

Annual Plan

2019/2020 – June 2020/2021

Narrative plan with focus on objectives/expected results (impact, outcome and outputs)

**STRENGTHENING CAPACITY ON RESEARCH AND INNOVATION FOR
SUSTAINABLE LAND AND ENVIRONMENTAL MANAGEMENT FOR
INCLUSIVE DEVELOPMENT (STEM-ID)**

ARDHI UNIVERSITY

Date of Submission

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1. Executive summary of programme

SUMMARY OF THE OVERALL INSTITUTIONAL PROGRAMME PROPOSAL

A number of challenges including environmental degradation, widespread unregulated settlements, land conflicts, and institutional deficits and limited involvement of the local communities are critical problems facing the land, environment and human settlements sectors in Tanzania. These challenges are restraining swift and sustainable, environmental and socio-economic development in the country. With regard to the role of ARU as a training and research institution, limited capacity in teaching, research, supporting infrastructure and community outreach are significantly constraining its contribution in addressing and developing a national response to land, environmental management and human settlement development challenges.

Strengthening Capacity on Research and Innovation for Sustainable Land and Environmental Management for Inclusive Development (STEM-ID) programme is a collaborative venture between Ardhi University and five Swedish institutions; the Royal Institute of Technology (KTH), the Swedish University of Agricultural Science (SLU), the Lund University, the Chalmers University of Technology and the Gothenburg University. The programme comprises two main components of research training and research support. Research training has four sub components namely (i) development of taught locally offered Masters and PhD degrees programmes, (ii) double PhD degree training in Sweden and at ARU, (iii) conducting of research through major and minor grants, and (iv) community outreach. The research support component has four sub components namely improved availability of e-resources, introduction of on-line publishing, in-house training on quality assurance systems and frameworks; and development of Research Innovation and Technology Transfers Centre (RIT).

The programme level component consists of 6 sub-programmes that will be implemented by ARU academic units in collaboration with Swedish partners. The sub-programmes are:

Urban Planning program aims at addressing some of the following questions: How are conflicting interests in the field of land governance manifested in small towns? What are the interest constellations?

Urban Governance program intends to find answers to the following research questions: 1) what are the resource capacities and policy frameworks required for land governance and ecosystem management in peri-urban areas? 2) Are there any community-based development control strategies for limiting encroachment of urban fragile ecosystems?

The Real Estate Market program seeks to set a platform for understanding working of real estate markets in a changing economic environment, developing analytical tools of resolving ensuing challenges in residential real estate sector and taking cognizance of the contributions that various real estate market operations will have to national economic development in Tanzania.

Informality and Habitation program addresses the following key questions: (i) what are the tacit concepts and urban typologies resulting from informal urbanisation and how do they shape the resulting climate and context-specific urban landscape? (ii) In what ways can the landscape-based urban planning and development structure the urban landscape in the context of informality?

Land Resources and HIV/AIDS program aims at addressing three questions: (i) How are policies and legal instruments in place useful in protecting and empowering people living with HIV/AIDS in accessing and/or owning land resources? (ii) How can the patterns of land ownership behavior of people living with HIV/AIDS be classified?

Land Rights and Large Scale Investments program will carry out research on internal and external dynamics leading to commercial pressure over land in Tanzania including issues of food security, oil and gas and alternative energy supply; large-scale land acquisition and resettlement and alternatives to it; and the impacts on communal land rights, and the resultant conflicts and approaches put in place or possible for conflict resolution.

The research support sub-programme that will be implemented at ARU aims at improving the research environment through strengthening of the research infrastructure and research administration including, access to scientific journals, research dissemination, monitoring and evaluation of research, minor research grants, networking and outreach activities. The expected outputs of the overall programme includes increased number of master and PhD degree holders, strengthened research environment, high quality research and improved community outreach services

2. General objectives and expected results 2015-2020 extended to 2020/2021

Introduction

Activities for the last year of programme implementation i.e. 2019/2020 were initially planned to last to June 2020. However, the review of progress implementation for 2019/2020 indicated that some activities would not be accomplished by 30th June 2020 due to delays in implementation of some programme activities and therefore an extension of time has been considered by Sida. Moreover, the outbreak of COVID19 pandemic further disrupted the implementation of some of the planned activities, hence calling for extension of time to enable completion, especially those that need gathering of large crowds of people, for example conferences or workshops. The activities that require more time include; Student's PhD research, communication of research results to stakeholders and policy makers through contacts with communities; outreach activities and conferences. With the limitation of face to face contacts between different categories of people, (e.g students and supervisors) different approaches for communication have to be adopted to facilitate execution of the activities. The use of on-line meetings between supervisors and students should be employed. This means that implementation of all uncompleted programme activities will be extended up to June 2021. Implementation of some of the uncompleted activities does not only require time but may as well attract some additional funding. Therefore, the objectives presented below, likewise the annual targets, budgets and actions plans have been adjusted to reflect the twelve months extension.

2.1 Summary of accomplished tasks (2015/2016 – 2019/2020)

2.1.1 Students progress

During the Five years of project implementation, ten (10) of the PhD students out of twelve (12) completed their coursework. The courses were conducted at both ARU and Swedish Universities. On the research part, nine (9) out of 12 students finalized data collection, analysis and they have embarked on dissertation writing. Three students (two from Commercial Pressure subprogramme and one from Real Estate Markets Dynamics) have not yet finalized data collection. However, the students are continuing with analysis of the already collected data and writing some chapters of the dissertation. Students in the subprogramme named Small Towns have attained a progress of between 65% and 75%. The PhD students under Governance of Municipal Services sub programme have attained a progress between 80% and 85%. Students under the Real Estate Markets have attained a progress of between 55% (one student) and 85% (another student). Students from HIV sub programme have attained a progress of about 85 % (one student) and 65 to 70% (another student). A progress of between 80 (one student) and 95% (another student) under Informality and Habitation sub-programme has been achieved. One student under the Commercial Pressure Subprogramme has attained 55% progress while the progress of another student is unclear. In general, nine (9) students (75%) have attained a progress of 70% or higher, two (17%) have attained a progress of 55% and the progress of one (8%) is unclear. Therefore the likelihood of the 9 students who have attained progress of 70% to finalize their studies within the sought extension period is high. The probability of the two students whose progress is about 55%, completing their studies within the extension period is uncertain. Moreover, one student is not making satisfactory progress and it is unlikely that he will be able to complete the studies during the extension period. The university has taken note of the poor progress with concern and measures have been taken by reprimanding the candidate about his performance.

2.1.2 PhD and MSc. curricula accreditation by TCU

During the five years of programme implementation, five (5) PhD curricula were approved by the University Senate and accredited by TCU. The new MSc. curricula for Land Administration and Real Estate Economics were endorsed by the ARU Senate and submitted to TCU for accreditation. The MSc. curriculum in Urban Governance and Environmental Studies (URGES) has been approved by the Senate Higher Degrees, Research and Publications Committee. This curriculum will be submitted to the forthcoming Senate meeting for approval before being submitted to TCU for accreditation. The activity will be accomplished within extension period with no additional cost involved.

2.1.3 Major research

During the Five years of project implementation, a total of three major research projects (50%) out of six were finalized, with research reports submitted and papers published. One project is finalizing a research report and another one is in data analysis and report writing stage and one of the major research projects is still on data collection. Five (5) draft policy briefs have been prepared from major research projects. The three projects are yet to publish as comprehensive research results are not out yet. Some projects had planned to disseminate their research results through attending international conferences but they could not make it because of the COVID -19 pandemic. The three major research projects will finalize their work and produce all the deliverables (reports, publications and policy briefs) within the extension period of programme implementation. It is proposed that during the extension period, the projects be facilitated to publish one additional paper to tie up the major research and students' research. But this will be after students have accomplished their PhD as it is not a necessity for students' PhDs.

2.1.4 Research results dissemination

A scientific conference was planned for disseminating all research outputs generated under the programme. The conference was intended to provide a platform for researchers who have participated in the programme implementation and other researchers (local and international) to share their research results. The conference was to take place in June, 2020 after it was rolled over from 2018/2019 due to the fact that most projects under the programme had not produced substantial results that could be communicated. Nonetheless, one internal conference was held in October 2018 as preparation of the international conference. In that mini conference, a total of 47 papers were presented of which 32 originated from the research projects under the Sida funding. Again, the international conference has been postponed because of the COVID -19 and rescheduled for March 2021 if all goes well. The exact date however, will depend on the trend of the COVID 19.

2.1.5 Minor research projects

During the five years of programme implementation, 18 minor research projects (90%) were finalized and reports submitted. Furthermore, 18 policy briefs have been prepared from the minor research projects and will undergo review during the extension period. The research reports were submitted to the respective academic units for review. In total, 11 (55%) projects have published papers, Five (25%) have submitted manuscripts to journals for publication and Four (20%) have not yet submitted papers to journals. The projects that have not submitted all the deliverables will finalize the work during the extension period of time.

On the other hand analysis of the research reports submitted reveals that most of the projects can produce more than one publication from the generated research results. It is therefore expected that during the extension period researchers will produce more publications from

the research projects undertaken over the programme implementation.

2.1.6 Library

The library has been subscribing to e-resources annually over the year five years of project implementation. The resources have been subscribed for up to December, 2020 using funds carried forth from the previous year of project implementation.

2.1.7 On-line journal publishing

During the five years of programme implementation, staff from the ARU publishing centre (APC) were trained on managing online publishing, and the built capacity is supporting the online publishing platform at the university. In the process, The Journal of Human Settlements and Environmental Management” has been established. The journal is expected to increase publication outlets and enhance dissemination of research results through publications. It is also envisaged that the journal will increase the visibility of the University. The team appointed to set guidelines of the new on-line journal will complete the work during the extension period utilising balance of funds that were budgeted for the activity.

2.1.8 Outreach activities

Outreach activities were implemented during the five years of programme implementation, including preparation of outreach materials and training on communication of research findings to the society. A training workshop on innovation systems as a stepping stone to establishment of Research Innovation and Technology Transfer Centre was planned to take place in March 2020 but was postponed because of COVID 19. Pending activities under the outreach component will be accomplished within the extension period with unspent funds carried forward from the year 2019/20.

2.1.9 Quality Assurance/Capacity Building and Enhancement

This sub-component under research support has already accomplished its planned activities. However, the activities to improve internet connectivity will be implemented under this sub component of research support. It is expected that improvement of CICT facilities especially internet accessibility will greatly facilitate PhD students to access e-materials easily and efficiently.

The overall objective: Capacity in teaching, research, supporting infrastructure and community outreach at ARU as a training and research institution enhanced to effectively contribute to developing a national response to land, environmental management and human settlement development issues.

EXPECTED RESULTS

Result area 1: Increase by 15 percent by 2020/2021 the number of researchers with high competencies in curriculum development, teaching and collaborative research with national and international research institutions

Result area 2: Increase by 15 percent the production and use of quality research for informed decision making for public and private sectors in issues related to land, environment and human settlement development through research partnerships by 2020/2021.

Results area 3: Improve the institutional capacity for research and research management at

ARU for conducting quality research and innovation in resolving issues related to land, environment and human settlements by 2020/2021 through development and operationalisation of 6 QA tools developed by 2020; linking the Library with 3 e –resources; training of three (3) staff (two (2) females and one (1) male on on-line publishing and establishing 1 e-journal publication

Result area 4:

Establish a receptive environment for promoting and utilizing relevant scientific research in addressing key issues by 2020/2021 through training of 150 community members in using research findings, establishing 5 new partnerships with high priority institutions in land and environmental sector and re-structuring/establishing and equipping of RIT.

3. Summary of annual targets 2020/2021

The annual targets for the extension period – (2020/2021) will continue to focus on all PhD training and minor research activities; major research activities; community outreach; publishing services and improvement of ICT infrastructure at ARU. The last activity (Improvement of ICT) was not part of STEM-ID project. However, poor ICT infrastructure at ARU has been impairing implementation of project and general university activities. It was therefore discussed and agreed during the 2020/2021 planning year (extension) that improvement of ICT infrastructure be included during the phase. The argument stemmed from the fact that during this period of COVID 19 pandemic, success in finalization of all the programme activities will to a great extent depend on the efficiency of the ICT facilities at the university. These activities include; student's consultations with their supervisors through skype, google hang-out meetings, Zoom meeting; consultations among supervisors in Sweden and those in Tanzania (through the same platforms) and PhD defence through video conferencing. Tables 1 and 3.

1. On PhD training programmes, there are twelve (12) double degree PhD students across six sub-programmes each with two (2) students. Most activities to be undertaken during the extension period (2020/2021) are those which could not be concluded during the final year of the project implementation (2019/2020). These include conduction of final rounds of data collection for filling gaps by four (4) students whose progress was inadequate; analysis of additionally collected data (PhD research); finalization of PhD dissertation reports (manuscripts) and addressing comments from reviewers for the students pursuing PhD by papers as one of the steps in publications; finalization of coursework (for those who have not yet finalized) and paper publications. Other activities during the extension period include PhD supervision and dissertation write-up. A summary which includes names of the students, respective sub-programmes, title of PhD research projects and progress so far attained is included under enclosure 5.5 (i.e. Overall Aggregated Student Plan). It is expected that students will need an average of 12 months extension of time although some may finalize their PhD dissertations before the end of the extended time.
2. With respect to the major research; the main activities will comprise collection of data (for the Commercial Pressure subprogramme), analysis of collected data; and writing up of research reports (for both Commercial Pressure and HIV sub-programmes) and dissemination of research results through presentation in conferences and paper publications (see enclosure 5.3.2). These projects will utilize the originally budgeted funds.
3. The Research Support sub-programme will continue with winding-up of minor research projects (two projects have not yet submitted research reports); publishing journal papers (9 projects); conference papers (20) local conferences and 15 international conferences; finalization of policy briefs (2) and review of the submitted policy briefs (18) and outreach activities (training of academic staff on innovation systems; procurement and installation of video conferencing facility; and establishment of the Research and Innovation Transfer Centre (RIT)); publishing (establishment of an online journal) and improvement of Internet connectivity (ICT softwares and hardwares).

Them minor research projects shall utilize the funds that were allocated for the activities and therefore no cost extension is foreseen. On the other hand, analysis of research reports that have been submitted reveal that each project can produce more than one research article. It is therefore anticipated that during the extension period additional papers will be published from the accomplished research projects.

On outreach sub-component, two main activities will be carried out. The two earmarked outreach activities i.e. training of academic staff on innovation systems and continue with and complete the process of establishing and operationalization of the Research Innovation and Technology Transfer Centre shall utilize the funds that were in the current budget (2019/2020) and therefore the activities will be implemented without extra funding.

4. The ARU Publishing centre will carry out one activity namely finalizing the establishment of 1 e-journal and start publishing research articles. This activity will utilize the unutilized funds allocated for the project and shall not attract additional funding; and
5. Library and Quality assurance activities were finalized during the normal programme implementation period. Although activities under these two sub-components have been accomplished, Improvement of ICT Infrastructure during the extension period (2020/2021) will be implemented under the Quality Assurance sub-component.

Improvement of ICT infrastructure under quality assurance: During the extension period the research cooperation programme aims to improve internet connectivity at ARU, and specifically in strategic areas to enable PhD students and researchers at ARU to easily connect to the internet and access relevant e-materials. The activity encompasses three core elements namely improvement of internet connectivity through upgrading the ARU Fibre Backbone speed by migrating from 100mbps to at least 1Gbps (1,000Mbps) backbone speed; to repair, replace and upgrade the obsolete existing wired and wireless Local Area Network; and to deploy data backup system dedicated for ARU video conferencing facility and Postgraduate research data.

Note that all attracted additional funding are detailed in the overall budget and reflected in respective sub-programme budgets.

Table 1: Summary of planned and expected outputs for 2019/2020 – 2020/2021

Item	Quest For Alternative	Governance of Land	Real Estate Markets Dynamics	Informality And Habitation	Access To Land Resources	Capacity To Address Challenges Of Commercial Pressure	Research Support
Major research	Title of the research: Improving Land Use Governance in Small Towns: Enhancing Actors' Roles and Relation in Decision Making for Effective Urban Planning Systems"	Title of the research: The dynamics of municipal services delivery in peri-urban areas and surrounding settlements: The case of potable water and sanitation services in Moshi and Dar es Salaam urban centres:	Title of the research: Adaptive Property Valuation Systems and Methods	Title of the research: Understanding informality and habitation through the market-based approach)	Title of the research: Determining the Attitudinal Patterns of the PLWHA towards Land Access and Ownership within the infection Cycles: Inferences from Five Regions with HIV/AIDS Prevalence Rates above the National Average in Tanzania	Title of the research: Challenges Of Making Land Available For Large Scale Investment In Agriculture For Internal And External Investors In Tanzania: The Dangers Facing Traditional And Communal Land Rights Holders: Case Studies From The Lake Zone	
	Key Researchers: Dr. Ally Namangaya, Dr. D. Magembe-Mushi and Antoinette Wambä ck Hapy Mlula, and Charles Seng' enoi	Key Researchers: Alphonse Kyessi, Wilbard Kombe, Yohannes Kachenje, Said Nuhu and Lazaro Mngumi	Key Researchers: Dr Vianey John Mushi; Upendo Matotola, and Frank Nyanda, Emino Milanzi	Key Researchers: Dr. Daniel Mbisso Dr. Liberatus Mrema	Key Researchers: Dr. Prof. E. Mwangeni Mr. Chumbula Jimson Ms. Theresia Francis Ms. Janesta Urassa Mr. Stanslaus Peter Butungo	Key Researchers: Dr. Sophia Kongela, Dr Diana Mndeme, Mr Martin Mpandikizi and Mr Hussein Kayera	
PhD Research Students	Title of The PhD Research: Servicing Small Urban Centers In Tanzania: The Case Of Municipal Service Delivery:	Title of The PhD Research: Landscape Scale Ecosystem Services Management For Enhancing Community Resilience	Title of The PhD Research: Assessing Impacts Of Housing Finance Systems On Housing Affordability In Dar Es Salaam Tanzania	Title of The PhD Research: Recreational Spaces In Informal Built Environment:	Title of The PhD Research: Impacts Of HIV/AIDS Over And Above Customary Practices Of Land Inheritance For Households In	Title Of The PhD Research: An Examination Of Land Acquisition Processes For Large Scale	

Item	Quest For Alternative	Governance of Land	Real Estate Markets Dynamics	Informality And Habitation	Access To Land Resources	Capacity To Address Challenges Of Commercial Pressure	Research Support
		To Climate Change In Peri-Urban Areas In Tanzania.		Meaning And Space Creation	Rural Tanzania: The Case Of Ushirombo-Bukombe In Geita Region, Tanzania (Phd In Land Administration)	Investment In Land In Tanzania	
	PhD Candidate: Happiness Mlula	PhD Candidate: Lazaro Mngumi	PhD Candidate: Mr. Egino Millanzi	PhD Candidate: Edson Sanga	PhD Candidate: Stanslaus Butungo	PhD Candidate: Martin Mpandikizi	
	Supervisors: Prof. Wilbard Kombe, Prof. Alphonse Kyessi, and Dr. Gunilla Lindholm, Stephanie Leder	Supervisors: Dr. Makarius Mdemu; Antoinette Wärnbäck, Madeleine Granvik	Supervisors: Dr Agnes Mwasumbi and Prof. Mats Wilhelmsson	Supervisors: Dr. Liberatus Mrema and Gunilla Lindholm, Burcu Yigit-Turan	Supervisors: Prof. Wilbard J. Kombe and Prof. Adam Pain	Supervisors: Dr. F. Komu and Prof. Jenny Paulson	
	Title Of The PhD Research: Urban Growth Dynamics: The Case Of Small Towns In The Developing Countries	Title Of The PhD Research: Peri-Urban Land Governance In Tanzania: Actors, Processes And Institutions	Title Of The PhD Research: Towards The Development Of House Price Indices In Tanzania: Remedial Measures To Data Constraints And Suggested Practical Model	Title Of The PhD Research: Influence Of Urban Fabric On Outdoor Thermal Comfort And Microclimate In Warm Humid Climate: A Focus On Dar Es Salaam's Informal Settlements	Title Of The PhD Research: Changing Customary Land Tenure Regimes In Tanzania: Assessing Women's Vulnerability In Morogoro Rural And Kyela Districts	Title Of The PhD Research: Land Conflicts In Rural Tanzania: Lessons Learnt From Districts With Commercial Farming	
	PhD Candidate: Maglan Charles Sang'anoi	PhD Candidate: Said Nuhu	PhD Candidate: Frank Nyanda	PhD Candidate: Modest Maurus	PhD Candidate: Jenesta Urassa	PhD Candidate: Hussein Kayera	

Item	Quest For Alternative	Governance of Land	Real Estate Markets Dynamics	Informality And Habitation	Access To Land Resources	Capacity To Address Challenges Of Commercial Pressure	Research Support
	Supervisors: Dr. Ally H. Namangaya, Prof. Wilbard Kombe and Andrew Butler, Johan Pries	Supervisors: Prof. Kombe Vera Vicenzotti, Camilo Calderon	Supervisors: Dr. Vianey Mushi and Prof. Mats Wilhelmsson	Supervisors: Dr. Ombeni Swai and Prof. Erik Johansson	Supervisors: Prof. Eliuther Mwageni	Supervisors: Prof. Wilbard Kombe and Prof. Peter Ekback	
Total number and names of PhD programmes will be accredited/launched	Name of the double PhD Programme: Urban and Regional Planning. Accredited and operationalised	Name of the double PhD Programme: Urban Governance and Environmental Studies. Accredited and operationalised	Name of the double PhD Programme: Real Estate Economics. Accredited and operationalised	Name of the double PhD Programme: Urban Design. Accredited and operationalised	Name of the double PhD Programme: Land Administration. Accredited and operationalised		
Total number and names of MSc programmes that will be accredited/launched	NA	MSc URGES programme will be submitted to ARU Senate for Approval and submitted to TCU for accreditation	Follow-up to TCU for the accreditation of MSc Real Estate Economics	NA	Follow-up with TCU for the accreditation of MSc. Land Administration		
Number of policy briefs produced in different areas/disciplines	Review of policy brief	Review of policy brief	Review of policy brief	Review of policy brief	Preparation and submission of one Policy brief Review of the policy brief	Updating of a policy brief Review of the policy brief	Preparation and Submission of the remaining Two (2) Policy Brief Review of 20 (18 completed and 2 to be finalized) policy briefs
Total numbers of papers for submission to journals. Name of authors, titles of papers and names of journals	Publish Two (2) journal papers and one additional paper	Publish additional paper (1) that links major research findings and students' findings	Publish two (2) journal papers	Publish additional paper (major research and two papers (from students)	Four (4) journal papers i. <i>Land, Vulnerability and HIV-AIDS: Unpacking the disguised link:</i> ii. <i>Determining the Attitudinal Patterns of the PLWHA towards Land Access and Ownership</i>	Publish papers	Each of the 16 projects that have published articles/ submitted manuscripts to journals will publish an extra paper

Item	Quest For Alternative	Governance of Land	Real Estate Markets Dynamics	Informality And Habitation	Access To Land Resources	Capacity To Address Challenges Of Commercial Pressure	Research Support
					<i>within the infection Cycles</i> <i>iii. Attitudes of dependants towards PLWHA in Tanzania</i> <i>iv. Comparing socio-economic status between PLWHA and Non PLWHA in areas with HAIV-AIDS infection in Tanzania</i>		
Collaborative research with other local partners (e.g. LGAs)	Establishing a platform for collaborative research work with local actors in Mafinga small towns		Development of quality control standards applicable for mortgage valuations				
Research Report			Submission of a research report		Report from the major research	Report from the major research	Two (2) Research reports from minor research
Dissemination workshop	Conducting Policy Dialogue (local meetings with the Government officials) with the Ministry of Lands, Housing and Human Settlement Development for discussing the findings of the research	Stakeholders' feedback Workshop: Fourth week of July 2020					

Table 2: Implementation of Outreach and Minor Research Activities

	Minor research Outputs to be achieved during 2020/2021	Outreach, ARU Publishing Centre and Library Activities to be undertaken during 2020/2021
Implementation of outreach and minor research activities	<p>The total of 2 research reports from minor research projects have not been submitted, therefore they are expected to be finalised and submitted within the extension period 2020/2021. These are:</p> <p>Research Reports:</p> <ol style="list-style-type: none"> 1. The role of informal micro finance arrangements in housing development in Tanzania: Exploring the VICOPA and UPATU initiatives: By Hidaya Kayuza 2. Environmental Contribution of the Heritage Neighborhoods in Sustaining Urban Areas: By Khalfan Amour <p>Papers:</p> <p>A total of sixteen (16) journal papers from minor research projects are expected to be finalized and published during the extension period 2020/2021</p> <ol style="list-style-type: none"> 1. Evaluation of Mt. Kilimanjaro Forest Cover Change over the Last Four decades – Implication to Sustainable Forest Conservation and Management: A RS approach: By Dorothea Deus, Iriael Mlay, Gadiel Mchau and Latifa Rashid 2. Mt. Kilimanjaro Land Cover Variability and Change Detection Using MODIS Imagery: By Dorothea Deus, Iriael Mlay, Gadiel Mchau and Latifa Rashid 3. Assessment of the Response of Mt. Kilimanjaro Remotely Sensed Vegetation Cover to Climate Change: By Dorothea Deus, Iriael Mlay, Gadiel Mchau and Latifa Rashid 4. Factors Influencing Forest Cover Dynamics Within the Slope of Mt. Kilimanjaro: By Dorothea Deus, Iriael Mlay, Gadiel Mchau and Latifa Rashid 5. Complexity of residential segregation in Dar es Salaam city, Tanzania: By Nelly Babere, Reginald Chetto and Paul Kitosi 6. Social segregation and quality of life in Dar es Salaam City, Tanzania: By Nelly Babere, Reginald Chetto and Paul Kitosi 7. High – Rise Modern versus Low-rise old; The context of stealth demolition of historic buildings in Dar es Salaam. (80% done manuscript): By Khalfan Khalfan, Denis Tesha and Richard Besha 8. The Web Based Social Networks awareness level among Ardhi University students: By: Sophia Lukwale 9. The Web Based Social Networks and Academic performance – Ardhi University: By: Sophia Lukwale 10. The attitude of using Web based Social Networks towards students academic performance at Ardhi University: By: Sophia Lukwale 11. Connecting forest Conservation and livelihoods in Tanzania: what works: By Elinorata Mbuya 	<ol style="list-style-type: none"> 1. Operationalizing of the Research and Innovation Transfer Centre (RIT) – staffing of the centre, preparation of a strategic plan and action plan 2. Training workshop for staff and ARU management on Innovation Systems be carried out as part of the establishment of the RIT 3. Establishing one e-online journal 4. Improvement of ICT infrastructure (under the Quality Assurance sub-component)

