Responsible Person, Nathan Taremwa

- Share reuse and adapt
- Share existing SOPs in the network
- Review and select recommended elements
- Compose a 'prototype' UPLIFT SOP document
- Partners adapt to local conditions

Strategy development team presented by Andrea

-University mission's alignment
-Self-assessment process:
Context and resources (SWOT): The context i.e. external factors and foundational elements i.e. internal factors
Ideal scenario and gap analysis: Future vision, scenario building and gap analysis.
Strategy design: design the incubators business model, strategy for implementation
-Milestone: Institutional approval: for obtaining legitimacy, resources,
-Action plan- what action plans can be used to promote the incubation center
-List of outputs and deliverables:
-Milestone

1. Mandate (Management approval 1)

-Vision, mission, goals, objectives
-Opportunities and strengths-external and internal
Dialogue with management starts
-Vision check
-Ideal scenario
-Gap analysis
-Strategy for implementation of business model

2. Institutional approval

-Action plan:
Identification of tasks
Dependencies
Risk analysis
Budget
Gantt chart

3. Action plan approved

Note: Identifying who has the competencies to head the designing and strategy of the incubator.

Identifying objectives
Implementation matrix

Reactions:

- There was the question of deliverables
- Evidence of documents and training materials
- Who participated?
- Timelines: when the training will be done
- Improved business models: This will be derived from more brainstorming and research to be able to develop each institutions business models. Use good examples and case studies and share lessons from it. Every University has to take the initiative to develop their own business models, but the Denmark team is willing to support the teams that have the personal initiative and commitment to work towards it.
- There is need to speak with the management. Start from the ground and then present something of appeal to the management so they can now come in to support. Getting support from within not necessarily from the top. Do what you can before you seek management input.
- Prof. Bayer was requested to host a virtual seminar to the management on the incubation set up matters.
- There are Incubator issues in the strategic plans of Universities. There should be thorough search of existing policies supporting the setting up of incubation centres.
- There is need for follow-up meeting on the incubation discussion.
- Another meeting will be convened, virtually to exhaust this discussion.

Capacity building for Work Package 2 (University-Industry linkages)

Presented by Prof. Thomas Bayer

Present/review training materials
Discussion on capacity building plan
Content of capacity building material

a) Innovation and Technology Transfer-introductory basics
b) Commercialization of research

-Benefits of research commercialization	45 minutes
-the process of commercialization	45 minutes
-methods of research commercialization	45 minutes
-Establishing linkages between industry and University	45 minutes

c) Transfer-oriented applied research

-Distinction between fundamental and applied research	45 minutes
-deriving research fields from real world problems	45 minutes
-how to plan, structure and conduct applied research projects	30 minutes

d) Transfer-oriented teaching

-preparing students to work on applied science topics	30 minutes
-project seminars with industry partners	30 minutes
-final dissertation/thesis with or for industry partners	30 minutes

This training has been conducted before in other fields and yielded good output.
The target groups range from lecturers, researchers at the university and industry partners representatives.

Goals

- To understand the relevance and benefits
- Know the process and methods
- Integrate already on teaching and research level

Conducted trainings

1. 18-21/11/24 UPLIFT benchmarking visit to HNU-11 participants
2. 25-26/11/24 TTU HoD and researchers-10 participants
3. 28/11/24 Online at KU-120 participants from the 9 UPLIFT Universities

Reactions

- Delegates discussed whether the Industry should be trained as part of the capacity building.
- The Industry people may or may not be eager to have the training depending on how they regard the intention of the HEI.
- There were also indications that while industry representatives could certainly benefit from these sessions, their training needs differed significantly from those of academic participants.
- One concern raised was that industry representatives might perceive a disconnect in the content tailored for academia, particularly regarding teaching-oriented discussions that might not align with industry needs or interests
- The University should aim at utilizing their knowledge and use it to attract the industry.
- The strategy can be a dialogue of advocacy for linkages can yield more trusting and receptive attitude.
- The HEI needs to convince the industry that they intend to offer solutions to some of the problems they have, they can use the National forums like ASNET for Kenyan set up for linkage between the two organizations.
- The HEI can use the approach of how to benefit the industry also, and how to protect their IP. But first it starts with creating a good rapport first.
- The HEI can be trained together with the industry at the same time.

Agreements of WP2 meeting 11th Feb 2025

- Participants were okay with the structure of the content
- Adaptations in smaller module units required
- Instructor guides to be developed
- Learner guides to be developed
- French translation required for Burundi
- Preferred mode of delivery: live virtual or live classroom (interactive)
- Pre-recorded sessions on video (no interaction, potentially less effective)

Status of work

- Content and formal adaptations-in progress (HNU)
- Structuring in smaller modules- completed (HNU)
- Instructors guide-starts in March
- Lerner guide-March/April

- Country case studies- each institution to develop a case study from their experience
- French translation-April?

UPLIFT-Ag. Communication and Dissemination plan and Repository view

Presented by Prof. Maina Mwangi

- UPLIFT Ag. Work packages in One drive (Online repository for all UPLIFT-Ag. documents)
- Comparison with Google drive where documents can be worked on collaboratively.
- There is an UPLIFT-Ag. Shared folder, it hosts a range of documents for UPLIFT.
- Documents range from meeting minutes, presentations, guides and templates, deans forum Kenya, proposed budget, trainings in different WPs, work packages, PSC and WP leaders, reports.

