2018:3 Sida Decentralised Evaluation

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Evaluation of the Sida supported research capacity and higher education development program in Rwanda, 2013–2017

Final Report

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Abbreviations and Acronyms

ACM	Advisory Committee Meetings
AfDB	African Development Bank
APM	Annual Planning Meetings
ARM	Annual Review Meetings
BMC	BioMed Central
BTH	Institute of Technology
CASS	College of Arts and Social Sciences
CAVM	College of Agriculture, Animal Sciences and Veterinary Medicine
CBE	College of Business and Economics
CDC	Centres for Disease Control
CE	College of Education
CIO	Chief Information Officer
CLEG	College of Law, Economics and Governance
CMHS	College of Medicine and Health Sciences
CSO	Civil Society Organisation
CST	College of Science and Technology
DAC	Development Assistance Committee
DPD	Directorate of Planning and Development
DRIPGS	Directorate of Research, Innovation and Post-Graduate Studies
DVC	Deputy Vice Chancellor
EDPRS	Economic Development And Poverty Reduction Strategy
EU	European Union
FY	Financial Year
GIS	Geographic Information System
GIZ	German Technical Cooperation
GoR	Government Of Rwanda
HEC	Higher Education Council
HED	Higher Education & Development
HEI	Higher Education Institutions
HLI	High Learning Institutions
HRH	Human Resources for Health
ICT	Information And Communication Technology
IGCP	International Gorilla Conservation Programme
ISAE	Higher Institute of Agriculture and Animal husbandry
ISP	International Science Programme
KfW	KfW Development Bank
KHI	Kigali Health Institute

KIE	Kigali Institute of Education
KIST	Kigali Institute of science and technology
KTH	Royal Institute of Technology
MIFOTRA	Ministry Of Labour And Public Service
MINECOFIN	Ministry Of Finance And Economic Planning
MIS	Management Information System
MoH	Ministry of Health
NISR	Rwanda National Institute Of Statistics
NUFFIC	National scholarship programme for Dutch and international students
NUR	National University of Rwanda
OECD	Organisation for Economic Co-operation and Development
PCO	Programme Coordination Office
PhD	Doctor of Philosophy
PWC	PriceWaterhouseCoopers
QA	Quality Assurance
RAB	Rwanda Agricultural Board
RBC	Rwanda Biomedical Centre
RBM	Results Based Management
RNRA	Rwanda Natural Resources Authority
RSB	Rwanda Standards Board
RTP	Research Training Partnership
RURA	Rwanda Utilities Regulatory Agency
RZHRG	Rwanda Zambia HIV Research Group
SEK	Swedish Krona
SFB	School of Finance and Banking
Sida	Swedish international development agency
SPIU	Single Project Implementation Unit
STDs	Sexually Transmitted Diseases
STEM	Science, Technology, Engineering and Mathematics
TL/DTL	Team Leader/ Deputy Teamleaders
TLEU	Teaching and Learning Enhancement Unit
ToC	Theory of Change
ToR	Terms of Reference
TVET	Technical And Vocational Education And Training
UC	University of California
UHR	Swedish Council for Higher Education
UN	United Nations
UR	University of Rwanda
VC	Vice Chancellor
WE-ACTx	Women's Equity in Access to Care and Treatment
WEF	World Economic Forum
WoS	Web of Science

Executive Summary

Research cooperation between Sida and the university sector in Rwanda has been carried out in three phases since 2002, with the current phase (2013-2018) being the main focus of this evaluation. The programme is implemented in partnership between UR's central administration and six colleges and 12 Swedish universities. It includes PhD training in the sandwich mode, Master's training, development of curricula, joint research projects and institutional capacity building in areas such as policy development, research management and research infrastructure. The total budget for the current phase is SEK 334 million.

The overall objective of the UR-Sweden programme is to "Increase production and use of scientific knowledge of international quality at the UR that contributes to the development of Rwanda", with the following five specific objectives:

- To contribute to the establishment of an environment more conducive to research and post-graduate training at the University of Rwanda;
- To increase the number of PhD and Masters holders in Rwanda;
- To increase the quantity and quality of research conducted at the University of Rwanda;
- To increase the use of research and competences produced within the programme, in political decision and policy making in Rwanda;
- To increase the use of research and competences produced within the programme, by the Rwandan society at large.

The programme is evaluated against the assumption (i.e. Theory of Change) that postgraduate training and support to an environment conducive to research leads to more research being conducted. The academic staff should incorporate their finding in teaching and be able to follow and contribute to scientific frontiers in their respective fields. Also, research produced within the Program is expected to contribute to better policy making and improved products or services by the private sector and civil society organisations in Rwanda.

Background

- The UR-Sweden programme is relatively young compared to other similar Swedish programmes, and has been implemented amidst processes of considerable expansion and change at UR as partner institution.
- On this background, the programme is generally assessed to be a very good – and in some aspects impressive – endeavour to support Rwanda's efforts to increase production and use of scientific knowledge.
- Rwanda has experienced a prolonged period of economic growth and seen considerable improvements in socio-economic indicators. With the large

majority of the population being subsistence farmers, the government recognises the need for structural transformation.
- The government has a strong focus on UR as partner in development and poverty reduction, but with the country's recent history of genocide and political context there are limitations on UR's role as a critical voice in society.
- Higher education in Rwanda has seen considerable expansion in terms of the number of universities, academic staff and students. The number of qualified academics and research outputs has increased, but is still lower than for other countries in the region.
- UR is still in the process of institutional change and consolidation, and faces additional challenges in terms of funding. All this has made the UR-Sweden Program even more important for UR as a stable and predictable partner.

Institutional Management

- There are clear overall UR management structures – but management is complicated by disperse locations of colleges and to some extent also differences in 'college cultures'.
- The programme is large and complex and generally managed very well, but may be too dependent on the Programme Coordination Office and its limited number of staff.
- The Programme is a dominant partner at UR, but is increasingly seen as an integrated part of the university and has been crucial for efforts to attract additional donor funding.
- UR research management and infrastructure units do not yet fulfil their strategic roles, and there is limited explicit emphasis on research/change management in the programme.
- Reporting mechanisms in the programme fulfill UR requirements and are clear and functional, but there is room for some degree of decentralisation of decision-making.
- The financial management and performance of the programme is very good. Delays and limited expenditures in some sub-programmes are dealt with by reallocating funds to other activities in a flexible way.
- Despite an increasing number of donors at UR, there is limited donor coordination from the part of the UR management as well as between individual donors. Coordination is important both to exploit possible synergies and to avoid possible overlaps.

Research Management

- The Sandwich model of PhDs training, with time spent in Sweden as well as in Rwanda, is relatively expensive compared to national/regional alternatives, but these are not yet viable.
- The research training is generally of high quality and appreciated by the students, even though they would have preferred longer period in Sweden.
- Most PhD projects are developed to be relevant for Rwandan development policies, but at the partial expense of critical/independent writing.

- UR 'in-house' PhD programmes are in the process of development and accreditation. Some are likely to be initiated in 2018/19, while others will face challenges of funding and/or qualified teachers.
- The relations between Rwandan and Swedish Team Leaders – which are roles unique to the UR-Sweden programme – have functioned well and been important for the coherence of sub-programmes.
- There are continued challenges in the relations between Swedish supervisors and Rwandan co-supervisors, partly related to their different roles but also to the limited involvement and status of the latter.

Research Capacity Building

- The programme has seen improvements in the selection processes for PhD-candidates by involving both UR and Swedish partners. There is relatively good study progression and few dropouts, and practically all PhD graduates return to UR.
- The master programmes supported within the programme have struggled with student recruitment and retention, with most students working, high tuition fees and challenges in organisation and ownership.
- The research capacity is strengthened, as evidenced by the number and quality of publications in international journals. However, research collaboration with Sweden tends to be reduced/ discontinued after graduation – as does the number of joint publications.
- Continued research post PhD graduation is hampered by management, administrative and teaching responsibilities and limited access to mentors. Students from the sandwich programme are usually not sufficiently prepared to develop own project proposals.
- The Central Research Fund is important for continued research at UR, but allocations are relatively small and funding for larger projects still have to be obtained internationally.
- Quality assurance is good within the PhD programme, but quality assurance within UR is still largely a formality and inadequate for its purpose.

Teaching and Knowledge Frontiers

- UR has academic staff with broad experiences from different academic regions/milieus including Sweden, with positive implications for exchange of teaching experiences and synergies.
- There is limited emphasis on pedagogy/teaching in the UR-Sweden programme, but still an emerging change from 'traditional' ('lecturing') to 'modern' ('interactive') teaching methods.
- UR continues to be hampered in its teaching by inadequate access to labs and other necessary equipment, and (at the master level) by inconsistency in class attendance by teachers.
- The sub-programme on innovation is not yet fully operational, but there are still examples of innovative research performed within the programme (incl. in medicine and agriculture).

- There are differences between the sub-programmes in the extent to which they pursue international/regional networks for broader cooperation.
- Research clusters and interdisciplinary research is a central element in UR's future plans. The programme and its current partners have limited qualifications in, and experience of, this type if research.

Wider Effects/Impact

- The focus on the programme's wider effects has seen improvements and is more systematically recorded, but there is still limited attention to monitoring actual impact.
- There is widespread and close interaction between UR staff and policy-makers in Rwanda particularly at senior level.
- Most PhD projects relate to issues that are relevant for Rwanda's economic and social development, but with limited explicit attention to potential impact.
- Master students who do graduate from the programme seem to continue in full employment for companies/institutions relevant for development.
- Some sub-programmes engage with the private sector and a few with civil society – but generally not in a systematic way that opens for replications/learning.
- The UR policies on using consultancies for institutional income and impact of its research activities are hampered by the continued 'privatisation' of such activities among its staff.
- Initiatives for systematic dissemination of research to a wider public at UR and in the programme are insufficient, with limited coherent attempts at producing report series, policy briefs, and other types of public engagement.
- Despite expressed goals of producing knowledge that is relevant for Rwanda's development, there is limited attention on multidisciplinary/applied research – but there are new UR initiatives in this area.
- External stakeholders vary in their assessment of the relevance and quality of UR research. Except for direct relations with UR staff, they claim it is difficult to know about and access the research that is going on.

Recommendations

- *Relevance for Rwanda's development needs*: Project applications should address cross-cutting issues; Support to post-graduate multidisciplinary research; Balance focus on STEM disciplines with continuing support to social sciences.
- *Overall research cooperation Rwanda-Sweden*: Consolidation rather than further expansion; Stronger emphasis on institutional development; Assess alternative partners for research management; Delay further expansion of programme regionally; Assess options for closer cooperation between similar programmes supported by Sweden.
- *Programme management*: Strengthen administrative support at the PCO; Decentralise programme decision-making on academic affairs; Consolidated financial reporting; Clarify management roles of team leaders; Improved donor coordination.

- *Institutional Development*: Clearer distinctions UR/Programme responsibilities; Increasing support to Research Directorate; More attention to research culture; Final push for improved ICT and library services.
- *Research capacity building*: Increased funding for research grants; Enhanced UR responsibility for Master programmes; Clearer roles for co-supervisors; More support for gender equality/women; Mentors for PhD graduates; Programme advisor in quality control.
- *Use of research for policy-making*: Improved research dissemination; Wider range of arenas for publications; Stronger emphasis on applied research; Establishment of a 'Multi-disciplinary Research Centre' at UR; Improved recording and monitoring of impact.

1 Introduction

1.1 BACKGROUND

Sweden has supported research capacity in developing countries since 1975 (Nilsson and Sörlin 2017; Millard et al. 2017; Felleson 2017). The central argument has been that for a country to develop, there is a need for national capacity that can identify and produce the knowledge most suited to a particular context or problem. In the early years, support was largely given through Sida's Department for Research Cooperation (SAREC) and national research councils. However, a growing concern about the individualisation of support and scientific quality subsequently led to an emphasis on i) broader institutional cooperation between universities in Sweden and the South and ii) a sandwich model in which doctoral (PhD) students divided their time between the Swedish university of study and their home university. Most recently, and building upon the growing number of qualified national academics, Sida has started to fund 'home-grown' post-graduate programmes at the Master and PhD level.

Sweden has research cooperation as part of their aid portfolio in a number of key countries of cooperation. Some of these research programmes have a history dating back to the 1970s (Mozambique, Tanzania, and Uganda), while others are more recent (Bolivia and Ethiopia). Swedish support to Rwanda is among the latter: From a relatively modest start in 2002 with institutional support and three research programmes (in Education, in Environment and in peace studies), the cooperation expanded significantly in 2012/2013 following the transition from the National University of Rwanda (NUR) to the University of Rwanda (UR) merging seven formerly independent universities and colleges in the country.

The two first phases of the programme (2003-2006 and 2007-2013) had a total allocation of 78m and 185m SEK respectively, and gave emphasis to human resource development, research development, strengthening research management, and improving the research environment. The current phase (2013-2018) has a total allocation of 334m SEK and involves all six colleges at UR and twelve Swedish universities, and a total of eight sub-programmes in research training, five sub-programmes in research management, four sub-programmes in research infrastructure and three sub-programmes in continuing research training.

The overall objective of the programme is to: "Increase production and use of scientific knowledge of international quality at the UR that contributes to the development of Rwanda". The five specific objectives of the programme are:

1. To contribute to the establishment of an environment more conducive to research and post-graduate training at the University of Rwanda.
2. To increase the number of PhD and Masters holders in Rwanda
3. To increase the quantity and quality of research conducted at the University of Rwanda
4. To increase the use of research and competences produced within the programme, in political decision and policy making in Rwanda.
5. To increase the use of research and competences produced within the programme, by the Rwandan society at large.

1.2 PURPOSE AND SCOPE

According to the Terms of Reference, the purpose of this evaluation is to analyse, assess, generate knowledge and provide lessons from the Sida funded *UR-Sweden Program for Research, Higher Education and Institutional Development* at the University of Rwanda. The results of the evaluation will inform the design of a possible continuation of the program and Sida's support to the UR 2018–2023.[1]

The point of departure for the evaluation is the overall objectives of the *Strategy for research cooperation and research of relevance in development cooperation 2015–2021* (MFA-Sweden 2015). In addition, the objectives of the *Strategy for Sweden's development cooperation with Rwanda, 2015–2019* (Sida 2017), in particular the objective of the Results Area 3, "better opportunities and tools to enable poor people to improve their living conditions" is to be taken into consideration.

The evaluation is imbedded in a context analysis of higher education and research in Rwanda. It takes as its point of departure the analysis of the major organisational changes—that is, the merger of public higher learning institutions and a general overview of the shift in mandate from a teaching university to a research-led university.

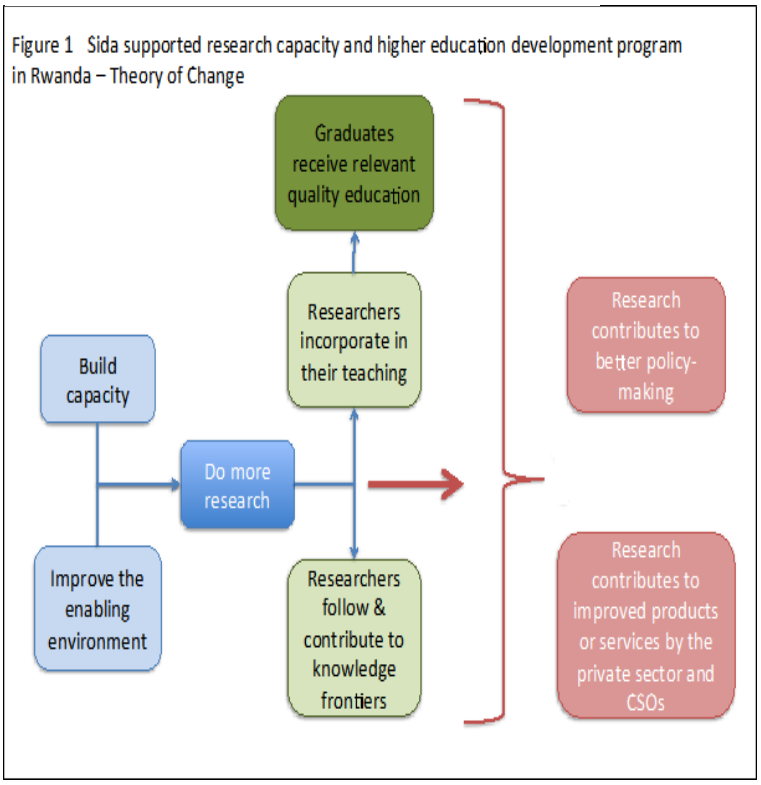
The evaluation goes beyond studying outputs (such as number of PhD graduates and number of publications) to assess results also at outcome and impact levels with focus on changes in research capacity and in the enabling environment since the start of the Swedish support in 2002—albeit with a focus on the current program period 2013-2018.

[1] In fact, the planning for the new programme period has come quite far. A Concept Note has been produced (UR 2017), and a call for a UR Letter of Intent and subsequent applications will be advertised by Sida/the Swedish embassy following this evaluation.

The programme is evaluated against the assumption that postgraduate training and support to an environment conducive to research leads to more research being conducted (Theory of Change, see figure). The theory of change also assumes that trained academic staff will incorporate their findings in teaching and be able to follow and contribute to scientific frontiers in their respective fields.

Also, research produced within the programme is expected to contribute to better policy making and improved products or services by the private sector and civil society organisations (CSOs) in Rwanda. Graduates from the Master's programs with support from Swedish universities are expected to get quality education and employment that enables them to contribute to the development of Rwanda.