	Minor research Outputs to be achieved during 2020/2021	Outreach, ARU Publishing Centre and Library Activities to be undertaken during 2020/2021
	<ol style="list-style-type: none"> 12. The role of informal microfinance arrangements in housing development in Tanzania; exploring the VICOPA and UPATU initiatives; By Kayuza 13. Expanding mortgage finance down-markets, another-look; By Vianey Mushi 14. Kinematics of East Africa Rift around central and north eastern Tanzania; By Elifuraha Saria 15. Towards cost effective and efficient on-site waste management in Tanzania; By Jacob Kihila 16. Financial resources constraints in Land Acquisition for urban development projects in Tanzania: By Upendo Matotola <p>Policy Briefs: A total of two (2) Policy Briefs which havenot been submitted will be finalised and submitted during the extension period 2020/2021</p> <ol style="list-style-type: none"> 1. The role of informal microfinance arrangements in housing development in Tanzania; exploring the VICOPA and UPATU initiatives; By Kayuza 2. Kinematics of East Africa Rift Around Central and Nothern Eastern Tanzania: By Elifuraha Saria 	

4. Summarizing analysis

The major risks which are likely to jeopardise implementation of the annual plan include the prevalence of COVID 19 beyond the expected period. This will significantly affect activities that need international travelling, meetings and gatherings. Table 3

Table 3: Risks and mitigation measures

Risk	Category	Probability of occurrence	Mitigation measures
Prevalence of COVID 19 beyond the project implementation period	External	High	<ul style="list-style-type: none"> Re-planning including time extension for teaching (completing coursework); likewise additional financial requirement for student stipend due to extended completion time
Change of macro-economic and financial policies	External/Internal	Unlikely	<ul style="list-style-type: none"> This happens rarely; if it happens, ARU will negotiate with the Treasury
Change on policy for donor funded support projects to public universities.	External	Medium	<ul style="list-style-type: none"> Negotiation between the GoT and the Swedish Government
Uncertainties in estimating realistic budgetary requirements for piloting research results to specifically address some pertinent problems in the communities	Internal	Very low	<ul style="list-style-type: none"> Internal re-planning of outreach activities including internal re-budgeting such as pooling together budgets for two years
Unanticipated staff turnover rate leading to non-effective implementation (teaching) of approved curricula	Internal	Medium	<ul style="list-style-type: none"> Internal arrangement to get qualified staff (from within or outside as the case may be) in the specific area of specialization to cover the gap
Retirement of Senior members of academic staff and appointment of staff to other government positions	Internal	Medium	<ul style="list-style-type: none"> The project are operated in team works The University has a succession plan in place
Delays in publication as a result of a long review process in high ranking journals	External	High	<ul style="list-style-type: none"> Researchers are urged to submit papers well in advance The University organizes writers workshop Close monitoring (regular presentations)
Change of Main Supervisor	Internal	High	<ul style="list-style-type: none"> Replacement with new Supervisor

5. Enclosures

Enclosure 5.1 Overall Aggregated Budget – 2020/2021

Date May 2020

Overall Annual Budget

Period: 2019-2021

Tanzanian Institution/Dept: Ardhi University

Collaborating Institution/s in Sweden:

TANZANIA	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Curriculum development	-	-	-	-	-	-
Research equipment	-	-	-	-	-	-
Research consumables	50,000	11,250,000	-	-	50,000	11,250,000
Travel	370,720	83,412,000	100,160	25,040,000	470,880	108,452,000
Field/Lab work	40,100	9,022,500	-	-	40,100	9,022,500
Student fees	-	-	-	-	-	-
Student Stipend	-	-	194,400	48,600,000	194,400	48,600,000
Conferences	404,200	90,945,000	-	-	404,200	90,945,000
Publication costs	336,000	75,600,000	-	-	336,000	75,600,000
Travel insurance	-	-	-	-	-	-
Audit	45,000	10,125,000	45,000	11,250,000	90,000	21,375,000
Other (various) costs	1,101,000	247,725,000	770,000	192,500,000	1,871,000	440,225,000
Indirect costs	-	-	136,080	34,020,000	136,080	34,020,000
SUB TOTAL	2,347,020	528,079,500	1,245,640	311,410,000	3,592,660	839,489,500
ISP - student allowances						

TANZANIA	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
PhD Student's allowances	162,000	36,450,000	324,000	78,300,000	486,000	36,774,000
SUB TOTAL	162,000	36,450,000	324,000	78,300,000	486,000	36,774,000
SWEDEN	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Supervision	0	0	2,625,000	691,350,000	2,625,000	691,350,000
Curriculum development	0	0	0	0	0	0
Lecturing on courses	0	0	0	0	0	0
Other Costs	365,000	82,125,000	0	0	365,000	82,125,000
Indirect costs	-	-	0	0	0	0
SUB TOTAL	365,000	82,125,000	2,625,000	691,350,000	2,990,000	773,475,000
GRAND TOTAL	2,874,020	646,654,500	4,194,640	1,081,060,000	7,068,660	1,649,738,500

Enclosure 5.2 Programme Based Budget - 2020/2021

No.	Programme Title	ARDHI UNIVERSITY				ISP						SWEDEN		Total Funds 2020/21	
		Bal. C/F 2019/20		Funds Requested for 2020/21		Bal. C/F 2019/20		Funds Requested 2020/21		Bal. C/F 2019/20		Funds Requested 2020/21			
		SEK	TZS	SEK	TZS	SEK	TZS	SEK	TZS			SEK	TZS	SEK	TZS
1	Quest for Alternative Urban Planning Model for Small towns	160,580	36,130,500	43,200	10,800,000	-	-	108,000	24,300,000	40,000	9,000,000	500,000	125,000,000	851,780	205,230,500
2	Governance of Land and Municipal Services in Urban Centres in Tanzania	178,980	40,270,500	21,600	5,400,000	-	-	108,000	24,300,000	40,000	9,000,000	500,000	125,000,000	848,580	203,970,500
3	Real Estate Market Dynamics and Housing Finance	357,660	80,473,500	132,560	33,140,000	-	-	-	-	40,000	9,000,000	350,000	87,500,000	880,220	210,113,500
4	Informality and Habitation in the Context of Changing Urban Landscape	139,780	31,450,500	21,600	5,400,000	-	-	54,000	12,150,000	40,000	9,000,000	500,000	125,000,000	755,380	183,000,500
5	Access to Land Resources Vulnerability and HIV/AIDS in Tanzania	289,160	65,061,000	32,400	8,100,000	54,000	12,150,000	54,000	13,500,000	40,000	9,000,000	425,000	106,250,000	894,560	214,061,000
6	Developing Capacity to Address Challenges of Commercial Pressure over Land for Large Scale Investment in Agriculture, Energy and Minerals Exploitation	304,860	68,593,500	43,200	10,800,000	108,000	24,300,000	-	-	40,000	9,000,000	350,000	87,500,000	846,060	200,193,500
7	Research Supporting Components and Community Outreach Programme	916,000	206,100,000	951,080	237,770,000	-	-	-	-	-	-	-	-	1,867,080	443,870,000
8	Sweden Coordination ISP)	-	-	-	-	-	-	300,000	67,500,000	-	-	-	-	300,000	67,500,000
	Total	2,347,020	528,079,500	1,245,640	311,410,000	162,000	36,450,000	624,000	141,750,000	240,000	54,000,000	2,625,000	656,250,000	7,243,660	1,727,939,500

Enclosure 5.3 Action Plans - 2020/2021

5.3.1: PhD Component

Activities	Year VI				Outputs	Remarks
	1	2	3	4		
1. Finalization of pending courses					Completed courseworks	Use funds within the original budget
2. Thesis improvement (including completion of pending chapters) ahead of the 75% seminar					Refined thesis for 75% seminar	Use funds within the original budget
3. Additional data collection to fill gaps for two PhD students (Frank Nyanda (Real Estate sub-programme); Martin Mpandikizi and Hussein Kayera) – Commercial Pressure sub-programme					Draft dissertation	May cll for additional funding
4. Presenting the 90% seminar					Refined thesis towards the final seminar	Use funds within the original budget
5. Final Seminar					Peer comments	No additional funds required
6. Internal Thesis Review at ARU (including editing)					Refined thesis towards defense	Use funds within the original budget
7. Thesis submission and preparation for defense					Readiness for defense	Use funds within the original budget
8. Producing and publishing journal articles					Accomplished requirement for PhD by articles	Use funds within the original budget
9. Defense and Publication of dissertation					PhD award and Published dissertation	No additional funds required

5.3.2: Major Research Grants

Activities	Year VI				Outputs	Remarks
	1	2	3	4		
1) Setting collaboration platform in Mafinga/ Stakeholders feedback workshop					Stakeholder collaborative platform established	No additional funds required
2) Conducting policy dialogues with the Ministry and concerned local authorities on research findings (Small Towns) and Revised the submitted Policy Brief (Real Estates)					Policy dialogue forum established	No additional funds required
3) To develop Quality control standards applicable for mortgage valuations (Real Estates)					Standards for quality control for mortgage valuation developed	No additional funds required
4) Development a framework for analysing the pattern of the attitude of the PLWHA (HIV/Aids)					A framework for analyzing patterns of the attitude of PLWHA developed	No additional funds required
5) Preparation of a Manual for outlining approaches for HIV/AIDS and Land Vulnerability Interventions (HIV/Aids)					A manual outlining approaches for HIV/AIDS and Land Vulnerability Interventions (HIV/Aids) developed	

Activities	Year VI				Outputs	Remarks
	1	2	3	4		
6) Finalizing data collection and analysis (Commercial Pressure)					Draft research report	No cost extension
7) Finalization and submission of major research report writing					Research report	No cost extension
8) Submitting papers for publication (Real Estates)					Journal papers published	No cost extension
9) Preparing and presenting a paper in at least one conference/workshop (HIV/Aids; Small Towns)					Conference papers	No cost extension
10) Prepare and submit additional paper for journal publication (Governance)					Journal papers published	Additional funding required (publication cost)

5.3.3: Minor Research Grants (University level)

SNr	Activity	Extension period				Outputs	Financial implications
		Q1	Q2	Q3	Q4		
1.	Submission of research reports (2)					Research report submitted Policy briefs submitted	No extra funding; only time extension as the activity was budgeted for
2.	Review and sharing of policy briefs (18) – Dissemination of Research Results					Reviewed Policy Briefs	
3.	Development of two (2) pending policy briefs; including review and sharing					Two (2) Policy Briefs produced and reviewed	
4.	Preparation of manuscripts (4 projects)					Peer reviewed publications produced	
5.	Addressing comments from reviewers (5) – (papers already submitted to journals and are under review)						
6.	Preparation and attendance of international conference (20 projects) to be held in Tanzania					Conference papers produced	
7.	Attending international conferences (15 projects) – individual researchers look for conferences to present their papers					Conference papers produced	Will require additional funding
8.	Production of one additional paper (for each of the minor research project) – 20 in total					Papers produced	

5.3.4: Research Support

5.3.4.1 Community Outreach (RIT)

	Year VI				Outputs	Remarks
	1	2	3	4		
1. Continuing to establish and equip RIT						No cost extension
2. Complete procurement and instalation of video conferencing facillities						
3. Workshop training academic staff on innovation system						No cost extension

5.3.4.2 ARU Publishing Centre

	Year V				Outputs	Remarks
	1	2	3	4		
1. Finalizing establishment of one (1) online journal					On-line journal up and running	No cost extension

5.3.4.3 ICT

	Year VI				Outputs	Remarks
	1	2	3	4		
1. Upgrading the ARU Fibre Backbone speed by migrating from 100mbps to at least 1Gbps (1,000Mbps) backbone speed;					Fibre Backbone installed	Additional fund requirement
2. Repair, replace and upgrade the obsolete existing wired and wireless Local Area Network;					LAN replaced and installed	Additional fund requirement
3. Deployment of data backup system dedicated for ARU video conferencing facility and Postgraduate research data.					Data Back-up installed	Additional fund requirement

Enclosure 5.4: Overall Result Matrix

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Targets 2015/16	Targets 2016/17	Targets 2017/18	Targets 2018/19	Targets 2019/20	Target 2020/2021
Specific Objective 1: To increase by 15 percent the number of researchers with high competencies in curriculum development, teaching and collaborative research with national and international research institutions as applied to national priority areas in Tanzania by 2020											
<ul style="list-style-type: none"> 5 Market study and 5 stakeholders' consultation 5 Programme proposals 	1.1 Agreement to develop new programmes by 2016 1.2 5 Market studies by 2016 1.3 5 stakeholders' consultation by 2016, and 1.4 5 Programme proposals by 2016	Number of programmes proposals agreed upon by stakeholders	None were developed in the previous Sidaprogrammes	None were developed in the previous Sidaprogrammes	School and Institute Boards reports	<ul style="list-style-type: none"> 5 Market studies 5 stakeholders' consultation, and 5 Programme proposals 	0	0	0	0	0
5 cross-cutting PhD courses and programme-specific courses	1.2 Five (5) cross-cutting PhD courses endorsed by School and Institute Boards by 2016	Number of new courses endorsed	None were developed in the previous Sida programmes	None were developed in the previous Sida programmes	School and Institute Boards reports	5 cross cutting courses	0	0	0	0	0
5 New PhD by Coursework and Thesis Curricula	1.3: 5 PhD by Coursework and Thesis Curricula approved by University SENATE and accredited by TCU by 2016	Number of new PhD by Coursework and Thesis Curricula approved	None were developed in the previous Sida programmes	None were developed in the previous Sida programmes	<ul style="list-style-type: none"> University SENATE minutes TCU records 	Accredited 5 new PhD curricula	0	0	0	0	0
3 New MSc Curricula	1.4: 3 MSc curricula approved by University SENATE and accredited by TCU by 2017	Number of new MSc curricula approved	None were developed in the previous Sida programmes	None were developed in the previous Sida programmes	<ul style="list-style-type: none"> University SENATE minutes TCU records 	0	The 3 MSc curricula approved and	0	0	0	3

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Targets 2015/16	Targets 2016/17	Targets 2017/18	Targets 2018/19	Targets 2019/20	Target 2020/2021
							operationalised				
PhD and MSc course curricula being used	1.5 Academic units running new 5 PhD by coursework and Thesis and 3 MSc course curricula being used by 2017	Number of new PhD and MSc curricula being used	None were developed in the previous Sidaprogrammes	Zero	SENATE and DPRP reports/records	0	5 PhD 3MSc	5 PhD curricula	5 PhD curricula	0 PhD curricula	0 PhD Curricula and 3 MSc curricula
Trained PhD graduates	1.6 Increase of 12 PhD candidates (of which 2(16%) are female); trained in the new programme by 2020.	Number of PhD graduates enrolled and graduated in the new PhD programme	6 PhD graduates in previous Sida supported programmes	6 MSC and 6 PHD graduates in other programme	DPRP records	12	12	12	12	12	12
24 papers presented in conferences, 30% of which done by female staff and graduates from ARU	1.8 Increase in scholarly papers presented in international conferences by ARU staff and graduates, of which 30% are female, by 2020	Number of papers by gender published in conference proceedings	7 papers from previous Sida-ARU Research Cooperation Programme	7 (by Sida Phase IV PhD graduates 2009-2014)	<ul style="list-style-type: none"> DPRP quarterly reports Academic units annual reports 	0	12	12	0	0	15 Minor and Major 3 (Quest for Alternatives; HIV Aids and Commercial Pressure)
Two (2) research results dissemination workshops (and policy briefs)	1.9 Increased use of research results with peers and policy makers by 2020	Number of dissemination workshops and policy briefs produced	3 workshops (Sida funded) over the last five years (2009-2015)	3 workshops (Sida funded) over the last five years (2009-2015)	University (CICT) database	0	0	1	0	1	1

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Targets 2015/16	Targets 2016/17	Targets 2017/18	Targets 2018/19	Targets 2019/20	Target 2020/2021
Assumptions for specific objective 1: <ul style="list-style-type: none"> The University will continuously improve research environment Sustained motivation among staff to carry out research(more focused) (increase incentives for research) Increasingly, graduates remain at ARU after completion of studies											
Specific Objective 2: To increase by 15 percent, the production and use of quality research for informed decision making issues related to land, environment and human settlement development through research partnerships by 2020.											
20 proposals for minor research projects to be conducted at the local level	2.1 Fifty (50%) of the twenty (20) research projects conducted by ARU female staff by 2020	Number of research projects conducted	12 research projects over the last five years	<ul style="list-style-type: none"> Annual Programme Reports ARU Annual Reports DPRP Reports 	<ul style="list-style-type: none"> Interviews Documents review/analysis 	0	10	0	10	0	0
Collaborative major research conducted	2.2 Six (6) major collaborative research projects with 50% female-staff participation by 2020	Number of new collaborative research projects with international partners	Zero (within Sida funding)	<ul style="list-style-type: none"> Directorate of Postgraduate, Research and Publications (DPRP) Reports Directorate of Planning and Development (DPD) Reports 	<ul style="list-style-type: none"> Documents review/analysis Interviews 	0	0	6	0	0	2
32 joint research papers for publications	2.3 Thirty two (32) Increased joint publications, 50% by female-staff in peer reviewed journals by 2020	Number of joint publications	12 papers over the last five years of Sida funding (2009-2014)	<ul style="list-style-type: none"> Directorate of Postgraduate, Research and Publications (DPRP) Reports Sub-programme 	<ul style="list-style-type: none"> Interviews Documents review/analysis 	0	0	16	10	6	26 papers from minor research and 10 from major research

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Targets 2015/16	Targets 2016/17	Targets 2017/18	Targets 2018/19	Targets 2019/20	Target 2020/2021
				Annual Reports							
2 patent applications	2.4 Increase by 2 patents by 2020	Number of patents granted	2 during the last five years of Sida funding	Directorate of Postgraduate, Research and Publications (DPRP) Reports	Documents review/analyses	0	0	0	1	1	2
2 patents registered	2.5 Increased use of patented innovations by various sectors by 2020	Number of applications	Not established	Directorate of Postgraduate, Research and Publications (DPRP) Reports	<ul style="list-style-type: none"> Interviews Documents review/analysis 	0	0	0	0	2	2
20 new proposals prepared and submitted for funding consideration	2.6 Twenty (20) new funded research projects at ARU, by 2020	Number of new funded research projects	49 over the last five years (2009-2014)	<ul style="list-style-type: none"> ARU Prospectus, Facts and Figures Annual Programme Reports Annual Progress Reports PMC reports 	<ul style="list-style-type: none"> Interviews Documents review/analysis 	0	0	5	5	10	0
Assumptions for specific objective 2: <ul style="list-style-type: none"> Sustained motivation among staff to carry out research Increased interest among decision-makers to use research result for decision-making Increased interest by the public/private sectors in fact-based knowledge Timely completion of research projects											
Specific Objective 3: To improve the institutional capacity for research and research management at ARU for conducting quality research and innovation in resolving issues related to land, environment and human settlements by 2020											

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Targets 2015/16	Targets 2016/17	Targets 2017/18	Targets 2018/19	Targets 2019/20	Target 2020/2021
6 QA tools developed by 2020	3.1 At least 6 new QA tools approved by the SENATE by 2018	Number of QA tools approved	4 as of past five years	<ul style="list-style-type: none"> Senate reports QA Bureau quarterly reports 	Review of Senate and QA Bureau quarterly reports	3	3	0	0	0	0
6 QA tools presented and approved by SENATE	3.2 At least 6 (new) QA tools used institution-wide by 2018	Number of units routinely using the developed/approved QA tools	4 as of past five years	<ul style="list-style-type: none"> Senate reports QA Bureau quarterly reports 	Review of Senate and QA Bureau quarterly reports	3	3	0	0	0	0
3 new e-resources for the Library acquired by 2017	3.3 Increased use of e-resources by (ARU) researchers by at least 80% by 2018	Number of ARU researchers using e-resources	18 e-resources during the last five years	Library quarterly reports	Review of Library, DPRP and CICT quarterly reports	1	1	1	0	0	1
1 (new) online journal established by 2020	3.4 Increase use of online publications by 2020	Number of citations	1 on-line journal during the past year	<ul style="list-style-type: none"> Library quarterly reports DPRP quarterly reports 	Review of Library quarterly reports	0	1	0	0	0	1
Three (3) staff trained (two (2) females and one (1) male) on on-line publishing by 2017	3.5.1 Establishment of on-line publishing by 2017	Number of APC on on-line increased	1	APC, DPRP, Library CICT quarterly reports	Review of APC, DPRP, CICT, Library quarterly reports	0	3	0	0	0	0
Assumptions for specific objective 3: <ul style="list-style-type: none"> Timely availability of funds for programme activities Materials and equipment are timely procured Government continues to support and increase funding for research activities 											

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Targets 2015/16	Targets 2016/17	Targets 2017/18	Targets 2018/19	Targets 2019/20	Target 2020/2021
Specific Objective 4: To establish a (receptive environment) for promoting and utilizing relevant scientific research in addressing key issues at the national and local levels by 2018											
Policy/strategy and guidelines on promotion and utilization of research findings produced	4.1 Increased utilization of research results by six (6) local communities by 2020	Number of research used in policy making	Six (6) policy/guideline on promotion of utilization of research results	<ul style="list-style-type: none"> • Directorate of Postgraduate, Research and Publications (DPRP) Reports • Directorate of Planning and Development (DPD) Reports 	Review of DPRP and DPD reports	0	0	4	2	0	0
30 staff trained on conducting outreach activities	4.2 At least 30 staff (out of which 50% are women) trained on conducting outreach activities by 2018	Number of staff providing outreach services	Not established	<ul style="list-style-type: none"> • Directorate of Postgraduate, Research and Publications (DPRP) Reports • Dean Reports 	Review of documents from DPRP and Dean SRES	0	15	15	0	0	0
150 local community members informed about research results (existing and new)	4.3 Increased use of research results to address community problems by at least 50% of the informed local community members by 2020	Number of research results used by the local communities/general public	<ul style="list-style-type: none"> • Two (2) • Not established 	<ul style="list-style-type: none"> • Programme reports • Academic unit quarterly reports • ARU Annual reports • DPRP reports 	<ul style="list-style-type: none"> • Review of reports (Academic units, ARU Annual reports and DPRP reports) • Field observations 	0	50	50	30	20	0

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Targets 2015/16	Targets 2016/17	Targets 2017/18	Targets 2018/19	Targets 2019/20	Target 2020/2021
5 new partnerships with high priority institutions in land and environmental sector.	4.4 Increased use of research results with priority sectors by 2020	Number of new partnerships	5 partnerships over the past five years	<ul style="list-style-type: none"> Academic unit quarterly reports ARU Annual report DPRP reports 	<ul style="list-style-type: none"> Review of reports (Academic units, ARU Annual reports and DPRP reports) Field observations Interviews 	0	0	0	3	2	0
Research, Innovation and Technology unit (RIT) established and equipped	4.5 RIT operational by 2017	Extent of use of RIT services	Not established	<ul style="list-style-type: none"> Local governments Academic unit quarterly reports ARU Annual report RIT reports 	<ul style="list-style-type: none"> Review of reports (Academic units, ARU Annual reports and DPRP reports)Field interviews and observations Surveys Case studies 	0	1	0	0	0	0
10 community outreach materials (guidelines, tools etc) prepared	4.6 At least 25% outreach materials used by local communities by 2020	Number of communities using materials	No outreach activities	Directorate of Postgraduate, Research and Publications (DPRP) Reports	<ul style="list-style-type: none"> Review of DPRP quarterly reports 	0	0	10	0	0	
Established Ardhi chair/a Platform (ArdhiKigoda)	4.7 Increased sharing use of research findings by decision makers in establishing priority areas and programmes land in	Number of priority areas and agreements	Not established	DAVC-AA reports	Review of DVC-AA reports	0	0	0	1	0	

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Targets 2015/16	Targets 2016/17	Targets 2017/18	Targets 2018/19	Targets 2019/20	Target 2020/202 1
	land and environmental sectors by 2019										
<u>Assumptions for specific objective 4:</u> <ul style="list-style-type: none"> Stakeholders sustained interest in ARU outreach activities Timely availability of funds ARU continue to maintain its practical-oriented training											

Enclosure 5.5: Overall Aggregated student Plan

Programme	Name of research student	(M/F)	Year started	Training in Sweden (no. of months)	Local PhD Expected Year of completion	Sandwich PhD Expected Year of completion	Progress in %	Dissertation title	Main Supervisors
2190 – 2014 - Quest for Alternative Urban Planning Model for Small Towns in Tanzania	1. Mlula, Happiness	F	2016	3	2021	2021	65-75%	Serving Small Towns in Tanzania: Towards Effective and Efficient Domestic Water services Delivery Approaches	Prof. Alphonse Kyessi, and Dr. Gunilla Lindholm, Stephanie Leder
	2. Maglan Charles	M	2016	3	2021	2021	65-75%	Urban Growth Dynamics: Analysis of Factors Shaping the Spatial Growth of Handeni Town Tanzania	Dr. Ally H. Namangaya and Andrew Butler, Johan Pries
2191 – 2014 - Governance of Land and Municipal Services in Urban Centres in Tanzania	3. Nuhu Said	M	2016	3	2021	2021	80-85%	Peri-urban land access governance dynamics in Dar es Salaam, Tanzania	Prof. Wilbard Kombe and Vera Vicenzotti, Camilo Calderon
	4. Lazaro Mungumi	M	2016	3	2021	2021	80-85%	Towards climate change resilience and ecosystem services nexus: The case of peri-urban socio-ecological system of Dar es Salaam, Tanzania	Dr. Makarius Victor Mdemu and Antoinette Wärnäck, Madeleine Granvik
2193 – 2014 - Real Estate Markets Dynamics and Housing Finance	5. Eginio Milanzi	M	2016	3	2021	2021	85%	Housing Financing in Urban Tanzania: How Do Households Finance Housing Development in Kinondoni, Municipality, Tanzania	Dr. Agnes Mwasumbi and Prof. Mats Wilhelmsson
	6. Frank Nyanda	M	2016	3	2021	2021	55%	Towards the Development of House Price Indices in Tanzania: Remedial Measures to Data Constraints and the Suggested Practical Model	Dr. Vianey Mushi and Prof. Mats Wilhelmsson
2197 – 2014 - Informality and Habitation in The Context of Changing Urban Landscape	7. Edson Ephraim Sanga	M	2016	3	2021	2021	80%	Urban pleasurable spaces in compact built environment; Experience from Manzese informal settlement Dar es Salaam Tanzania	Dr. Liberatus Mrema and Gunilla Lindholm, Burcu Yigit-Turan
	8. Modest Maurus Baruti	M	2016	3	2021	2021	95%	Outdoor Microclimate and People's Thermal Perceptions in Informal Settlements of Dar es Salaam, Tanzania	Dr. Ombeni Swai and Prof. Erik Johansson