Recommended good practices when organizing trainings

i. Publicizing trainings
ii. Using social media, website, proper notices that are eye-catching and banners.
iii. Communicate on time: Announce on time, changes in dates and venue should be communicated on time.
iv. Target the right audience to avoid overbooking and unmanageable expectations
v. Give adequate notice to allow participants to plan
vi. Communicate changes promptly to prevent last- minute confusion
vii. Ensure proper venue arrangements to accommodate all attendees comfortably.
viii. For virtual trainings be aware of participant limits e.g zoom caps at 100 attendees)
ix. Conduct a pre-training survey.
x. Determine need to offer certificates
xi. Record post training follow up needs/activities

Other business

Benchmarking visit to UNIVPM, Italy

- To hand in names in two weeks' time
- Visit to be in July due to weather
- Balancing gender representation, encouraging more women to the project.

Handing over leadership for PSC and the various country teams

- The Chairmanship was handed over officially from Prof. Shelmith Munyiri of Chuka University to Prof. Robert Musundire of Chinhoyi University of Technology.

- The leadership of country teams also changed. In 2025 country leaders will be from TTU for Kenya, UNILAK for Rwanda, Uni. Of Ngozi for Burundi and ZOU for Zimbabwe. EU partners remained the same.

Postgraduate training course

Those interested in joining the postgraduate supervision training course can register with +254728794437-Dr. David Chikati

Briefing on Field visit

- Members were briefed on the field visit scheduled on 7th March, 2025.
- Going to the field visit departure by 8 am.
- It was to start with the farm visit from 8.00-8.30 to 12.30 pm.
- After Lunch, site seeing at Nyanga town from 2.30-3.30 pm.
- Rhodes World view 3.30 pm and finally at Nyang'ombe falls.

Closing remarks

Presented by Prof. Musundire

- He applauded the organizers of the event. He thanked the participants from Europe and Africa for attending the conference meeting.
- The conference was declared closed at 17.00 hrs.

Day 3 proceedings: 7th March, 2025

This was the field day, where members managed to visit the following places.

Visit to the Claremont Apple Farm

- Delegates were taken through the apple planting process, the growing process including pruning, the harvesting, the use of technology in selecting variety and quality of apples, storage and packaging according to quality.
- They got a chance to interact with the workers, supervisors and managers asking questions in reference to UPLIFT-Ag. goals.

- They were able to learn the preferred time for internships for proper quipping of students is at-least one year, through all stages.
- They were also able to learn that College students were more preferred for hand on duties than University students due to their lack of motivation and self-drive to work on the farm.

Delegates touring the apple farm.



Delegates touring the extensive apple orchard


Apple fruits grading after harvest


Apple packaging and storage in cold room


Visit to the Trout fish Farm

Delegates learnt the process of growing trout fish using natural river water to maturity and harvesting. Members had an interactive session where they were able to ask UPLIFT-Ag. related questions and to learn more.

The inlets to the fish ponds from the main river

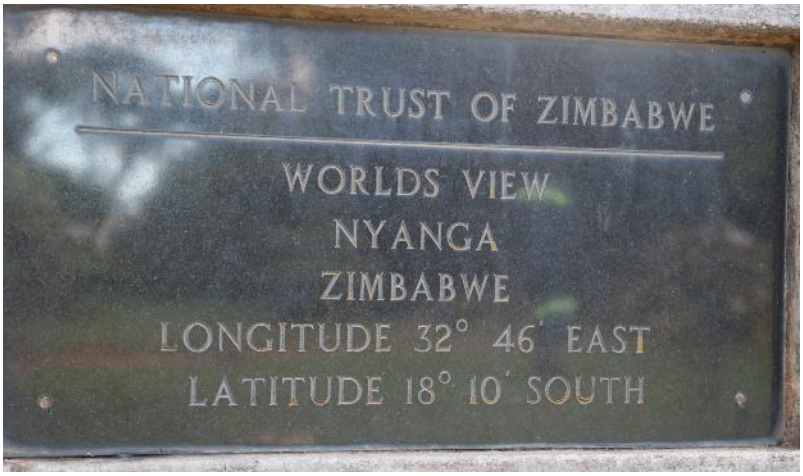


The fish ponds (left) and healthy trout fish in the water (right)

Visit to the Rhodes World View site

- Here members had a relaxing session, viewing the world from Rhodes point of view, mountain climbing and horse riding.
- The exercise ended with a vote of thanks from the African and European side and then the hosts (ZOU and CUT) concluded.


The view below from the high point at Rhodes World View.



The geo reference tag (left) and delegates hiking up the hill (right).


Delegate bond before the hike (left) and celebrating after the steep hike up the hill.

Creative delegates made the word UPLIFT using small rocks and vegetation at the top

Report prepared by the Secretariat: Ms. Judy Wamuya (CU), Prof. Shelmith Munyiri (CU) Dr. Rumbidzai Makanda (CUT).