Figure 1 Theory of Change



The basic assumptions in the Theory of Change is that the combination of research training and institutional support will lead to more and better research, and that good research will have an impact on policy-making and society at large. We will return to the extent to which these assumptions hold in the concluding Chapter 7.

The evaluation describes and assesses past progress with focus on future direction and management of the support in Rwanda and Sweden resulting in concrete and realistic recommendations. Specifically, the evaluation shall:

a) Assess to what extent the programme has contributed to the expected outputs, outcomes and impact, and the sustainability of these results; b) Assess the improvement of the programme over time (capture the learning or adaptation process as well as unexpected results, if any); c) Assess the efficiency (including cost-effectiveness) of the programme design, organizational set-up and cooperating partners in the delivery of expected results; and d) Establish achievements and weaknesses and put forward recommendations for the possible future programme phase.

1.3 APPROACH AND METHODOLOGIES

Recent advances in the evaluation of institutions of higher education and research has argued for the importance of combining i) a focus on deliberative (e.g. peer review) and analytic (e.g. bibliometric) ways of evaluating scientific merit and ii) knowledge utilisation and knowledge exchange processes—drawing specific attention to defining and assessing the impact or benefit of research to society (IDRC 2016).

The evaluation takes as its point of departure a brief comparative and contextual analysis. This has implications for issues such as the most relevant research topics, the space for free and critical research, the recruitment to universities along variables such as class and gender, and the experiences university students bring into their studies, for example, in terms of relations to authorities and writing skills.

The evaluation also assesses the importance and relevance of university education in the current political economy of Rwanda, and gives a general overview of changes in NUR/UR management, the competence and capacity of NUR/UR staff and outputs in terms of NUR/UR graduates since the start of the programme in 2002.

Moving on to the UR-Sweden programme as such, the Terms of Reference include a large number of questions (41) listed under the standard OECD/DAC evaluation criteria of relevance; effectiveness (scientific results and quality); efficiency; impact; and sustainability. In order to organise and avoid a fragmented evaluation, the questions are clustered and discussed as part of three areas defined with reference to the programme's Theory of Change (see Figure 1):

a) Institutional capacity – management, organisation, cost efficiency and sustainable funding (i.e., creating an enabling environment).
b) Training of researchers, production of scientific results and the quality and relevance of those results (i.e., capacity building).
c) The wider effects of research (i.e., contributing to better policy-making and improved products and services to the private sector as well as civil society organisations)

First, we assess to what extent the internal organisational capacity and enabling environment have been strengthened. Secondly, we establish to what extent people have been trained and research carried out as expected. Thirdly, we discuss evidence that the support has had wider impact and effects by involving stakeholders external to the university. And fourthly, we analyse the relevance of the programme for UR and the research environment as well as for Rwanda's development challenges.

The evaluation uses a mixed method approach, and includes: i) Document review and programme data; ii) Interviews with people involved in the programme, including Swedish Embassy/Sida, the UR management, Swedish and Rwandan university staff and programme staff, Rwandan students; iii) External stakeholders in government, the private sector, and civil society; iv) Cases and examples; v) a Survey of Swedish and Rwandan team Leaders and deputy-team leaders; and vi) A tracer study of PhD graduates from the programme (see relevant Annexes).

The UR-Sweden programme is characterised by unusually solid documentation in the form of basic programme agreements and documents (NUR 2012, NUR-Sida 2013 and 2014, Sida 2014); Programme plans and progress reports (UR 2013-2017); and Facts and Figures documents about the UR at large (UR 2016 and 2017). On this basis, and in line with the Terms of Reference and evaluation questions, this evaluation focuses on assessments of processes and dynamics of the UR-Sweden programme while referring to relevant documents for quantitative verification.

As for interviews, the active support and cooperation from the Programme Coordination Office at UR, the UR management, the Rwandan staff and students as well as the Swedish partners attests to the importance attached to the programme (Annex 10). We were initially allowed to take part in the bi-annual meeting of Swedish team leaders and deputy-team leaders in Visby (13-14 September) by both 'listening in' to the discussions and having separate focus-group meetings. In Rwanda, we were able to present and discuss the evaluation in a similar meeting with UR team leaders and meet practically all relevant UR and programme staff members in individual or group interviews.

The surveys among Swedish and Rwandan team leaders and PhD graduates were meant to gather more systematic information about the experiences and perceptions about the programme and the careers and possible impact of PhD graduates. The response rate was not as high as hoped for with 50 per cent in the TL survey and 37.5 per cent in the tracer study. Both response rates are, however, typical of surveys, so we have chosen to use results from the surveys where we see the findings as particularly relevant. The Tracer Study is summed up in Chapter 6.3 and the TL survey is summed up in Annex 9, with full versions available as separate Annexes (11 and 12).

The team also met a number of external stakeholders in order to ascertain their experiences and perceptions of the quality and relevance of UR (Annex 10). Public and government institutions were most forthcoming and had the most explicit views about the university—reflecting their degree of cooperation and engagement—but we also interviewed representatives from the private sector, civil society, and donors.

The Swedish embassy and the PCO both emphasised that a major objective of the evaluation is to contribute to and facilitate an active discussion about the programme in Sweden and in Rwanda as well as at UR. To contribute to this, the draft evaluation has been presented and discussed at a workshop in Kigali.

1.4 LIMITATIONS

The Terms of Reference ask the evaluation team to assess the whole period of the Rwanda Programme from 2002 to 2017, with a special focus on the last period (2013-2017). The former National University of Rwanda (NUR) went through considerable change in 2013, merging with six formerly independent public higher learning institutions to become the University of Rwanda (UR), which is now operating in 10 different geographically dispersed campuses. This makes a direct comparison between the different periods difficult, and we will largely rely on findings from the 2012 evaluation (Pain et al. 2012) in assessing developments during the first ten years of the cooperation.

The programme and its Theory of Change is based on three steps: i) institutional and research capacity building; ii) the production of more research and its incorporation in teaching and contributions to knowledge frontiers; and iii) impact of this research on policy-making and improved products and services to the private sector and civil society. However, at the time of the evaluation (September-October 2017) most of the programme's sub-programmes only had a timespan of three to four years – sometimes even shorter. In some cases, this was too short to draw firm conclusions about the extent to which the programme objectives have been reached. When relevant we therefore looked for indications of whether or not a component or a sub-programme seemed to be on the right track.

There are also, as always in programmes of this type, challenges related to the attribution or contribution of programme interventions to observed change. A range of external, non-programme factors play a role in change and are difficult to control. Those factors arise from the society at large, processes and dynamics at the university, and the actions of other donors. On the other hand, the UR-Sweden programme is considered so important—and is such a dominant part of the university—that we in the outset expected the programme impact on UR to be substantial.

2 Country and academic context

2.1 RWANDA – POLITICAL ECONOMY AND POVERTY

Rwanda is a land locked country situated on the borders of Central Africa and East Africa, with a surface area of 26,338 km^2. The country has a total population of 11.5 million people, population density of 421 persons per square kilometre and high population growth rate of 2.6 per cent, which will bring the population to 16 million by 2020 if this rate of growth is maintained. The population is young, with 39 per cent comprising people between the ages of 14 and 35 years (NISR 2015a).

Rwanda has a Human Development Index of 0.498 as of 2015 (up from 0.299 in 1980), ranking the country 159 out of 188 countries globally, and has a poverty head count ratio of 39.1 per cent (UNDP 2016, NISR 2015a, see also Ansons et al. 2016)—implying that there still are important development and poverty reduction challenges. Rwanda ranks 84 out of 188 countries in UNDP's (2016) Gender Development Index and 5 out of 144 countries in WEF's (2016) Gender Gap Index (WEF 2017)—scoring particularly high in political representation and economic participation (NISR 205a).

Table 1 Key Socio-Economic Data Rwanda

Item	Per cent
Population	11.5 million
Urban Population	28.8 %
GDP per capita (PPP)	719 USD
Poverty rate	39.1 %
Net primary enrolment rate	96.6 %
Primary completion rate	60.4 %
Under five mortality ratio	50/1000
Maternal mortality ratio	210/100,000

Sources: RoR (2013, 2014); NISR (2015b)

Rwanda has a unique history in the African context. With the 1994 genocide against the Tutsis, the country lost an estimated one million people (NURC 2015; Longman 2017). Many women were left as widows, and children became orphans. In addition, 2 million refugees who had fled the country during the 1994 genocide and 500,000 former refugees who had been in exile for several decades, returned to the country (Prunier 1995). The genocide is omnipresent in Rwandan society, and is dealt with for example through a number of genocide memorials and commemorations and the

'I am Rwandan' ('*Ndi Umunyarwanda*') initiative discouraging the use of ethnic terms and acts on the basis of ethnicity.

The Rwandan Patriotic Front under president Paul Kagame has been the dominant political force in Rwanda since 1994, with Kagame winning his third term with 98.8 per cent of the votes in August 2017. Despite its tragic history, Rwanda is recognised as one of Africa's success stories. Boosted by an average annual economic growth rate of more than 10 per cent in the decade after 1995, this momentum has been sustained between 2001 and 2015 by an average annual real GDP growth rate of 8 per cent, poverty reduction of 12 percentage points and a reduction in income inequality (MINECOFIN 2013) – albeit with signs of a slow-down in economic growth the past couple of years (PwC 2017; World Bank 2016; MICROFIN 2014).

Socio-economic indicators have shown considerable improvements over the last two decades. This is demonstrated by an increase in per capita GDP from $206 in 2002 to $702.8 in 2016,[2] which is largely attributed to the Government of Rwanda's (GoR) management of the economy. The 15th edition of the World Bank 2017 Ease of Doing Business Report ranked Rwanda second after Mauritius in Africa and 41st out of 190 countries globally (World Bank 2017).

However, with 72.7 per cent of Rwandans involved in subsistence agriculture, the Government of Rwanda recognizes that the economy needs structural transformation if it is to maintain the current economic growth pattern. Rwanda's Vision 2020 (RoR 2012) aims to transform Rwanda into a knowledge-based middle-income economy. The country's second Economic Development and Poverty Reduction Strategy (MINECOFIN 2013) calls for transformation of the agricultural sector and creation of non-farm employment as critical for raising productivity in the economy. The objectives of Vision 2020 are:

1. Macro-economic stability and wealth creation to reduce aid dependence
2. Structural economic transformation (with attention to education and health)
3. Creating a productive middle class and fostering entrepreneurship

With an annual 3 per cent growth in the working population, to keep the unemployment rate below 10 per cent would require creation of at least 140,000 new jobs every year on average in order to absorb the additional labour force (MIFOTRA 2007). The growth rate, coupled with the predominance of young people in the country, requires strategic and innovative policies and initiatives to avert risks

[2] http://data.worldbank.org/indicator/NY.GDP.PCAP.CD

associated with high youth unemployment. Higher education and the university sector are seen to have an important role in this endeavour (RoR 2012).

2.2 NATIONAL HIGHER EDUCATION AND RESEARCH ENVIRONMENT

In Rwanda, the Ministry of Education (MINEDUC) is responsible for policy formulation and setting norms and standards for all levels of education. There is an overall Education Sector Strategic Plan (ESSP), that includes an overview of the strategic direction of higher education in Rwanda alongside all other levels of education in the country's education system. The Higher Educational Council (HEC) is responsible for securing coherent provision and quality of higher education through policy documents and guidelines, and is in the process of taking on the responsibility for student financing in higher education. Finally, the National Commission for Science and Technology (NCST) is an independent advisory board for development, promotion, and coordination of Rwanda's science, technology, and innovation with an extended mandate to also formulate educational policy.

Enrolment of students to universities (graduate and post-graduate levels) has been affected by socio-economic conditions and poverty, as well as by the quality of primary and secondary education (Finnoff 2015; Andersson et al. 2013;). Despite large investments and overall improvements in the educational sector, primary and secondary education still grapple with challenges in the form of inadequate physical infrastructure and learning material, inadequately trained teachers who often struggle with English as the language of instruction, and high levels of absenteeism and drop outs (Kagwesage 2013). Despite an official primary school attendance rate of 87.3 per cent for primary education, only around 60 per cent of students actually graduate. In secondary school the attendance rate is 23 per cent, but also in this case with a lower completion rate (Abbot et al. 2015 and personal communication.)

With the history of higher education in Rwanda, and the way the sector was affected by the genocide, there is a general dearth of well qualified academic staff in the country and at UR. At the same time, many have been educated at institutions of higher learning abroad. This has brought together people with experiences from many different countries. Also, higher education degrees are increasingly seen as a precondition for careers in government and the private sector—and not necessarily as the start of an academic career.

Currently there are two types of tertiary education institutions: High Learning Institutions (HLIs) and Technical and Vocational Education and Training (TVET) institutions. The number of tertiary institutions stood at 44 in 2015/2016, with the establishment of four private tertiary institutions and the merger of public colleges and universities into the University of Rwanda. In 2015, the Rwandan tertiary institutions counted about 4000 academic staff members (18% women), and the total number of students in private institutions was 49,888 and in public institutions 36,427 (43% women). Net enrolment in higher education is calculated to be 1 per cent, which is well below the Sub-Saharan African average of 6 per cent (HEC 2016:6; see also VLIR-UOS 2016).

2.3 NATIONAL RESEARCH OUTPUT

Over the first four decades after 1963, Rwandan higher education sector was focused on teaching, and it produced a relatively small amount of research. Since the first years of the 2000s, Rwanda's research and publishing activity started to grow rapidly, at an average 26 per cent growth rate each year (see Annex 8). The growth from dual-digits to a record number of 350 publications in 2016 also steadily improved Rwanda's regional ranking in Africa from 43/53 in the late 1990s to 24/53 in 2014 (Scopus) (Annex 8). When country populations are accounted for, Rwanda's rank remains largely same—26th among African countries in terms of research publications per million inhabitants[3].

Of Rwandan publications over the evaluation period 2013/1–2017/7, 80 per cent were journal articles, and the rest were abstracts, editorials, reviews, trials, letters, and other publications, including two book-length monographs (Annex 8). On 67.9% of publications the Rwandan author's affiliation was University of Rwanda or some variant of the name[4]. Other influential Rwandan affiliations were Ministry of Health (16.1%), Rwanda Biomedical Center (8.7%), Partners in Health/ Inshuti Mu Buzima (7.1%), and Kigali University Teaching Hospital (4.3%).

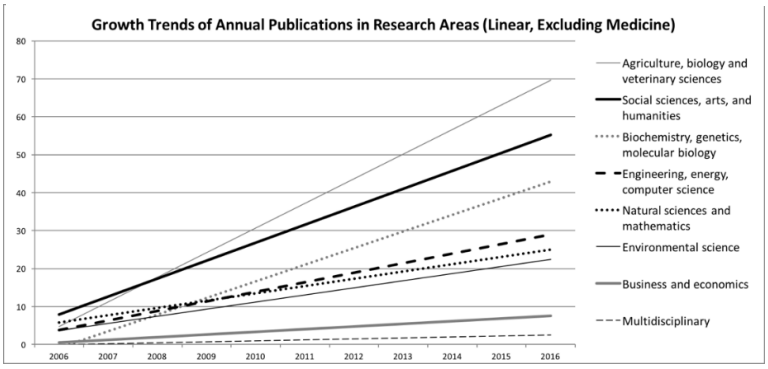
Rwanda's publication profile has always been focused on medical research. While medical research constitutes a bit less than one quarter of the world's research output, it makes roughly half of Rwanda's recent research output. However, the dominance of medical research has been slowly decreasing over the years and other research areas have gradually caught up (see Figure).

Among the fifty most cited Rwandan articles in 2013–2017, only a few had a Rwandan lead (corresponding) author, and in a few more cases there was a dual affiliation where the lead author was affiliated with a foreign institution as well as a Rwandan institution. In most cases the Rwandan author was one in a massive multinational group. For the sake of sustainability, it is imperative that Rwandan authors are also in lead positions in research and that more than a handful of individuals are involved in the top-level publishing activity (Annex 8).

[3] Scopus, 2017. World Bank Country Statistics, 2017.

[4] ISI Web of Science (CU=Rwanda, TS=2013–2016, DB=All).

Figure 2 Growth Trends in Rwandan Research



Source: Scopus *Excluding Medicine

Unlike other Eastern African countries with similar Sida-supported collaboration—Tanzania, Uganda, and Mozambique—where Swedish universities have become key academic partners to universities, Swedish academic partnerships play a minor role in Rwanda's national publication portfolio (Annex 8).[5] The list of Rwandan authors and co-authors in publications is dominated by US institutions, and the top position is by far held, with 236 joint publications, by Harvard University. The effect of the US $152M HRH programme to Rwanda's international partnerships is apparent; none of the neighboring countries exhibit similar US dominance with collaboration partners.

The first Swedish university on the list of international partners is University of Gothenburg at position #29 (41 joint publications in 2013–2017), followed by Uppsala University (24 publications), Karolinska Institutet (19 publications), University of Umeå (18 publications), and Linköping University (10 publications). Swedish collaboration makes Sweden Rwanda's tenth most important partner country in terms of number of publications.

2.4 UR – ORGANISATION, STRATEGY AND ROLE

The University of Rwanda was established by the Government of Rwanda in 2013. It resulted from the merger of seven public higher learning institutions[6] including the former NUR into a consolidated entity. The rationale for the merger was an

[5] ISI Web of Science (CU=Rwanda, TS=2013–2016, DB=All, Analyze by territory, institution). The territory / institution analysis is known to have errors due to incorrect source data.