Programme	Name of research student	(M/F)	Year started	Training in Sweden (no. of months)	Local PhD Expected Year of completion	Sandwich PhD Expected Year of completion	Progress in %	Dissertation title	Main Supervisors
2201 – 2014 Access to Land Resources Vulnerability and HIV/AIDS in Tanzania	9. Jenesta Aikaeli Elisa Urassa	F	2016	3	2021	2021	85%	Changing Customary Land Tenure Regimes in Tanzania: Assessing women's vulnerability in Morogoro Rural and Kyela Districts	Prof. Eliuther Mwageni
	10. Stanslaus Peter Butungo	M	2016	3	2021	2021	65-70%	Impact of HIV/AIDS on Property rights of the affected people in Bukombe District, Tanzania	Prof. Wilbard J. Kombe and Prof. Adam Pain
2203 – 2014 - Developing Capacity to Address Challenges of Commercial Pressure Over Land For Large-Scale Investment in Agriculture, Energy, and Minerals Exploitation	11. Hussein Kayera	M	2016	3	2021	2021	55%	Land Conflicts on Agricultural Land in Tanzania: Lessons from Districts with Commercial Farming Investment	Prof. Lussuga Kironde and Prof. Peter Ekback
	12. Martin KanutiMpan dikizi	M	2016	3	2021	2021	(?)	Land Acquisition for large scale investment in commercial agriculture in Tanzania: Balancing stakeholders interests	Dr. F. Komu and Prof. Jenny Paulson

5.6: ANNUAL PLAN SUB-PROGRAMMES/PROJECTS – 2020/2021

2190 – 2014 QUEST FOR ALTERNATIVE URBAN PLANNING MODEL FOR SMALL TOWNS IN TANZANIA

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1. Executive summary for sub-programme/project

Capacity gaps and institutional conflicts in small towns are increasingly contributing to unsustainable utilisation of land resources. This is manifested by expanding informality, land use conflicts, degradation of water, forests and other land resources. This programme intends to apply case study methods. Through this, development dynamics in representative small towns will be analysed in conjunction with actors' potential capacities for institutionalising and consolidation of their synergies. Through the partnership with other partner Universities in Sweden and the selected District Councils in Tanzania, this programme aims at addressing the following questions: How are conflicting interests (powers) in the field of land governance manifested in small towns? What are the resultant interests' (powers) constellations, how do actors relate to each other in executing land-related decisions, and what are the implications of the relationships in the distribution of legal mandates to govern land in small towns? What are the challenges and prerequisites for integrating informal powers to improve land governance in small towns? How can effective planning and management of these urban areas be re-configured through the idea of pro-active interventions so as to be able to cope with informality? This programme aims at strengthening capacity through training and research as well as involving integrative strategies in collaboration with District Councils, the private sector, civil societies and the local community in small towns.

1.1 Description of the research project

Key Researchers: *Dr. Ally Namangaya, Dr. D. Magembe-Mushi, and Dr. Antoienette Wärnbäck*

Summary of the issue being addressed by the sub-program

As the whole world is increasingly urbanised, and sub-Saharan Africa will be among the

regions that will register the fastest rate of urbanisation for the next four decades whereby two-thirds of the population growth will be in urban areas by 2050. Most of the population growth happens in market towns and administrative centres of between 5,000 and 100,000 inhabitants. Although this trend is understood to continue, in discussing and researching on urbanization the focus often is on large cities which despite their visibility, megacities account for only a small proportion of the world urban population, e.g. 9.9 % in 2011. In Tanzania, the trend has been similar, i.e. while the proportion of urban population has increased from 24% in 1948 to 58% in 2002; the number of minor towns (population averaging at 50,000 but above 10,000) has increased from 2 to 48 in numbers in the same period.

Despite this increasing importance of small and medium-sized cities in Tanzania, national policies have generally been detrimental to their prosperity. While in the early independence days (the 1960s) governments had been subsidizing the cost of living in major urban centres, the structural adjustment programmes and decentralisation activities since the 1980s were unintentionally in favour of large urban centres. Minimalistic state roles propelled by the liberalisation policies, coupled with a rural orientation of district local authorities have deprived the small urban centres of effective governance structures.

Capacity gaps and dysfunctional institutional structure in small towns are increasingly contributing to unsustainable utilisation of land resources and poor socio-economic development of the communities. This is manifested by expanding informality, scarcity of services, land use conflicts, degradation of water, forests and other land resources.

1.2 Description of Ph.D. research projects

1.2.1 Research Title: *Servicing Small Urban Centers in Tanzania: The Case of Municipal Service Delivery*; **Ph.D. Candidate:** *Happiness Mlula*; **Supervisors:** *Prof. Wilbard Kombe, Prof. Alphonse Kyessi, and Dr. Gunilla Lindholm, Stephanie Leder.*

Summary of the issue being addressed by the research

In Tanzania, municipal service delivery has undergone a massive process of restructuring in the past decades whereby central governments are increasingly decentralizing their service delivery functions to lower tiers of government. However, most residents at the sub-district level are still notably under-served. There also have been a number of research on alternative arrangements for actors in managing and delivering municipal services, which include strategies to institutionalize a communicative form of planning. However, these attempts were undertaken mostly at the city contexts, which partly explain why they largely failed to leave the mark on the ground. Scant literature exists on Small urban centers on tapping of bottom-up approaches especially; different forms of power by different interests' groups in municipal services decision-making processes, and the interplay between the local institutional arrangements and the broader governance structures. Hence, it has been important to employ this study in order to explore the aforementioned gap in the process of municipal service delivery at a small urban center level. Using a case of a vibrant small urban centre in Tanzania, the main research objective is to explore alternative municipal service delivery model which reflect needs, consumption level and financing mechanisms in a small urban center. By addressing the following research questions; what are the main institutional characteristics with regard to municipal services delivery? How are municipal services provided? Who are the main providers of municipal services and their roles? What are the policy implications based on the research findings? A framework recommended will provide the reference for policy analysts and decision makers in their effort to formulate policies and make decisions on how municipal services should be provided in small urban centers.

1.2.2 Research title; *Urban Growth Dynamics: The Case of Small Towns in the Developing Countries;* **Ph.D. Candidate:** *Maglan Charles Sang'eno;* **Supervisors:** *Prof. Kombe, Dr. Ally Namangaya and Dr. Andrew Butler, Johan Pries*

Summary of the issue being addressed by the research

Given the rapid rate of population increase in urban areas which is manifested through rural-urban migration and natural population increase, pressure over resource use and sustainable urban growth are in jeopardy. The increase in population in these urban centers of whatever size has implications to the growth of economy and reduction of poverty due to the increase in both skilled and unskilled population. The planning practice (schemes) and policies guiding the development of both rural and urban areas have considered them separately. Theoretically, rural areas are considered different from urban areas while the actual practice shows that there is high interdependence between them. Food, environmental resources and water channels come from the rural areas to urban, while urban areas provide financial support (remittance), semi-manufactures and manufactured goods and services to rural areas. There are also arguments that separation between urban and rural activities are not clear due to the fact that rural activities are performed in urban areas and vice versa. Over decades planning for regional development especially in the developing countries has considered the growth of towns and villages in isolation. This has created a sense of movement of people from their rural areas to urban centers especially cities because rural towns are not considered as developmental foci to their surrounding areas. The debates on regional growth lost its interest since the 1990s. It is through this missing knowledge on what makes small towns grow despite the bias in policies and plans there is an urge to examine the characteristics of growth of small towns and their influence to regional growth. This can be fulfilled through the following research questions: How does a small town grow in Tanzania? What potential linkages do exist between small towns and their surrounding areas for development enhancement? What resources do influence the growth of small towns in their context?

Methodologically the study applies a mixed method research strategy which allows the use of both qualitative and quantitative research methods for data corroboration. A small town located in the coastal zone of Tanzania with high population growth rate was selected for the study. The tools applied include in-depth interview (to understand the interactions), household questionnaires (to understand household preferences and activities location), mapping (to get the spatial growth trend of the town), documentary review (policy and legal stands on planning and interactions) and observation. Preliminary research results indicated that the town grows toward the periphery where individuals who own big chunks of land determine the direction of growth. It is informally developed where the level of informality is high. The main linkages existing have been those to large cities, regional headquarters and agricultural areas due to the existence of the markets in the town. With the available land resource, many people from far as distant areas are migrating to the study area for various social economic activities.

2. General objectives and expected results 2015-2021

Overall Objective 2015-2021

To increase research and training capacity on developing Alternative Urban Planning Models for managing spatial growth and development of small towns by 2021.

Specific Objective 1

To double research capacity on the growth and changing spatial development patterns of small towns and their impacts on resource sustainability by 2021.

Specific Objective 2

To increase training and researching capacity on services that reflect needs, consumption level and their financing mechanism in small towns by 2021.

Specific Objective 3

To increase training and researching capacity on Land Use Governance in Small Towns, through understanding Actors' Roles and Relation in Decision Making and the Implications on Urban Planning Systems by 2021.

Expected impacts are:

- Improved land use planning practices in small towns contributed by the resultant guidelines, manuals and policy influences from the research results.
- Improved servicing level and financial sustainability in small towns contributed by, standards, manuals and policy influences from the research results
- Improved practices towards co-generation of reflective knowledge resulting from interactions between researchers and communities.

Expected outcomes

- Increase (two) additional staff, one being a female, who use their capacity to train and research on small towns changing spatial development patterns by 2021;
- Increase (two) papers co-authored by female members of staff presented in international conferences by 2021;
- Increase (two) Papers co-authored by female members of staff published in peer-reviewed journals by 2021;
- Increase the use of research findings by peers and policymakers in (urban development management and human settlement policies) participants in the workshop by 2021;
- Increase number (one) of policy briefs developed with support from ARU researchers one-third of whom are female by 2021;
- One (1) collaborative research project with international institutions established by 2021;
- Increased partnerships (2) with local actors i.e. sectoral Ministries (Ministry of Lands and Ministry of PO-RALG) and other Stakeholders in Small Towns Development and management for practice-oriented research for co-generation of knowledge on urban development management and human settlement policies for small towns by 2021.

Outputs

1. Two double degrees Ph.D. awarded
2. Two Ph.D. dissertation produced
3. Two (2) conference papers presented in conferences attended
4. Two papers published in peer reviewed journals
5. Links with research consortiums on Land Use Governance in small towns planning dynamics established;
6. Platform for co-generation of knowledge and consultative urban policy formulated; and
7. Local staff (50% Female) responsible for township development and management in 10 districts and small towns trained.

3. Annual target 2020/2021

1) Under objectives 1 and 2: Ph.D. training/capacity development

Activities are

- 1.1 Finalising the dissertation reports
- 1.2 Undertaking 75% and 90% seminar (SLU funded)
- 1.3 PhD Defense

Table 1: Updated plan for PhD students Happiness Mlula and Maglan Sang'anoi

Updated activity	Planned time	Remarks/justification	Remarks
i) Improvement of the thesis chapters for 75 percent evaluation (both students)	End of July/August 2020 at SLU	Delays due to Covid 19 (both supervisors in Sweden were in sick leave)	Both students need <ul style="list-style-type: none">• supervision• bench fee for their extended stay in Sweden.• cost for ISP (stipend) for the students extended stay in Sweden
ii) Doing fieldwork for additional data (Maglan)	September 2020	Fill gaps in thesis writing	Cost for data collection needed
iii) Improvement of the thesis chapters for 90 percent evaluation	November 2020	Delays due to Covid 19 (both supervisors in Sweden were in sick leave)	<ul style="list-style-type: none">• Needs cost to travel to Sweden for 90 percent evaluation seminar• ALSO cost of supervision...(SLU)
iv) Final thesis defense	April 2021 at Ardhi University	Time to accommodate comments from 90 percent evaluation seminar and submission procedures for examination.	No cost extension, Taken care of in the major research's budget

2) Under objective 3: major research to develop alternative planning model in small towns

Activities are:

- 2.1 Establishing a platform for collaborative research work with local actors in Mafinga small towns.
- 2.2 Conducting Policy Dialogue (local meetings with the Government officials) with the Ministry of Lands, Housing and Human Settlement development for discussing the findings of the research.
- 2.3 Dissemination of research results through 2 international conferences

Objectives of the subprogram

This sub-programme aims at strengthening capacity through training and research as well as involving integrative strategies in collaboration with a District Council, private sector actors, civil societies and the local community in small towns. The expected impact will be the generation of an alternative model for the institutional arrangement for land governance and servicing, alternative planning methodologies and implementation strategies as well as effective development control procedures.

Specific objectives of the programme are:

1. To explore alternative institutional structure at the local level for planning and managing development.

2. To expound effective methodologies and suitable form of land use plans in small towns.
3. To propose suitable standards and institutional structure for servicing in small towns and propose strategies towards their cost recovery and sustainability, and
4. To strategize on and mainstream co-generation of knowledge on urban land governance between research institutions and communities.

The specific knowledge seeking questions that the research will attempt to answer are:

1. What are factors for the emergence and growth of small towns and how do they relate with the development and sustainability of their hinterlands?
2. How are the land-use interests manifested, represented and organised in constellations to form power bases that influence planning in small towns?
3. What are organisational considerations for servicing in small towns such that they reflect needs, consumption level, and affordability of users?

Delays and rescheduled plans forwarded from the previous year.

- For the 75% and 90% seminar of students delayed because of COVID 19 pandemic and consequent change of supervisor due to the demise of the original supervisor and coordinator of the project from SLU side.

Justified changes both in activities and budget justification

Despite the delays on papers publications, there will be changes on expected completion time with regard to planned activities for the fifth year. However, because these activities were budgeted for from the beginning; and additional funds were solicited to cover up the present extended stay of PhD students in Sweden (SLU) for the preparation of their 75% and 90% seminar presentation, no more extra funding is anticipated.

Results Matrix and planned activities

The planned annual activities and target for this final year of the programme, are in line with the results matrix presented in this sub-programme; furthermore, gender mainstreaming in the sub-programme is still at the fore in all the planned activities.

1. Risk Analysis

Possible risk relates to delays which might affect the planned activities since the research is in collaboration with local and central government institutions whom we are collaborating with, through created platforms. These institutions have their own procedures and plans for their activities. Also, delay in local resources from the partnering local governments might affect the research process. The synchronization of activities with the Ph.D. research has also been a challenge since the students have their planned activities which take place in both universities, ARU and SLU. Although the sub-programme was aware of these and tried to re-schedule activities in relations to the collaborative local authorities and Ph.D. students, the outbreak of Covid 19 has further contributed to more delays beyond June 2020.

5. Enclosures

1. Sub-programme Component Budget
2. Sub-programme Detailed and justified Budget
3. Sub-programme Action Plan
4. Sub-programme Result Matrix
5. Sub-programme Aggregated Student's Plan

Enclosure 1: Sub-programme component budget 2020 - 2021

Sub Programme: Quest for Alternative Urban Planning Model for Small Towns in Tanzania

Tanzanian Institution/Dept.: School of Urban and Regional Planning, Ardhi University

Collaborating Institution/s in Sweden: Department of Urban and Rural Development, SLU

TANZANIA	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Curriculum development	-	-	-	-	-	-
Research equipment	-	-	-	-	-	-
Research consumables						
1. PhD Students - Stationery & Materials	-	-	-	-	-	-
2. Major Research - Stationery	-	-	-	-	-	-
Travel					-	-
1. Supervisor's travel to Sweden	30,080.00	6,768,000.00	-	-	30,080.00	6,768,000.00
2. PhD Students travel to Sweden	-	-	-	-	-	-
					-	-
Field/Lab work						
1. Major Research	-	-	-	-	-	-
2. PhD Research	-	-	-	-	-	-
Students' Stipend						
1. PhD Training	0	0	43,200.00	10,800,000.00	43,200.00	10,800,000.00

TANZANIA	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Conferences	35,300.00	7,942,500.00	-	-	35,300.00	7,942,500.00
Publication costs	56,000.00	12,600,000.00	-	-	56,000.00	12,600,000.00
Travel insurance	-	-	-	-	-	-
Other costs	39,200.00	8,820,000.00	-	-	39,200.00	8,820,000.00
SUB TOTAL	160,580.00	36,130,500.00	43,200.00	10,800,000.00	203,780.00	46,930,500.00
	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
ISP - student allowances						
PhD Student's allowances	0	0	108,000	27,000,000	108,000	27,000,000
SUB TOTAL	0	0	108,000	24,300,000	108,000	24,300,000
SWEDEN	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Supervision	125,000.00	28,125,000.00	500,000	125,000,000	625,000	153,125,000
Curriculum development	-	-	-	-	-	-
Lecturing on courses	-	-	-	-	-	-
Other Costs	40,000	9,000,000	0	0	40,000	9,000,000
Indirect costs	-	-	-	-	-	-
SUB TOTAL	165,000	37,125,000	500,000	125,000,000	665,000	162,125,000
GRAND TOTAL	325,580	73,255,500	651,200	160,100,000	976,780	233,355,500

Enclosure 2: Sub-programme Detailed and Justified Budget 2020/2021

BUDGET ITEM	UNIT	QUANTITY	RATE	TOTAL (SEK)	JUSTIFICATION
Ph.D. Training					
Travel					
Travel budget carried forward from 2019/20 for external examiners	person	2		30,080	Travel budget allocated for 2 external examiners to attend viva voce in Dar es Salaam
Student Stipend in Tanzania	person	2	21,600	43,200	Stipend for 12 months paid at SEK 1,800 @ month per student
Publication Costs	person	2	28,000	56,000	Funds for publication of Student's PhD Dissertations
Conferences funds carried forward from 2018/19 to 2019/20				35,300	Travelling for conferences is uncertain. Students should therefore concentrate on accomplishing their dissertations and funds reallocated to support costs on defense
Other costs				39,200	Funds to support Ph.D. students during the Dissertation writing up at ARU carried forward from 2019/20
Total Tanzania				203,780	
Sweden					
Additional funds allocated for Students living allowances in Sweden for 3 months for the extension of stay	person	2	18,000	108,000	Living allowances for 3 months each student paid SEK 54,000 to cover extension of stay in Sweden due to travel restrictions caused by Covid-19. Managed by ISP
Supervision costs in Sweden for 2 students	person	2	250,000	500,000	Supervision cost for 2 Ph.D. Students
Supervisor's travel cost to Tanzania				165,000	Funds carried forward from 2019/20 allocated for travel and final year PhD defence
Sub Total Sweden				773,000	
Grand Total				976,780	

Enclosure 3: Sub-programme Action Plan for Year Four 2020/2021

Activities	Year V (2020/2021)				Outputs	Financial implications
	Q1	Q2	Q3	Q4		
Ph.D. training component						
1.1 Improvement of the thesis chapters for 75 percent evaluation (both students) - August 2020					<ul style="list-style-type: none"> Draft thesis improved 	<ul style="list-style-type: none"> No cost extension
1.2 Doing fieldwork for additional data (Maglan) - September 2020					<ul style="list-style-type: none"> Respective chapters of the thesis improved 	<ul style="list-style-type: none"> No cost extension
1.3 Improvement of the thesis chapters for 90 percent evaluation - November 2020					<ul style="list-style-type: none"> Improved Draft Thesis for 90% seminar 	<ul style="list-style-type: none">
1.4 Attending 90% seminar in Sweden (in progress) - November 2020					<ul style="list-style-type: none"> Comments for Ph.D. theses improvements 	<ul style="list-style-type: none"> No cost extension
1.5 PhD defense - April 2021					<ul style="list-style-type: none"> Award of PhD double degree 	<ul style="list-style-type: none"> No cost extension
Major Research component						
1.1 Setting collaboration platform in Mafinga					<ul style="list-style-type: none"> Collaboration with local government authorities established 	<ul style="list-style-type: none"> No cost extension
1.2 Conducting policy dialogues with the Ministry and concerned local authorities on research findings.					<ul style="list-style-type: none"> A policy brief is created with both the ministry and local actors Attending an international conference 	<ul style="list-style-type: none"> No cost extension
1.3 Presenting two papers in an international conference on the theme of Small towns in Tanzania					<ul style="list-style-type: none"> Research results disseminated 	<ul style="list-style-type: none"> No cost extension
Publishing Four (4) papers in peer reviewed journals and one additional paper					<ul style="list-style-type: none"> Papers submitted to peer-reviewed journals 	<ul style="list-style-type: none"> Will attract cost extension especially for the additional paper

Enclosure 4: Sub-programme Result Matrix

Types of Outputs	Outcomes (including targets) 2020	Performance Indicator of Outcome	Baseline (if established)	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
Specific Objective 1: To double research capacity on the growth and changing spatial development patterns of small towns and their impacts on resource sustainability (One Ph.D. –under double degree Model by 2020)					
<ul style="list-style-type: none"> One double degree Ph.D. awarded One Ph.D. dissertation produced 	1.3 Increase (one) additional staff who use their capacity to train and research on small towns changing spatial development patterns by 2020	Number of staff who apply their capacity	Two	Two double degrees covered	
<ul style="list-style-type: none"> 2 papers published 	1.4 Increase (Two) Papers co-authored by female members of staff published in peer-reviewed journals by 2020	Number of papers (50% of which are by female staff) published in peer reviewed journals	1 (by Sida Phase IV Ph.D. graduates 2009-2014)	One paper published in a peer-reviewed journal	
<ul style="list-style-type: none"> One dissemination workshops conducted Research abstract/summary 	1.6 Increase use of research findings by peers and policymakers in (urban development management and human settlement policies) participants in the workshop by 2020	<ul style="list-style-type: none"> Number of downloads and citations Use of policy briefs to influence policy change 	3 workshops (Sida funded) over the last five years (2009-2015)	90% of Ph.D. research reports for the wider circulation. One dissemination workshop	
Assumptions:	<ul style="list-style-type: none"> Timely availability of funds 	○	○	○	
Specific Objective 2: To increase capacity on training and researching on services that reflect needs, consumption level and their financing mechanism (One Ph.D. – Under double degree Model by 2020)					
<ul style="list-style-type: none"> One double degree Ph.D. awarded 	2.3 Increase (one) additional staff who use their capacity to train	Number of female staff who apply capacity to train and research	Two	90% of the two double-degree covered	

Types of Outputs	Outcomes (including targets) 2020	Performance Indicator of Outcome	Baseline (if established)	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
<ul style="list-style-type: none"> One Ph.D. thesis produced 	and research on small towns changing spatial development patterns by 2020			75% of two Ph.D. Dissertations produced	
<ul style="list-style-type: none"> 2 papers (1 of which is by female staff) presented in conferences attended 2 papers published 	a. Increase (Two) papers co-authored by female members of staff presented in international conferences by 2020 2.5 Increase (Two) Papers co-authored by female members of staff published in peer-reviewed journals by 2020	Number of papers (50% of which are by female staff) published in conferences proceedings	1 (by Sida Phase IV Ph.D. graduates 2009-2014)	Two (2) papers presented in an international conference	
<ul style="list-style-type: none"> One dissemination workshop conducted Advisory follow up 	2.6 Increase use of research findings by peers and policymakers in (urban development management and human settlement policies) participants in the workshop by 2020	Number of downloads	3 workshops (Sida funded) over the last five years (2009-2015)	75% of One research report for the wider circulation One dissemination workshop	
	<u>Assumptions:</u>	<ul style="list-style-type: none"> Timely availability of fund 			
<u>Specific Objective 3:</u> To increase capacity in training and researching on Land Use Governance in Small Towns, through understanding Actors' Roles and Relation in Decision Making and the Implications on Urban Planning Systems (Major non-PhD Research)					

Types of Outputs	Outcomes (including targets) 2020	Performance Indicator of Outcome	Baseline (if established)	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
<ul style="list-style-type: none"> • Links with research consortiums on Land Use Governance in small towns planning dynamics by 2020 	b. Increase number (one) of collaborative research projects with international institutions by in 2015/16	Number of new collaborative research projects with international partners	Zero (within Sida funding)	1	1
<ul style="list-style-type: none"> • Platform for co-generation of knowledge and consultative urban policy formulated • Local staff (50% F) responsible for township development and management in 10 districts and small towns trained. 	c. Promote cooperation with local actors for practice-oriented research for co-generation of knowledge on Land Use Governance in small towns by 2018.	Number of independent cooperation with actors for researching on small towns	Two	2-5 Local staff trained	0
One (1) additional publication	3.4 Increase number (1) of publications co-authored by female members of staff in peer-reviewed journals by 2021	Number of joint publications	1 paper over the last five years of Sida funding (2009-2014)	One paper published in a peer-reviewed journal	0

Types of Outputs	Outcomes (including targets) 2020	Performance Indicator of Outcome	Baseline (if established)	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
Assumptions: Timely availability of fund and participants especially from the Ministry <ul style="list-style-type: none"> The readiness of administrators and managers in the selected townships to collaborate and facilitate the technical support, community and private sector to work with the research team research 					

Enclosure 5: Sub-programme Aggregated students plan 2019– 2020

Name of research student	(M/F)	Year started	Training in Sweden (no. of months)	Local Ph.D. Expected Year of completion	Sandwich Ph.D. Expected Year of completion	Progress in %age	Preliminary Dissertation title
1. Mlula, Happiness	F	2016	3	2021	2021	65-75%	Serving Small Towns in Tanzania: Towards Effective and Efficient Domestic Water services Delivery Approaches
2. Maglan Charles	M	2016	3	2021	2021	65-75%	Urban Growth Dynamics: Analysis of Factors Shaping the Spatial Growth of Handeni Town Tanzania

2191 - 2014: GOVERNANCE OF LAND AND MUNICIPAL SERVICES IN URBAN CENTRES IN TANZANIA

Contact information

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1. Executive summary of the sub-programme/project

Urban governance mostly rests at the hands of local governments, who have the proximity to translate the principles of good urban governance in order to effectively, manage, govern and develop a city to ensure equitable urban citizenship. A local government must have good governance that is accountable, responsible, transparent and sustainable. Some studies (Kratke, 2011; UN-Habitat, 2012; Clos, 2012; and Buhigas, 2012) have been carried out on urban and land governance including ecosystem management and municipal services provision. However, the information on population access to municipal services and ecosystem management in informal and peri-urban settlements in most Sub-Saharan Africa (SSA) countries is limited. What is available is often highly aggregated, lacking detail and specificity. Moreover, knowledge on land grabbing in peri-urban areas is also scarce. And hence, the following research questions are yet to be answered 1) What are the resource capacities and policy frameworks required for land governance and ecosystem management in peri-urban areas? 2) Are there any community-based development control strategies for limiting encroachment of urban fragile ecosystems? 3) What is the nexus between land transactions in peri-urban areas and socio-economic wellbeing of households in informal settlements and the immediate surrounding villages? 4) How can small-scale water providers be formalized to play a key role in water provision in the peri-urban areas? 5) How are sanitation services in these areas being governed in order to formulate appropriate/affordable solutions that can overcome sanitation barriers?

This programme embraces participatory urban land governance and provision of some of the basic services that lay as a corner stone for the development of peri-urban areas focusing on the following issues:

- a) Land and Governance Systems in urban areas to explore opportunities and challenges in related policies and governance structures with regard to land dynamics in peri-urban

- areas that include informal settlements and surrounding villages;
- b) Community based strategies for fragile ecosystem restoration in selected peri-urban areas in Tanzania to uncover some unknown parameters within the community and existing ecosystem services which will form a basis for taking purposeful action.
 - c) Dynamics of informal public services delivery focusing on access to potable water and sanitation services in peri-urban areas and the role of Informal Water Providers. The aim is to develop alternative options for improving the extent, affordability and conditions of access to water services through Informal Water Providers in peri-urban areas;
 - d) Development of a framework for enhancing governance of water and sanitation services in peri-urban areas in Tanzania. The aim is to formulate policy measures that translate into action towards greater access to improved municipal services in peri-urban areas.

Under this Programme capacity building will be on both training and research aiming at generating knowledge on governance of land and municipal services in urban centres in Tanzania. The generated knowledge will benefit involved communities and institutions and further develop skills necessary for integrating good governance in local government authorities (LGAs). The implementation of this programme is through four programme sub-components which are categorized based on the research questions that the Programme intends to address. The ultimate goal is to improve the adaptive capacity of communities at various local levels in the selected study areas in the country to handle issues of urban governance of land and basic services.

2. General objectives and expected results 2015-2021

Overall objective

The overall objective of the programme is to enhance training and research capacity in governance of land and municipal services in urban centres in Tanzania". The programme therefore, will address and generate knowledge on the appropriate planning approaches for sustainable urban development. It will also address the critical capacity gap in training and research, including weaknesses in subsisting public policies and governance structures with regard to land dynamics patterns in peri-urban areas.

Specific Objectives

The Sub-Programme has four specific objectives which when attained; the overall objective will be achieved by the end of the Programme. These are described below:

Specific Objective 1 - To increase the number and quality of persons to undertake training, research and public service delivery in governance of land and municipal services in urban centres: Capacity building will be in the form of PhD and MSc by coursework training for students who will carry out comprehensive studies to examine the impacts of governance of land and municipal services in urban centres as an institutional capacity building of ARU and LGAs. The PhD candidates will end up with a double degree. Modalities for offering double degrees including procedures, courses to be offered, and credits to be awarded were discussed with Swedish partners during a final workshop in Dar es Salaam carried out in June 2015.

Specific Objective 2 - To analyse, explain and use research on land governance in peri-urban areas: One PhD student will focus his study through a participatory approach to enable conservation and management plans to be drawn at community level as a local capacity building endeavor to enable the community understand and develop solutions to institutional, regulatory, and financial constraints that hamper integration and opportunities to utilize effective land use and good governance to guide sustainable peri-urban development.

Specific Objective 3 -To develop a community based ecosystem management system in peri-urban areas. A focus area of the other PhD student is to develop community based strategies for fragile ecosystem management. The objective is to increase knowledge on the extent and status of all fragile ecosystems to enable the formulation of fragile ecosystem restoration schemes for enhancing conservation of fragile ecosystems so as to enable communities adapt to alternative sustainable income generating activities.

Specific Objective 4 -To establish management options for water and sanitation services in peri-urban areas: this is a capacity building project through a major research on municipal services provision in water and sanitation aiming at generating knowledge on the extent, affordability and access to these services in peri-urban areas. The main focus of the research project is to establish alternative options for improving the extent, affordability and conditions of access to improved water and sanitation services and land governance. “Small-scale Water and Sanitation Services Providers” in informal settlements and peri-urban areas will be closely examined since improved sanitation contributes not only to better health (particularly of children), greater convenience and dignity (particularly for women), but also towards improved economic productivity. In most urban centres in Sub-Saharan Africa (SSA) countries including Tanzania, migration, informal urbanisation, and unregulated transformation of built environment are the key challenges for governments and societies in general. The situation is further exacerbated by faster growth of informal economic activities, attracting migrants from rural areas. In turn this has given rise to urban sprawl and the growth of informal settlements, especially in peri-urban areas, which lack basic municipal services. For instance, the coverage in terms of large scale formal water networks in most peri-urban areas has been limited. Other challenges include technical difficulties associated with extending water and sanitation infrastructure to peri-urban areas, problems of conflicting land tenure and lack of political will. Despite the growing challenges, to-date there is scant literature on the dynamics of municipal services delivery in peri-urban areas particularly with regard to access to affordable potable water and sanitation services. In addition, there is lack of knowledge on the governance of land, water and sanitation services in peri-urban areas and how they impact on urban growth. The ultimate aim is to contribute not only to better health (particularly of children), greater convenience, and dignity (particularly for women), but also towards sustainable urban development.

3. Annual target Year 2020/2021

3.1 Annual Plans and Expected Results

3.1.1 Capacity building through Training at MSc and PhD levels

It was planned to start running the Master’s Degree programme in Urban Governance and Environmental Studies in the 2019/2020, however, this was not possible because it was not yet approved by Senate and accredited by TCU. In the year 2020/2021 submission of the

curricula to ARU Senate for approval before being submitted to TCU for accreditation.

During the fifth year of study (2020) PhD students were expected to carry out data analysis and writing of their dissertations based on papers. However, due to delays in completing the studies (finalizing their dissertation) and a layer of complication introduced by the COVID 19, the students will need an extension to finalize their studies.

3.1.2 Major Research

The major research has an overall goal of establishing management options for water and sanitation services in peri-urban areas, aims at building research capacity of ARU. The main research question for the major research is: What are the policy measures required for enhancing the governance of land, water and sanitation services in peri-urban areas?

Specific research questions include:

- i) How are water, sanitation and land delivery services being provided in peri-urban areas of Moshi and Dar es Salaam and who are the small scale water and sanitation providers (SSWSP) regimes in peri-urban areas?
- ii) What is the quality of water, sanitation and land delivery services and how affordable are they?
- iii) What are the potential opportunities and challenges of extending piped water and sanitation services to peri-urban areas?
- iv) Why and how can the governance of small-scale water providers be formalized to play a key role in water and sanitation services provision in peri-urban areas?
- v) What are the governance structures required to improve the access to land, potable water and good sanitation services in peri-urban areas?

The fieldwork for the major research project was fully completed in the year 2018/19. In 2019/20 the major activity was to write the research report and research articles. It was expected that research results would be shared with key stakeholders in one organized stakeholder's workshop. The key stakeholders would include community members in study areas and local government officials in the departments of water, health and community development. This activity was planned for June, 2020 but due to COVID 19 pandemic, the conference was not held. Therefore no additional funds are required as the activity with its budget has been rolled over from 2019 to 2020/2021.

3.1.3 One Combined Report for the Sub-programme

One final report that summarises the outputs and outcomes from the Sub-programme after the five years of training and research was prepared and submitted to ARU's Directorate of Postgraduate, Research and Publications. The report also included policy briefs, posters and published papers in conference proceedings and peer reviewed journals.

3.2 Activities that will lead to the annual results (2020/2021)

3.2.1 PhD Students' Training (summarised in Enclosure 1)

The 2 PhD students will continue writing their papers and produce a dissertation by papers and attend the 90% seminar in Sweden (students are currently in Sweden). In addition, the

students are expected to produce a full dissertation containing a synthesised summary based on the objectives of their studies. Activities during the extended period include: holding of the final seminar at SLU, finalization of theses including printing and submission, as well as preparation for defense (Tables 1 and 2).

Table 1: Activities by Lazaro Mngumi

S/N	Updated planned activity	Justification	Financial implication
1	Submission of assignment of the Course at ARU HS 842: Public Infrastructure Services Provision and Management	Course was pushed forward due to concentration on fieldwork and data analysis	Cost covered in the initial budget – this is a carried forward activity
2	Addressing 90% Seminar comments – June and July 2020	Internal thesis assessment at ARU & SLU (June-August 2020) (comply to ARU and SLU thesis examination regulations)	Extra funding with respect to supervision will be required
3	Internal Thesis Review at ARU – August 2020		
4	Submission of thesis and preparation for defense September-October		
5	Thesis defence - November 2020		
6	Supervision costs in Sweden for 2 students		250,000 SEK

Table 2: Activities by Said Nuhu

	Candidate: Said Nuhu	Justification	Financial implication
	Submission of assignment of the Course at ARU HS 842: Public Infrastructure Services Provision and Management		
1	The final (90%) seminar at SLU: August 2020	The outbreak of COVID 19	Extra funding with respect to supervision will be required
2	Addressing 90% Seminar comments		
3	Internal Thesis Review at ARU and SLU.		
4	Submission of thesis and preparation for defense: - July 2020	Subject to accomplishing activity No.1 above	
5	Public Defence: November, 2020	Subject to accomplishment of activities Nos.1 and 2 above	
6	Supervision costs in Sweden for 2 students		250,000 SEK

3.2.2 Finalising conduction of the major research project

The research project titled *establishing management options for water and sanitation services in peri-urban areas* will have the following activities (Summarised in Enclosure 1): Two activities will be undertaken during the extension period with respect to the major research. These are summarised in the Table 3 below:

Table 3: Planned activities under major research

SN	Updated planned activity	Justification	Financial implication
1	Stakeholders' feedback Workshop: Fourth week of July 2020	Lack of funds and the outbreak of COVID 19	No extra funding; only time extension as the activity was budgeted for
2	Writing and publishing one additional paper (one joint paper): First week of December 2020. This will not be counted as a requirement for PhD students to complete their studies; but rather part of the major research.	Subject to success of the above planned activities	Will attract additional (publication) cost

Delays and rescheduled plans

No delays are expected because the researchers already have all the data they need to write the additional paper. In this respect, additional cost may only be to facilitate paper publication (i.e. publication cost). Furthermore, the delays on papers publications and participation in conferences for the PhD student will attract changes on expected completion time with regard finalization of PhD studies.

4. Analysis

Risks/assumptions that might jeopardize the implementation of the annual plan are summarized in Table 4.

Table 4: Risks/assumptions and mitigation measures

Risks/assumptions	Category	Probability of occurrence	Mitigation measures
i. Non-guaranteed participation of stakeholders in the final workshop (<i>might be tied up with other commitments or priorities in their organizations</i>)	External	Medium	Mobilisation and close follow up and personal contacts
ii. Covid 19 extending beyond the expected time	External	High	Re-planning including one year extension to complete articles for the students' dissertations and dissemination of results (major research)
iii. Change of Main Supervisor	Internal	High	Replacement with new Supervisor

5. Enclosures

1. Action Plan for Year 2019/2020
2. Budget Year 2019/2020
3. Sub-programme detailed and justified budget July 2019 to June 2020
4. Results Matrix
5. Aggregated Student Plan

Enclosure 1: Action Plan for Year 2020/2021

Activities	Year 5				Outputs	Financial implication
	Q1	Q2	Q3	Q4		
PhD activities						Extra funding with respect to supervision will be required
1. Submission of assignment of the Course at ARU HS 842: Public Infrastructure Services Provision and Management						
2. Presenting of 90% final seminar in August 2020 (Nuhu Said)						
3. Internal Thesis Review at ARU – August 2020					Refined PhD Thesis	
4. Submission of thesis and preparation for defense (Lazaro – September/October 2020) and Nuhu September 2020)					Final PhD dissertation reports	
5. PhD defense (November/December 2020)					PhD award (Double degree)	
Major research						
1. Stakeholders feedback workshop						No extra funding; only time extension as the activity was budgeted for
2. Prepare and submit additional paper for journal publication					Published papers in peer reviewed journals	Will attract additional (publication) cost

Enclosure 2: Budget for 2020/2021

Sub Program: Programme: Governance of Land and Municipal Services in Urban Centres in Tanzania

Tanzanian Institution/Dept.: Institute of Human Settlements Studies (IHSS)

Collaborating Institution/s in Sweden: Department of Urban and Rural Development, SLU

TANZANIA	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Curriculum development	-	-	-	-	-	-
Research equipment	-	-	-	-	-	-
Research consumables						
1. PhD Students - Stationery & Materials	-	-	-	-	-	-
2. Major Research - Stationery	-	-	-	-	-	-
Travel						
1. Supervisor's travel to Sweden	30,080.00	6,768,000.00	-	-	30,080.00	6,768,000.00
2. PhD Students travel to Sweden	-	-	-	-	-	-
Field/Lab work						
1. Major Research	-	-	-	-	-	-
2. PhD Research	-	-	-	-	-	-

TANZANIA	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Student's Stipend						
1. PhD Training	-	-	21,600.00	5,400,000.00	21,600.00	5,400,000.00
Conferences	53,700.00	12,082,500.00	-	-	53,700.00	12,082,500.00
Publication costs	56,000.00	12,600,000.00	-	-	56,000.00	12,600,000.00
Travel insurance	-	-	-	-	-	-
Other costs	39,200.00	8,820,000.00	-	-	39,200.00	8,820,000.00
SUB TOTAL	178,980.00	40,270,500.00	21,600.00	5,400,000.00	200,580.00	45,670,500.00
	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2019/2020	
	SEK	TZS	SEK	TZS	SEK	TZS
ISP - student allowances						
PhD Student's allowances	0	0	108,000	27,000,000	108,000	27,000,000
SUB TOTAL	0	0	108,000	27,000,000	108,000	27,000,000

TANZANIA	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
SWEDEN	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Supervision	0	0	500,000	125,000,000	500,000	125,000,000
Curriculum development	0	0	-	-	-	-
Lecturing on courses	0	0	-	-	-	-
Other Costs	40,000	9,000,000	0	0	40,000	9,000,000
Indirect costs	0	0	-	-	-	-
SUB TOTAL	40,000	9,000,000	500,000	125,000,000	540,000	134,000,000
GRAND TOTAL	218,980	49,270,500	629,600	157,400,000	848,580	206,670,500

Enclosure 3: Sub-programme detailed and justified budget

BUDGET ITEM	UNIT	QUANTITY	RATE	TOTAL (SEK)	JUSTIFICATION
Ph.D. Training					
Travel					
Travel budget carried forward from 2019/20 for external examiners	person	2		30,080	Travel budget allocated for 2 external examiners to attend viva voce in Dar es Salaam
Student Stipend in Tanzania	person	2	10,800	21,600	Stipend for 6 months paid at SEK 1,800 @ month per student
Publication Costs	person	2	28,000	56,000	Funds for publication of Student's PhD Dissertations
Conferences funds carried forward from 2018/19 to 2019/20				53,700	Travelling for conferences is uncertain. Students should therefore concentrate on accomplishing their dissertations and funds reallocated to support costs on defense
Other costs				39,200	Funds to support Ph.D. students during the Dissertation writing up at ARU carried forward from 2019/20
Total Tanzania				200,580	
Sweden					
Additional funds allocated for Students living allowances in Sweden for 3 months for the extension of stay	person	2	18,000	108,000	Living allowances for 3 months each student paid SEK 54,000 to cover extension of stay in Sweden due to travel restrictions caused by Covid-19. Managed by ISP
Supervision costs in Sweden for 2 students	person	2	250,000	500,000	Supervision cost for 2 Ph.D. Students
Supervisor's travel cost to Tanzania		2	20,000	40,000	Funds allocated for final year PhD defence, C/F from 2019/20
Sub Total Sweden				648,000	
Grand Total				848,580	

Enclosure 4: Results Matrix - Plan/expected outputs, outcomes and impacts for the whole agreement period

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data Sources	Data Collection Strategy	Annual Outcome Targets for 2020/2021	Actual Outcomes Achieved: Results Observed in year (2020/21)
Specific Objective 1: To increase the number and quality of persons to undertake training, research and public service delivery in governance of land and municipal services in urban centres							
Proposal for new post graduate training programmes for MSc levels in governance of land and municipal services in urban centres in Tanzania	1.1 Approval of one (1) MSc curriculum by Academic Review Committee & Senate by 2016.	Number of MSc programmes approved by University Senate.	None under previous Sida programmes	IHSS and Board reports	Review IHSS and Board reports	MSc. URGES endorsed by Senate Higher Degrees, Research and Publications Committee	
Application for Accreditation for new postgraduate training MSc programme	1.2 30% increase in accredited MSc programmes by 2017.	Number of programmes accredited by TCU	None under previous Sida programmes	Accreditation reports from TCU	Review Accreditation reports from TCU	1	
Candidates trained to PhD level by coursework by gender	1.3 40% annual increase of students who obtain PhD degrees by coursework by 2020.	Number of PhD students registered	Three under previous Sida programmes	IHSS and Board reports, ARU Facts and Figures Reports	Monitoring and evaluation (M&E)	7 students	2
	1.3.1						
Assumptions for Specific Objective # 1: <ul style="list-style-type: none"> Funds are timely availed for running the local MSc and PhD training project. 							

Enclosure 5: Aggregated Student Plan

Name of research student	(M/F)	Year started	Training in Sweden (<u>no. of months</u>)	<u>Local PhD</u> Expected Year of completion	<u>PhD</u> Expected Year of completion	Progress in %	Preliminary Dissertation title
3. Nuhu Said	M	2016	3	2021	2021	80-85%	Peri-urban land access governance dynamics in Dar es Salaam, Tanzania
4. Lazaro Mngumi	M	2016	3	2021	2021	90%	Towards climate change resilience and ecosystem services nexus: The case of peri-urban socio-ecological system of Dar es Salaam, Tanzania

Contact information

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1 Executive summary of sub-program /Project

There is strong correlation between real estate performance in an economy of a country and the general economic development (Clauret et al, 2010). A lot of effort is being made to try and influence performance of real estate markets by devising and adopting sound economic and finance principles to promote a greater understanding of how real estate financial markets work. In most of the Sub-Saharan Africa however, probably on account of history, there is very little connection between finance and real estate markets. Individuals amass real estate if given access to it oblivious of the economic wealth that is embodied in real estate which if released would benefit not only the individual but the entire economy(de Soto, 2001). The different real estate investment options and tenure models in some of the countries and certainly Tanzania whose journey towards mortgage finance started only 4 years ago are eccentric.

The existing training program at Ardhi University over-emphasizes the real estate relationship to land and least to finance markets. In the real world economy, the emerging scenario is the close alignment of real estate to finance and capital markets and consequential borrowing from infiltration of foreign capital that is creeping into the economy. A modern real estate program ought to address the growing securitized real estate markets, real estate investment trusts (REITs), and mortgage backed securities (MBS) and real estate derivative markets. The program seeks to set a platform for understanding working of real estate markets in a changing economic environment, developing analytical tools of resolving ensuing challenges in residential real estate sector and taking cognizance of the contributions that various real estate market operations will have to national economic development in Tanzania. The Tanzanian real estate market is largely informal with very little information on both the products and services offered. The proposed research and training programme aims at developing a more transparent real estate market through a data management strategy.

2 General objective and expected results 2015-2021

OVERALL OBJECTIVE

The overall objective of this sub-program is to establish evidence-based Research Training Capacity in Real Estate Market Dynamics and Housing Finance at ARU the results of which are deployed in the real estate sector. Key result areas are curricula developed to train manpower at Masters and PhD levels, findings based on robust research results to inform all stakeholders in the real estate and financial sectors of the outcomes of performance of real estate market, and the contributions that various real estate market operations will have to national economic development in Tanzania, as well as approaches including tools that can be used to understand the working of real estate markets in a changing economic environment but at the same time developing a more transparent real estate market through a data management strategy where all involved parties that is, property rights owners, investors, the government and other stakeholders participate and benefits. The specific objectives and expected results are summarized in the result matrix, and include:

SPECIFIC OBJECTIVES AND EXPECTED RESULTS

The Project has four specific objectives as described below:

Result Area 1:

To establish research training in Real Estate Economics that is relevant to the country's national development plans by 2021: The aim here is to develop human capacity at PhD, Masters and research levels to be able to analyse the source, processes and impacts of property investment & indices, in order to ensure that the country and people at large make sound investment decisions.

Result Area 2:

To establish methodology for Capturing Property Price Data in Tanzania: The objective focuses on Developing Methods for House Price Index (MHPi). The expected outputs include increased use of price indexation (increased use of the training), enhanced capacity to establish and maintain property databank among the various stakeholders such as the government at various levels; village leaders; communities as well as investors. Also, the programme aims at improving transparency in real estate market transactions, and enhanced capacity in addressing evolving real estate market operational challenges

Result Area 3:

To increase by 15 percent the capacity to research, public service and train on mortgage market (housing finance) in Tanzania by 2021: The programme realises that continuous research is necessary on the dynamics and consequences of housing finance and real estate economics. While the research will focus on increasing ability to apply new skills in teaching and research on mortgage dynamics, it will also boost awareness and application of mortgage finance tools by mortgage lenders in Tanzania.

Result Area 4:

To establish property valuation systems and methods which are adaptive to the changing environment by 2021: The programme will assess and disseminate results on the adaptive valuation standards that can be considered as quality control measures in the valuation for mortgage and compensation purposes. The key outcomes include adoption and increased use of the proposed valuation analysis tools in the valuation for mortgage and compensations purposes, and increased skills in valuation analysis. This objective forms the major research component of the project.

3 Summary of Annual target: 2020/2021

The annual targets for the requested extension period (2020/2021) will continue to focus on PhD training and major research activities. In order to achieve the program objectives, the following activities are expected to be accomplished:-

3.1 Annual Plan and Expected Results

3.1.1 To continue with PhD training:

The PhD program in Real Estate Economics is being offered by the Land Management and Valuation Department. Currently, there are two students in their fifth year, and are now in different stages of data analysis and preparation of the final research dissertation. During the extension period, the two PhD students are expected to accomplish the following:

- i. Finalize coursework;
- ii. Finalize Thesis preparation while in Tanzania and Sweden; and
- iii. Prepare at-least two publishable papers in an International Journal
- iv.

The PhD students and their research themes under the program are:-

PhD Research Mr. EGINO MILLANZI - PhD Student:

Title: HOUSING FINANCING IN URBAN TANZANIA: HOW DO HOUSEHOLDS FINANCE HOUSING DEVELOPMENT IN KINONDONI, MUNICIPALITY, TANZANIA

Popular Description

Affordability is a household's ability to meet housing costs without imposing excessive constraints on non-housing consumption. There exists an informed understanding of how housing finance system enhance household ability to pay for non-housing expenditures such as food, health care, education and other human capital investments after paying for housing. Specifically, households experience housing induced poverty arising when they spend more on housing construction, servicing of home loans and payment of rent.

General Objective of the Study

The main objective of this study is to assess how finance systems influence housing affordability in Dar es Salaam.

Research Questions

The main research questions are:

1. What criteria do households consider when deciding to construct, buy or rent housing units?
2. How housing finance systems can influence household's ability to pay for housing and non-housing expenditures
3. To what extent is household's ability to pay for non-housing goods is threatened by housing costs (rent/house construction and purchase costs).

Planned activities for the two PhD students are summarized in Tables 1 and 2 below

Table 1: Action Plan for Egino Milanzi

SNr	Planned activities	2020/2021				Financial implications
		Q1	Q2	Q3	Q4	
1	Finalization of courseworks (4 courses) - October – December, 2020					Cost for offering the courses as SWE instructors may visit Tanzania for that purpose
2	Final seminar (SWE) and finalization of the dissertation					
3	Preparation of a journal article - Jun – Dec, 2020					
4	Proposed travel to Sweden and final seminar – Dec 2020 – Febr 2021					
5	Preparations for Defense (internal review at ARU – presentation (final seminar mode) - March – June, 2021					
	Finalization of dissertation - Dec 2020 – Febr 2021					
6	Defense - April – June 2021					

PhD Research Mr. Frank Nyanda - PhD Student:

Title: TOWARDS THE DEVELOPMENT OF HOUSE PRICE INDICES IN TANZANIA: REMEDIAL MEASURES TO DATA CONSTRAINTS AND THE SUGGESTED PRACTICAL MODEL

Popular Description

Paucity of data in real estate markets in the Sub-Saharan countries has for long been a critical concern among real estate market players and experts in the field. Lack of adequate transparency in the market has made real estate decision making to be perilous. In Tanzania in particular, there are very limited official published data on real estate market and as such, decision making by market players is circumvented by personal sentiments and irrational optimistic tendencies. Neither the public nor private sectors have made efforts that are noteworthy to curb the problem of data paucity in the real estate market.