[6] National University of Rwanda (NUR); Kigali Institute of science and technology (KIST); Kigali Institute of Education (KIE); Higher Institute of Agriculture and Animal husbandry (ISAE); School of Finance and Banking (SFB); Umutara Polytechnic Higher Institute; Kigali Health Institute (KHI)

acknowledgement that each of the institutions was relatively weak institutionally as well as academically, and that a merger was necessary in order to create one consolidated and more efficient entity of higher learning in Rwanda.
UR's vision is "to be a leading university that develops highly enterprising graduates prepared and dedicated to building a more just and sustainable society locally, nationally and globally, with appropriate innovations that advance quality of life" (UR-Website). The Board of Governors and an Academic Senate with staff and student representation govern the university. The management is made up of a Vice Chancellor as the chief executive officer, and sub-units for Academic Affairs and Research, Administration and Finance and Institutional Advancement that are each headed by deputy vice chancellors (DVCs).

UR currently consists of 6 colleges with 24 schools and 11 Centres on 14 different campuses. Some of the colleges are spread on several campuses. Each college has its own College Council & College Academic Council, and is managed by a College Principal and Deans of Schools. The current colleges are (see Annex 2 for more details): College of Agriculture, Animal Sciences and Veterinary Medicine (CAVM); College of Arts and Social Sciences (CASS); College of Business and Economics (CBE); College of Education (CE); College of Medicine and Health Sciences (CMHS); and College of Science and Technology (CST).

With the argument that UR is still too spread out and fragmented and that further consolidation is necessary, a new reform is under way which will result in a further concentration to a total of five colleges on ten different campuses (UR 2017). The main change is that the colleges of Arts and Social Sciences (CASS) and Business and Economics (CBE) will merge into one college with the preliminary name College of Law, Economics and Governance (CLEG).

With reference to Vision 2020 (GoR 2012) and EDPRS II (GoR 2013) and the government's desire to build a knowledge based and technology-led economy, more emphasis will also be placed on science, technology, engineering and mathematics (STEM) education (UR 2017b:5). To contribute to addressing Rwanda's challenges, UR also has plans for a transition towards an interdisciplinary approach centring on a set of interdisciplinary research clusters (UR 2017). These are:

i) Agricultural transformation and food security; ii) Socio-economic transformation and sustainable development; iii) Environment, natural resource management and climate change; iv) Inclusive governance, peace and security; v) Urbanisation, green cities and human settlement; vi) Transformative ICT and knowledge management; vii) Health and well-being for all; viii) Sustainable energy and manufacturing; ix) Transformative education, culture and creative arts; and x) Transport and logistics.

The merging of 7 public HLIs into UR has been a considerable challenge in organisational and administrative terms, and also led to strains among the academic staff and students. According to a recent assessment of tertiary education in Rwanda (HEC 2016:10-11), the challenges include an over centralised bureaucracy, ineffective management and coordination of academic programmes and staff, and a failure to capture the "mind and soul" of both staff and students about the importance

and potentials of the merged institution. The UR management, on its part, argue that the merger has been necessary and is on the right track.

UR currently has a total staff of 2327 (see Annex 3), with 1378 academic staff (24% female) and 750 administrative and support staff (40% female). 286 or 21 per cent of the academic staff hold PhDs, and 769 or 56 per cent hold Masters. Of the academic staff, 2 per cent are professors, 22 per cent are lecturers and 41 per cent are assistant lecturers. The proportion of women drops the higher up the career ladder one gets: Among lecturers and assistant lecturers 23 per cent (199/870) are women, while only 13 per cent (12/122) are women among senior lecturers. Of a total number of 66 professors, 4 are women (UR 2017b, see also http://www.ur.ac.rw).

Total UR student population of 30,214 comprises 67 per cent male and 33 per cent female students. 1,435 or 4,7 % of the students are post-graduates of whom 34 per cent are women. The university offers 67 undergraduate programmes and 51 post-graduate programmes (Annex 7). The largest number of students is found in the college of Business and Economics (CBE). UR accounts for 40 per cent of the higher education student population in Rwanda (UR 2017b, see also http://www.ur.ac.rw).

According to UR itself, there are still a number of gaps that need to be addressed (UR 2017:51). The number of PhD holders and supervisors for post-graduate studies is insufficient, and there is no locally based PhD training by coursework (112 UR staff members are currently on PhD studies outside Rwanda). The university has a high student to staff ratio in certain schools and suffers from limited teaching and learning resources. The research environment has improved but infrastructure and facilities (such as ICT and library) as well as administrative and technical capacity still need to be strengthened. And the capacity to communicate UR research is limited, making improved linkages between UR and the government as well as the private sector a priority.

For professional, academic, and financial reasons, UR will still rely on external cooperation and support for some years to come. Until recently, external funding to UR was coordinated through a number of individual project implementation units, but since 2016 this has formally been the responsibility of a Single Project Implementation Unit (SPIU). Since 2013 UR has received external funding of 160m US$ as grants or soft loans from seven countries (Belgium, the Netherlands, Canada, Germany, South Korea, Sweden and USA) as well as multi-lateral organisations (African Development Bank, World Bank, UN, and EU) and private banks (the Exim Bank, South Korea). Sweden is the largest donor to UR with the most comprehensive programme (see UR 2017 Annex 12 and Chapter 4).

3 The UR-Sweden programme

3.1 INITIAL PHASES (2003-2012)

The (N)UR-Sweden Programme has gone through three phases – with the current phase (2013-2018) being the main focus of this evaluation. All three phases have had similar purpose with interconnected objectives. The summaries below focus on evaluations of progress from the first two phases (2003-2005 and 2007 – 2012 as recorded by Pain et al. (2012). In both phases NUR's Swedish partners were Gothenburg University (in partnership with Uppsala University and Karolinska Institutet in the medical field), Linköping University and Blekinge Institute of Technology.

During the first phase the focus areas were:

- Human resources development – salaries for expatriate lecturers
- PhD training in Peace and Conflict, Education and Environment, and Masters training in ICT
- PhD training targeted primarily faculty staff without higher degrees
- Strengthening research management capacity through support to strategic planning processes, to administration and financial management, and to the Research Commission
- Improving the research environment through support to build up library resources and capacity for library management, and through support to the development of ICT infrastructure, mainly in internet connectivity.

The second phase had a similar set-up, but with the following changes:

- No expatriate salaries
- PhD training in Applied Mathematics and Medicine
- Provision of financial incentives to encourage female staff with family responsibilities to put themselves forward as PhD Candidates
- Research fund and Innovation fund
- Funding for Directorate of Planning and Development (DPD) and for a new Management Information System (MIS)

The main conclusions from the evaluation of the NUR-Sweden/first phase of the programme (2002-2006) were: "The programme had been broadly successful, but with significant constraints encountered during implementation. These included slower than expected progress by the PhD candidates, drop-outs in the Master's programme, delays to the payment of stipends and research funds, high teaching workload of PhD students and weak management capacities at NUR" (Quoted in Pain et al. 2012). For the programme period 2007-2012, the main conclusions were (Pain et al. 2012: 5-7):

Scientific Outputs and Quality: 'Many of the formal procedures in relation to PhD training are in place, although procedures in relation to the monitoring of progress and supervision need to be developed. There has been a significant rise in the number of peer reviewed international publications, but greater attention needs to be given to recording research uptake and policy engagement as outcomes. Considerable disincentives to undertake research and supervision exist since these activities have to be done in addition to full time teaching duties and not as an expected part of the normal duties of faculty members'.

Effectiveness: 'Differences in the progress made by different PhD candidates have been noted. These seem in part attributable to variations in monitoring and supervision practices at different universities in Sweden. However, quality mechanisms have improved and NUR is assuming increasing responsibility for quality assurance. Quality assurance procedures are also in place for the Masters programmes'.

Relevance: 'Verbal evidence indicates that NUR researchers are carrying out research relevant to key development problems, that research ideas are formulated through discussion with key stakeholders in the public and private sectors, and that research results are fed into policy and development practice. However, relevance is poorly argued in research application and approval processes, and is not systematically monitored and recorded'.

The Role of Swedish University Partners: 'Strategic engagement in building research capacity has been evident. There has been a lack of accountability by some of the Swedish University partners for supervisory performance and student progress. NUR has lacked financial authority (control) over the part of resources spent in Sweden for the PhD training. With the appointment of a Swedish Coordinator a more coherent and higher level of collaboration has been developed'.

The evaluation finally makes a number of recommendations for the improvement of the programme. These relate broadly to: strengthening the focus on developmental relevance; strengthening the quality of research outputs; ensuring adequate approaches to capacity-development; and actions to support NUR's plans for expansion.

The current phase (2013-2018) has seen a significant expansion in number of partnerships between universities, faculties and departments in Sweden and UR colleges and schools, within the broad areas of Research Training, Research Management and Research Infrastructure. There are altogether 13 sub-programmes, with another 3 continuing from the previous phase in order to make it possible for PhD-students to graduate (see Table). The sub-programmes were selected through a competitive call for proposals, with an External Review Committee recommending which applications to fund and Sida making the final decision (Sida 2014).

Table 2 UR-Sweden Sub-programmes and Partners

Sub-Programmess	UR partner(s)	Swedish/regional partner(s)
Research training (PhD + Masters)		
Agriculture	College of Agriculture & Veterinary Medicine (CAVM)	Swedish University of Agricultural Sciences
Economics and Management	College of Business & Economics (CBE)	Jönköping University
Peace Studies	College of Arts & Social Sciences (CASS)	University of Gothenburg
Law	College of Arts & Social Sciences (CASS)	Uppsala University
Health Sciences	College of Medicine & Health Sciences (CMHS)	Gothenburg and University of Umeå
Applied Mathematics	College of Science & Technology (CST)	Linköping and Stockholm University
GIS	College of Science & Technology (CST)	Lund and Royal Institute of Technology (KTH)
ICT e-governance	College of Science & Technology (CST)	Örebro University
Research management		
Research Central Management	UR Central level: Research Coordination Unit	Uppsala University (ISP)
	UR Central level: Programme Coordination office	Linköping University
	UR Central: Management Information System	
	UR central: Institutional Advancement	Uppsala University (ISP)
Innovation	University central & CEESD	Previous: Blekinge Institute of Technology (BTH), Current: Södertörn
Research Infrastructure		
Library support	UR Central level: Library	University of Borås and BTH
ICT Infrastructure	UR Central level: ICT Centre	Blekinge Institute of Technology
Instructional technology	Center for Instructional Technology	Stockholm University
Continuing Students from non-approved programmes		
Environment	CBE	University of Gothenburg
ICT Research	College of Science & Technology (CTS)	Blekinge Inst. of Technology (BTH)
Female students in region	Various colleges (CMHS, CBE;CAVM,CASS)	Different universities in Africa

3.2 ROLES AND RESPONSIBILITIES

UR was responsible for the initial needs assessment and identification of areas for support, as reflected in the Concept Paper of 2011 (NUR 2012). A similar Concept Note has been produced for the possible continuation of the programme (UR 2017). UR is also responsible for identification of PhD candidates among its staff (in cooperation with Swedish partners), for the development of 'in-house' master and PhD programmes, and for establishing the policies, procedures, and incentives towards research needed to create a conducive environment for research and research based teaching at the university.

The Swedish universities on their part are responsible for enrolling the selected candidates into their regular PhD programmes in Sweden, and for supervising the students. They also assist UR in developing 'in-house' master and PhD programmes, teaching and supervision in these programmes, and supporting the development of a research culture through the establishment of seminar series, and providing coaching or training in supervision and research methods. In the cross-cutting sub-programmes (library, ICT infrastructure, and instructional technology) corresponding units at the Swedish universities and the UR work together to develop the capacity at UR.

Beyond the universities, the Swedish National Higher Education Council (Universitets och Högskolerådet, UHR) has been responsible for coordinating and managing the call for proposals. Until recently, UHR was also responsible for channelling the funds for the Swedish university partners from Sida and for financial follow up (this contract has reportedly recently been cancelled). In addition, the International Science Programme (ISP) at Uppsala University handles the subsistence allowances that are granted to the Rwandan PhD students during the time they are in Sweden (Sida 2014).

3.3 MANAGEMENT AND COORDINATION

The programme's management structure consists of a Programme Advisory Committee (PAC), which acts as an advisory body for the UR-Sweden programme and as the main interface between the programme and the university with respect to strategic direction and operations. The PAC comprises the Vice Chancellor (ex-officio), the Deputy Vice-Chancellor of Academic and Research Affairs, the Programme Manager at the Swedish Embassy in Kigali (co-chair), the Deputy Vice-Chancellor of Administration and Finance, the Deputy Vice-Chancellor of Institutional Advancement (Chairperson), college principals (all six), the UR Head of Research and Postgraduate studies, the Head of Planning and Monitoring, and the UR-Sweden programme coordinators (committee secretariat). The committee meets quarterly.

The daily management of the UR-Sweden programme is done through a Programme Coordination Office (PCO), with one part of the office being located in Rwanda and another part in Sweden at Linköping University. The overall Programme Coordinator sits at UR with a staff of eight, and the Programme Coordination office at Linköping University in Sweden has staff of 3-4 persons. Both offices coordinate institutions and people geographically dispersed at a number of different universities and colleges

in Sweden and Rwanda. Moreover, each sub-programme has a Rwandan and Swedish team leader and deputy team leader (an arrangement unique to the UR-Sweden programme) supported by administrative staff at their respective institutions. In a new arrangement since 2015 the PCO reports to the central Single Project Implementation Unit (SPIU)[7] at UR, which is meant to support the integration of the UR-Sweden programme into general UR structures. They also report to the DVC for Institutional Advancement and to the Government of Rwanda/Directorate of Finance and Financial for financial issues.

The programme follows an annual planning and reporting cycle. The most important points in this cycle are 1) the annual planning meetings (APM) (held in Sweden in May) resulting in an annual work plan, 2) the annual review meetings (ARM) (held in Rwanda in October), based on an annual progress report and financial report, and 3) the advisory committee meetings (ACM) (held every quarter), 4) the monthly Team leaders meeting on Rwanda side and 5) the Swedish team leaders meeting that are held three times a year.

Beyond this, the programme prepares a monthly financial report as part of the global UR financial reporting, quarterly progress & financial progress report to the SPIU as part of reporting of external fund to the governement. The program has also recently introduced bi-monthly financial reporting to the Swedish Embassy.

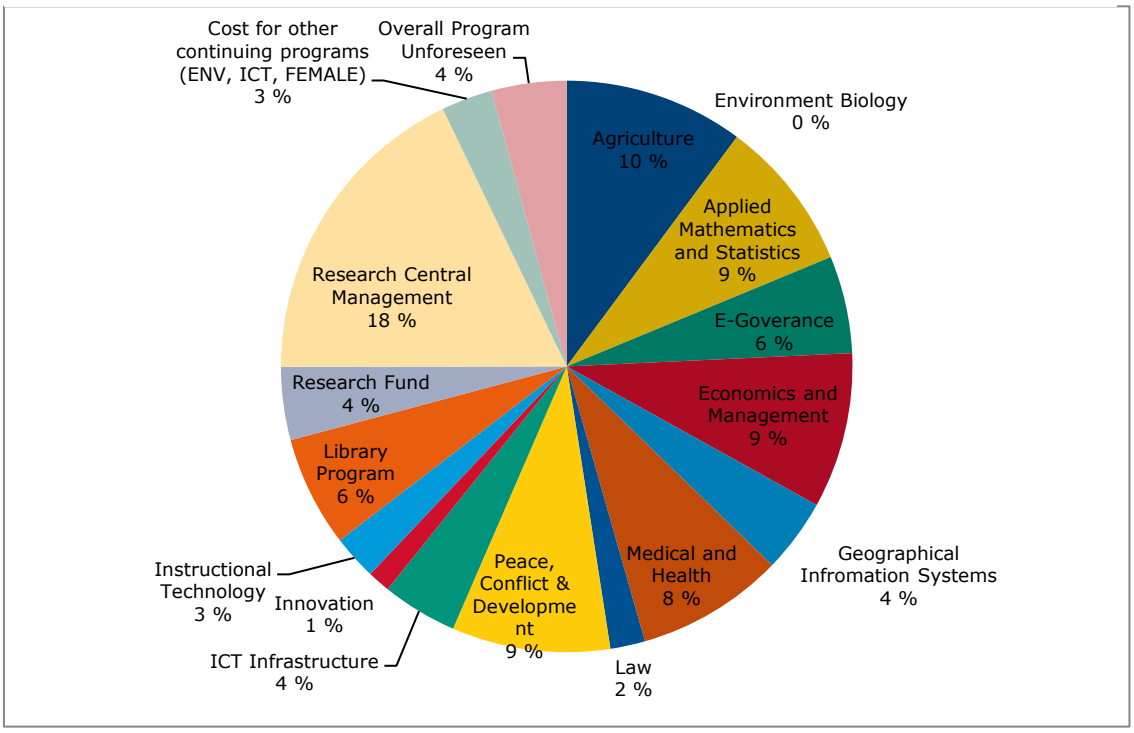
3.4 PROGRAMME BUDGET

The consolidated budget for the UR-Sweden Programme for the period of July 2013 to June 2018 is 334 million SEK and is divided into two parts. The Research Training Partnership (RTP) comes from Sida Research allocation and contributes 245 million SEK (73%). 89 million SEK (27%) is aimed at supporting masters- and applied research programmes, comes from the Swedish bilateral aid allocation to Rwanda and is channelled through the Higher Education & Development (HED). An estimated 161 million SEK will be spent on the UR side, 145 million SEK on the collaborating universities in Sweden, and 29 million SEK will be disbursed to ISP for PhD student allowances.