Of the significant market data that is missing in the market setting is property price index predominantly in the area of housing which touches not only lives of the majority but also

investment decision making of the majority. The significance of property price indices to an economy cannot be over-emphasized. Price information is a key driver to the evolving housing market in Tanzania as it provides basis for projection on affordable housing, sale price and rent trends as well as providing banks with the benchmark information for most of its decision in lending.

The lack of housing price indices in Tanzania as many other Sub-Saharan countries comes with a cost. Computation of property returns in the market becomes difficult. Prediction of future likely performance of properties also becomes more complicated with the absence of the past and present data sets on property returns. The management of property investment risks also suffers greatly. Moreover, foreign investors are naturally limited to enter a local market with paucity of data for effective or rational decision making. Financial institutions such as commercial banks cannot be left out as a disadvantaged group given their expected increasing exposure to mortgage financing amidst lack of transparency in property markets to aid them predict trends on property values with reliable statistics. Professionals in real estate investment such as appraisers find it difficult to generate data for research. Investors in real estate also suffer greatly by the lack of property indices in the market. Without such data, it cannot be easy for investors to develop portfolio strategies and to gain knowledge as to the optimal weight which should be allocated to asset classes in an investment portfolio.

If the lack of useful property data such as housing indices is not given proper attention, market players and mostly investors are likely to be subjected to a greater risk exposure given their growing exposure to housing market. Lack of reliable data will continue to discourage foreign investors and perpetuate the thinking that African real estate markets are too risky which in actual fact might not be the case. Cognizant of the repercussions that might result out of lack of property data; this study is centered on examining the best approach to establish housing price indices for the Tanzanian housing market. Likewise, the best approach in the formulation of housing indices is suggested amidst the difficult availability of data even for the development of such indices.

1.1 Objectives

The central objective of this study is to examine the best possible approach to the development of house price indices given data constraints in the housing market. The realization of this main objective requires the pursuit of the following objectives. More specifically, the study aims:-

- i. To examine the extent of data constraint that hinders the development of housing price indices and suggests remedial measures for improvements.
- ii. To examine the best model that can be useful in the construction of housing price indices in Tanzania.
- iii. To demonstrate the construction of housing price indices using the best model suggested in objective (ii) given a sample of housing units in the Dar es Salaam residential submarket.

Research Questions

The main research questions are:

- i. To what extent is the data available congruent with the development house price indices?
- ii. What best model can be adopted in the development of house price indices amidst data constraints?

Table 2.1: Planne activities for Frank Nyanda

SNr	ACTIVITY	RATIONALE	Timeframe	Financial Implication
1	Courses	Six courses remaining: 1) Real Estate Development; 2) Real Estate Valuation and Analysis; 3) Real Estate Investments; 4) Facilities Management; 5) Action Research in Housing; 6) Urban Estate Economics	October – December, 2020	Cost for offering the courses as SWE instructors may visit Tanzania for that purpose
2	Completion of Paper one	The Initial approach by monograph changed to paper-based approach	31st July 2020	Extra funding in respect of supervision is required
3	Completion of Paper Two	The second paper adds an element of spacial influence on house prices index. Various proximities have to be established using the existing data and entails an additional survey	31st July 2020	
4	Completion of Paper Three	Before the change of approach to paper-based, data collection was completed for a monograph. However more data is needed for paper three from housing units sold by institutional developers. Here an additional survey has to be done	31st November 2020	
5	Proposed travel to Sweden and final seminar	To get ample time to concentrate on the third paper and also attend remaining courses	Dec 2020 – Febr 2021	
6	Final seminar (SWE) and finalization of the dissertation	Writing of the common chapter that will join together the three papers	Dec 2020 – Febr 2021	
7	Preparations for Defense (internal review at ARU – presentation (final seminar mode)	Completing the requirements for PhD defense at ARU	Mar – June, 21	
8	PhD Defense at ARU		April – June 2021	
9	Supervision costs in Sweden for 2 students			250,000 SEK

NOTE: The student had initially enrolled for Monograph, but of late changed mind and opted for PhD by papers. Therefore, extra costs will be attracted

Table 2.2: Action Plan for Frank Nyanda

SNr	Planned activities	2020/2021				Financial implications
		Q1	Q2	Q3	Q4	
1	Finalization of courseworks (6 courses) –March 2021					No extra funding; only time extension as the activity was budgeted for; BUT supervision cost will be required
2	Completion of journal papers 1 to 3 – July to November 2020					
3	Final seminar (SWE) and finalization of the dissertation					
4	Preparations for Defense (internal review at ARU – presentation (final seminar mode)					
5	PhD Defense at ARU					

3.1.2 Operationalizing the M.Sc. Real Estate Economics Curricula

The sub-programme in collaboration with the University organs is in the process of operationalising the aforementioned program. This is one of the specific knowledge area that has shown a great demand from local students. The M.Sc. Real Estate Economics Curricular has been submitted to TCU for reacriditation

3.1.3 To Finalize Major Research Report

Adaptive Property Valuation Systems and Methods

The focus of the study is to establish property valuation systems and methods that are adaptive to the changing environment in Tanzania. That is, valuation systems and methods that promotes public confidence in land acquisition programs and valuation for mortgage purposes. Table 3.

Plans for 2020/2021 academic year include: -

- i) To develop Quality control standards applicable for mortgage valuations as well as Valuations for land acquisition and compensation. This can be considered as standards of professional valuers practice in which a framework for analysis and reports preparation in valuation for mortgage and compensation purposes is developed and proposed. The developed framework will be subjected to various stakeholders from within and outside the University;
- ii) Finalization of major research report writing;
- iii) Submission of research report;
- iv) Publication of research results;
- v) Revised the submitted Policy Brief
- vi) Publishing two papers from the research results
- vii) Follow-up with TCU for accreditation of MSc. RECurriculum

Table 3: Timeframe for accomplish major research activities

Planned Activities	Time Plan	Output
To develop Quality control standards applicable for mortgage valuations	July 2020 – March 2021	Manual and Forms
Finalization of major research report writing	June -Dec, 2020	First Draft of the Research report
Submission of research report	December, 2020	Research report
Publication of research results	February - March, 2020	Published papers
Revised the submitted Policy Brief	Sept – Dec. 2020	Revised Policy Brief

4 Analysis

Risks which are likely to affect the performance and outcome of expected results in 2020/2021 academic year are summed up under Table 4 and will include the failure to obtain qualified and financially capable PhD students.

Table 4: Annual Plan Risk Management Framework

Risk	Category	Probability of occurrence	Mitigation measures
Uncertainties in estimating realistic PhD studies completion period	Internal	Very low	<ul style="list-style-type: none"> • Internal re-arrangement or re-planning of activities • Early warning issued to PhD students
Unexpected outbreak of Covid 19	External	High	<ul style="list-style-type: none"> • Re-planning including time extension for teaching (completing coursework)

5 Enclosures

1. Sub-programme Component Budget
2. Sub-programme Detailed and justified Budget
3. Sub-programme Action Plan
4. Sub-programme Result Matrix
5. Sub-programme Aggregated Student's Plan
6. Sub-programme Research Project Description

Enclosure 1: Sub-programme Budget 2019/2020

Sub Program: Programme: Real Estate Markets Dynamics

Tanzanian Institution/Dept.: School of Real Estate Studies, Ardhi University

Collaborating Institution/s in Sweden: Division of Building and Real Estate Economics, KTH

TANZANIA	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Curriculum development	-	-	-	-	-	-
Research equipment	-	-	-	-	-	-
Research consumables	-	-	-	-	-	-
1. PhD Students Stationery & Materials	-	-	-	-	-	-
2. Major Research Stationery	-	-	-	-	-	-
					-	-
Travel						
1. Supervisor's travel to Sweden	100,160	22,536,000	-	-	100,160	22,536,000
2. Supervisor's travel to Tanzania	-	-	100,160	25,040,000	100,160	25,040,000
					-	-
Field/Lab work						
1. Major Research	29,700	6,682,500	-	-	29,700	6,682,500
2. PhD Research	-	-	-	-	-	-
Student's Stipend						
1. PhD Training	-	-	32,400	8,100,000	32,400	8,100,000
Conferences	107,400	24,165,000	-	-	107,400	24,165,000

Publication costs	56,000	12,600,000	-	-	56,000	12,600,000
Travel insurance	-	-	-	-	-	-
Other costs	64,400	14,490,000	-	-	64,400	14,490,000
SUB TOTAL	357,660	80,473,500	132,560	33,140,000	490,220	113,613,500
	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
ISP - student allowances						
PhD Student's allowances	0	0	-	-	0	0
SUB TOTAL	0	0	0	0	0	0
SWEDEN	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Supervision	0	0	350,000	87,500,000	350,000	87,500,000
Curriculum development	-	-	-	-	-	-
Lecturing on courses	-	-	-	-	-	-
Other Costs	40,000	9,000,000			40,000	9,000,000
Indirect costs	-	-	-	-	-	-
SUB TOTAL	40,000	9,000,000	350,000	87,500,000	390,000	96,500,000
GRAND TOTAL	397,660	89,473,500	482,560	120,640,000	880,220	210,113,500

Enclosure 2: Real Estate Market Dynamics Components Budget- Justification

BUDGET ITEM	UNIT	QUANTITY	RATE	TOTAL (SEK)	JUSTIFICATION
Ph.D. Training					
Travel					
Travel budget carried forward from 2019/20 for Supervisors and external examiners	person	2		100,160	Travel budget allocated for Supervisors to Sweden and 2 external examiners to attend viva voce in Dar es Salaam but with travel restrictions funds to support Students who are still lagging behind.
Travel Budget for Swedish Supervisors to teach courses at ARU		2		100,160	Travel budget to facilitate Swedish supervisors travel to Tanzania for teaching courses
Student Stipend in Tanzania	person	2	1,800	32,400.00	Stipend for 6 months for Millanzi and 12 months for Frank Nyanda, Egino paid at SEK 1,800 @ month per student
Major Research				29,700	Carried forward from 2019/20. To be spent on finalising write-ups from research results.
Publication Costs	person	2	28,000	56,000	Funds for publication of Student's PhD Dissertations
Conferences funds carried forward from 2018/19 to 2019/20				107,400	Travelling for conferences is uncertain. Students should therefore concentrate on accomplishing their dissertations and funds reallocated to support costs on dissertation examination and PhD defense.
Other costs				64,400	Funds carried forward from 2019/20, to support Ph.D. students during the Dissertation writing up at ARU
Total Tanzania				490,220	
Sweden					
Supervision costs in Sweden for 2 students	person	2	175,000	350,000	Supervision cost for 2 Ph.D. Students
Supervisor's travel cost to Tanzania		2	20,000	40,000	Funds allocated for final year PhD defence, C/F from 2019/20
Sub Total Sweden				390,000	
Grand Total				880,220	

Enclosure 3: Time Plan for sub-programme 2020-2021

3.3.1: PhD Component (STUDENTS STUDY PROGRAMME)

Activities	Year VI				Outputs	Financial implication
	Q1	Q2	Q3	Q4		
1. Completing pending courses (4 for Milanzi and 6 for Nyanda)					Courseworks completed	No extra funding; only time extension as the activity was budgeted for
2. Preparation of a journal article (Milanzi)					Journal article produced	No extra funding; only time extension as the activity was budgeted for
3. Paper publication3 papers) - (Nyanda)					Three papers produced	Will attract publication cost because was not earlier budgeted for
5. Proposed travel to Sweden and final seminar- (Nyanda)					Peer comments	No extra funding; only time extension as the activity was budgeted for
6. Final seminar (SWE) and finalization of the dissertation (both)						No extra funding; only time extension as the activity was budgeted for
7. Preparations for Defense (internal review at ARU – presentation (final seminar mode) – both students					Requirements for PhD defense accomplished	No extra funding; only time extension as the activity was budgeted for
8. PhD Defense – both students					PhD award	No extra funding; only time extension as the activity was budgeted for

3.3.2: Major Research

Activities	Year VI				Outputs	Financial implication
	Q1	Q2	Q3	Q4		
1. To develop Quality control standards applicable for mortgage valuations					Manual and Forms	No extra funding; only time extension as the activity was budgeted for
2. Finalization of major research report writing						
3. Submission and publication of research report						
4. Revised the submitted Policy Brief						
5. Submitting Paper 1 for Publication in the <i>Journal of Land Administration in Eastern Africa (JLAEA)</i>					Papers submitted to peer reviewed journals	No extra funding; only time extension as the activity was budgeted for
6. Submitting Paper 1 for Publication in the <i>Journal of African Real Estate Society (AFRES)</i>					Papers submitted to peer reviewed journals	No extra funding; only time extension as the activity was budgeted for

Enclosure 4: Results Matrix

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
Specific Objective 1: To establish research training in Real Estate Economics that is relevant to the country's national development plans by 2020							
MSc course curricula being used	1.5 One (1) MSc course curricula being used by 2017	1.1 new MSc curricula being used 1.2 Number of MSc students enrolled under the programs	None were developed in the previous Sida programs	1.1 Department reports 1.2 Interviews	SENATE and DPRP reports/records	1 MSc curricula approved by ARU Senate awaiting TCU accreditation	
Trained PhD graduates in Real Estate Economics	1.6 Increase of 2 PhD candidates by 2020.	Number of PhD graduates enrolled and graduated in the new PhD program	4 PhD graduates in previous Sida supported programs	1.1 4 PHD graduates in other programme 1.2 Academic review board 1.3 TCU records	DPRP records	Two (2) expected to graduate 2020/2021	0
Trained M.Sc graduates in Real Estate Economics and Finance	1.6 Increase of MSc candidates by 2020.	Number of M.Sc. graduates enrolled and graduated in the new M.Sc. program	Number of MSc graduates in previous Sida supported programs	1.1 Department records	DPRP records	NA/to be realized in 2019/2020	
4 papers presented in conferences, One of which done by female staff and graduates from ARU	1.8 Increase in scholarly papers presented in international conferences by ARU staff and graduates, of which one is female, by 2020	Number of papers by gender published in conference proceedings	7 papers from previous Sida-ARU Research Cooperation Programme	7 (by Sida Phase IV PhD graduates 2009-2014)	<ul style="list-style-type: none"> DPRP quarterly reports Academic units annual reports 	Four (4) to be realized	

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
Two (2) research results dissemination workshops	1.9 Increased use of research results with peers and policy makers by 2020	<ul style="list-style-type: none"> Number of dissemination workshops 	3 workshops (Sida funded) over the last five years (2009-2015)	3 workshops (Sida funded) over the last five years (2009-2015)	University (CICT)databas e	<ul style="list-style-type: none"> One (1) workshop 	
Assumptions for specific objective 1: <ul style="list-style-type: none"> The University will continuously improve research environment Sustained motivation among staff to carry out research(more focused) (increase incentives for research) Increasingly, graduates remain at ARU after completion of studies 							
Specific Objective 2: To establish methodology for Capturing Property Price Data in Tanzania.							
One staff trained graduated in Property Price indexation by 2020	2.1 increased used of price indexation 2.2 One staff trained on preparing House price index. 2.3increased Human resources capacity to establish and maintain property data bank	<ul style="list-style-type: none"> Number of users of the methodology 	Not established	<ul style="list-style-type: none"> ARU staff profile 	<ul style="list-style-type: none"> Interviews Documents review/analysis 	One (1) by 2019/2020	
				<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 		

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
Assumptions for specific objective 2: <ul style="list-style-type: none"> Sustained motivation among staff to carry out research Increased interest among decision-makers to use research result for decision-making Increased interest by the public/private sectors in fact-based knowledge Timely completion of research projects 							
Specific Objective 3: To increase by 15 percent, the number of researchers with high competencies in teaching, collaborative research and public service in mortgage market in Tanzania by 2020							
One staff trained in Mortgage/Housing Finance by 2020	1.1 The PhD Candidate candidates apply new skills in teaching and research by 2020 1.2 At least 50% of the mortgage lending institutions in Tanzania are aware and use mortgage finance tools developed by 2020	The number of users of mortgage tools Performance in teaching enhanced	Zero (PhD) Two (MSc Programs)	DPRP records	Interviews Documentary review	One (1) by 2019/2020	
One staff graduated with MSc in Real	1.2 MSc candidates	Number of candidates	9 PhDs	DPRP records Academic Unit	Interviews Documentary	0	0

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
Estate Economics by 2018	apply new skills in teaching and research by 2018		22 (MSc)	Reports	review		
2 number of publications by the PhD Candidate	Increased number of peer reviewed publications by 2018	Number of publications	None	DPRP records Academic Unit Reports	Interviews Documentary review	4	
Assumptions: <ol style="list-style-type: none"> 1. The University will continuously improve research environment 2. Sustained motivation among staff to carry out research 3. Increasingly, graduates remain at ARU after completion of studies 							
Specific Objective 4: To establish property valuation systems and methods that are adaptive to the changing environment							
1 research proposal made and funded on review of existing valuation systems	1.2 Increased research activities in valuation by 2017	Number of research on adaptive valuation systems conducted	ARU current SRES staff profile	DPRP quarterly reports SRES Annual Report	Annual Review of Progress Reports	0	0
100 practicing valuers attend training courses organized by ARU and KTH on Improved Valuation Methods	Improved valuation skills by 2020	<ul style="list-style-type: none"> • Number of practicing valuers trained • Number of females attending 	<ul style="list-style-type: none"> • SRES Staff Practicing valuers 	NCPS Register ACU Reports Chief Valuers Annual Report	Documentary Reviews	40 Number of valuers	0

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
		courses					
4 joint peer reviewed publications, at least 50% by female researchers	Increased joint peer reviewed publications	Number of peer reviewed publications	ARU Journals	ARU Prospectus, Facts and Figures Annual Programme Reports Annual Progress Reports PMC reports	Interviews Documentary review	2	
<p>Assumptions for Specific Objective No. 4:</p> <ol style="list-style-type: none"> 1. MSc and PhD Students on the program will take up the challenge to organize and run industry seminars to inform the practicing valuers of development changes in their profession 2. Participants to refresher courses will meet their own expenses 3. Funding to attend the Conference will be made available from the project subject to the participants submitting peer reviewed papers 4. MLHSD and Regional Administration will be willing to participate and release staff for the planned activities. 							

Enclosure 5: Students' Aggregate Plan

PhD training	(M/F)	Year training started	Training in Sweden (no. months)	<u>Local PhD Expected/ Year of completion</u>	<u>Sandwich PhD Expected/ Year of completion</u>	<u>Progress %</u>	<u>Prel. title of dissertation</u>
Name of Research Student							
1. EginoMilanzi	M	2016	9	2021	2021	85%	Housing Financing in Urban Tanzania: How Do Households Finance Housing Development in Kinondoni, Municipality, Tanzania
2. Frank Nyanda	M	2016	9	2021	2021	55%	Towards the Development of House Price Indices in Tanzania: Remedial Measures to Data Constraints and the Suggested Practical Model
Total							

Enclosure 6: Major Research Project Description

Research Title: Adaptive Property Valuation Systems and Methods

1.1. Brief Research Background

In Tanzania, the demand for valuation services is increasing continuously, among other things, due to rapid economic growth and urbanization programmes. It has also been observed that litigations related to dissatisfaction with assessed value are mounting as well on account of not being fair and at times, not following the legal framework. The current study argues that there are some issues regarding determining criteria for assessing “fair market value” particularly in valuations for mortgage and compensations purposes, which have never been internalized or streamlined, but scrupulously suppressed in the prevailing valuation practices, legal framework as well as valuation mechanism, and therefore to keep abreast with the current changes in economic and financial environment, valuations processes and procedures must be streamlined in order to allow regular reviews and revision of valuation methods and techniques and devising new methods and techniques to meet new circumstances.

In this context, the current study is required not only to review valuation competence levels against the market needs, but also review the prevailing practices, methods, and procedures for the sake of identifying factors hindering the assessment of fair and just market value, as well as problem areas that would enhance synergies as valuation is embraced in the evolving business environment, and subsequently develop a policy procedure, guidelines and manuals that support, facilitate, and expedite an overall mission to maintain, and operate a superior valuation system.

1.2. Research Objectives

1.2.1. General Objective

The main objective of the research is to establish adaptive property valuation systems (guidelines) and procedures that ensure users will have a complete understanding of the approaches to value and the reasoning used during the appraisal process, PAPs in land acquisition projects are treated fairly and consistently, litigations are minimized and public confidence level in valuation profession services is increased.

1.2.2. Specific Objectives

Specifically, the study aims to accomplish the following:

- i) To review local valuation practice and methods with a view of identifying factors hindering the assessment of fair market value in valuation for compensation and mortgage purposes.
- ii) To establish guidelines and manuals for valuers in the preparation of valuation reports for mortgage and compensation purposes that present a complete understanding of the approaches to value and the reasoning used during the appraisal process, and ensure that valuation agencies/firms implement these valuation methods, systems and regulations in a manner that is cost effective
- iii) To examine incidences of professional misconduct and unethical practices (if any) and suggest redress measures
- iv) To ensure valuation practices in compulsory purchase projects treat all PAPs fairly, consistently, and equitably.
- v) To establish challenges faced by practicing professionals, and subsequently the required continuing training that take care of new thinking and growth in the profession

**2197 2014 INFORMALITY AND HABITATION IN THE CONTEXT OF
CHANGING URBAN LANDSCAPE**

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1. Executive summary of sub-programme/project

Informality as part of rapid urbanization in Tanzania has significant impact on the urban landscape as manifested by uncoordinated spatial development. The borrowed Eurocentric urban planning and architectural concepts and models do not seem to provide appropriate tools to intervene and address the inadequacies of the urban landscape in the informal built environment. However, tacit concepts have played a significant role in shaping both the formal and informal built environment. The primary objective of the proposed programme is to examine and document informal concepts and approaches in the space and place formation in order to inform both conventional architecture, planning and urban design in the development of the urban landscape. The programme activities, which will be implemented in two projects, will focus on the identification of available resources and the process of shelter making, habitation (incorporating culture and climate aspects), and the resulting urban landscape. A research project on marketplaces is purposefully chosen as a case to analyse habitation at a macro level of the urban landscape.

Furthermore, ARU and the Swedish collaborating partners plan to build comprehensive environments by strengthening research capacity through an increased critical mass of PhD graduates. Training of two (2) PhD students namely Edson Sanga and Modest Maurus and research project on *understanding informality and habitation through market-based approach* are considered in this programme. The PhD training will be undertaken by coursework and dissertation with some of compulsory courses taught during the first year in Sweden. The planned training and research partnership will enhance joint research and publications between the collaborating institutions and share contextual experiences and capacities. Within

the duration of the proposed programme, publication of a total of seven (7) peer reviewed journal articles is anticipated. The major outcome of the programme is that the underlying tacit concepts guiding informal urbanisation are highlighted and used as tools of urban landscape development and co-creation.

2. General objectives and expected results 2015-2021

This sub-programme contains two projects namely PhD training project and an independent research project. The main objective of the sub-programme is to examine and document informal concepts and approaches in the space and place formation in order to inform both conventional architecture, planning and urban design in the development of the urban landscape. In total, the sub-programme has four specific objectives, which are:

Specific Objective 1:

To establish new curriculum for PhD programme by coursework and dissertation in the School of Architecture and Design

In this objective, the anticipated outputs are a needs' assessment report and a new PhD curriculum by coursework and dissertation. The anticipated outcome is to have the new PhD curriculum on Urban Design approved by Senate at the end of 2015-16 planning year and operational in the 2016-17 planning year.

Specific Objective 2:

To identify and analyse tacit knowledge on urban typologies and climate sensitive urban design concepts in the transformation of the informal settlements by 2021

This objective is addressed by a PhD student Modest Maurus Baruti with a research titled "*Outdoor Microclimate and People's Thermal Perceptions in Informal Settlements of Dar es Salaam, Tanzania*". The major outputs include one PhD graduate, one paper presented in international conference and two papers published in international journals. The following outcomes are anticipated: Table 1

- Tacit knowledge on urban typologies in informal settlements generated and documented;
- Tacit knowledge on climate sensitive urban design in informal settlements generated and documented; and,
- Increased engagement in applying tacit knowledge in informal settlement upgrading and regularization.

Table 1: Planned activities for Modest (2020/2021)

S/N	Updated Planned Activity	Timeline	Remarks
1	Addressing Final (90%) seminar comments	1 st September 2020	Extra cost with respect to supervision will be required
2	Addressing supervisors' comments on Paper 4	1 st July 2020	
3	Preparations for PhD defense	31 st July 2020	
4	Submission of dissertation report for printing	1 st September 2020	
5	PhD defense	1 st October 2020	

Specific Objective 3:**To mainstream landscape-based urban planning and development**

This objective is addressed by a PhD student Edson Ephraim Sanga with a research titled *“Urban pleasurable spaces in compact built environment; Experience from Manzese informal settlement Dar es Salaam Tanzania”*. In this objective we anticipate one PhD graduate, one paper presented in international conference and two papers published in international journals.

The outcomes in this objective are:

- Framework on process-oriented urban landscape planning developed; and,
- Scholarly and practical recognition of the value of landscape as a crucial planning and design tool for urban development appreciated and mainstreamed. Table 2

Table 2: Planned activities for Edson Sanga (2020/2021)

S/N	Updated Planned Activity	Timeline	Remarks
1	Refining dissertation chapters	July 2020	Extra cost with respect to supervision will be required
2	Presentation of 90% evaluation seminar	10 th August 2020	
3	Refining dissertation report based comments from 90% seminar	November 2020	
4	Submission of dissertation report for printing	November 2020	
6	PhD defense	February 2021	

Specific Objective 4:

To explain informality and habitation through the market-based approach

The research has been completed and all planned outputs delivered.

3. Annual targets 2020/2021

Annual Plans and Expected Results

PhD Students' Training

In this final year of the programme, the two PhD students are expected to finalise and defend their PhD research projects. These include presenting the 90% seminar and addressing comments that will be raised; refining their final theses and preparing and finally holding the PhD defense. While Maurus Modest is expected to hold his PhD defense in October 2020, Edson Sanga will defend his PhD in February 2021.