[7] This was introduced in UR in 2015. All public institutions in Rwanda receiving external support have such and office.

The original budget allocation to the different sub-programmes is shown in the Figure below.[8] Except for the combined research training component, the largest allocation is to research central management with 18 per cent of the total budget. This covers the central overall UR-Sweden programme coordination (7%); PhD training (1%); central research trainings for academic staff (1%); central research dissemination (2%); central university management information system (4%); and central institutional advancement and administrative staff training (3%).

Figure 3 Allocation of funds across sub-programmes



Source: UR-Sweden Programme Budget

In the subsequent pages, we will evaluate the implementation of the UR-Sweden programme with reference to the programme's overall objectives and the overall evaluation questions (see Chapter 1), the 41 specific evaluation questions given in the ToR (see Annex 1), as well as the programmes logical framework with a set of input and output indicators under each of its five overall programme objectives (see

[8] The lack of allocation to the environment/biology subprogramme is explained by the original non-approval and subsequent postponement of the program – later accepted in order to make it possible for PhD students to finalise their degree.

Chapter 1). With 10-14 months left of the current programme period (depending on whether an extension is given or not), we will use ‘traffic lights’ to assess the likelihood of the outputs being achieved by the end of the programme period (see end of chapters 4,5 and 6).

4 Management and institutional capacity

This chapter evaluates the extent to which the UR-Sweden programme has contributed to management and institutional capacity at UR, or in other words, how the programme has supported the establishment of an environment more conducive for research and post graduate training, which is the programme's objective 1 (see Chapter 1). We assess this based on the extent to which the programme has contributed to UR's:

- Ability to provide clear direction (identity and strategy)
- Ability to organise (plan, implement and report)
- Ability to deliver agreed outputs of quality and in time,
- Ability to raise resources and funds and secure the sustainability of the university.

Although all sub-programmes are expected to contribute to objective 1, there are seven sub-programmes that are specifically focused at UR management and enabling environment. These include the UR Central Level Management components Research Coordination Unit, Programme Coordination Office, Management Information System and Institutional Advancement as well as the Research Infrastructure sub-programmes for ICT, Library and Instructional Technology.

We begin by looking at the management and cost-efficiency of the programme itself and the relations between UR and the Swedish collaborators, which is the basis for any outcomes achieved at higher levels in the results chain and theory of change.

4.1 PROGRAMME MANAGEMENT

The Programme Coordination Office (PCO) consists of an overall coordination office in Rwanda and a coordination office in Sweden. Overall programme coordination takes up seven per cent of the total budget and the execution on this post has been 95 per cent over the period 2013-17. Seven per cent is a standard amount budgeted for administration of development cooperation projects. To this comes management and administration conducted by team leaders (TLs) and administration at the different

Swedish universities and UR colleges (200,000 to 250,000 SEK on the Swedish side, and 60,000 SEK on the UR side)[9]. However, due to the complexity of this programme, and compared to typical university overheads, the total is a low figure.

Overall, the programme and its management and coordination functions are well designed and fit for purpose. Programme stakeholders agree that the programme has a good and holistic approach to cooperation, where overall roles and responsibilities for planning, implementation and reporting are clear.

The PCO in Rwanda can be said to be in near complete control of the programme. The coordination and management over time also show signs of improvement, with a clear approach to adapting to different circumstances and a willingness to learn from past failures and successes. The PCO is appreciated by programme stakeholders (see Annex 10), including Sida, and the coordinator has had the role since 2008. As such he has a long institutional memory, having been part of NUR, the merger and now UR. However, some weaknesses are identified by interviewees:

Much work/responsibility is vested with the Rwandan Programme Coordinator. Several interviewees noted that this sometimes causes delays in the execution also of tasks that are relatively routine, and during periods of absence there may be gaps in information and its dissemination about the programme to stakeholders in the different colleges/campuses.

There is an inherent vulnerability in this set-up. The embassy has argued for the importance of having a Deputy Programme Coordinator to relieve the overall coordinator and to provide a broader institutional memory. The Deputy has recently been recruited and seems very able, and responsibilities are being delegated. Stakeholders also argue that there is room for more flexibility/decentralisation in some of the routine tasks including the signing for expenditures related to academic activities.

As argued on both sides, the PCO in Rwanda and in Sweden have a good relationship and share responsibilities for coordination and decision-making in the programme, although with the PCO in Rwanda in the driving seat. Programme stakeholders also appreciate their coordination role, and they represent the main contact points between the different sub-programmes. Some sub-programmes in Sweden relate to the Swedish PCO more actively than others.

[9] The team has have not been able to verify if these figures are annual or for the whole programme period; at the time of writing the team had not received the detailed budget with this data.

Also, there is some lack of clarity to some stakeholders in Sweden about the PCOs' respective roles in relation to other stakeholders, including the embassy, UHR, ISP and Sida in Stockholm. This could be compounded by the fact that in other bilateral programmes, the coordination role has rested with one actor and has included financial payments and reporting for Swedish partners and student stipends (normally held by ISP), whereas in this programme, this is split between 3 actors: Linköping University, ISP, and UHR. However, at a general level (as shown in the survey results in Annex 10), Swedish stakeholders are satisfied with coordination in Sweden.

During the first two programme periods the UR-Sweden programme developed its role within NUR, with an expanding programme which became more and more integrated. As a result of the created of UR, much of this integration had to start anew. Since 2014, there has been progress in this area, with PCO increasingly being considered integrated into UR structures. Through the PCO the programme has a direct line to UR management, with frequent contact between the overall coordinator and the VC and DVCs. However, according to stakeholders consulted some issues remain to ensure full integration.

The PCO is meant to report to SPIU, which should have full responsibility for donor funded projects. But SPIU is still not fully operational, which means that the PCO has a more articulated way of working and the SPIU is adapting and learning from the organisation of the UR-Sweden programme and the PCO. Moreover, the programme is not integrated in the UR quality assurance mechanisms. Each college has a teaching and learning enhancement unit, but there is no clear link between the programme and those units.

In terms of sub-programme management, this varies between Rwanda and Sweden and between sub-programmes. The TL management of activities seem to work well in Sweden; they have a clear role at the university and within their sub-programmes. In Rwanda, they are also usually senior staff members, but being a TL is not equally recognised at the university as a formal position. This has implications for the management of the sub-programme activities.

The PCO in Rwanda has considerable influence over the programme, and while the Rwandan TLs located at each college have a large influence over the planning process, they have less influence over the implementation process. Rwandan TLs cannot make final decisions to go ahead with activities; this is done by the PCO, UR management, or the college depending on the type of decision, and yet they are accountable for deliverables. This process is seen by Rwandan TLs to be a cause of

delays. There is, for example, an elaborate process of submitting concept notes to the PCO[10], which is seen as cumbersome:

> *"I might do selection of topics and the whole logistics planning process, by the time a seminar happens or a student is required, approvals are not yet done". (Rwandan TL)*

However, in cases where a TL is in a relatively higher position, such as dean or head of department, decision making seems faster and more manageable, as observed in the schools of Law and Medicine. There may be good reasons for centralising such a big and complex programme, but it may also reduce ownership at the college level and slows down progress in sub-programmes.

4.1.1 Relationships between Rwandan and Swedish stakeholders

The model with team leaders for sub-programmes is seen as particularly important. These represent a link and provide continuity between the overall coordinators and supervisors as well as students. This has enabled a close relationship between the UR and the Swedish partners and encouraged personal relationship. Stakeholders view the relationship between UR and the Swedish counterparts as well-functioning. From the Swedish perspective, they see their UR colleagues as ambitious and committed to the Program. On the Rwandan side, they appreciate the commitment and expertise provided by the Swedish counterparts. However, the TL survey still shows that there is room for improvement in the relationships (see Annex 9), which are person dependent and vary across sub-programmes:

- *Perceived imbalance of time spent on programme activities***:** There is a perception that the Rwandan counterparts are not as engaged in the programme as their Swedish counterparts due to competing priorities, such as teaching, other management positions, and administration. However, the survey shows that Rwandan TLs report that they spend more time on the programme than Swedish TLs/DTLs.
- *Perceived financial imbalance:* Some interviewees on the Rwanda side note that Swedish counterparts are mostly interested in the programme due to the money involved, with a large portion of the budget (43%) spent in Sweden. However, this is not borne out by the survey results (Annex 9), which identify academics as the main reason behind Swedish involvement.

[10] The concept note is a key part of the process of moving from planned activity to implementation, as annual plans are not detailed enough. They are also used to monitor activities.

- *Perceived lack of ownership:* Stakeholders argue that there is continuous process to create real ownership to the Programme at UR, with some not involved in previous phases wondering how decisions are taken. On the Swedish side, there are complaints that Rwandan counterparts do not always honour agreements and about of lack of effective communication. The survey shows that the level of face to face interaction through visits varies widely across sub-programmes (Annex 9), and that for some sub-programmes that has meant an overreliance on e-mails and Skype, and underestimation of the importance of personal relationships.

4.1.2 Reporting Mechanisms

The team's assessment is that the reporting mechanisms in the UR-Sweden programme are generally very good. The programme activities, outputs and to a certain extent outcomes are well documented, primarily in the annual progress reports. Annual plans are detailed and present a clear plan of activities going forward each year. At a general level, the reporting also shows that there is openness to admitting failure and learning from mistakes.

Most programme stakeholders seem well aware of the RBM log frame, and it is actively used for progress reports albeit with some adaptation. The RBM log frame does, however, not match the complexity of the programme, which has implications for reporting. The overall log frame consists of a limited number of outputs and outcomes statements, and there is lack of specification for some of the indicators, without an identified baseline and targets. This was reportedly due to a lack of clarity in the beginning of the programme with how this was going to work at UR, so targets are instead set in annual plans for the next year. The outcomes cover some but not all of the programme areas[11].

In the annual progress reports, the RBM log frame is not consistently applied, with *progress markers* used that do not match the indicators in original the log frame. The issue is not so much with the progress markers *per se*; these are useful and match the overall objectives of the program. The problem is rather with the original indicators, which do not match the complexity of this programme. Making an assessment of progress against overall targets also becomes difficult. However, in moving past this relatively rigid log frame, the PCO has shown maturity in its application of results based management and the PCO is on top of what is happening.

[11] For instance, objective 1 has outcome 1.3., which is "a university wide library system is established and used by academic staff and UR students", but there is no outcome related to ICT.

The annual progress reports have been criticised by the Embassy for being too detailed and giving less overall reflections on progress. This is still an issue. Although reporting has evolved over time and the last version of the report (for FY 2016-17) has more general reflections than earlier reports, the full report, with annexes, still runs into 200-300 pages. In some respects, this is a function of the complexity of the programme, but the level of detail may not be necessary and there are repetitions throughout: both within the annual progress reports and between reports from different years. In terms of outcome and impact reporting, this has been a flaw previously, but the recent report has more focus on this (see Chapter 6).

At an overall level, most program stakeholders see the value of the progress reports, at least in terms of donor requirements. Nevertheless, some stakeholders perceive reporting as cumbersome – particularly the continuous development of new templates for reporting, which are a result of improvements over time (see survey results in Annex 9). However, some stakeholders note that the quarterly reports to the GoR are more cumbersome, as well as the process of getting concept notes for activities approved.

There have been delays in reporting with original deadlines to the embassy not kept, but this is mostly related to the timing of the cycle. It does not match the Swedish situation due to long summer leave that makes keeping a September deadline impossible. The financial reports and audits have also been delayed. The reasons for this are not entirely clear, although PCO argues that the financial report should be submitted with the narrative report. The audits have been delayed due to difficult procurement processes, with lack of interest from suppliers.

4.2 FINANCIAL PERFORMANCE

The programme has received clean external audits for three years since the start of the new phase[12], which show that the Rwandan PCO has a good command of financial performance and reporting. The assessment here is based on two audit reports and the management letter from the year ending June 2016, review of the budget, and financial reports and interviews. Importantly, an analysis of the received financial data does not permit a clear identification of exact expenditures.

Lack of consolidated financial reporting: The previous evaluation recommended that NUR should have complete control of the whole budget for ownership purposes (Paine et al. 2012). In the new agreement, there are still three budget lines to different types of partners, and very little consolidated reporting, with UR handling the Rwanda side, and UHR handling the disbursements of funds and financial reporting from Swedish universities and ISP student stipends. This makes sense to ensure that funds are not lost in currency depreciation.

However, there is no one responsible for consolidated financial reporting, making assessment of budget execution difficult. PCO has only recently begun to provide consolidated reporting, exemplified by one semi-annual report for the period July 2016–January 2017. This shows the UR and Swedish budget execution (excluding ISP expenditure). The evaluation team received very late in the process a consolidated account of the Swedish side of the budget for the whole period, but this does not include ISP, which is reported separately. Table 3 below presents the team's assessment of what has been spent so far.

*The delay in disbursements to Swedish universities***:** The contract between Sida and UHR is no longer active which has meant that there has been a delay in disbursements of funds to Swedish universities. However, the delay in disbursements has seemingly not affected performance of the programme as Swedish universities have been able to cover this shortfall of funds.

Slow budget execution: The main issue with the programme's financial performance has been slow budget execution (see Table 3). Over the programme period the reasons include an initial six-month delay in the implementation due to the transition from NUR to UR; slower than estimated recruitment of students; and procurement and other bureaucratic procedures causing delays in purchase of equipment and services as well as disbursements of funds (UR-Sweden 2014c, 2015b, 2016). The

[12] Audits have been clean since 2008, in a university that has not accomplished the same level of performance.

pressure to catch up on earlier delays has also caused some overestimation of the ability to implement activities.

Table 3 Budget Execution by Year (2013-2017)

Year	Compo-nent	Original budget	Rollover from previous year	Available budget per year (budget+ rollover)	Total budget expenditure per year (incl. commitment for next FY for UR)	'Yearly budget execution' % of original yearly budget execution	'Available budget execution' % of yearly budget + rollover execution
2013-14	UR	26 328 000		26 328 000	9 148 702	35	35
	Sweden	21 669 000		21 669 000	16 747 560	77	77
	Total	47 997 000		47 997 000	25 896 262	54	54
2014-15	UR	35 938 000	17 179 298	53 117 298	35 763 897	100	67
	Sweden	30 602 000	1 957 000	32 559 000	26 743 744	87	82
	Total	66 540 000	19 136 299	85 676 299	62 507 641	94	73
2015-16	UR	33 741 000	17 353 401	51 094 401	31 867 365	94	62
	Sweden	32 391 000	9 808 401	42 199 401	30 549 719	94	72
	Total	66 132 000	27 161 802	93 293 802	62 417 084	94	67
2016-17	UR	32 569 000	18 752 379	51 321 379	31 393 167	96	61
	Sweden	31 900 000	6 847 297	38 747 297	29 345 167	92	76
	Total	64 469 000	25 599 676	90 068 676	60 738 334	94	67
2013-17	UR	128 576 000			108 173 131	84	
	Sweden	116 562 000			103 386 190	89	
	Total	*245 138 000*			*211 559 321*	*86*	

Source: PCO budget execution workbook. Note: The table distinguishes between 'Available budget execution': and 'Annual budget execution'.

As Table 3 shows, the pace of execution has picked up, with an execution of 86% of the total budget so far. The PCO now estimates that final budget execution will be 87% for the UR part by the end of June 2018[13]. However, the first year's slow progress will not be caught up by the end of the agreement period.

Overviews over budgets and budget executions by sub-programme shows that some sub-programmes have had a more difficult time of implementing their plans than others have (Annex 5 and 6). However, the programme has been good at reallocating funds where they are most required. This shows that the programme has good control and an approach to agile management, allowing flexibility in fund allocation. Several interviewees have noted that this has been one of the success factors of the

[13] There is no estimate for the Swedish part of the budget.

programme, whereby it has been possible to roll-over funds from one year to the next and to ask for additional funds for new activities.

In terms of cost, a sandwich programme falls between a doctoral programme in Rwanda and a programme taken fully in Sweden (see Table). Comparisons are difficult due to the different ways one can put a price on a doctoral degree. One Swedish university estimated the average cost of four year full-time doctoral training to 3.5 million SEK, or 875,000 SEK per year, including salaries, social charges, university overheads, student mobility, materials, and other costs (Kruse et a.l 2017). Added to that would be a stipend or self-financing of living costs, estimated at 16,000 SEK per month. Similar, there is no straightforward way of putting a price on doctoral training in Rwandan universities as it would depend on its design. The costs of the local programme above is not fully in Rwanda, but rather one with some involvement of Swedish supervisors, as is planned for the local programmes currently under development.

Table 4 Costs of Different Types of PhD Models

Type of model	UR salary costs	UR, covered by Sida*	Swed. Universities covered by Sida**	Total
Sandwich with field work that does not require lab work	529,463	502,500	1,810,000	2,841,964
Sandwich - Non medical research & Fieldwork that require lab work	529,463	602,500	1,810,000	2,941,964
Sandwich: Medical and Health Research with lab work	529,463	672,500	1,810,000	3,011,964
Local programme	423,571	1,117,000		1,540,571

Source: PCO estimates *Supervision, travel, equipment, fieldwork. **Supervision and stipend

4.3 RESEARCH MANAGEMENT

Sida (2008) envisages that university and institution research management will be mandated to identify methods of facilitating research throughout the entire university. This requires close collaboration between a number of units within the university, such as the university library with its key role of providing scientific information to researchers, directorates and schools of postgraduate studies, units for procurement of equipment and goods, units for maintenance of scientific equipment, financial management units human resources units, planning units, the bursar's office, legal units, and quality assurance units.