Major Research Project

The major research on “*Understanding informality and habitation through the market-based approach*” **was completed in 2017-2018** reporting year. However, areas for further studies identified in the major research will be pursued by interested Master's and Undergraduate students' in their dissertations. Furthermore, one additional journal paper will be published from the major research. The aim is to enhance the sustainability of the research thematic area with a view to operationalize the established research groups on the same. This means that there is no extension sought. The sub-programme will also publish one (1) additional paper from the major research results

Delays and rescheduled plans forwarded from previous year

Due to the outbreak of Covid 19 pandemic, some activities of the PhD students cannot be completed in time because of the slowing down of most active activities that require substantive interactions.

Justified changes both in activities and budget

There are changes in expected time for completion of sub-programme activities due to the outbreak of Covid 19. Extra cost in respect of supervision will be required

4. Analysis

The occurrence of Covid-19 has affected the completion of activities such as the final seminar for Edson Sanga earlier scheduled for May 2020. However, this situation is being addressed by the use of on-line meetings, which are likely to enable timely fulfillment of the revised plan. Table 3

Table 3: Annual Plan Risk Management Framework

Risk	Category	Probability of occurrence	Mitigation measures
Unexpected outbreak of Covid 19	External	High	<ul style="list-style-type: none">• Re-planning including time extension for completion of dissertation reports, paper presentation in conferences and journal paper publications and defense of PhDs
Change of Main Supervisor	Internal	High	<ul style="list-style-type: none">• Replacement with new Supervisor

5. Enclosures

1. Sub-programme Budget
2. Sub-programme Detailed and justified Budget
3. Sub-programme Action Plan
4. Sub-programme Result Matrix
5. Sub-programme Aggregated Student's Plan

Enclosure 1: Sub-Programme Budget

Sub Program: Programme: Informality and Habitation in the Context of Changing Urban Landscape

Tanzanian Institution/Dept.: Ardhi University, School of Architecture and Design

Collaborating Institution/s in Sweden: SLU & Lund Universities

TANZANIA	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Curriculum development	-	-	-	-	-	-
Research equipment	-	-	-	-	-	-
Research consumables	-	-	-	-	-	-
1. PhD Students - Stationery & Materials	-	-	-	-	-	-
2. Major Research - Stationery	-	-	-	-	-	-
Travel					-	-
1. Supervisor's travel to Sweden	30,080.00	6,768,000.00	-	-	30,080.00	6,768,000.00
2. PhD Students travel to Sweden	-	-	-	-	-	-
Field/Lab work						
1. Major Research	10,400.00	2,340,000.00	-	-	10,400.00	2,340,000.00
2. PhD Research	-	-	-	-	-	-
Students' Stipend						
1. PhD Training	-	-	21,600.00	5,400,000.00	21,600.00	5,400,000.00
Conferences	35,300.00	7,942,500.00	-	-	35,300.00	7,942,500.00
Publication costs	56,000.00	12,600,000.00	-	-	56,000.00	12,600,000.00

TANZANIA	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Travel insurance	-	-	-	-	-	-
Other costs	8,000.00	1,800,000.00	-	-	8,000.00	1,800,000.00
SUB TOTAL	139,780.00	31,450,500.00	21,600.00	5,400,000.00	161,380.00	36,850,500.00
	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
ISP - student allowances						
PhD Student's allowances	0	0	54,000.00	13,500,000.00	54,000.00	13,500,000.00
SUB TOTAL	0	0	54,000.00	13,500,000.00	54,000.00	13,500,000.00
SWEDEN	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Supervision	0	0	500,000	125,000,000	500,000	125,000,000
Curriculum development	-	-	-	-	-	-
Lecturing on courses	-	-	-	-	-	-
Other Costs	40,000.00	9,000,000.00	0	0	40,000.00	9,000,000.00
Indirect costs	-	-	-	-	-	-
SUB TOTAL	40,000.00	9,000,000.00	500,000	125,000,000	540,000	134,000,000
GRAND TOTAL	179,780	40,450,500	575,600	143,900,000	755,380	184,350,500

Enclosure 2: Detailed and Justified Budget 2020/2021

BUDGET ITEM	UNIT	QUANTITY	RATE	TOTAL (SEK)	JUSTIFICATION
Ph.D. Training					
Travel					
Travel budget carried forward from 2019/20 for external examiners	person	2		30,080	Travel budget allocated for 2 external examiners to attend viva voce in Dar es Salaam
Student Stipend in Tanzania	person	2	1,800	21,600	Stipend for 6 months for the 2 Students each paid SEK 1,800 per month
Major Research				10,400	Carried forward from 2019/20. To be spent on finalising write-ups from research results.
Publication Costs	person	2	28,000	56,000	Funds for publication of Student's PhD Dissertations
Conferences funds carried forward from 2018/19 to 2019/20				35,300	Travelling for conferences is uncertain. Students should therefore concentrate on accomplishing their dissertations and funds reallocated to support costs on dissertation examination and PhD defense.
Other costs				8,000	Funds carried forward from 2019/20, to support Ph.D. students during the Dissertation writing up at ARU
Total Tanzania				161,380	
Sweden					
Additional funds allocated for Students living allowances in Sweden for 3 months for the extension of stay	person	1	18,000	54,000	Living allowances for 3 months for one Student Edson Sanga to cover the extension of stay in Sweden due to travel restrictions caused by Covid-19. Managed by ISP
Supervision costs in Sweden for 2 students	person	2	250,000	500,000	Supervision cost for 2 Ph.D. Students. Student Maurus Modest is registered and Supervised at Lund University
Supervisor's travel cost to Tanzania		2	20,000	40,000	Funds allocated for final year PhD defence, C/F from 2019/20
Sub Total Sweden				594,000	
Grand Total				755,380	

Enclosure 3.1: Action Plan (PhD students) – Maurus Modest

Activities	Year V				Outputs	Financial implications
	Q1	Q2	Q3	Q4		
1. Addressing Final (90%) seminar comments					<ul style="list-style-type: none"> Credit units Paper/monograph 	<ul style="list-style-type: none"> Extra cost in respect of supervision cost will be required
2. Addressing supervisors' comments on Paper 4					<ul style="list-style-type: none"> Journal article 	
3. Preparation for defense including internal review at ARU					<ul style="list-style-type: none"> 90% refined seminar report 	
4. Submission of dissertation report for printing					<ul style="list-style-type: none"> Readiness for defense 	
5. PhD defense					<ul style="list-style-type: none"> PhD thesis report 	

Enclosure 3.2: Action Plan (PhD students) – Edson Sanga

Activities	Year V				Outputs	Financial implications
	Q1	Q2	Q3	Q4		
1. Refining dissertation chapters					<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Extra cost in respect of supervision cost will be required
2. Presentation of 90% evaluation seminar					<ul style="list-style-type: none"> Credit units Paper/monograph 	
3. Refining dissertation report based comments from 90%					<ul style="list-style-type: none"> Journal article 	
4. Submission of dissertation report for printing					<ul style="list-style-type: none"> 90% refined seminar report 	
5. PhD defense					<ul style="list-style-type: none"> PhD thesis report 	

Enclosure 4: Results Matrix

Types of Outputs	Outcomes (including Targets)	Performance indicators of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
Project 1B	Specific Objective #2: To identify and analyse tacit knowledge on urban typologies and climate sensitive urban design concepts in the transformation of the informal settlements by 2021						
<ul style="list-style-type: none"> Two journal papers (Modest) 	2.1 At least two (2) publications on tacit knowledge on urban typologies and climate sensitive urban design in informal settlements by 2020/2021	Number of papers/chapters in a book published in peer reviewed journals/books/conference proceedings	Four (4) publications by SADE staff over the past 5 years			1	
<ul style="list-style-type: none"> One trained PhD graduate 	2.2 One PhD student graduated by coursework and dissertation by 2020/2021	Number of PhD graduated and utilise the knowledge they have acquired (in teaching, research, community outreach)	Zero			1	
Assumptions for Specific objective 2 <ul style="list-style-type: none"> Funds will be timely available for running the research training programme Potential candidates will swiftly join the training programme. 							
Project 1C	Specific Objective 3:	To mainstream landscape-based urban planning and					

Types of Outputs	Outcomes (including Targets)	Performance indicators of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
		development by 2021					
<ul style="list-style-type: none"> One (1) journal paper (Sanga) 	3.1 At least one (1) publications on process-oriented urban landscape planning developed by 2020/2021	Number of publications on process-oriented urban landscape planning in peer reviewed publications	One journal paper			1	
<ul style="list-style-type: none"> One trained PhD graduate 	3.2 One PhD student graduated by coursework and dissertation by 2020/2021	Number of PhD graduated and utilise the knowledge they have acquired (in teaching, research, community outreach)	Zero			1	
<ul style="list-style-type: none"> One paper presented in a conference/collaborative workshop 	3.3 At least three (3) SADE staff engaged in applying landscape-based urban planning knowledge in settlement development by 2020/2021	Number of consultations and participation in collaborative research works/papers in workshops and conferences	Zero			1	
Assumptions for Specific objective #3 <ul style="list-style-type: none"> Funds will be timely available for running the research training programme Potential candidates will swiftly join the training programme. 							

Types of Outputs	Outcomes (including Targets)	Performance indicators of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
Project 2	Specific Objective 4: To explain the complexity of marketplaces for enhanced understanding and development of urban landscape by 2020						
<ul style="list-style-type: none"> One paper presented in a conference/collaborative workshop 	4.2 At least one (1) new partnership on informality and urban landscape research generated by 2017/2018	Number of invitations to local and international collaborative research works	One invitation to the previous Sida funded PhD graduate in an international conference in 2014			0	
Assumptions for Specific objective #4 <ul style="list-style-type: none"> Funds will be timely available for running the research training programme Local Government Authorities will be willing to apply research results in developing marketplaces 							

Enclosure 5: Aggregated Student Plan

Name of research student	(M/F)	Year started	Training in Sweden (no. of months)	<u>Local PhD</u> Expected Year of completion	<u>Sandwich PhD</u> Expected Year of completion	Progress in %	Preliminary Dissertation title
1. Edson Ephraim Sanga	M	2016	3		2021	80%	Urban pleasurable spaces in compact built environment; Experience from Manzese informal settlement Dar es Salaam Tanzania
2. Modest Maurus Baruti	M	2016	3		2021	95%	Outdoor Microclimate and People's Thermal Perceptions in Informal Settlements of Dar es Salaam, Tanzania

2201 – 2014 ACCESS TO LAND RESOURCES VULNERABILITY AND HIV/AIDS IN TANZANIA

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1. Executive summary of sub-programme/project

HIV/AIDS has brought an adverse impact to human kind in both developed and developing countries. However, developing countries, especially those in the Sub-Saharan Africa including Tanzania have been severely affected. The pandemic has exposed individuals and families to destitution, loss of manpower and vulnerability. In many instances, the efforts are directed towards containing the spread of the disease and little has been done in empowering and protecting the rights of the people who are already affected. This has led to silent or self induced exclusion of people living with HIV/AIDS and their dependents in accessing and/or owning land resources. This situation calls for intervention by stakeholders. One of the ways to address vulnerabilities and exclusions is by developing a knowledge base that will help in the protection and empowerment of people living with HIV/AIDS. This program aims at addressing three questions: (i) how are policies and legal instruments in place useful in protecting and empowering people living with HIV/AIDS in accessing and/or owning land resources? (ii) How can the patterns of land ownership behavior of people living with HIV/AIDS be classified? This research will explore these questions with an intention of identifying predicaments faced by people living with HIV/AIDS and propose policy options intended to empower and safeguard the interest of this group of people and their dependents. Also, it will develop skills necessary to improve research and training capacity on access to land resource, vulnerability and HIV/AIDS pandemic in Tanzania.

2. General objectives and expected results 2015-2021

Overall Objective (2015-2021):

The sub-programme contains three projects namely PhD training, curriculum development and an independent research project. The overall objective of the sub-programme is to influence formulation of policies and stimulate positive attitude/behaviour which will ensure protection of land rights interest of the people living with HIV/AIDS. The project has TWO (2) specific objectives as follows:

Specific Objective 1: To establish a Framework for mapping the attitudes and patterns of land ownership of the PLWHIV/AIDS in Tanzania by the year 2021.

The framework is intended to analyse, map and develop appropriate intervention measures on the patterns of behaviour of the people living with HIV/AIDS towards accessing, utilising and holding on land resources during the infection cycle after the programme period. The key outcomes include the increased number of staff with a capacity to analyse, map and develop appropriate interventions. The other one is adoption of a tool to identify the pattern and intervene the cycle of behaviour of the PLWHIV/AIDS towards land ownership and reduced cases of PLWHIV-AIDS vulnerabilities on access to land *resources*. This objective forms the major research component of the project.

Specific Objective 2: To improve the capability of trainers and researchers in evaluating the adequacy of the land policies, legislations and regulations on protecting the land rights of the PLWHIVAIDS at least by 50% in 2021.

This objective intends to evaluate and document the adequacy of the existing policy, legal and institutional responses in addressing HIV/AIDS related vulnerability in accessing land by 2021 with a view of improving capabilities of the trainers and researchers at Ardhi University. This specific objective aimed at identifying and documenting the adequacy of the existing legal machineries and policies in addressing PLWHIV/AIDS vulnerabilities in accessing and holding on land resources. The outcomes include the increased capacity to research, train and apply knowledge on land related ‘HIV/AIDS vulnerability issues’, increased awareness and advocacy campaigns, formulation or amendments of the existing legal machineries and policies. This objective will be dealt with through the two PhD research studies to be conducted by the selected candidates.

3. Annual target 2020/2021

The research activities scheduled for 2018/2019 planning year were not completed following Presidential appointment of the Principal Investigator to another post in the government. Therefore some of the un-accomplished activities that were scheduled for 2018/2019 are rolled over to the 2020/2021 planning year. Therefore for the 2020/2021 Planning year, the sub-programme expects to carry out a number of activities to meet its objectives. The following are the annual plans and expected results:

3.1: Annual Plan and Expected Results

3.1.1: Operationalising the MSc. Curricula on Land Administration

This sub-programme in collaboration with the other Sub-programme on “Developing capacity to address challenges of commercial pressure over land for large-scale investment in agriculture, energy, and minerals exploitation” plans to make follow ups to ensure that the

curriculum is accredited by TCU ready for running.

3.1.2: Continuing PhD in Land Administration

This is an on-going PhD course which is offered by the Department of Land Management and Valuation. At the moment this PhD Degree has enrolled two students (*one female and one male*). One student, Janesta Urassa is currently finalizing drafting of her dissertation. It is expected that during the requested extension period (2020/2021) the student will finalize her PhD studies. The Second student, Stanslaus Butungo will be involved in data collection aimed at filling gaps which will arise after the final seminar expected to be held in December 2020. After that the student will start dissertation write-up that will be followed by a defense. The students will publish at least one paper. Students' specific activities in the 2020/2021 (for each) are:

- i) Finalise data analysis and writing (Butungo) and addressing comments on draft thesis (Jenesta);
- ii) Publish at least one paper in an International Journal (Butungo);
- iii) Attending both 75% and 90% seminars (Butungo);
- iv) Preparation and submission of final draft thesis (both students); and
- v) Preparation and defence for PhD (both students)

PhD Research by: Stanslaus Peter Butungo

Title of the Project: Impact of HIV/AIDS on Property rights of the affected people in Bukombe District, Tanzania.

Description of the Project:

HIV/AIDS has been suggested to have impacts on women's right to land. Under formal Tanzanian laws women have equal rights of ownership of land as men; so in theory there should not be gendered impacts. However, in practice it is widely reported that under customary practices there are gendered inequalities in terms of ownership and use of land. While large body of literature affirms impacts of HIV/AIDS on tenure rights, there are no straightforward answers to this question. Likewise, although many researches see these inequalities seem to affect women alone, anecdotal evidences suggest that men can also be affected by customary practices of land inheritance as well. This calls for assessing if HIV/AIDS has additional impacts on men and women's land rights under customary practice over and above existing gendered inequalities. Bukombe District in Geita Region has been purposefully selected as a case study basing on higher HIV/AIDS adult prevalence rates above the national average, strong patriarchal norms that dominate land relations and because the researcher is familiar with the area. Preliminary identification of HIV/AIDS affected households has been done and ethical considerations had been taken beforehand to ensure that subjects are not harmed by the results of this research.

Research questions

- i. How do customary practices operate in relation to land inheritance and to what extent are the practices affect access to and ownership of land for men and women in Bukombe District?
- ii. To what extent does HIV/AIDS epidemic contribute to affecting land tenure security situation above the existing gendered inequalities of land inheritance under customary practices for men and women in Bukombe District?

- iii. How have the challenges facing people vulnerable to customary practices of land inheritance in rural areas been addressed by the existing legal and policy framework in Tanzania?

PhD Research by: JenestaAikaeli Elisa Urassa

Project title: Changing Customary Land Tenure Regimes in Tanzania: Assessing women's vulnerability in Morogoro Rural and Kyela Districts

Project description: In Tanzania, customary land tenure regimes have undergone changes which have remained a challenge to some segments of population particularly women who are at risk of losing their secondary tenure rights. Consumption production has been transformed into cash economy. Community norms that prevented selling land that is used by women for cultivation or claiming land for cash crops farming are no longer practical, family structures have become more nuclear and communal land has been transformed into private one. The available information about tenure changes is more generalized. Morogoro rural and Kyela districts are characterized with different traditions and norms where both men and women have been affected differently by the existing tenure systems. The information about the underlying principles that determine land holding and the trends overtime in these societies is missing. Women's vulnerability is not a new issue but those associated with these changes are not well known.

Objective: The main objective of this study is to explore the changes on customary land tenure regimes and the ways in which women's rights have been threatened along the process/outcome of changing.

Research Questions

- i) What are the underlying principles which determine customary land holding?
- ii) What are the factors influencing customs and traditions which govern land tenure?
- iii) How women's rights are protected under the current customary land tenure regimes?

3.1.3: Major Research

The major research project titled *“Determining the Attitudinal Patterns of the PLWHA towards Land Access and Ownership within the infection Cycles”: Inferences from Five Regions with HIV/AIDS Prevalence Rates above the National Average in Tanzania*

Principal Researcher: Prof. Eleuther Mwageni **(who is taking over from Dr. Maulidi Banyani who was appointed to another office in the government)*

Popular Description

Tanzania is one of the African countries which have for more than three decades been severely affected by HIV and AIDS in both rural and urban areas. Although the recent HIV-AIDS reports show a declining trend from 7.1% in 2002 to 5.0% in 2017 (among the group of 15-64 years old), still a threat to the nation is clear. In average around 1,400,000 Tanzanians are living with HIV-AIDS (UNAIDS, 2015). Nevertheless, it must be pointed out that; this is a significant fraction when compared with the national population approximated to be 50 million (TACAIDS 2013; NBS, 2013). HIV-AIDS has brought with it new social and economic burdens on various segments of the population particularly People Living with HIV/AIDS (PLWHA) and their dependents. Each level of the disease affects the attitude of

and has different implications in the patterns of land access and ownership by PLWHA. This study takes a stride and look at the link between HIV AIDS infection levels and the decision on the PLWHA or their dependents to access and holding land. There is little information on the link between HIV/AIDS progression and attitudes in land access and ownership in areas with HIV prevalence rates above National Average in Tanzania such as Dar es Salaam (5.0%), Njombe (11.4%), Mbeya (9.3), Shinyanga (5.9%) and Mwanza (7.2%). In addition, attitudes of communities, PLWHA and their dependents toward land ownership within the cycle of HIV/AIDS infection have not been explored. It is understood that if the attitudes of the PLWHA and their dependents can be mapped over the levels of infection; then intervention measures can be effectively introduced.

General Objective of the Study

The general objective of this study is to determine the attitudinal patterns of the PLWHA towards land access and ownership within the infection cycle. The study will be conducted in five regions with prevalent rates above the national average.

Specific Objectives

1. To determine land access and ownership attitudinal patterns of PLWHA within the infection cycle.
2. To map the land access and ownership attitudinal patterns of PLWHA over the infection cycle.
3. To propose a framework for protecting rights to access and ownership of land by PLAWHA

Research Questions

1. How can the attitudes of the PLWHA affect the land access and ownership during infection cycle?
2. How can the relationships between the attitudes of the PLWHA towards land access and ownership be analysed?
3. What intervention measures can be adopted in up-holding or safeguarding the rights of the PLAWHA?

Revised Activities and planned targets for the year 2020/2021

Due to the outbreak of Covid 19, it will not be possible to complete some of the earlier planned activities within the expected time i.e. June 2020. The latest expected completion time is now set to June 2021. This is due to the fact that some of the activities which require substantive interactions such as participation in conferences, students' consultation with supervisors have been suspended for now till when the spread of Covid 19 has been controlled. A summary of re-planned activities and justification for pushing them forward is presented in table 1 below:

Table 1: Planned activities 2020/2021

SNr	Updated Planned Activity	Justification	Financial implication
Continuing PhD in Land Administration			
a)	Stanslaus Peter Butungo: Impacts of HIV/AIDS over and above Customary Practices of Land Inheritance for Households in Rural Tanzania: The case of Ushirombo- Bukombe in Geita Region, Tanzania	This is caused by the delay in registration for PhD studies. Earlier completion date pushed to 2020/2021 academic year because of the outbreak of Covid 19 which has suspended	Extra funding in respect of supervision is required

SNr	Updated Planned Activity	Justification	Financial implication
	Remaining activities: <ul style="list-style-type: none"> Finalising data analysis and report writing Undertaking the 90% Seminar (SWEDEN) Publishing at least one journal paper Preparation for PhD defense PhD Defence (ARU) 	student's physical consultation with supervisors as well as participation in conferences	
b)	Jenesta Aikaeli Elisa Urassa: Changing Customary Land Tenure regimes in Tanzania: Assessing Women's Vulnerability in Morogoro Rural and Kyela Districts by Jenesta Aikaeli Elisa Urassa Remaining activities: <ul style="list-style-type: none"> Addressing comments on the submitted draft thesis Editing thesis and production of final draft Final Seminar Thesis Defence 	The candidate has submitted her final draft. In order for her to graduate in the 2020/21 academic year	Extra funding in respect of supervision is required
Major Research: Determining the Attitudinal Patterns of the PLWHA towards Land Access and Ownership within the infection Cycles": Inferences from Mbeya and Shinyanga regions			
	Finalising data analysis and final report writing	There was a delay in securing ethical clearance from NIMR. However, to date all data have been collected, entered and cleaned. Preliminary analysis is ongoing. Time extension up to 2020/2021 is required to accomplish the activity	No extra funding; only time extension as the activity was budgeted for
b)	Development a framework for analysing the pattern of the attitude of the PLWHA	The framework depends on data collected under (a) above	No extra funding; only time extension as the activity was budgeted for
c)	Preparation of a Manual for outlining approaches for HIV/AIDS and Land Vulnerability Interventions	The manual relies on findings/inputs from the PhD studies and data collected under (a) above	No extra funding; only time extension as the activity was budgeted for
e)	Preparing and presenting a paper in at least one conference/workshop	Delays in data collection and processing. This will subsequently push the completion date to 2020/2021	

4. Analysis

Annual Risk Management Framework

There is a risk which is likely to influence the delivery of the project

- (i) There is a risk that PhD students may delay submitting their research reports for feedback due to slow down caused by the outbreak of Covid 19. In this respect, time extension up to 2020/2021 is requested. Additionally, Dean-School of Earth Sciences Real Estate, Business and Informatics, Head of Departments, Sub-programme Coordinators and Supervisors will closely follow on the students' progress by ensuring that seminar presentations and report submissions are regular;
- (ii) A risk that MSc. Curriculum in Land Administration may not be validated by the TCU on time. In this respect, the University will continue to make follow ups with TCU to ensure that the curriculum is accredited; and
- (iii) Delay in effective execution of project activities as a result of team leaders leaving the university on either retirement or appointment to other government offices. In this respect, the team leader was appointed to a managerial position in one of the government parastatal organizations hence creating a time lag in executing sub-programme activities. Under this circumstance, the University appointed a seasoned senior researcher to takeover.

5. Enclosures

- 1. Sub-programme Component Budget
- 2. Sub-programme Detailed and justified Budget
- 3. Sub-programme Action Plan
- 4. Sub-programme Result Matrix

Enclosure 1: Sub-programme Budget 2018/2019

Sub Program: Programme: Access to Land Resources Vulnerability and HIV/AIDS in Tanzania

Tanzanian Institution/Dept: School of Real Estate Studies, Ardhi University

Collaborating Institution/s in Sweden: Division of Division of Real Estate Planning & Land Law, KTH

TANZANIA	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Curriculum development	-	-	-	-	-	-
Research equipment	-	-	-	-	-	-
Research consumables	-	-	-	-	-	-
1. PhD Students - Stationery & Materials	-	-	-	-	-	-
2. Major Research - Stationery	-	-	-	-	-	-
Travel						
1. Supervisor's travel to Sweden	60,160.00	13,536,000.00	-	-	60,160.00	13,536,000.00
2. PhD Students travel to Sweden	20,000.00	4,500,000.00	-	-	20,000.00	4,500,000.00
Field/Lab work						
1. Major Research	-	-	-	-	-	-
2. PhD Research	-	-	-	-	-	-
Students' Stipend						
1. PhD Training	-	-	32,400.00	8,100,000.00	32,400.00	8,100,000.00
Conferences	94,200.00		-	-	94,200.00	21,195,000.00

TANZANIA	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
		21,195,000.00				
Publication costs	56,000.00	12,600,000.00	-	-	56,000.00	12,600,000.00
Travel insurance	-	-	-	-	-	-
Other costs	58,800.00	13,230,000.00	-	-	58,800.00	13,230,000.00
SUB TOTAL	289,160.00	65,061,000.00	32,400.00	8,100,000.00	321,560.00	73,161,000.00
	Bal. C/F 2019/20		Funds Allocated 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
ISP - student allowances						
PhD Student's allowances	54,000	12,150,000	54,000.00	13,500,000.00	108,000	25,650,000
SUB TOTAL	54,000	12,150,000	54,000.00	13,500,000.00	108,000	24,300,000
SWEDEN	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Supervision	0	0	425,000	106,250,000	425,000	106,250,000
Curriculum development	-	-	-	-	-	-
Lecturing on courses	-	-	-	-	-	-
Other Costs	40,000	9,000,000	0	0	40,000	9,000,000
Indirect costs	0	0	0	0	0	0
SUB TOTAL	40,000	9,000,000	425,000	106,250,000	465,000	115,250,000
GRAND TOTAL	383,160	86,211,000	511,400	127,850,000	894,560	212,711,000

Enclosure 2: Sub-programme Detailed and justified budget

BUDGET ITEM	UNIT	QUANTITY	RATE	TOTAL (SEK)	JUSTIFICATION
Ph.D. Training					
Travel					
PhD Students travel to Sweden	person	1		20,000	1 Student is yet to make the third visit to SLU for writing up dissertation and doing the planned seminars
Travel budget carried forward from 2019/20 for Supervisors and external examiners	person	2		60,160	Travel budget allocated for Supervisors to Sweden and 2 external examiners to attend viva voce in Dar es Salaam but with travel restrictions part of funds to support Students' activities on writing up dissertation.
Student Stipend in Tanzania	person	2	1,800	32,400.00	Stipend for 6 months for Janesta Urassa, and 12 months for Stanslaus Butungo paid at SEK 1,800 @ month per student
Publication Costs	person	2	28,000	56,000	Funds for publication of Student's PhD Dissertations
Conferences funds carried forward from 2018/19 to 2019/20				94,200	Travelling for conferences is uncertain. Students should therefore concentrate on accomplishing their dissertations and funds reallocated to support costs on dissertation examination and PhD defense.
Other costs				58,800	Funds carried forward from 2019/20, to support Ph.D. students during the Dissertation writing up at ARU
Total Tanzania				321,560.00	
Sweden					
Funds carried forward for Students living allowances in Sweden for 2019/20 plus additional amount requested	person	1	18,000	108,000	Living allowances paid to 6 months stay in Sweden as the Student is required to spend 6 months in Sweden for close guidance Managed by ISP
Supervision costs in Sweden for 2 students	person	2		425,000	Supervision cost for 2 Ph.D. Students one at SLU (SEK 250,000) and another at KTH (SEK 175,000)
Supervisor's travel cost to Tanzania		2	20,000	40,000	Funds allocated for final year PhD defence, C/F from 2019/20
Sub Total Sweden				573,000	
Grand Total				894,560	

Enclosure 3: Sub-Programme Action Plan

Enclosure 3.1.1: PhD Component (Jenster) – 2020/2021

Activities	Year V				Financial Implication
	Q1	Q2	Q3	Q4	
1. Addressing comments on draft thesis					No extra funding; only time extension as the activity was budgeted for
2. Final review and editing of the compiled thesis					
3. Production and submission of final draft thesis					No extra funding; only time extension as the activity was budgeted for
4. Final Seminar					No extra funding; only time extension as the activity was budgeted for
5. PhD defence					No extra funding; only time extension as the activity was budgeted for

Enclosure 3.1.2: PhD Component (Butungo) – 2020/2021

Activities	Year V				Financial Implication
	Q1	Q2	Q3	Q4	
1. Thesis Writing Chapters 5-8					Extra funding in respect of supervision cost is required
2. Review and editing of the compiled thesis					
3. Attending the 75% and 90% seminars					
4. Preparation and presentation of Final Seminar (Sweden)					
5. Production and submission of final draft thesis					
6. Preparation for and PhD defense (ARU)					

Enclosure 3.1: Major Research Activities

Activities	Year VI				Financial Implication
	Q1	Q2	Q3	Q4	
1) Finalising data analysis and final report writing					No extra funding; only time extension as the activity was budgeted for
2) Development a framework for analysing the pattern of the attitude of the PLWHA					No extra funding; only time extension as the activity was budgeted for
3) Preparation of a Manual for outlining approaches for HIV/AIDS and Land Vulnerability Interventions					No extra funding; only time extension as the activity was budgeted for
4) Preparing of four articles for publications (4)					Cost extension under the umbrella of helping

Activities	Year VI				Financial Implication
	Q1	Q2	Q3	Q4	
					researchers to produce more than one paper
5) Preparing and presenting a paper in at least one conference/workshop					No extra funding; only time extension as the activity was budgeted for

Enclosure 4: Sub-programme Results Matrix

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
Specific Objective 1:							
To establish a Framework for mapping the attitudes and patterns of land ownership of the PLWHIV/AIDS in Tanzania by the year 2020							
A framework for analysing the attitudes and land ownership patterns of the PLWHIV/AIDS is developed by a team which includes 20% of female members	1.1. Increased awareness on the attitudes and patterns of land ownership for PLWHIVAIDS at least by 10% per year starting in 2018.	Number of programmes to deal with the issues	Existing reports from National and International organisations			0	
Manual (1) outlining approaches for HIV/AIDS and land vulnerability interventions comprising 40% of female team members	1.2. Increased use of streamlined approaches in dealing with HIV AIDS land related vulnerabilities by at least 20% by the year 2018.	Extent of use of the Manual by local, centre government, female as well as CSOs.				1	
Short course (1) on the developed framework and the manual comprises at least 25% female participants	1.3 Increased capacity by central, local governments and CSOs employees in dealing with HIV issues vulnerabilities at least by 10% by the year 2020.	Extent of the awareness on PLHIV vulnerabilities in land access increased	5 Short courses			1	
<ul style="list-style-type: none"> One research report of which 50% female team members 	1.4 Increased advocacy campaigns on the change of policy by at-least 10%	One research report	Not established			1	

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
	by the year 2018						
• 4Journal Papers of which one from female	1.5 Increased use of shared knowledge by the scientific community by 2020	Number of published papers at least 50% from female	14 publications			1	
<u>Assumptions:</u> <ul style="list-style-type: none"> • Staff members are interested to participate in the program for the entire period of study. • Stakeholders who are willing to participate in the research activities. • Lack of a body of knowledge in PLWHIV/AIDS vulnerabilities and patterns of land ownership. • Timely release of fund. • Availability CSOs dealing with PLWHIV/AIDS and their dependents. 							
<u>Specific Objective 2:</u> To improve the capability of trainers and researchers in evaluating the adequacy of the land policies, legislations and regulations on protecting the land rights of the PLWHIVAIDS at least by 50% in 2020							
• 2 PhD graduates (one female) • Two Thesis	2.2 To increase by at least 15% the capacity to research, train and apply knowledge on land related 'and HIV/AIDS vulnerability issues' by the year 2020.	Number of trained graduates (50% female)/and two PhD Theses	11 PhD holders in land related issues			2	0

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year (2020/21)
<ul style="list-style-type: none"> One Research Report comprising at least 50% of female participant 	2.3. Increased dissemination of the research and advocacy campaigns on the change of policy by at-least 10% by the year 2018	Number of reported cases	14 publications			1 JP 1 Research report	0
Assumptions: <ul style="list-style-type: none"> Staff members are interested to participate in the program for the entire period of study. Lack of a body of knowledge in PLWHIV-AIDS vulnerabilities related to land ownership Availability CSOs dealing with PLWHIV/AIDS and their dependents The demand for more professionals in the field of Land Administration at University and Country level Timely release of funds 							

Enclosure 5: Aggregated students' plan

Name of research student	(M/F)	Year started	Training in Sweden (no. of months)	<u>Local PhD</u> Expected Year of completion	<u>Sandwich PhD</u> Expected Year of completion	Progress in %	Preliminary Dissertation title
5. JenestaAikaeli Elisa Urassa	F	2016	3		2020	85%	Changing Customary Land Tenure Regimes in Tanzania: Assessing women's vulnerability in Morogoro Rural and Kyela Districts
6. Stanslaus Peter Butungo	M	2016	3		2021	65-70%	Impact of HIV/AIDS on Property rights of the affected people in Bukombe District, Tanzania

**2203 – 2014 DEVELOPING CAPACITY TO ADDRESS CHALLENGES OF
COMMERCIAL PRESSURE OVER LAND FOR LARGE-SCALE INVESTMENT IN
AGRICULTURE, ENERGY, AND MINERALS EXPLOITATION**

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1.0 Executive summary of sub-programme/project

This programme is based on training and research on internal and external dynamics leading to commercial pressure over land in Tanzania including addressing issues of food security, oil and gas and alternative energy supply; large-scale land acquisition and resettlement and alternatives to it; and the impacts on communal land rights, and the resultant conflicts and approaches put in place or possible for conflict resolution.

Examining internal and external dynamics in commercial pressure over land will be aiming at identifying and quantifying the economic, social, political and technological forces that are behind the current observed onslaught by various institutions and individuals on acquiring as much land as possible in various parts of Tanzania for commercial exploitation.

It will also be analyzing processes of extinguishing land rights and resettling or otherwise compensating the affected populations focusing on applications and possibilities of using alternative approaches such as land for equity, contract farming; land sharing and land banking.

In third place, the programme seeks to look at land acquisition and resettlement to pave way to commercial exploitation of land. The resulting conflicts among various groups and the current application of existing conflict resolutions and their outcomes will be analysed.

Proper understanding of commercial pressures on land is a key input in national economic development, equitable access to property rights, poverty reduction, environmental protection and ensuring of peace, order and good governance. However, capacity to deal with these challenges is largely missing in the country. This programme will build capacity at ARU in terms of expert manpower (PhD and Masters Graduates) and research findings both of which will make ARU an institution of choice to produce the manpower and various tools required to tackle the challenge of commercial exploitation of land resources.

2.0 General objectives and expected results 2015-2021

Overall Objective

The overall objective of the programme is building analytical capacity to address the challenges emanating out the large-scale land acquisition for commercial exploitation of land resources by 2021. Key result areas are curricula developed to train manpower at Masters and PhD levels, findings based on robust research results to inform all stakeholders in the land and natural resources sectors of the outcomes of large-scale land acquisition for commercial exploitation, and approaches including tools that can be used to minimize the adverse effects of this phenomenon but at the same time creating a situation where all involved parties that is, property rights owners, investors, the government and other stakeholders end up in a win-win situation.

Specific Objectives

The Project has four specific objectives as described below:

Specific Objective 1

To develop skills and analytic tools for acquisition and management of land for large-scale land-based investments for agribusiness and natural resources exploitation by 2021. The aim here is to develop human capacity at PhD, Masters and research levels to be able to analyse the source, processes and impacts of large-scale land acquisition for commercial exploitation in order to ensure that the country and its peoples get the utmost benefit from this ongoing global search for land, in both the short and long terms

Specific Objective 2

To create awareness on rights, obligations and procedures for land acquisition for large-scale investment by 2021. The government at various levels; village leaders; communities as well as investors have to know the set down procedures for large-scale land acquisition as well as their rights and obligations. The programme aims at creating awareness among the various stakeholders, through workshops and publications, so that current and future interests of communities are safeguarded.

Specific Objective 3

To develop capacity to research and train on challenges of large-scale land acquisition and protection of indigenous land rights. The programme realises that continuous research is necessary on the dynamics of large-scale land acquisition and its consequences. While the research will focus on land rights, it will also highlight the uses, to which the land is put, and possible consequences arising from thereof. Protection of the rights of indigenous populations at family or clan level as well as at community level will be the focus of research including the critical issue of protecting the commons.

Specific Objective 4

To assess and disseminate results on the impacts on communities and their land rights of current and future oil, gas and other minerals exploration and exploitation by 2021. The programme will be looking into areas of land conflicts as well as areas of involuntary resettlement so rampant when it comes to land acquisition and extinguishing of land rights in order to allow the exploitation of natural resources. Results will be disseminated widely in order to create an environment in which the resources of a country are not a bane but a blessing

3.0 Annual target: 2020/2021 Year

In the year 2020/2021 being the year of extended programme implementation; the sub-programme expects to carry out a number of activities to meet its objectives. The following are the annual plans and expected results:

3.1: Description of Plans and expected Results for the year 2020/2021

3.1.1: Operationalizing the MSc. in Land Administration Curricula

This sub-programme in collaboration with the other Sub-programme on “Access to Land

Resources Vulnerability and HIV/AIDS in Tanzania” has prepared a curricular for MSc in Land Adminsitration and submitted the same to respective University organs for endorsement and subsequent accreditation by the TCU.

3.1.2. Ongoing PhD Research Component

This sub-programme has two PhD candidates. The enrolled PhD students (Mr. Hussein Kayera and Mr. Martin KanutiMpandikizi) are remained with one course each. They are undertaking data analysis, and report writing. Data analysis and report writing is expected to be done at ARU, each student in his respective research area. Table 1.

Name of Phd-Student: MARTIN K. MPANDIKIZI

Title of research project: Land Acquisition for large scale investment in commercial agriculture in Tanzania: Balancing stakeholders interests

Popular description of the project including what, why and geographic location

There is an increasing pressure on land for large scale investment, especially in rural Africa. Large parcels of land are being acquired by national and multi-national corporations for commercial agriculture, biofuels production, mineral exploitation and a myriad of other purposes. *Generally, these acquisitions impact negatively on rural people’s welfare.* Rural people are losing their land including access to water, pastures and other natural resources. Due to this, large scale investment on land has been labeled by the scholars and activists as **land grabbing**. So much effort has been directed towards ensuring that small-holders are not affected by these acquisitions. The laws of the land and soft laws from multi-lateral corporations as well as international treaties aim at protecting the small-holders’ welfare. One wonders, why then would large scale land acquisition and investment work to the disadvantage of the smallholders? The study is taking place within the area of SAGCOT project, specifically in the Coast and Morogoro region.

Martin Mpandikizi who is writing on: *“Institutional set up and Capacity to deal with large-scale investment in land”*. The candidate is critically examining the policy, legal and institutional set up in Tanzania of getting land available for investors, from central government level, to the village level. The research is looking at inter and intra governmental relationships of handling an investor from the search for land, to its development. It is also examining some of the deals that have been concluded, to deduct lessons there-from. The success and failure of land banking will be highlighted.

The research questions

Are large scale investments on land tailored to suit development needs of the rural poor?

Research objectives

- i) Examining the legal and institutional framework on land tenure and investment and assessing possible loopholes that facilitate grabbing in Tanzania
- ii) Revisiting the proposed multinational strategies that are intended to protect the welfare of the rural people (working class people/poor people) i.e. their adoption and implementation
- iii) Examining the asset base of the rural communities
- iv) Examining land acquisition processes for large scale investment
- v) Assess rural communities coping strategies after acquisition of both communal and private lands.

Name of PhD-Student: Hussein Kayera

Title of research project: Land Conflicts on Agricultural Land in Tanzania: Lessons from Districts with Commercial Farming Investment

Research Problem

The Tanzanian government has in place measures for citizen participation when village land is acquired for investment. Despite established measures for collaboration of actors when rural land is acquired for investment, land conflicts associated with investment in commercial farming have persisted (Kaarhus, 2001). Conflicts can overwhelm actors, dominate them and generate violence and destruction (Herrera & Passano, 2006). Conflict can disrupt the livelihood of rural people and negatively affect production plans of commercial farms. Despite all this, there is little information on land conflicts associated with pressure from investment in commercial farming. This research aims to fill that gap

Hussein Kayera is writing on: *“The nature and causes of land conflicts with regard to large-scale investment in land”* where he is examining conflicts related to investors in Tanzania and how these conflicts are related to access to land rights by host communities. He is looking at problems related to land acquisition and compensation as resettlement. Mr. Kayera is also looking at alternatives to large-scale land acquisition including approaches like land for equity, and contract farming.

Research Question

The central question of this study is why are land conflicts associated with investments in commercial farming persistent in rural Tanzania?

Guiding questions are:

- i) To identify and analyze existing policy measures for mitigating land conflicts when village land is acquired for investment
- ii) To identify the factors that cause and sustain land conflict when land is acquired for investment in commercial farming.
- iii) To characterize land conflicts attributed to investment in commercial farming.
- iv) To come up with policy and operational measures that can be used to address rural land conflicts associated with pressure from investment in commercial farming.

Table 1: Planned Activities for the two PhD students for 2020/2021

S/N	Sub-Programme Activity	Updated Planned activity	Justification	Financial implications
1	PhD: Hussein Kayera	i) One (1) pending course: Quantitative Methods with Real Estate Applications (7.5 credits)	He is required to submit a quantitative paper from his field data. However, the situation forced him to postpone logistics for a visit to Sweden because of the outbreak of Covid 19. He plans to do the course in August 2020	No extra funding; only time extension as the activity was budgeted for
		ii) Additional fieldwork session (one month)	Additional data is required. July – August 2020	Cost covered from original budget.
		iii) Production and submission of draft thesis	August – September 2020	
		iv) Preparation and presentation of Final Seminar (Sweden)	September – December 2020	
		v) Printing and submission of draft thesis and preparations for defense (Preparation for and PhD defense (ARU)	Submission is expected to be done in January 2021	No extra funding; only time extension as the activity was budgeted for
		vi) PhD defense	After submission of his thesis, it is expected that it will take three Months to get back his results so that he can defend his PhD in April 2021	No extra funding; only time extension as the activity was budgeted for
2.	PhD: Martin Mpandikizi	One (1) pending course: Quantitative Methods with Real Estate Applications (7.5 credits)	To submit a quantitative paper from field data. However, the situation forced him to postpone logistics for a visit to Sweden because of failure to collect the necessary data and the outbreak of Covid 19 which led to restrictions on travelling imposed by Sweden. August 2020	No extra funding; only time extension as the activity was budgeted for
		Data Collection in Kilwa (Study area 2), data analysis and thesis writing	He failed to do data collection as planned because of harsh weather conditions. The study areas could not be reached due to severe floods. He plans to do	No extra funding; only time extension as the activity was budgeted for

S/N	Sub-Programme Activity	Updated Planned activity	Justification	Financial implications
			the task between June 2020	
		Complete analyzing data from study area 1 and collect data from study area 2; complete writing the draft PhD Thesis	July and August 2020	
		Preperation and presentation of Final Seminar (Sweden)	September – December 2020	
		Production and submission of final draft thesis	January – March 2021	
		Preparation for and PhD defense (ARU	March – April 2021	
		PhD defense	After submission of his thesis, it is expected that it will take three Months to get back his results so that he can defend his PhD in May - June 2021	No extra funding; only time extension as the activity was budgeted for

3.1.5: Major Research Component

During the 2019-2020 – June 2021, the major research, which is titled “*Challenges of Making Land Available For Large Scale Investment in Agriculture For Internal and External Investors in Tanzania: The Dangers Facing Traditional and Communal Land Rights Holders: Case Studies From The Lake Zone*”, will continue to be implemented in terms on finalising data collection (gap filling), data analysis, stakeholders meetings; writing of the final report and preparing papers for conference and journal publication. Due to preliminary results that showed that the Lake zone has very few commercial farms, the sub-programme decided to extend the study to other areas that are known to have large commercial farms. In this regard, Kilombero, Morogoro has been selected. Table 2

Table 2: Planned Activities for the major research for 2020/2021

S/N	Sub-Programme Activity	Updated activity	Planned	Justification	Financial implication
3	Major Research	i) Finish Data collection		i) The exercise could not be done since mid-December 2019 due to prolonged rainfall in the case study area and thereafter due to COVID 19 pandemic. This caused a delay to all other research activities, the plan is to do it by July 2020	No extra funding; only time extension as the activity was budgeted for
		ii) Analysis of collected data and report writing		ii) This exercise is scheduled to be done between August and October 2020	No extra funding; only time extension as the activity was budgeted for
		iii) Validating results and stakeholders meeting		iii) This exercise is expected to be done between November 2020 and January 2021	No extra funding; only time extension as the activity was budgeted for
		iv) Submission of research report		iv) This is expected to be done in February 2021	No extra funding; only time extension as the activity was budgeted for
		v) Prepare Papers for conference and Journal publication		v) March and April 2020 will be used to do this task	No extra funding; only time extension as the activity was budgeted for
		vi) Attending International Conference		vi) This is expected to be done in April 2021	No extra funding; only time extension as the activity was budgeted for

There is pressure on governments in many countries of the developing world including Tanzania, from external and internal investors to provide land for large-scale investment in agriculture, and natural resources. Governments seem to be in favour of this claiming that there is plenty of land in their countries which can be made available for commercial agriculture.

However, the new wave of land acquisition and investment in agriculture is possibly not living to the expectations of millions of rural land dwellers. The poorest people are being hardest hit as competition for land intensifies. There is a body of research findings that has revealed that residents regularly lose out to local elites and domestic or foreign investors because they lack the power to claim their rights effectively and to defend and advance their interests.

What is usually depicted as unused or marginal land is land for communal use such as that used by pastoralists or land used as a common for rural populations. As a result, conflicts have flared up now and then between investors (who are many times supported by governments) and local populations. Yet governments including that of Tanzania are convinced that there is land for investment and are, among others, seeking to identify this land and create a land bank.

Based on case studies from the Lake Zone Regions, this study seeks to find out if and when land is identified as suitable for investment, steps are taken to protect traditional and communal land rights including access to commons, natural resources, water and so on. It seeks to establish whether, indeed given the growing national population as well as land degradation, there is indeed land for large scale investment.

Study Objectives

The main objective of this study is to seek to understand the dynamics behind large-scale land acquisition and its consequences; and to develop and disseminate tools that can be operationalised to ensure an efficient, equitable and sustainable framework for exploitation of land and natural resources for the benefit of the nation and its inhabitants.

Specific Objectives include the following:

- i) To appraise and quantify the extent of actual and potential large scale land acquisition for commercial investment in Tanzania
- ii) To establish the legal and practical process for investors to acquire and develop land
- iii) To bring to light, the power relationship between rural populations and investors
- iv) To evaluate the government's efforts to create and manage the land bank
- v) To find out the type of safeguards put in place to protect rural land rights holders in the case of a large-scale land acquisition

3.4 Research questions

The research questions for the study include the following:

- i) Is there an inventory of large scale land acquisition and investment?
- ii) What laws, regulations, guidelines and administrative procedures must be abided with in searching land for investment?
- iii) How prepared are villagers, and village and district authorities in negotiating and closing a deal with investors?
- iv) How many cases of conflicts with investors have been recorded and how have they been solved?
- v) How have livelihood strategies for rural populations changed with the advent of investors?

Alignment with Results Matrix

There is adequate congruency between the above and the results matrix

4.0 Analysis

Annual Risk Management Framework

There is a risk for students not completing their studies on time due to late start of data collection and writing of their theses. To remedy this Department has already exempted them from teaching with effect from this semester to enable them finish data collection and progressing with research writing.