The UR-Sweden programme is contributing to the goal of improving research management at the university through a number of initiatives. At the overall level this is mainly done through the activities in the Research Management sub-programme[14], with its components on Research Directorate, Management Information Systems and Institutional Advancement, but also through the Research Infrastructure sub-programmes (see section 4.3).

Despite the previous evaluation recommending a closer relationship between the then NUR and Swedish partners at the institutional level, there has been limited direct contact between the relevant UR-institutions and ISP as the Swedish counterpart in this area (Paine et al. 2012). The original plan was that UR should implement this area alone, with ISP acting as a facilitator procuring specific services in Sweden. It is acknowledged as a weakness at UR that there has not been a consistent Swedish partner.[15] The table below describes the key activities and outputs funded by the UR-Sweden programme under institutional advancement (focused on improving the research environment at the university, through consultancy services for organisational assessment and development, networking and resources mobilisation, staff capacity building, gender mainstreaming and office costs) and MIS (full support for university wide system).

[14] The sub-programme on Research, Innovation and Postgraduate Studies Directorate – RIPGS is discussed in the next section.

[15] Disciplinary sub-programmes contribute to improved research management within specific colleges, but aggregating the results of these activities is not possible with available data.

Table 5 Key Activities for Institutional Advancement

Area	Selection of key achievements (not exhaustive)
Institutional development/ advancement	Policies: • Work load framework • UR policy and guidelines on inclusive teaching and learning services • Gender Policy • Recovery Policy • Financial management policy • Human Resource Management policy Strategy: • Coordination of concept note process • Development of the UR Strategic plan - not yet completed • Development of master plan for two major campuses in Kigali - not yet completed. • Consultation workshop with all deans and directors, professors and associate professors, senior management, HEC and MINEDUC where the restructuring was discussed • Academic programs and academic structures review • UR senior management retreat Visibility: • Various marketing and promotional tools purchased • Corporate Communication Office support in dissemination
Donor coordina-tion and resources mobilization	• UR resource mobilisation strategy and implementation plan • Consultancy policy • UR projects management policy • SPIU procedures manual • UR cost recovery unit survey for which a new funding model for UR was proposed • Resource mobilisation visits to Australia, US, South Africa, Mauritius and Sweden
Staff training and capacity building or upgrading job-related skills	HR mapping of current academic and administrative resources at UR and UR staff training assessment. Based on these the UR administrative and technical staff training plan was developed. 146 staff trained in the following[16]: Staff training: • Financial management, procurement and HRM for senior staff • Internal training on UR financial manuals for finance staff • Entrepreneurship and job creation for career guidance staff • Advanced office management for selected advisors/executive assistants • Academic strategic management for the academic Registrar • Intellectual property and resource mobilisation training • Advanced Management, Administrative Skills and Internal Audit Retreats: • Awareness raising on STDs and gender
Management information system	The programme supported all the costs related to having an integrated Education Business Management Information System at UR and close to 14M SEK were invested. The MIS is being rolled out and staff are being trained (see further below).

Source: Annual Progress Reports

[16] It is not clear if this relates to only 2016-2017 activities or the full period from 2013.

The programme documents acknowledge that *"there are still a lot to be done to create a true environment conducive for research"* (UR-Sweden 2017:4). These conclusions are largely supported by this evaluation. Although the achievements described above are described as starting point, the evaluation has not been able to include an assessment of the extent to which policies have been implemented and trainings have led to changes.

Interviewees point to a number of key areas where UR is still lagging behind – most directly related to UR's 1) ability to organise (plan, implement and report), 2) ability to deliver agreed outputs of quality and in time, and 3) ability to provide clear direction. The survey results back up findings from interviews.

Procurement is one of the major bottlenecks in the operation of the university and the programme. The programme audit notes some problems in relation to technical aspects of keeping in line with Rwanda procurement regulations, including delays in opening of bids, missing performance guarantees and missing final notification of tender awards (PWC 2016). However, the problem is larger than this and seems to be responsible for much of the delays and lack of full budget execution. It is not an easy problem to solve, and is a recurring problem in other bilateral research cooperation projects (Kruse et al 2016 and 2014; Millard et al 2017). Or succinctly put by one of the interviewees:

> *"Procurement is like when you drive a car with the handbrakes on". (UR staff member)*

The situation has improved since the start of this phase of the programme with framework contracts, which allows pre-selection of certain providers. The recent split between central procurement, under the Directorate of Procurement, and externally funded projects procurement, within SPIU should also increase the speed of procurement with the delays experienced due to busy tender committees alleviated. For the programme this will be useful as the TL for procurement will now sit on the tender committee.

However, a number of issues still remain to be solved, including i) increasing the awareness and knowledge of procurement, and particularly how to write technical specifications and ii) becoming more aware of the procurement planning cycle where changes in plans are possible during certain times of the year. These may seem like capacity development issues to be solved through training. However, this problem may be partly related to centralisation of decision-making, including procurement (see below).

Workload, human resource management and research incentives: One of the indicators selected for this objective is that there should be a "Balanced workload matrix for teaching, research and community engagement adopted by the UR." There are a number of policies that specify the amount of research that should be conducted by different levels of academic staff and that staff appraisal and promotion should be based on all three types (teaching, research, and outreach) of activities[17], but there is no sign that these are being implemented fully, with many staff members highlighting the difficulty to find time for research, unless the individual accepts additional workload. The TL survey (Annex 9) shows lack of financial and non-financial incentives for research as areas with least progress made.

According to the most recent programme audit, staff performance appraisals are not performed consistently (PWC 2016), meaning that the supposed rewarding of research would not be done systematically at any rate. The evaluation has also not been able to access data on the time spent on research either for all UR staff or for programme staff (see also section 6.3 on graduates).

A consistent finding is that inefficiencies in administrative systems as well as lack of administrative support also make all academic staff, involved in the programme or not, spend more time in administrative work, which limits their engagement in research. Those working in some of the larger UR-Sweden sub-programmes (e.g., agriculture and medicine) have some support staff, but this is not the case across all sub-programmes and not across the university as a whole.

Relevant to this finding is UR recruitment of academic and support staff. As noted in section 2.4, the university has a high student to staff ratio in certain schools and suffers from limited teaching and learning resources (UR 2017). The UR-Sweden programme is a large programme that engages much academic and administrative personnel, who also have other duties such as undergraduate teaching, management and administrative functions and consultancy. As the current phase of the programme has increased in scope and size, taking up more staff time, UR total staff size has reduced since 2014 (from 2697 to 2144) (see Annex 3 for detailed numbers of staff 2004-2017). This may be one factor linked to staff complaints about being overburdened and not finding time for research.

Strategy: UR has made progress in terms of developing capacity to provide clear direction (*identity and strategy*) and the UR concept note is a major step in this

[17] This includes Academic Work Load Framework 2014; Academic Staff Development Guidelines; Guidelines for Assessment of Publications for Promotion; and UR Policy and Procedures on Academic Staff Appointments and Promotions.

direction. There is a broad agreement about the future direction articulated in the concept note, with research clusters and a focus on STEM disciplines (also confirmed by the survey – see Annex 9). The process to arrive at the concept note is seen as having been inclusive, with all colleges involved.

However, some argue that the push towards the STEM disciplines is more the result of government development policy than university initiatives. This argument is validated by a review of the current draft of the ESSP IV which underlines the role of the education sector and clearly places STEM subjects as its key focus in achieving the country's vision of a knowledge-based economy. Although the focus should be interdisciplinary and integration of STEM and social sciences and humanities, there is a perception among some staff that social sciences are not prioritised. An added complication is the current reorganisation of colleges and schools, which particularly affects the social sciences, where the future is currently uncertain due to planned merger between CASS and CBE. In addition, the development of the UR strategic plan has been delayed due to issues with procurement.

A major sticking point seems to be resistance to centralisation. Centralisation has led to evident frustration, both in terms of a transferral of power to the centre and in terms of added bureaucracy particularly seen from outside of Kigali. There is some anecdotal evidence that this has led to resistance or "sabotage" within the colleges.[18]

This is compounded by a hierarchical management tradition, mentioned by many interviewees, for instance illustrated by appointments to management positions without proper consultation and agreement with the person in question. While it is important that some graduates are 'nurtured' to become good managers, for the majority management/administrative work inhibits them from focusing on developing their research portfolio (see section 6.3).

The centralisation has a natural logic behind it: In order to get these previously disparate institutions to go in the same direction, centralisation of power is required. However, within an academic institution this creates a dilemma (HR 2014), succinctly articulated by one interviewee:

> *"To create a sustainable institution you need institutional ownership..... You cannot point with the whole hand to get a bunch of academics to go in the*

[18] For instance, procurement officers may not support the central procurement office with college procurement since they are only asked to support the development of technical specifications, whereas all tendering is handled centrally.

> *same direction. An academic is a critically thinking person - the academic space must be of the same substance. There must be inclusivity in decision making*[19]*". (Swedish TL)*

In terms of the role of the programme in supporting institutional advancement, it is not clear to the evaluation team how central initiatives are expected to contribute to institutional development beyond supporting the development of new policies. There are a number of activities in the programme with expected outcomes on strategic planning, but there is no real articulation of a model for change management and reform at higher levels in the university. There is also no obvious Swedish partner with expertise in change management support, despite these two aspects particularly noted in the previous evaluation (Paine et al 2012). Some contributions are coming from sub-programmes, most notably from Economics and Management, where the TLs are in discussions with UR management around an academic leadership programme. The Sida appraisal mentions the need to recruit a consultant to support this process, but this has not yet been done (Sida 2014).

4.4 RESEARCH INFRASTRUCTURE

Another important element of a supportive research environment is the physical research infrastructure, with the sub-programmes ICT, library, and instructional technology being particularly important. All of these three cross-cutting areas have experienced delays, mostly related to procurement issues. Nevertheless, this is the area where respondents to the TL and DTL survey have seen the most *progress* at the institutional level (see Annex 9).

4.4.1 Information and Communication Technology

For the initial phases of the NUR-Sweden cooperation, the evaluation noted that "*ICT infrastructure at NUR is now among the best in the country. It operates without significant interruption and the university portal not only increases the availability of research resources but, by putting on-line the documentation needed for all administrative and management procedures, also contributes to NUR's organisational development*" (Paine et al 2012: 6).

However, following the expansion into UR, the fast pace of change in ICT and the challenges faced in mainstreaming ICT in management and academic programmes has become a major bottleneck. The external audit (HEC 2016: 35) noted that

[19] The Swedish phrase used was "peka med hela handen", which describes being overly directive in management instructions.

"Access to Internet is very limited and unreliable in all the institutions visited (including UR). The students and staff complained about this and how they become frustrated and stranded for lack of or unreliable Internet service."

The ICT sub-programme has had major issues in making progress and there is currently no functioning proxy server for the University of Rwanda. The latest progress report notes that the UR ICT master plan has now been approved by the UR board and there have been trainings and purchase of key software and extensions of the fibre cable at different campus. Access to internet has been stabilised throughout the year—even though the coverage is still low compared to the needs of a growing university community. For the progress of Sida support, this is a major concern.

There are several challenges related to UR's ability to continually upgrade its IT systems and maintain the standards necessary to meet and adapt to the changing demands on the system. These include the effects of the continued merging of public universities and colleges, growing student population and increasing demand for a supportive research environment. The challenges are exacerbated by the high staff turn-over in the university's IT staff department and over-reliance on a few individuals.

4.4.2 Management Information Systems

The Management Information System (MIS) project is under the systems support sub-programme, designed to establish an Education Business Management Information System (EBMIS). After piloting of the system, scale-up intends to integrate all colleges' student management systems and related student finance, general finance & accounting, and human resource management.

The MIS project was included in the UR-Sweden programme in the previous phase in 2011. Rwandan staff members report that the programme has no Swedish counterpart. The TL for the sub-programme has been in the position for one year, since 2016, but has apparently not been paid a monthly allowance as envisaged. The TL holds a senior management position at UR as Chief Information Officer (CIO), and is currently pursuing a PhD.

As the UR systems and processes, ranging from administrative, through research to teaching become more ICT based the need for systems to speak to each other will be an essential element of the overall UR's effectiveness. The current reliance on a single individual for oversight of the MIS sub-programmes management and coordination, with limited programme support and commitment raises concern with regards to effectiveness and sustenance of the sub-programme and its results.

4.4.3 Library

Also for library support, progress has not been as successful as previous phases. The previous evaluation noted that *"The increase in the number and availability of resources, and training for library staff, has resulted in a reported high level of satisfaction with library services. However, available data on actual usage is not disaggregated by faculty or user type (researcher, student etc.).*" (Paine et al 2012: 6)

The library, as the ICT sub-programme, has had a number of problems which largely seem related to the UR merger, and the move from a single campus to a multi-campus setting. Rather than building on successes from the previous phase, resources are perceived to have been spread out between these campuses and set-backs have been experienced. However, after initial years of very slow progress the recruitment of a new Head of Library as Rwandan TL for the programme has led to improvements. These include a new website, library repository, library structure, training conducted, and subscription to e-journals. A major set-back was the continued inability to purchase books due to procurement difficulties.

4.4.4 Instructional technology

The sub-programme on instructional technology has also been subject to delays—particularly in the purchase of the anti-plagiarism tool which was delayed by several years. This reportedly had the effect of duplication of work, with some sub-programmes purchasing separate tools for their sub-programmes. However, this is now up and running with more than 100 staff members being active users every month.

The programme supports teaching and learning improvement with the use of e-learning technologies to deliver education. 137 staff members were trained to use Moodle platform in their course delivery which is very low compared to the total strength of teaching staff in the university. So far 1389 modules are uploaded and the current statistics shows 6941 users both students and staff. The major reason is being that usage of eLearning platform is seen as a voluntary option rather than a compulsory medium.

There is a strong push for on-line delivery of course modules at UR, with the 2013–2017 target set at having at least 50 per cent of all UR programmes available online. This has not been achieved as the only online programmes currently available are in the school of medicine – accessible through the Tulane university Platform (an external collaboration project with the UR), which has been migrated to the UR platform since December 2016. Overall, UR has not been able to meet its instructional technology goals for reasons including the absence of clear guidelines and policies on instructional technology and related areas.

For example, in 2013 UR introduced an anti-plagiarism software (TurnItIn) and SCIPRO, an online thesis supervision software, to assist with remote supervision for students. The Turnitin was procured with 15,000 licences though reduced to 3,000 after 1 year, but to date no more than 600 have been used. The instructional technology programme has developed anti-plagiarism guidelines and a penalty scale for the university, but these are yet to be fully implemented because the policy is not yet communicated to the teaching staff and students. The enforcement is lacking. Effectiveness of the sub-programme also risks being affected by the possible departure of the DTL.

4.5 EXTERNAL FUNDING

All donors and external funding to UR are coordinated by SPIU. The evaluation team understands that the proportion of external (non-governmental funding) is around 25 per cent of the total UR budget, but this has not been possible to verify through written documentation[20]. The table below shows the current top 10 grants and loans to UR. The total amount of current grants and loans add up to 161,998,109 US$, covering grants and loans in various period between 2010 and 2022. The largest is a loan from the Korean Exim Bank to cover construction of the new UR headquarters, the School of Mining and Geology and four ODeL Centres and the development budget from the government of Rwanda[21]. The UR-Sweden programme is by far the largest external grant in the area of institutional advancement, and fifth largest of overall grants and loans (Table 6).

Table 6 Larger Loans and Grants to UR

Donor name	Domain of intervention	Total USD	Type of funds	Starting year	Ending year
EXIM BANK	Construction	39 439 687	Loan	2014	2019
Gov. of Rwanda	Development, Construction	29 074 017	Grant	2013	2021
World Bank	Academic Development	20 000 000	Grant	2016	2021
AfDB	Institutional advancement	17 366 448	Loan	2015	2019
Sida	Institutional advancement and research	16 541 405	Grant	2014	2018
KfW	Construction and Development	11 919 093	Loan	2014	2019
Center for Disease Control (CDC)	Research and capacity building Development	9 028 559	Grant	2010	2017
NUFFIC	Capacity building	4 307 434	Grant	2015	2019
UC, San Francisco	Research	2 411 187	Grant	2017	2017
GIZ/Germany	Research	1 892 416	Grant	2013	2018

Source: SPIU

The UR-Sweden programme is universally recognised as a key engine in attracting funds to UR, with the example of the World Bank Centres of Excellence frequently used to illustrate this point. UR points out that the Sida programme has enabled them to show that they can manage this type of a large donor programme. That has given other donors the confidence in UR to develop further.

[20] Documentation to verify this point has been requested but not received.

[21] The evaluation is not clear on whether this is the government budget allocation or something different.

There has so far not been any concerted effort to coordinate the donors and their contributions. This has been planned but not prioritised, partly as a result of the varying nature of these programmes—ranging from pure infrastructure support to the Sida programme focusing on building capacity of the whole university. However, with the start-up of the centres of excellence this will become more important, mainly in order to exploit possible synergies but also to avoid possible competition for scarce staff- and material resources. Many of those involved in the Sida programme are also involved in the Centres of Excellence.

4.6 CONCLUSIONS

This chapter has covered the effectiveness of programme management and financial performance of the UR-Sweden programme and the extent to which the programme has contributed to UR management and institutional capacity.