5.0 Enclosures

1. Sub-programme Budget total
2. Sub-programme Detailed and justified Budget
3. Sub-programme Action Plan
4. Sub-programme Result Matrix
5. Sub-programme Aggregated Student's Plan

Enclosure 1: Sub-Programme Budget Total (2018-2019)

Sub Program: Programme: Research Training in Developing Capacity to address Challenges of Commercial Pressure over Land

Tanzanian Institution/Dept.: School of Real Estate Studies, Ardhi University

Collaborating Institution/s in Sweden: Division of Real Estate Planning & Land Law, KTH

TANZANIA	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Curriculum development	-	-	-	-	-	-
Research equipment	-	-	-	-	-	-
Research consumables	-	-	-	-	-	-
1. PhD Students - Stationery & Materials	-	-	-	-	-	-
2. Major Research - Stationery	-	-	-	-	-	-
Travel					-	-
1. Supervisor's travel to Sweden	80,160.00	18,036,000.00	-	-	80,160.00	18,036,000.00
2. PhD Students travel to Sweden	20,000.00	4,500,000.00	-	-	20,000.00	4,500,000.00
Field/Lab work						
1. Major Research	-	-	-	-	-	-
2. PhD Research	-	-	-	-	-	-
Student's Stipend						
1. PhD Training	-	-	43,200.00	10,800,000.00	43,200.00	10,800,000.00
Conferences	78,300.00	17,617,500.00	-	-	78,300.00	17,617,500.00
Publication costs	56,000.00	12,600,000.00	-	-	56,000.00	12,600,000.00

Travel insurance	-	-	-	-	-	-
Other costs	70,400.00	15,840,000.00	-	-	70,400.00	15,840,000.00
SUB TOTAL	304,860.00	68,593,500.00	43,200.00	10,800,000.00	348,060.00	79,393,500.00
	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
ISP - student allowances						
PhD Student's allowances	108,000	24,300,000	0	0	108,000	24,300,000
SUB TOTAL	108,000	24,300,000	0	0	108,000	24,300,000
SWEDEN	Bal. C/F 2019/20		Funds Requested 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Supervision	0	0	350,000	87,500,000	350,000	87,500,000
Curriculum development	-	-	-	-	-	-
Lecturing on courses	-	-	-	-	-	-
Other Costs	40,000	9,000,000			40,000	9,000,000
Indirect costs	-	-	-	-	-	-
SUB TOTAL	40,000	9,000,000	350,000	87,500,000	390,000	96,500,000
GRAND TOTAL	452,860	101,893,500	393,200	98,300,000	846,060	200,193,500

Enclosure 2: Sub-programme Detailed and justified budget

BUDGET ITEM	UNIT	QUANTITY	RATE	TOTAL (SEK)	JUSTIFICATION
Ph.D. Training					
Travel					
PhD Students travel to Sweden	person	1		20,000	
Travel budget carried forward from 2019/20 for Supervisors and external examiners	person	2		80,160	Travel budget allocated for Supervisors to Sweden and 2 external examiners to attend viva voce in Dar es Salaam but with travel restrictions funds to support Students who are still lagging behind.
Student Stipend in Tanzania	person	2	1,800	43,200	Stipend for 12 months for 2 Students paid at SEK 1,800 @ month per student
Publication Costs	person	2	28,000	56,000	Funds for publication of Student's PhD Dissertations
Conferences funds carried forward from 2018/19 to 2019/20				78,300	Travelling for conferences is uncertain. Students should therefore concentrate on accomplishing their dissertations and funds reallocated to support costs on dissertation examination and PhD defense.
Other costs				70,400	Funds carried forward from 2019/20, to support Ph.D. students during the Dissertation writing up at ARU
Total Tanzania				348,060	
Sweden					
Funds carried forward for Students living allowances in Sweden for 2019/20	person	1	18,000	108,000	Living allowances paid for 3 months stay in Sweden per visit and the Student had not utilised the two visits planned during the programme implementation. Managed by ISP
Supervision costs in Sweden for 2 students	person	2	175,000	350,000	Supervision cost for 2 Ph.D. Students
Supervisor's travel cost to Tanzania		2	20,000	40,000	Funds allocated for final year PhD defence, C/F from 2019/20
Sub Total Sweden				498,000	
Grand Total				846,060	

Enclosure 3: Action Plan

3.1.1 PhD Component (Students Study Programme) – Kayera Hussein

Activities	Year V – 2020/2021				Financial Implication
	Q1	Q2	Q3	Q4	
1) One (1) pending course: Quantitative Methods with Real Estate Applications					No extra funding; only time extension as the activity was budgeted for
2) Additional fieldwork session (one month)					
3) Review, edit and finalization of the draft thesis					
4) Printing and submission of draft thesis and preparations for defense					
5) Submission of Dissertation and Preparation for defense					
6) PhD Defence					

3.1.2 PhD Component (Students Study Programme) – Martin Mpandikizi

Activities	Year V – 2020/2021				Financial Implication
	Q1	Q2	Q3	Q4	
1) One (1) pending course: Quantitative Methods with Real Estate Applications					No extra funding; only time extension as the activity was budgeted for
2) Data Collection in Kilwa (Study area 2), data analysis and thesis writing					
3) Review and finalise draft thesis					
4) Review, edit and finalization of the draft thesis					
5) Additional fieldwork session (one month)					
6) Printing and submission of draft thesis and preparations for defense					
7) PhD Defence					

3.2 Major Research Activities

	Year V 2020/2021				Financial Implication
	Q1	Q2	Q3	Q4	
1. Finalizing data collection and analysis					No extra funding; only time extension as the activity was budgeted for
2. Validating results and stakeholders meeting					
3. Submission of research report					
4. Prepare Papers for Journal publication					
5. Attending International Conference					

Enclosure 4: Results-Based Matrix

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Annual Outcome Targets for 2020/2021	Actual Outcomes Achieved: Results Observed in year 2020/2021
Specific Objective 1: To develop skills and analytic tools for acquisition and management of land for large-scale land-based investments for agribusiness and natural resources exploitation by 2020					
<ul style="list-style-type: none"> Two PhD Graduates Two research manuscripts published in national and international academic peer-reviewed journals 	1.1 Increase of 2 MSc and 1 PhD candidates trained in the new programmes graduate with 80% doing so by 2021	Number of students who meet requirement at each stage and graduate	6 MSc. and 6 PhD graduates in other programme	2 PhD	0
	1.2 Increase in SRES/ARU staff and graduates presenting scholarly papers in international conferences by 2021	Number of papers published in conferences proceedings	7 (by Sida Phase IV PhD graduates 2009-2014)	1	0
Assumptions: <ul style="list-style-type: none"> Strengthening of research capacity and postgraduate training is implemented in SRES Funds are available for running the research training program. Candidates complete course successful Smooth recruitment of new academic staff 					
Specific Objective 3: To develop capacity to research and train on challenges of large-scale land acquisition and protection of indigenous land rights					
Curriculum for Masters degree in Land Administration developed, approved, piloted and taught	3.1: 1 MSc curricula approved by University SENATE and accredited by TCU by 2017	Number of new MSc curricula approved	None were developed in the previous Sida programmes	1 submitted to TCU for accreditation	
Two staff trained, graduated and recruited	3.2 At least 1 (50%) female staff trained, Graduated and recruited by 2021	Number of female staff trained, Graduated and recruited	Existing professors and senior lecturers in land resources management at ARU and partner institution	Two (2) undergoing training	

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Annual Outcome Targets for 2020/2021	Actual Outcomes Achieved: Results Observed in year 2020/2021
Assumptions: <ul style="list-style-type: none"> Strengthening of research capacity and postgraduate training is implemented in SRES Funds are available for running the research training program. Recruitment of new staff smooth Recruited staff retained 					
Specific Objective 4: To assess and disseminate results on the impacts on communities and their land rights of current and future oil, gas and other minerals exploration and exploitation by 2020					
Three research projects in areas of: <ul style="list-style-type: none"> Oil and gas and other minerals exploitation and land rights Alternatives to large-scale land acquisition Land Conflicts and their Resolution developed and executed by 2021 	4.1 Three collaborative research by at least 1 new research projects with international institutions by 2020	Number of secured research projects	-Research reports relating to oil, gas and other minerals -ARU Research Policy and Procedures	1	
Three research manuscripts published in academic peer-reviewed journals	4.2. Increased use of research results to address issues emanating from commercial pressure over land and natural resources exploitation by at least 50% by 2020.	Number of research results utilized by communities, investors and policy makers	Several papers published in refereed journals	1	
Three stakeholders' workshops conducted and three workshop proceedings reports produced	4.3 Increased use of research shared with peers and policy makers by 2020	Number of workshops and proceedings	Previous Workshop reports organized by SRES and Partners	1	
Three operations manuals developed and distributed to practitioners	4.4. Three operational manuals developed by 2020	Number of operational manuals	None	1	

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Annual Outcome Targets for 2020/2021	Actual Outcomes Achieved: Results Observed in year 2020/2021
Framework for analyzing the benefits, problems of large scale land acquisition	4.5	Number of frameworks in use	None	1	
Thirty officials of the land sector, one from each region availed to short term training	4.5 Augmented ability of officials to deal with large-scale land acquisitions	Increased use of land investment analytical tools by decision makers by 2020	None	15	
Assumptions: <ul style="list-style-type: none"> • Strengthening of research capacity and postgraduate training is implemented in SRES • Funds are available for running the research training program. • Permission to carry out research in the country is obtained • Cooperation from local government authorities, NGOs and other stakeholders 					

Enclosure 5: Aggregated Student Plan

Name of researcher	Sex	Year started	Training in Sweden (No. of months)	Expected Year of completion (Local PhD)	Expected Year of completion (Sandwich)	Progress (%)	Dissertation Title
Hussein Kayera	M	2016	9	2021	2021	55%	Land Conflicts on Agricultural Land in Tanzania: Lessons from Districts with Commercial Farming Investment
Martin KanutiMpandikizi	M	2016	9	2021	2021	(?)	Assessing communities' ability to Land Acquisition for large scale investment in commercial agriculture in Tanzania: Balancing stakeholders interests

**2273 – 2014 RESEARCH SUPPORTING COMPONENTS AND COMMUNITY
OUTREACH PROGRAMME**

Contact information

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1. Executive summary of sub-programme/project

Ardhi University (ARU) has a research and training management system to support and facilitate research activities. The research and training management system include operational policies and procedures, guidelines and structures that are responsible for discharging specific activities and functions. For instance, the University has in place units which support and monitor quality of research and training activities. These include: the Quality Assurance Bureau (QAB), ARU Publishing Center (APC); the Center for Information and Communication Technology (CICT); the Library, and the Land Administration Unit (LAU). Currently, APC is responsible for printing and publishing ARU outputs.

Ardhi University Library services play a vital role in training, research and public services delivery in any academic institution. ARU library has an important additional role to play as a national repository for land-based information particularly because it has accumulated literature and other resources related to land, environment and human settlement disciplines. Currently the University Library serves a total of 4,500 students and staff with a sitting capacity of 400 users at a time. The library has a total of 5,785 book titles and 13,400 volumes. The information technology era makes it possible that library services are accessed electronically so as to serve as many users as possible. Under this programme, the Library will be strengthened through enhancing availability and access to electronic materials through subscription to the Consortium of Tanzania Universities and Research Institutions (COTUL) e-resources package.

Community outreach involves generating, transmitting, applying, and preserving knowledge for the direct benefit of communities. Community outreach aims at ensuring that scientific and technological innovations are accessible to a wider range of users. To fulfill this requirement, the University has initiated the restructuring of the existing Land Administration Unit into a Research Innovation and Technology Transfer Centre (RIT). The aim is to expand the platform for research dissemination for other units of the university than the land based academic units. The RIT is intended to be a platform for outreach projects, dissemination for research results and innovation for all researchers at ARU.

Quality assurance on training, research and research infrastructure are managed by the Quality Assurance Bureau (QAB). The mission of QAB is to improve quality and standard of delivery of academic and professional services. The University's QAB has mechanisms in place to ensure quality standards for training, research and public services are adhered to. However, the bureau is inadequately equipped and staffed to effectively monitor and benchmark teaching, research and public service delivery. There is also limited awareness on existing quality assurance systems and frameworks among most academic members of staff. This programme intends to enhance awareness and improve quality assurance systems and activities at ARU.

2. General objectives and expected results 2015-2021

The main objective of this programme is to improve the research support environment and community outreach at ARU by 2021. The specific objectives are:

Specific Objective 1

To improve infrastructure support system for research and research management at ARU for

conducting quality research and innovations in land, environment and human settlement development by 2021: Among the targets to be achieved under this objective for the extension period ending in 2020/2021: Linking the Library with 3 e-resources; Finalizing the establishment one e-journal and start publishing research articles; and training of (academic staff) on publishing quality articles

Specific Objective 2

To establish community outreach services, and ensure that scientific and technological innovations are accessible to a wider range of users by 2020/2021. Under this objective, the targets include:

- i) Training of academic staff on innovation systems; and
- ii) Continue with and complete the process of establishing and operationalization of the Research Innovation and Technology Transfer Centre

Specific Objective 3

To enhance research skills of academic staff members to execute researches for community development by 2021:

For the year 2020/2021, remaining two minor research projects will be accomplished. These are the role of informal micro finance arrangements in housing development in Tanzania: Exploring the VICOPA and UPATU initiatives” and “Environmental contribution of Heritage Districts in Sustaining Urban Areas: The City of Dar es Salaam. It is also expected that eleven (11) journal papers will be prepared and submitted to different journals for publication. These are from uncompleted minor research projects awarded during the first and second cohort of the project. Also from minor research sub-component, remaining two (2) policy briefs will be prepared and submitted. The workshop to disseminate research results which was earlier planned for June 2020 could not be held due to the outbreak of Covid 19 pandemic. It is expected that should situation improve, the conference will be held during the extension period,

3. Annual targets 2020/2021

Annual targets for the extension period of the programme 2020/2021 for the Research Support Sub Programme and subsequent results are based on activities derived from the four subcomponents namely minor research, quality assurance, library and community outreach. These are outlined below.

Minor research

The objective of this sub-component is to provide a learning opportunity for academic staff preparing for PhD studies and in PhD training under the research cooperation programme. The minor research grants are also intended to provide opportunity for academic staff that have completed their PhD studies to carry out minor research projects in order to increase the number of publications thereby enhancing their research management skills. Broadly this sub-component aims at building and enhancing research skills, competence and most importantly enabling academic staff to conduct research and share findings through scientific publications particularly among younger academic staff members.

Among the activities to be conducted during the extension period (2020/2021) include finalization of the two minor research projects. Furthermore the five projects that submitted

manuscripts to different journals for possible publication will continue addressing comments from peer reviewers and editors and finalize their publications. The remaining four projects will submit and publish their papers during the extension time. During the extension period, twenty (20) policy briefs will be reviewed, edited and shared with the relevant authorities. Also, during the extension time, an international conference will be held where different research outputs will be presented.

Community outreach services

In the fifth and last year of the programme, the main activities planned were geared towards winding up implementation of community outreach activities funded by the programme and operationalization of the Research and Innovation Transfer Centre (RIT) building on what was achieved in the four and a half years of the project. Most of these activities could not be completed because the scheduled time coincided with the outbreak of the COVID 19. In the extension provided, the planned community outreach activities which are in three different fronts, will be implemented mostly virtually.

- i) Training of academic staff on innovation systems;
- ii) Procurement of video conferencing facility and installation of the same; and
- iii) The establishment of the Research and Innovation Transfer Centre (RIT) will also continue to be implemented. Following initial stakeholder's consultation and attendance to workshops on innovation systems, it became apparent that the ARU community needs to be made aware of the role that the university is expected to play to the society and how that is linked to innovation systems. Two members of staff from the Land Administration Unit attended a Training of Trainers on Innovation Management organized by SIDA hence the planned training workshop for staff and ARU Management on innovation systems, was to be delivered in March 2020 as part of the establishment of the RIT. This was meant to bring the ARU community to the same level of understanding of innovation systems and hence facilitate a more informed and participatory process of establishing the unit. However, the workshop could not take place as it coincided with restrictions on public gatherings. It is planned that this workshop will be conducted immediately upon the lifting of the gatherings restrictions. Key activities in operationalization of the Centre getting the proposal for the establishment of the unit through the approval process by the University organs.

ARU Publishing Centre

Under the ARU Publishing Centre, in 2020/21 two main activities will be undertaken. These are establishment of online journal. The name of the newly established online e-journal is Environmental Management and Human Settlements Journal. Additionally, the journal will produce its first issue during the extension period.

Library services

The activity was being implemented through subscription to e-resources. The present subscription will end in December 2020.

Quality Assurance/Capacity Building and Enhancement

Quality assurance sub-component accomplished all the original planned activities during the programme implementation period. However, given the situation on internet connectivity at ARU, the programme will undertake improvements on the ICT system during the extension

period so as to improve accessibility to e-material and facilitate PhD training (supervision and examinations). Although the Library has subscribed to several e-resources, but poor internet accessibility hinder PhD students and researchers at ARU from fully enjoying the e-resources. Therefore, efforts to improve ICT infrascture to ehance internt accessibility will not only justify the e-subscriotin, but will also improve access to information. As such, ARU concentrate on improving internet accessibility in strategic areas to enable PhD students and researchers at ARU to easily connect to the internet and access relevant e-materials. The activity encompasses three core elements namely improvement of internet connectivity through upgrading the ARU Fibre Backbone speed by migrating from 100mbps to at least 1Gbps (1,000Mbps) backbone speed; to repair, replace and upgrade the obsolete existing wired and wireless Local Area Network; and to deploy data backup system dedicated for ARU video conferencing facility and Postgraduate research data.

4. Risk Analysis

Implementation of activities planned under this sub-programme is not immune from risks. Analysis of their probability of occurrence as well as mitigation measures is of prime importance. These are summarized in Table 1.

Table 1: Risks and mitigation measures

Risk	Probability of occurrence	Mitigation measures
The COVID 19 pandemic may continue beyond the expected time	High	As much as possible the university and researchers will conduct their activities on-line. The conference may be further pushed forward
Failure to publish on time due to long editorial processes.	Medium	Researchers will be urged to submit their articles to journals well in advance before finalization of the project.
Researchers in the project can be transferred to other Government ministries/agencies	Medium	The University will make sure that the research is conducted by involving everyone in the research group.

4. Enclosures

1. Sub-programme Component Budget
2. Sub-programme Detailed and justified Budget
3. Sub-programme Action Plan
4. Sub-programme Result Matrix
5. Status of minor research grants

Enclosure 1: Sub-Programme Budget 2020/2021

Sub Programme: Research Support Components and Community Outreach Programme

Tanzanian Institution/Dept: Directorate of Postgraduate, Research and Publication

Tanzania	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Curriculum development	-	-	-	-	-	-
Research equipment	-	-	-	-	-	-
Research consumables	50,000.00	11,250,000.00	-	-	50,000.00	11,250,000.00
Audit	45,000.00	10,125,000.00	45,000.00	11,250,000.00	90,000.00	21,375,000.00
Sub Total 1	95,000.00	21,375,000.00	45,000.00	11,250,000.00	140,000.00	32,625,000.00
Other costs						
1. Outreach	55,000.00	12,375,000.00	-	-	55,000.00	12,375,000.00
2. Quality Assurance \capacity Building and Enhancement	-	-	460,000.00	115,000,000.00	460,000.00	115,000,000.00
3. Minor Research grants	-	-	-	-	-	-
4. Review & monitoring of research projects	10,000.00	2,250,000.00	100,000.00	25,000,000.00	110,000.00	27,250,000.00
5. Scientific Conference	530,000.00	119,250,000.00	0	0	530,000.00	119,250,000.00
Pre-conference ARU Research Day	-	-	-	-	-	-
Proposal Development	-	-	120,000.00	30,000,000.00	120,000.00	30,000,000.00
6. Online Journal Publishing	35,000.00	7,875,000.00	-	-	35,000.00	7,875,000.00
8. Library e-resources	15,000.00	3,375,000.00	-	-	15,000.00	3,375,000.00
9. Joint PhD colloquia (students)	146,000.00	32,850,000.00	-	-	146,000.00	32,850,000.00
10. Annual Planning & Review Meetings	30,000.00	6,750,000.00	90,000.00	22,500,000.00	120,000.00	29,250,000.00
Sub Total2: other costs	821,000.00	184,725,000.00	770,000.00	192,500,000.00	1,591,000.00	377,225,000.00

Tanzania	Bal. C/F 2019/20		Funds Requested for 2020/21		Total 2020/2021	
	SEK	TZS	SEK	TZS	SEK	TZS
Indirect costs	-	-	136,080.00	34,020,000.00	136,080.00	34,020,000.00
TOTAL RESEARCH SUPPORT	916,000.00	206,100,000.00	951,080.00	237,770,000.00	1,867,080.00	443,870,000.00

Enclosures 2: Sub-Programme Components Budget and Justified Budget

				Balance C/F 2019/20	Funds Requested 2020/21	Total	Justification/Remarks
Tanzania	Unit	Quantity	Rate	SEK	SEK	SEK	
Research consumables	Lumpsum			50,000	0	50,000	To meet costs related to consumable and stationery materials which will be used within the research component of the support sub-programme
Annual Audit	Lumpsum			45,000	45,000	90,000	The funds brought forward will pay for audit expenses for the year 2019/20, after audit is completed and the additional funds requested will pay for audit expenses for the extension period 2020/21
Sub Total				95,000	45,000	140,000	
Other costs							
Outreach Activities: *Training of staff and management on innovation	Trained staff	15		55,000	0	55,000	Operationalising RIT centre including training and sensitization workshop to ARU Staff unit representatives on innovation systems that was postponed.
Quality Assurance	Lumpsum			0	460,000	460,000	Funds requested to support procurement of video conference facility for PhD viva voce which was not included in the original programme budget. The component became crucial after it was agreed that the PhD defence shall be conducted in Tanzania with participation of the partners in Sweden thro Funds video conferencing. Further, the limitations arising from Covid-19 have also increased pressure for the facility as the continued PhD colloquia will be mostly done through communication facilities
Review & monitoring of research projects	Lumpsum			10,000	100,000	110,000	Review and monitoring of PhD student progress in their dissertations to be intensified through increased frequency of presentation sessions to ensure the extension of time is optimised and students accomplish their studies.
Scientific Conference	Lumpsum			530,000	0	530,000	Funds carried forward from 2019/20 to be spent on

Tanzania	Unit	Quantity	Rate	Balance C/F 2019/20 SEK	Funds Requested 2020/21 SEK	Total SEK	Justification/Remarks
							a scientific conference for research results from all projects being implemented. The activity was planned for June 2020 but rescheduled due to Covid-19.
Proposal Development	Lumpsum			0	120,000	120,000	Funds requested for for proposal development
Online Journal Publishing				35,000		35,000	To facilitate operationalization of digital and online Journal at ARU. The Online Journal will add e-resources to the Library.
Library e-resources: Subscription to new and relevant e-resources	Data base with various e-journals			15,000	0	15,000	Funds carried forward from 2019/20 to facilitate payment for continued subscription to e-resource data bases through COTUL.
Joint PhD colloquia (students)				146,000	0	146,000	Funds carried forward from 2019/20 budgeted to cover various expenses related to PhD students to presentations of their research work progress for review and comments.
Annual Planning & Review Meetings	Lumpsum			30,000	90,000	120,000	To cover costs for preparing and hosting annual planning and review meetings during the extension period of programme implementation as well as planning for the new phase.
Sub Total Other Costs							
Indirect costs	Lumpsum			0	136,080.00	136,080.00	The funds to contribute to the University overheads i.e costs in respect of the running of the programme (office space, power and other support for smooth running of the activities)
TOTAL RESEARCH SUPPORT				916,000	951,080.00	1,867,080	

Enclosure 3: Action Plan

Specific Objective 1:

To improve infrastructure support system for research and research management at ARU for conducting quality research and innovations in land, environment and human settlement development by 2021.

Activities for specific objective 1

Enclosure 3.1: Annual APC Action Plan 2020/2021

Activities	Justification	Year VI				Output	Financial implications
		Q1	Q2	Q3	Q4		
Finalize establishment of an online journal						Digital and online Journal established and start publishing research articles	No extra funding; only time extension as the activity was budgeted for

Enclosure 3.2: Library Services Action Plan, 2020/2021

Activities	Justification	Year VI				Outputs	Financial implications
		Q1	Q2	Q3	Q4		
1. Improve internet connectivity at ARU, and specifically in strategic areas to enable PhD students and researchers at ARU to easily connect to the internet and access relevant e-materials	Currently ICT infrastructure at ARU is outdated and therefore needs improvement					Improved access to e-learning materials	Will attract additional funding

Specific Objective 2:

To establish community outreach services, and ensure that scientific and technological innovations are accessible to a wider range of users by

2020

Activities for Specific Objective 2

Enclosure 3.3: Community Outreach Action Plan, 2020/2021 Financial Year

S/No.	Activities	Justification	Year VI				Outputs	Financial implications
			Q1	Q2	Q3	Q4		
1.1	Continuing to establish and equipp RIT	Completion of the process of establishing RIT was pending training in innovation systems. This training was scheduled to take place end of March 2019 after examinations and hence coincided with the ban on gatherings imposed by the Government triggered by COVID 19 pandemic					RIT Operationalized	Will attract additional funding. This activity was ealier under budgeted at the initial project preparation phase
1.2	Complete procurement and ICT works on improvements of the Internet system	There is a requirement to facilitate PhD defense among partners (TZ and SWE); and also holding international conferenes as well as enhancing distant learning within and beyond Sida programme					Enhanced e-communication, learning and sharing	Funds needed for procuring the cailities and installation of the same
2	Workshop Training on innovation system	The training could not take place because of the suspension of meetings and gatherings involving more than 7 people					Training workshop conducted	No extra funding; only time extension as the activity was budgeted for

Specific Objective 3:

To enhance research skills of academic staff members to execute research projects for community development by 2020

Activities for Specific Objective 3**Enclosure 3.4: Minor Research Grants 2020/2021**

SNr	Activity	Justification	Extension period				Outputs	Financial implications
			Q1	Q2	Q3	Q4		
9.	Submission of research reports (2)	Two research projects have not yet submitted research reports. The extension period will be used to finalize the reports					Research report submitted Policy briefs submitted	No extra funding; only time extension as the activity was budgeted for
10.	Review and sharing of policy briefs (18) – Dissemination of Research Results	18 Policy briefs have been produced. For most researchers, this was the first time to produce such documents. It is therefore prudent to appoint a team of experienced researchers in writing policy briefs to review the documents so as to bring them to the acceptable standards					Reviewed Policy Briefs	
11.	Development of two (2) pending policy briefs; including review and sharing	The two projects have not submitted policy briefs and the requested extension period will be used to finalize the briefs					Two (2) Policy Briefs produced and reviewed	
12.	Preparation of manuscripts (4 projects)	The four projects have not yet submitted the manuscripts to journals. Efforts will be made to make sure that they submit and publish the manuscripts					Peer reviewed publications produced	
13.	Addressing comments from reviewers (5) – (papers already	Review and publication is beyond the control of authors.						

SNr	Activity	Justification	Extension period				Outputs	Financial implications
			Q1	Q2	Q3	Q4		
	submitted to journals and are under review)							
14.	Preparation and attendance of international conference (20 projects) to be held in Tanzania	This conference was to be held in June, 2020. It is important to plan for the conference because it is a very important forum where the researchers, policy makers and the end users of research results will come together and discuss.					Conference papers produced	
15.	Attending international conferences (15 projects) – individual researchers look for conferences to present their papers	It is important to share the results with the international community					Conference papers produced	
16.	Production of one additional paper (for each of the minor research project) – 20 in total	There is a possibility for producing an extra paper					Papers produced	Will require additional funding

Enclosure 4: Results Matrix

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year 2020/21
Specific Objective 1: To improve infrastructure support system for research and research management at ARU for conducting quality research and innovations in land, environment and human settlement development by 2020							
Proposal for one Online Journal	Approval and established One (1) online-journal at ARU by 2018/2019.	Number of online journals published	1 online journal established by ARU in 2019	0	0	0	
3 e-resources acquired in the Library	Increased 15% use of e-resources, with the target of 3 e-resources by 2018/2019	Number of users of e-resources	18 e-journal databases mainly funded by ARU and Sida five year programme	0	0	1	
Assumptions: <ul style="list-style-type: none"> Disseminated information reach the targeted audience Improved ICT infrastructure for researchers to access e-journals at the University Researchers will abide by quality assurance checklists 							
Specific Objective 2: To establish community outreach services, and ensure that scientific and technological innovations are accessible to a wider range of users by 2020							
One Research Innovation and Technological Transfer Centre (RIT) established and equipped	Research Innovation and Technological Transfer Centre (RIT) established and equipped by June 2016	<ul style="list-style-type: none"> Research Innovation and Technological Transfer Centre (RIT) established Number of equipment procured and installed 	To be established	0	0	0	0
Training on innovation systems							

Types of Outputs	Outcomes (including targets)	Performance Indicator of Outcome	Baseline (if established)	Data sources	Data collection strategy	Annual Outcome Targets for 2020/21	Actual Outcomes Achieved: Results Observed in year 2020/21
Assumptions: <ul style="list-style-type: none"> Functional Research and Innovation Transfer Center Transferred innovations reach the targeted communities Academic staff are willing to transfer innovations to the targeted communities 							
Specific Objective 3: To enhance research skills of academic staff members to execute research projects for community development by 2020							
20 minor research projects conducted (25% female staff participation)	Increased by 20 minor researches by 2017/2018	Number of local research projects (25% of which are conducted by female staff)	17 minor research projects in the previous Sida/ARU Five year programme	0	0	9	
15 high quality peer reviewed publications from minor research (25% of which are conducted by female staff)	Increased peer reviewed publications of at least 15 by 2018/2019 of which 20% are by women	Number of peer reviewed publications (25% of which are conducted by female staff)	168 peer reviewed journals from the past five years	0	0	15 Journal papers 16 Conference papers	
Assumptions: Timely availability of funds							