The PCO manages the programme very well, but may be too dependent on a few specific individuals. Sub-programmes are well run, with the sub-programme team leaders ensuring continuity between the PCO, supervisors, teachers and students. Relationships between Rwandan and Swedish counterparts are good, but there are tensions within different sub-programmes which affect mutual ownership of the programme. The programme is well integrated into the university. Reporting mechanisms are clear and functional, but overly detailed, and a constant drive to improve has caused some to see them as cumbersome. In terms of financial performance, assessment of cost–effectiveness assessment is hindered by lack of consolidated reporting. Sandwich PhDs are relatively expensive, but there are no better alternatives until the ‘home-grown’ PhD programmes are up and running and have the required quality (see below).

The programme has contributed to support in the area of institutional advancement and research infrastructure, but this has not achieved the level of progress anticipated. There are no specific models for supporting institutional advancement and no Swedish partner has been involved.

In terms of the four aspects of institutional capacity, UR has some way to go. UR has developed the ability to provide clear direction (identity and strategy), with clear overall management structures, and development of a variety of policies and procedures to guide work, but this is complicated by differences in college locations and cultures, with resistance to the centralization of power.

The ability to organise (plan, implement and report) and to deliver agreed outputs of quality and in time shows some progress, exemplified by the management of this programme, but is hampered by some central UR management functions that do not fulfill their role, especially procurement. Library and ICT functions are still struggling to find their places at multi-campus UR and in the programme. Most crucially, an insufficiently balanced work load and inadequate financial and non-financial incentives for research hinder the development of an enabling environment more conducive for research.

The ability to raise resources and funds and hence secure the longer-term sustainability of the university is moving in the right direction. The programme has been an 'engine' for efforts to attract additional donor funding, but UR is currently experiencing financial difficulties including cuts in government funding for specific activities. There have been financial difficulties including cuts in government funding for specific activities – but the team understands that this is currently being rectified.

This evaluation was carried out nine months prior to the formal termination of the third phase of the UR-Sweden programme (June 2013-June 2017). At the time of writing (October 2017), the programme may be extended for another six months until December 2018. On the basis of the preceding analysis, we end this chapter by indicating the likelihood of the objectives, outputs, and outcomes expressed in the programme's overall RBM log frame being met by the end of 2018. The assessment is based on a combination of quantitative/qualitative information, as the baseline and later attempts at clearly defining the indicators are inadequate.

Will be met	May be met	Unlikely to be met	Will not be met

OBJECTIVE 1: Establish an Environment more conducive for research and post-grad training			
Outputs	**Outcome**	**Status**	**Indicator**
Programme has formulated a position on inclusion of research in UR workload, and advocated it.	1.1. Balanced workload matrix for teaching, research and community engagement adopted by the UR.	Matrix produ-ced, but not fully adopted/ implemented	a)Documents prepared by programme on the issues
			b)Programme representation in fora for discussion and/or decision making
			c)Share of UR budget allocated to research
Programme members have established and run seminar series at their home departments and schools at the UR	1.2. Programme research results are shared among UR staff, and inform UR teaching.	Results shared in seminars, but not fully incorporated in teaching	a)Number of seminar series initiated and/or coordinated by programme members
			b)Number of seminars held by programme Ph.D. candidates and research grant holders.
			c)Reference made to domestic and international research in UR courses and programmes.
			d)Teaching material produced.
A strategy for roll-out of library programme activities to all of UR is produced and proposed for implementation.	1.3. A university wide library system is established and used by academic staff and UR students	Library service improved, but not fully used/ competition from internet.	a)The proposed implementation plan is approved.
			b)Access to system by all campuses and university units
			c)Use of system in terms of down-loads of electronic sources, inter library loans etc.
			d)Harmonized library services

5 Research and capacity building

This chapter focuses on the extent to which the UR-Sweden programme has contributed to building research capacity, increased the number of PhD and Masters holders in Rwanda (Programme objective 2), and the quantity and quality of research conducted at the University of Rwanda (Programme objective 3).

5.1 RESEARCH TRAINING

5.1.1 Sub-Programmes 2013-2018

While progress in research and capacity building continues to be made also in the third programme period, a number of the challenges pointed out for the NUR-Sweden phases of the programme still remain (see Chapter 3). One reason is that the transition from the relatively small and self-determining NUR to the multi-college and multi-campus UR has affected the current programme period—also for research and capacity building. The current sub-programmes in research training and outputs in terms of PhD students are:

Table 7 Research Training Sub-Programmes/PhD Students/Graduates 2013-2017

Sub-Programmes	Enrolled in 2003-2013	Enrolled in 2013-2016	Graduates from 2009-2013	Graduates from 2013-2016	Students from 2007-2013	Students from 2013-2016
Agriculture	_	8	_	_	_	8
Economics and Management	_	8	_	_	_	8
Peace, Conflict and Development	9	2 + 3*	3	7	2	5
Law	_	3	_	_	_	3
Medicine and Health Sciences	3	10	_	3	_	9**
Applied Math. and Statistics	6	3	_	6	_	3
GIS	_	4	_	_	_	4
ICT, e-governance	_	4	_	_	_	4
PhD Training	_	2	_	_	_	2
Library Support	_	2	_	_	_	2
Instructional Technology	_	2	_	_	_	2
Environment	4	_	5	_	1	2
ICT Research	4	_	_	_	1	2
Female students region	5	_	_	_	3	3
Education	_	_	9***	_	_	_
Total	**31**	**48 + 3***	**17**	**24**	**7**	**50**

*In region ** Remaining after one dropout *** Transferred to programme

The process of selecting 'sandwich' institutional partners and programmes for the 2013-2018 programme period largely followed earlier procedures (see Chapter 3.1): In 2013 Sida sent out a Call for Applications, which was followed by concept notes jointly produced by the UR and Sweden partners and assessed by an External Review Committee, with the projects selected for Full Proposals going through another round with the External Review Committee before a final decision was made by Sida.

The process ended up with a broad spectre of disciplines and programmes in five of UR's six colleges missing only the College of Education – which later became involved through the Instructional Technology sub-programme. All sub-programmes from the preceding periods except education were brought forward. There were concerns about the transition to a new and larger university, raised for example in Sida's Appraisal of Intervention (Sida 2014), but the UR management maintains that it was important that as many as possible were part of the programme to support the transition and ensure ownership to the programme.

> *'What the programme is doing is increasing networking and exposure to unlock minds to help students think differently'. (UR Management)*

The parallel process of selecting PhD candidates for the current phase ended up with a selection of 51 new PhD students (Table 7). Of the total number of enrolled students, i.e. including those transferred from the previous period, 66 per cent are men and 34 per cent are women. Both processes are generally seen to have been open and transparent. However, one issue has been raised: The short deadline for handing in concept notes and applications, making the process unnecessarily hectic for the programme management as well as for the applicants.

As the evaluation team sees it, the research topics selected for the PhD theses are generally relevant for development challenges in Rwanda—which is in line with government and UR policies. They include topics like 'Mastitis in dairy cattle in Rwanda' which affects milk quality (Agriculture); 'Inclusive growth through informal employment in Rwanda (Economics and Management); 'The making of a reading society: Developing a culture of reading in Rwanda (Education); 'The impact of land use reform on land use changes in Rwanda' (Environment); 'Spatial urban sprawl analysis for efficient land management in Kigali' (GIS and Remote Sensing); and 'Cost-effectiveness of maternal health interventions in Rwanda' (Medicine and Health Sciences).

While the large majority of the students feel ownership to their project and argue that they have been closely involved in its development, some say that they have had to

adjust original project ideas to better fit with the interests and qualifications of the Swedish supervisors and a few state that they largely found the topic as 'given'. There are also issues related to the actual freedom to carry out 'free, independent and critical research' on sensitive issues particularly with the potential to question government policies, even though this seems to be equally much a question of 'self-censorship' as of 'external control'.[22]

> *"Students do not come up with the proposal title: It is the supervisors who write them up and students take them up". (PhD graduate))*

5.1.2 The PhD Sandwich Programme

The UR management is positive towards the sandwich model. Students receive high-quality education, they are exposed to another academic environment, and the model increases the chances of the students coming back to UR and Rwanda (if not "40 per cent may not have come back" as one UR staff put it). Returning to UR and Rwanda for a minimum of four years after graduation is part of the contract they sign, and they maintain contact with Rwanda and their family throughout the study period.

The Swedish universities involved are generally pleased with the sandwich arrangement. It brings valuable research funding, secures a steady access to PhD students, and for many it is an added bonus that they get to work with students from Africa. The Swedish partners see their main contributions to be in theory, methodology, and academic writing where the students are generally weak, while praising the Rwandan students for being hardworking and determined to succeed. However, the Swedish interviewees also nearly unanimously argue that the model of splitting time between Sweden and Rwanda puts an added burden on the students and themselves as supervisors compared with Swedish full-time students and would like to see the time in Sweden extended.

> *'Swedish supervisors involved in the programme get exposed to international global problems, which helps them having a broader perspective in research and potentially contribute to north-south knowledge transfers'. (UR Management)*

[22] This is, of course, a difficult issue to relate to. While there do not seem to be any real hindrances in the natural sciences, in the social sciences one border-line seems to be for projects that may be seen to criticise government policies and interventions (with the Poverty Reduction Policies and the One-Poor-Family-One Cow having been given as examples).

Most of the Swedish and Rwandan team leaders (TLs)[23] argue that the model works well (see Annex 12). They are usually senior researchers with established careers, and primarily have management and administrative functions in the programme (even though many also act as supervisors, see below). However, there are issues related to differences in expectations and misunderstanding in some of the sub-programmes. While the Swedish TLs often complain about lack of response and delays from their Rwandan counterparts, the latter argue that they have too many roles, are overstretched, and do the best they can under difficult circumstances.

The relationship between the Swedish supervisors and the UR-Rwandan co-supervisors is still problematic (see Annex 12). This is partly related to their different roles, with the former having the main responsibility for the students and the latter in reality having a more subsidiary role of following up the students while in Rwanda. Moreover, with the limited number of relevant staff on both sides it is often difficult to find supervisors with overlapping thematic theoretical and methodological qualifications. The Swedish supervisors also have more training and experience in supervision, and supervising a PhD student counts for academic career advancement. While this is formally the case also at UR, UR academic staff interviewed say that it actually does not count much.

> *'In Sweden my only work was research, but here there are so many tasks to balance [in] ones workload'. (PhD graduate)*

For both TLs and supervisors, the issue of remuneration is still prominent and has implications for relationships as well as motivation of partners (the programme coordinators say they have explained the system numerous times, but to no avail). The arrangement is: The funding to Swedish universities (SEK 250,000 per PhD student per year) goes to the relevant department and not to individual staff members, who get no salary raise or top-up for TL and supervision work.[24] At UR, the team leaders receive a monthly salary top-up of between 120,000 and 200,000 RwF (approx. 2,500 SEK), plus a facilitation allowance of 50,000 RwF which is to cover

[23] The system with Deputy-team leaders is unique for the UR-Sweden programme, and represent a link and continuity between the system of overall coordination and supervisors/students. Their roles and responsibilities are regulated in a separate "Terms of Reference for Team Leaders and Deputy Team Leaders in the UR-Sweden programme" dated 30 March 2016.

[24] According to Sida's guidelines, the SEK 250,000 should be split as follows: Approximately SEK 175,000 is used to cover a part of the supervisors' salaries; approximately SEK 25,000 is used to pay for the supervisors' travel to Rwanda; and approximately SEK 50,000 is used to cover the department's costs for the student while in Sweden e.g. office, ICT, library access, books, conferences

communication and running expenses. The Rwandan co-supervisors do not get a fixed monthly allowance, but are eligible to support worth 30,000 SEK per PhD student per year for running expenses related to follow-up of PhD students while at fieldwork or for follow up while in Sweden.

Students are generally positive to the sandwich model for the reasons given by the UR management (see above), but have three main queries: One is that the time they spend in Rwanda is often unproductive and does not really bring their studies forward. While fieldwork is crucial, they have heavy administrative or teaching responsibilities at their colleges and often equally heavy social responsibilities to make up for after their absence. The second query is that they lose time by cumbersome and often delayed processes of applying for Swedish resident permits and ID-numbers and in some cases also entry visas to Sweden (with delays being taken from their Swedish period of stay). Permits are only given for one year at a time – recently changed to two years – and then need to be renewed. And thirdly, they still are expected to keep the same study progression as their Swedish counterparts, including course-work which usually is 60 credits but in some disciplines represents 120 credits, which adds to the challenges of completing in time.

For the PhD students, supervision and quality assurance primarily take place at the Swedish university and department of study. The students are generally pleased with the quality and follow up, and feel well integrated into the Swedish university system (even though they relate more to other international students than to Swedish students). The main QA event is the mid-term assessment, where they present their work to a committee that includes their Swedish and Rwandan supervisors, even though there are cases where the latter has not taken part. Except for the relationship with the co-supervisor, the Rwandan students are not involved in quality assurance mechanisms at UR (see below).

> *'The main difference [between the Swedish university and UR] is the level of stability, UR is in the merging process, which makes the system very unreliable, and this affects academic staff in both short and long term' (Source)*

The different sub-programmes move at different speeds. In terms of PhD outputs, Peace, Conflict and Development Studies have produced the largest number of PhD graduates, ICT Research and Mathematics have the best record in terms of time of completion, while e.g. GIS and Law have yet to produce any PhD-graduates (see Table 8). This is partly related to the time that the programme has been established, but there are also issues of organisation and follow-up in the different Swedish and UR institutions (see Annex 12).

Asked to highlight particular achievements and knowledge-frontiers by PhD students and PhD graduates in the current programme period, the programme coordinators chose three projects from three different sub-programmes based on scientific quality (see Annex 12 for more examples given by TLs):

Aimable Musafili, *Child survival in Rwanda: Challenges and potential for improvement: Population- and hospital-based studies.*http://uu.diva-portal.org/smash/get/diva2:844322/FULLTEXT08.pdf

Joseph Nzabanita, *Bilinear and Trilinear Regression Models with Structured Covariance Matrices,* 2015. http://liu.diva-portal.org/smash/get/diva2:813054/FULLTEXT01.pdf

Louis Sibomana, *Performance Analysis of Cognitive Radio Networks under Spectrum Sharing and Security Constraints*, 2016. http://bth.diva-portal.org/smash/get/diva2:912492/FULLTEXT02.pdf

One student in the Economics and Management sub-programme has combined academic excellence with active investment and involvement in entrepreneurial activities in Kigali, winning the international awards "*Global Leader Academic Excellence Award 2015*" and "*Global Leader Development Academic Excellence Award 2016*". In addition to academic excellence, the rewards were based on the candidate's mobilisation of student participation, performance, leadership, professionalism, and community participation. Other students in economics have started, for instance, shops near Huye campus and NGOs supporting secondary students in East Province.[25]

All the 83 sandwich students who have initiated studies—with the exception of nine in the period 2002-2012 and one in the period 2013-2017—have managed to progress or graduate within the sandwich programme (see Table 8). In Sweden, roughly half (47%) of PhD students finish in five years, and four in five (82%) in eight years (Sweden Higher Education Authority 2016)[26]. For the UR-Sweden programme this represents an important achievement in itself—also compared with other similar programmes between Swedish and African universities where the drop-out rate is higher (Kruse et al. 2014 and 2017).

5.1.3 The Master Programmes

There is currently a total of 44 Master courses at UR (Annex 7 and www. ur.ac.rw). The university sees them as important for securing a national and independent system of higher education, as well as a contribution to supplying Rwanda with well-qualified practitioners in government, the private sector, and for society at large. The

[25] http://www.newtimes.co.rw/section/read/201043/ and http://www.newtimes.co.rw/section/read/189892/

[26] Higher Education in Sweden 2016: Status report. Sweden Higher Education Authority.

Master programmes must cover their own costs and have relatively high tuition fees, and as far as we understand the programme does not offer scholarships. For this reason, many students are employed in the public or private sector and study part-time. The costs are also an important reason for the lower than expected enrolment, which threatens the upstart as well as sustainability of several Master programmes.

Support to Master education became part of the UR-Sweden programme in 2003. At the initiation of the current period (2013-2018), eight new Master programmes and continuation of four from the preceding period were planned. Currently the four continue from the preceding period, four new ones have started, and another four are still pending[27] (Table 8). The Master programmes generally face a number of problems (see Annex 12): The development of the programmes (curriculum development, formal approval, student recruitment, teaching, quality assurance) has been hampered by limited resources from UR, and the programmes have seen long delays in their upstart.

Table 8 UR-Sweden Programme Master Courses (2013-2017)

PhD Programme	Current Status	Current Students	Graduates
CST: Mathematics	Running	9	27
CST: Statistics	Submitted to UR Senate	-	-
CMHS: Clinical Physiology	Submitted to HEC	-	-
CMHS: Clinical Microbiology	Submitted to HEC	-	-
CST: GIS/Land Administration	Submitted to UR Senate	-	-
CAVM: Agric. Engineering	Running	14	-
CACM: Agric. Crop Sciences	Running	6	-
CAVM: Animal Production	Running	10	-
CST: E-government	Running	18	-
CBE: Economics	Running	17	1
CBE: Management (MBA)	Running	53	4
Peace/Conflict Transformation	Running	14	53

Source: UR-Sweden 2017

Regarding the Master courses that are running, there is still an inadequate number of qualified Rwandan lecturers and supervisors with a PhD, and many of them have conflicting interest with other responsibilities (management, administration,

[27] The system of approval is i) the College, ii) the UR Senate, iii) Higher Education Council (HEC).

supervision, own research, external tasks or activities). The Swedish counterparts have a responsibility to contribute to curriculum development and teaching, but argue that they have been given too much responsibility and that the courses have a tendency to 'pause' due to insufficient number of teachers/follow up by their Rwandan colleagues when they are not present (see Annex 12).

The evaluation team has a limited basis for assessing the quality of the Master courses, as classes/students were out of session and not accessible during fieldwork and updated information on e.g. the number of students discontinuing their studies has been hard to get. This is also an issue where there is considerable discrepancy between the Swedish and Rwandan stakeholders, with the former being most critical as regards quality (see Annex 12).[28] In three master courses under the agriculture sub-programme (crop science, animal science and soil and water engineering), 45 students initiated studies and 18 dropped out – representing a drop-out rate of 40 per cent. At the same time, the Masters of Science in Applied Mathematics programme state that of the 38 students that have graduated since 2013, 30 are fully employed and 8 have continued to the PhD-level.

The main challenge in the Master programmes seems to be lack of consistency and regularity both among students who frequently do not show up or who drop out, as well as among teachers and supervisors who do not follow up, particularly when the Swedish counterparts are not present. The PCO seems to give less attention to the Master programmes than to the PhD programme. Also, interlocutors do not see the Masters programmes developed under the UR-Sweden cooperation as fully "UR-owned" and do not have especially assigned masters coordinators, which some interviewees used to explain the limited observed progress during the absence of Swedish counterparts. The most productive programmes in terms of Master candidates and graduates are Peace & Conflict Transformation and Mathematics (old programmes) and Economics & Management (new programme).

5.1.4 The In-House PhD Programmes

At the initiation of the current period (2013-2017), the plan was to support the development of eight UR based PhD programmes by coursework (Agriculture 3, Mathematics 1, Economics 1, Management 1, Medicine and Health 2, Peace and Development 1). They are all in various stages of development or accreditation

[28]The team understands that two evaluations of the Master courses in Mathematics and Agriculture have been made, but we have not been able to get access to them.

(Economics, Management, Mathematics and Peace being the most advanced), and the time of actual start-up is uncertain (see Table 9).

The situation seems to be that UR still does not have the necessary organisation in place and a critical mass of PhD holders or professors for teaching.[29] The Swedish universities have been involved in the development of the programmes, but primarily with curriculum development. In addition, the parallel efforts of establishing PhD programmes through the World Bank-funded centres of excellence at UR seem to compete for some of the same administrative and human resources (see above).

Table 9 Status of UR In-House PhD Programmes

PhD Programme	Status
Mathematics and Statistics	Development completed. Submitted to Senate
Economics	Development completed. Submitted to Senate
Management	Development completed. Submitted to Senate
Agriculture	Development initiated.
Peace and Security Studies	Development completed. Submitted to Senate.
Biomedical Science	Development initiated
Pharmaceutical Sciences	Development initiated

Source: UR-Sweden 2017

Still, some support has been given through the UR-Sweden programme. One Swedish team leader acts as a supervisor and external examiner for the in-house PhD programme in the School of Medicine, even though this is not through the UR-Sweden programme but a collaboration that is outside.

> *"[Our institution] has tried to get its staff to enrol in PhDs at UR, but the issue is that UR is not able to deliver in the programme. It's been over six months since the discussion started". (External Stakeholder)*

5.2 DOING RESEARCH AT UR

A precondition for doing good research is a good environment in terms of management, organisation, and infrastructure (see Chapter 4) as well as the less tangible institutional culture of human resources, social relations of cooperation and support, and academic traditions and priorities. This is based on the following conditions (see IDRC 2016; HR 2014):

[29] According to the UR management, this with improve with a number of PhD graduates returning from studies the next few years – making the total number 120.

- Research has equal or greater priority than other goals.
- Researchers have access to sufficient resources (funding, facilities, assistance).
- Researchers have and share different experiences and approaches to research.
- Research groups are stable with a size at or above a 'critical mass'
- Young researchers are assisted by established scholars and collaborate with them.
- Researchers have uninterrupted periods to devote to scholarly activities.
- Research is rewarded by defined benchmarks for promotion and remuneration.
- Governance structures are decentralised with active participation of researchers.

The UR-Sweden programme has been a major contributor to the research environment at UR. The programme has educated the majority of the PhD graduates at the university since 2002, it has been the main funder of grants and other contributions to facilitate research, and it has contributed to a broad range of interventions through DRIPGS. This section takes a closer look at the extent to which the Swedish support has been incorporated into UR in a way that has strengthened the overall research environment.

> *"The programme is less a sandwich and more a 'smorgasbord': It provides many different opportunities to develop careers. The real success is in the intangible stuff: Links and relationships" (UR Management).*

The UR merger process has challenged the research environment at the new university. The management and administration as well as the academic staff have found themselves in a more complex work situation, and many express 'split loyalties' between their former institutions and UR. Academic and programme staff members do see the value of larger academic milieus, but still seem to have their primary loyalty with their campus, college, or department. This is not unusual to university mergers internationally, but the implications are stronger, and remedies harder to get at, when campuses are geographically dispersed.

> *'There has been some resistance to the merging [between the previously independent institutions]. This has resulted in limited synergies between the different colleges'. (Team Leader)*

The research environment at UR is also affected by academic traditions. Academic staff members who have returned from PhD studies in Sweden or other countries describe a discrepancy between the relations and communication between staff and students abroad and in Rwanda. Some of these are basic issues such as the culture of borrowing books and reading, the level of activity and critical reflection in class, and writing skills and traditions. As one interlocutor put it:

> *"There is a lack of critical thinking, [and] it is difficult for many graduates to read a paper and critically make an opinion of what has been written. This is not only an issue of students' capacity, but [also] the capacity of lecturers to pass on these skills to the students". (External Stakeholder)*

The level and quality of research at UR is also affected by career opportunities. The basis for upward career mobility is seen as relatively clear path, with a combination of seniority, teaching experience, and academic publications. Interviewees argue that limited credit is given for additional tasks such as administration, team leadership, supervision, or active engagement with external stakeholders. People returning with a PhD from Sweden or other countries have high expectations about career advancement and pay-rise, but generally argue that this does not take place as expected when coming back. Furthermore, some researchers find themselves alone, devoid of a research group:

> *'In Sweden we worked in groups, but here [in Rwanda] survival is individual' (PhD Graduate)*

5.2.1 Research Support at UR

The most important issue affecting research at UR is the difficulty of finding the resources and time to continue doing research after graduation. This reflects a combination of practical challenges discussed above, and the limited access to support or mentors to do what Pamela Abbot (pers. comm.) calls the 'giant leap' from doing a PhD to actually developing a full-fledged research project.

DRIPGS is vested with the overall responsibility for i) coordination of research (development and implementation of a research strategy and post-graduate training), ii) dissemination of research outside UR as well as through the Rwanda Journal Series, iii) capacity building (developing proposals, accessing literature, writing papers, participation in international conferences), iv) research grant management and v) preparing data for international rankings of academic outputs (Director, pers. comm.).

Quality assurance (QA) of research outputs falls within the responsibility of the Teaching and Learning Enhancement Unit (TLEU). As noted above, the UR structures are not engaged in the quality assurance of the UR-Sweden PhDs as they are enrolled at Swedish universities – except through contributions by UR-based team leaders and supervisors. The TLEU leads the development, management and implementation of the UR's academics systems and processes in the context of national higher education and international regulations.

The QA unit's quality assurance processes include, among others, approval of all graduate and post-graduate programmes before submission to the HEC for accreditation; and monitoring and inspection of teaching and examination process to ensure they meet prescribed standards and guidelines. Co-supervisors interviewed affirm that most of what would qualify as quality assurance is done by the Research Directorate, albeit more as a formality than a critical QA process.

Some of the responsibilities of RIPGS have been supported with funds from Sida through the sub-programme "Research Management Support – Research and Post-Graduate Studies Unit (UR-DRIPGS UNIT) – but still to a limited extent. This includes PhD supervision training, writing of competitive grant proposals, organisation of international conferences, writing of academic papers, and research communication.

One exception is the first international Annual Conference Week held in June 2017, although it also exposed challenges in organising such a big event. Other smaller conferences have been organised by e.g. the Economics, Medicine and Peace sub-programmes but on a smaller scale. The evaluation team found little evidence of seminar series or individual seminars at schools or departments beyond what is linked to specific research projects or post-graduate teaching.

Perhaps the most important output in support of the research environment so far is courses in supervision, addressing a key constraint for the continued development of UR as a research university running its own post-graduation courses (see Table 10). This was one of the few areas of collaboration with a Swedish partner, with ISP arranging for the procurement of this course in Sweden. Some additional courses have also been organised at the sub-programme level.

Table 10 Courses in Supervision

Sub-Programme	Number of Participants
Research Directorate (UR Course)	12
Applied Mathematics (LiU course)	27
Peace and Conflict (GU-SGS)	22
Medicine	20
Total	81

Source: UR-Sweden 2017

Most of the functions of RIPGS need to be developed further in order to represent the type of support to the research environment that is envisaged and necessary. In fact, it may be argued that the tasks are too big and comprehensive for the central unit and that more resources and responsibilities should be transferred to the sub-directorates at each individual college – albeit without jeopardising the goal of 'one UR'.

5.2.2 Central Research Grants

A second UR-Sweden intervention to support the research environment is through research grants, done with the aim to "increase the quantity and quality of research at the university, build a research culture and improve the research capacity of the university as well as of individual researchers" (UR 2017).

The Research Grant Fund is fully funded by the UR-Sweden programme, but open to all UR academic staff members. So far 62 research projects involving 285 researchers have benefitted from the fund (UR-Sweden 2017). Of these 20 have been completed and are in the phase of dissemination while the rest are in an early stage or delayed. Two post-doc grants have been given, with expected finalisation in 2018. Information about the grants are posted on the UR web-site, but one staff member argued that grants are not properly targeted:

> *'Since I returned in 2016 I have not seen any research grant call, so if I have an idea I have to seek funding outside the university'. 'There is a need to make grants for specific colleges and fields so as to attract more interest' (PhD Graduate).*

The grants are seen as important but generally small, and are mainly for small project support to lab experiments, fieldwork, conference participation, and similar minor expenses. For larger projects, the researchers need to create opportunities, time, and space in cooperation with DRIPGS or on their own, which is still most realistically achieved through cooperation with international partners.

The ability to develop research proposal and win grants rests on the support the researcher can solicit in the research environment, but ultimately it depends on the ability to formulate research problems and proposals as well as on knowledge about and relations with external funding agencies and researchers.

When comparing PhD graduates from Sweden with Rwandan graduates from universities elsewhere in Europe and the US, some interlocutors at UR questioned the real independence of the Sweden students. They argued that doing a PhD in the US and France, for example, is a 'hard and lonely journey', but that PhD students in Sweden are supported in a way that does not prepare them for the same level of readiness for an independent research career. As one interviewee said, "supervisors in Sweden seem to be like mothers for their students".

However, programme supervisors and students do not seem to agree. Swedish supervisors argue that the Rwandan students need to be carefully and closely followed up for various reasons, such as the limited time they have at their disposal as well as language challenges, while Rwandan PhD students express that they appreciate the type of continuous feedback they get in Swedish university departments.

5.2.3 External Cooperation and Grants

For the graduates of the UR-Sweden programme, Swedish research grants and research partners should be a natural target. However, we are only aware of four research projects (two in Applied Mathematics and Statistics, one in Environmental Studies and one in Medicine) where the Swedish-Rwandan cooperation has continued after graduation (even though others maintain more personal contacts with their Swedish university).

In a sense, the support stops at a stage when the benefits in terms of research outputs would be the highest: The UR-Sweden programme essentially funds researcher training—not research as such, and when the Rwandan students reach maturity as researchers, and when the research collaboration would have the highest potential for fruitful collaboration, the collaboration discontinues.

The options for doing post-docs is affected by an internal UR-rule that people must work as regular staff members for two years before an application for post-doc periods can be made (two programme-related post-docs in the Peace sub-programme were established by reallocating funds). In many other countries, post-doc periods are encouraged or required for a researcher career.

Most of the other donors engaged at UR (see Chapter 4) have programmes more explicitly focused on institutional support or capacity building (including for PhDs), and limited if any funds for independent research projects for UR academic staff.

Other countries with generous funding for research on development, such as Great Britain and Norway, have very few projects in Rwanda. Main reasons seem to be limited contacts and difficulties in getting research permits.

> *'It is mainly or only Sweden that has shown a commitment to higher education that goes beyond infrastructure. Most of the other donors support higher education through scholarships, which is not necessarily support to UR and its results are much harder to track' (UR Management).*

5.3 PUBLICATIONS AND OTHER DISSEMINATION

As the program-level data on publications are incomplete and insufficiently reported, this evaluation first analyses UR's publishing portfolio quantitatively, and then the programme's publishing activity qualitatively. The publishing portfolio of University of Rwanda differs slightly from Rwanda's country profile (see Chapter 2), yet it is also dominated by medicine and it is generally of high quality. The most common journal to publish in was, by far, *Rwanda Medical Journal* (20 articles), followed by *Tropical Medicine & International Health* (14), *Malaria Journal* (13), and *BMC* (BioMed Central) *Pregnancy and Childbirth* (13). The periodicals for publishing at UR included top journals (Q1), mid-tier journals (Q2, Q3), and lowest ranking journals (Q4) in their respective fields, which indicates high quality medical research at UR. Because the different databases (ISI WoS and Scopus) produce slightly different profiles due to different indexed journals, the Table below combines data from both.

Table 11 Journals with Most UR Publications in 2013/1 – 2017/1

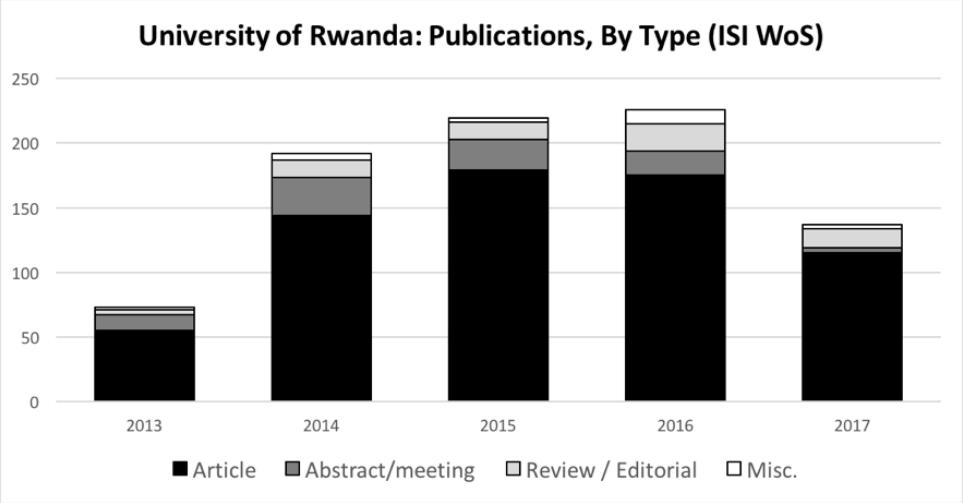
Journal name	Articles	Impact Factor	Field	Quality Quartile	Ranking in the field
Rwanda Medical Journal*	20	-	Medicine (general)	Q4*	1933/2156*
Tropical Medicine & International Health	14	2.850	Tropical Medicine	Q1	2/19
Malaria Journal	13	2.715	Infectious Diseases	Q2	39/84
			Parasitology	Q2	10/36
			Tropical Medicine	Q1	3/19
BMC Pregnancy and Childbirth	13	2.263	Obstetrics and Gynaecology	Q2	35/80
World Journal of Surgery	11	2.673	Surgery	Q2	58/197
PLoS One	10	2.806	Multidisciplinary	Q1	15/64
Pan African Medical Journal	9	-	Medicine (general)	Q3*	1595/2156*
On the Horizon	9	-	Education	Q4*	783/933*
Journal of The American College of Surgeons	7	4.307	Surgery	Q1	13/197
International Journal of Infectious Diseases	7	2.532	Infectious Diseases	Q2	42/84

Sources: ISI Web of Science and Scopus. * Data from Scopus (the rest are extracted from ISI Web of Science)

In addition to the indexed international journals, University of Rwanda also runs *Rwanda Journal*, which publishes a good amount of research done in or on Rwanda. The journal is divided into nine series, each with their separate editorial boards, fully functioning peer review procedures, and affiliations with UR's colleges. In the year 2016, the journal published 50 articles, in 2015 70 articles, in 2014 15 articles, and in 2013 38 articles.

The types of research outputs at UR followed patterns familiar from everywhere else: The majority of the publications were research papers in journals, conferences, and books. Depending on the year, 75% to 84% of publications belonged to that category. Abstracts and meeting reports made roughly one in ten publications, and the rest were reviews, editorials, and other miscellaneous publications. Figure 6 presents a breakdown of publication types at UR over the years (some publications belonged to more than one category in WoS classification).

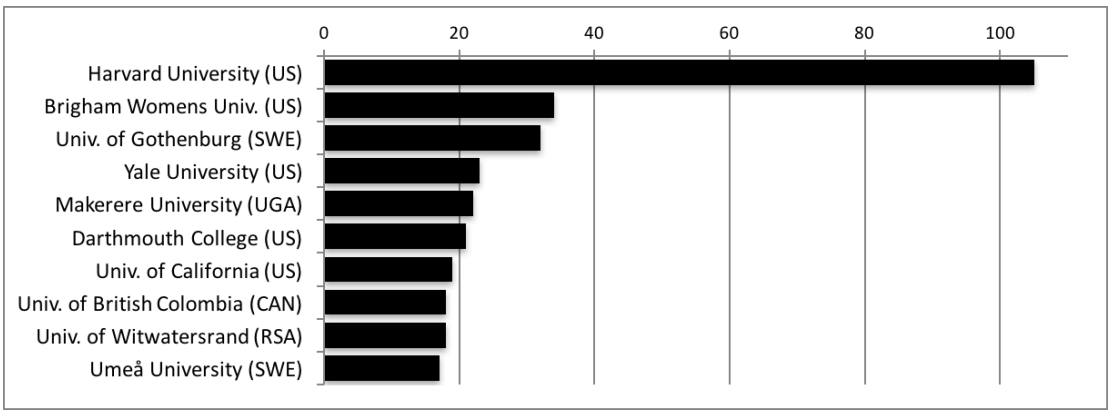
Figure 4 Publications at University of Rwanda by Type (2013– 2017)



Source: WoS

With a great majority of all papers (91.7%) being co-authored with international partners, research at University of Rwanda is very international by nature. Although the international partnerships of UR are US-dominated (like Rwandan research in general is), the ten most active partnerships also include the universities of Gothenburg (#3) and Umeå (#10) from Sweden, as well as Makerere University (Uganda), University of British Colombia (Canada), and University of Witwatersrand (South Africa). The next Swedish institutions on the list of international collaborations in terms of joint publications are Linköping University (#26) and Uppsala University (#50). Figure 7 presents the ten most active international partnerships of UR in terms of joint publications.

Figure 5 International Partners



Source: WoS

In addition to providing evidence of quality of research, citations to UR research provides evidence of research results being taken up internationally. The average number of citations to UR 2013–2017 publications is 3.02, as other authors had cited UR publications 1763 times. There is a more than a threefold difference in citation figures between non-UR Rwandan articles (10.89 citations per article) and UR articles (3.02 citations per article). That difference is, however, heavily influenced by the above-mentioned two dozen oft-cited articles that had Rwandan authors outside UR. Citations to UR research come from all around the world, with US leading, followed by UK, Canada, South Africa, and Australia. That citing profile seems strongly influenced by UR's co-operation programmes. Almost half (45.0%) of UR publications in 2013–2017 were never cited, but as nearly half (47.1%) of UR publications were less than two years old (2016–2017), citation analysis will not be able to provide the kind of conclusive data it would on older articles.

5.3.1 Quality of Research in the Current Programme

The programme documentation does not provide a consolidated, program-level list of publication outputs aside from bits and pieces in the annual reports. The few publications mentioned in annual reports paint a picture of inconsistent quality: While many results have been published in reputable journals (including the prestigious *The Lancet*), many others have been published in sub-par quality venues (see Annex 8). Furthermore, the annual reports may exclude publications with UR-Sweden programme involvement that are important but not academic, such as reviews and commissioned research for the government, whitepapers, and research consultancy for non-governmental organizations and the private sector.

Many articles from the programme are published in journals indexed in major indices, such as Scopus or WoS, while others are not. That is not necessarily a problem, as good articles can be published in non-indexed journals, and some peer-reviewed journals with strict quality criteria and rigorous processes are not included in international indexes. That being said, the annual reports 2013–2017 also listed many articles published in non-academic, predatory open-access journals (see Annex 8). Although appearing in a predatory journal does not affect the quality of research per

se, such articles should not be counted as academic publications, as they have not undergone the standard review and quality control processes. [30]

Some annual UR reports have explicitly highlighted articles that have appeared in journals listed on Beall's list of allegedly predatory journals and not listed on any recognized indices or directories of accredited journals. DRIPGS has recently identified this problem, and has taken measures to educate researchers on the issue of predatory open-access journals, even delaying funding to projects with publications in sub-par quality venues (see Annex 8).

There are positive signs of the UR administration and the programme taking seriously the benefits and pitfalls of pay-to-publish open-access publishing, but the programme documentation still reveals a number of issues. In some sub-programmes there is an alarmingly high number of articles published in allegedly predatory open-access journals. It is a common misunderstanding using impact factor as a proxy of quality, as there are also bogus "impact factors". One easy way to solve this issue is to encourage researchers to check their journals from one or more of the existing accreditation systems, such as the Norwegian register, Web of Science, Scopus, or the South African DHET list. Any journal that appears on any of those accreditation systems is very likely to meet the basic academic standards.

5.4 CROSS-CUTTING ISSUES

5.4.1 Research Areas

The University of Rwanda encompasses a broad spectre of disciplines in STEM as well as in social sciences and humanities. The UR-Sweden programme has also involved a variety of disciplines, with education being the main exception in the current phase. Involving multiple sciences has been a strength of the programme, as it has managed to incorporate a cross-section of the university and apply different methodological and theoretical approaches.

During the current programme period, most academic cooperation has taken place within related fields, such as in medicine and public health or agriculture and veterinary medicine, but not between different sub-programmes or disciplines (such as natural sciences and social sciences, or economics and law). This reflects both the relatively low status of multidisciplinary research and the disciplinary focus of the Swedish partner universities.

[30] Profiting dishonest publishers is also dubious use of Swedish official development aid funds.

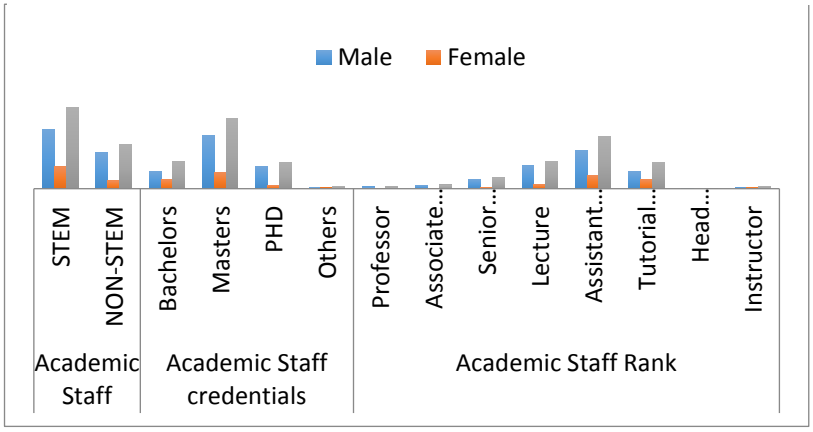
There are good arguments for maintaining a disciplinary focus during Master and PhD training (rather than more generic studies such as 'Environment' or 'Development'). However, to accomplish the current UR plans of an increasing focus on research clusters and interdisciplinarity (UR 2017), the opportunities and challenges of interdisciplinary research should be given a stronger focus at UR. The Swedish universities and departments currently involved do not seem to be particularly qualified and involved in this area.

5.4.2 Gender

Gender is usually a central focus in Nordic and Swedish development cooperation, usually based on arguments of 'universal rights' rather than explicit analysis of how to relate to an issue that is controversial in many countries of cooperation (Lange and Tvedten 2016). In higher education in Rwanda, gender equality and involvement of women is given weight due to the importance of highly educated women as role models for society at large, of richer and more varied teaching and research, and of women's own empowerment as leaders and educators.

Women still represent a minority both among academic staff at UR—perhaps surprisingly more so in the non-STEM than in the STEM disciplines (see Figure). One of the key challenge is recruitment of female students, despite gender parity in primary and secondary education in Rwanda (Abbot et al. 2015). The UR Concept Note for the period 2018-2023 includes an elaborate gender equality plan entitled "How Gender can be Mainstreamed" (UR 2017: Annex 10).

Figure 6 UR Gender Profile



Source: UR Facts and Figures 2017

In terms of academic careers, there is a clear pattern of the proportion of men increasing the higher up in the system one gets. This is also the case for higher management positions at the central as well as the college level, but those phenomena are by no means unique to Rwanda: Similar patterns exist in the academia all around the world. In addition to the obvious reason of there being fewer women to recruit in Rwanda, this is also likely to reflect gendered struggles of power and influence.

Among students, the proportion of women is higher among under-graduate than among post-graduate students (Annex 4). This does not seem to reflect a lack of

qualifications among female students, but is likely to be the result of a combination of tradition, family responsibilities, and economic constraints. Once reaching the post-graduation level, few of our female interviewees reported any systematic discrimination against women qua academics.

> *"I am a female but I am like a man [in my academic life], so I face no problem" (PhD Graduate)*

The proportion of women PhD students in the UR-Sweden programme is 34 per cent. There have not been any concerted efforts to recruit women into the current sub-programmes in addition to usual 'priority when other aspects are equal', except for the special sub-programme to support women at regional universities and interventions to improve the options for women to bring their children to Sweden (a recent selection process for two new PhD-students chose two women solely on qualifications).

Gender was not highlighted in the Terms of Reference for this evaluation, and has not appeared as a frequent topic in our interviews with programme stakeholders. Also, except for a relatively consistent recording of sex in reporting of the programme (Programme Plans and Programme Progress Reports), there has not been any real analysis of how the proportion of women can be increased among UR academic staff and post-graduate students. However, as noted above the new Concept Paper (UR 2017) has a separate section on gender that point in the right direction.

5.4.3 Poverty Reduction

Development and poverty reduction is the ultimate goal of both the Government of Rwanda and Swedish development and research cooperation. As argued above, practically all PhD and Master projects pursued within the UR-Sweden programme relate to Rwandan development policies (Vision 2020, EDPRS etc.) in a way that *may* lead to poverty reduction (especially in fields like medicine, agriculture, or economics).

However, there is a limited focus on poverty per se, in the form of projects that try to understand the distribution and dynamics of poverty over space and time. Recent advances in poverty research, which have been picked up by several donor organisations, show that the best way to reduce poverty is by relating directly to the poor in rural villages and urban slums through, for example, social protection and cash transfers. Research projects of this nature would be a more direct way of relating to the ultimate goal also of the UR-Sweden programme.

5.5 CONCLUSIONS

Stakeholders from UR as well as the Swedish partner universities are generally pleased with the Sandwich model of cooperation. While the UR management sees the distribution of time between Sweden and Rwanda as key for securing integration and belonging at UR, students argue that more time in Sweden will enhance study efficiency.

The key contribution of the UR-Sweden programme so far is the education of PhD candidates. Their study progress is generally good – even though there are differences between the sub-programmes – and practically all graduates have returned to UR and academic life. A Phd degree is key for academic career advancement, but returned graduates argue that implications for remuneration is below expectations.

The master programmes supported have struggled with recruitment and retention of students. This partly reflects the fact that most of the students work and the relatively high tuition, but there are also challenges in terms of organisation, quality and UR ownership – with some courses still depending too much on Swedish presence. Students who do graduate continue to work full time, but some go on with PhD studies.

PhD graduates generally come back to substantial responsibilities of management, administration and teaching, and do not have sufficient space for continuing to do research. There are also issues around inadequate research support structures including mentorship and the extent to which the graduates have been sufficiently prepared for developing own research projects. The system of Research Grants is important, but grants are relatively small without options for developing full proposals.

Support to a conducive research environment through relevant UR institutions (such as the Research Directorate) and the UR-Sweden research management sub-programmes do not function optimally. The former does not have the resources to fulfil its broad and complex mandate, and the latter have seen considerable delays in implementation. One challenge is that Swedish partners are not specialists in institutional development and research/change management.

The quantity and quality of international publications from UR/programme staff show significant improvements, but is comparatively low compared with other countries in the region. Publications in medicine still dominate, but other disciplines are catching up. There are hardly any cases of predatory publishing. Reflecting the limited continued research cooperation between UR and Swedish academics post-graduation Swedish researchers are not among the most important international partners in publication with UR-authors.

The UR-Sweden programme covers a broad set of academic disciplines in STEM and the social sciences. Interdisciplinary research does not have a strong focus, which reflects on the partners involved and the programme's focus on discipline-based PhD studies. Most of the PhD projects are in line with Rwandan development policies and challenges, but there is a limited specific focus on poverty per se. Cross-cutting issues – including gender – are not systematically followed up in programme implementation, but there have been initiatives to enhance the recruitment of women to the programme.

Summed up with reference to the RBG Log Frame for the programme:

Will be met	May be met	Unlikely to be met	Will not be met

OBJECTIVE 2: To increase the number of PhD and Master holders in Rwanda through the programme			
Outputs	**Outcome**	**Status**	**Indicator**
PhD candidates finish their coursework and submit their dissertations as planned.	2.1. Ph.D. candidates enrolled in the programme are awarded their doctorates.	Delays in upstarts, but well on track for the large majority	a) Number of awarded doctorates
			b) Time for completion of Ph.D. studies
Master students in supported programmes graduate as planned, with the required qualifications.	2.2. Increase of students with postgraduate qualifications in Rwanda, who are employable or qualified to apply for PhD studies.	Employable master candidates, but low number compared to targets	aa) Number of graduates
			b) Employment of graduates after graduation, and what sectors they go to.
			c) Share of graduates who continue for PhD training, in what fields, and where.
Nine PhD programs to be offered at the UR have been developed.	2.3. PhD and masters programmes developed in the programme have been verified by UR and accredited by HEC.	6 out of 9 PhD programmes on track, Masters programmes low recruitment and retainment	a) Approval/validation of application by UR Academic Senate
			b) Accreditation by HEC

OBJECTIVE 3: To increase the quantity and quality of research conducted at the UR through the programme			
Outputs	**Outcome**	**Status**	**Indicator**
All papers produced within the program are submitted to ranked journals	3.1. Research produced in the programme is increasingly contributing to the academic field in question.	Increase in submission and impact, but number remains low	a)Number of accepted papers in peer-reviewed high impact journals
			b)Number of citations, and nature of debate that they inspire
40 issues of Rwanda Journal is published.	3.2. Research published in Rwanda is increasingly being recognized outside of the country.	Rwanda Journal on track, international rank position continues to improve	aa) Position of Rwanda on the World Ranking of Publications (by country)

6 Wider effects

This chapter focuses on the extent to which the UR-Sweden programme has had a wider effect and impact on Rwandan society at large, relating to the Programme Objective 4 ("To increase the use of research and competences produced within the programme, in political decision and policy making in Rwanda") and Programme Objective 5 ("To increase the use of research produced within the Programme by the Rwandan society at large").

6.1 APPLIED RESEARCH AND POLICY RELEVANCE

International trends put increasing pressure on universities to be relevant and useful for society at large, stemming from a combination of public policy decisions, expectations from private sector and other external stakeholders, and the need for the universities to fund more of their activities themselves. This has been challenging for many universities and academics around the world, taking them away from their focus on academic freedom and publications to a focus on applicability and impact.

In Rwanda, government recognises that higher education and universities will be pivotal for the country's rehabilitation and development—most recently expressed in the Vision 2010 (RoR 2012) and the EDPRS II (NISR 2015). For the University of Rwanda, this is translated into UR's Overall Objective 2013-2023: "To increase scientific knowledge of international quality, generated through a sustainable national research system that is used to contribute to Rwanda's socio-economic development".

The expectation to be relevant for government, the private sector and society at large are well-grounded at the University of Rwanda. This is probably a combination of government policy pressure, practical considerations in choosing research topics, and the Rwandan staff and students' own experiences and perceptions of the needs for informed development interventions. UR's emphasis on policy relevance and impact has recently been further underlined by the organisation of the upcoming 5-year plan (2018-2023) around 10 interdisciplinary research clusters derived from emerging national and sectoral priorities aligned with national development goals (see Chapter 2.4).

The primary focus of the UR-Sweden programme has been, and still is, on research and capacity building. There has been an increasing focus on impact within the programme during the current programme period as e.g. reflected in the more systematic reporting in the annual progress reports incl. on E-gov and Instructional Technology, but the sub-programme "Innovation and Use of Research Results" is the only component that explicitly deals with applied research and impact. Institutional

partners are the UR Centre for Innovation and Entrepreneurship and Blekinge Institute of Technology (recently transferred to Södertörn University). The sub-programme has three objectives:

1. To increase the use of research results produced within Rwanda to benefit the country's development,
2. To increase participation outside the university of Rwandan researchers to benefit national and regional development
3. To increase the use of research in policy debates in Rwanda.

A challenge when assessing the wider effects is that there is very little systematic recording of outreach activities both at UR in general and within the programme. Most of the activities recorded under "Indications of Wider Effects/Impact" in the annual progress reports (UR-Sweden 2016 and 2017) are related to staff and students who are in communication with external stakeholders, but so far there is little systematic monitoring and evaluation of actual impact. Examples of applied research and external contacts within the framework of the UR-Sweden programme are (see Annex 12, questions 31 to 35 for more examples/details):

Table 12 Sub-Programme External Relations/Impact

Sub-Programme	Activity
Agriculture	Research project on enhancing milk quality and consumption in Rwanda won large grant with UR participation
Mathematics/ Statistics	Works with National Institute for Statistics in Rwanda (NISR) and its data science department.
ICT E-Governance	Works with Rwanda Utilities Regulatory Agency (RURA) and Rwanda Standards Board (RSB) to develop/approve standards in telecom-munication.
Economics/ Management	Strong/emerging ties with The Association of Micro-Finance Institutions of Rwanda and the Stockbrokers Association of Rwanda
GIS	Courses taught for public servants on GIS and remote sensing
Medicine/ Health Sciences	Works closely with the Ministry of Health, including in developing proposal for funding.
Law	Has a Centre for Legal Aid and Mediation, providing legal services to people who cannot afford the formal ones.
Peace/Conflict/ Development	Master Programme taught at the Police Academy
Innovation	No impact recorded
Environment	A previous student proposed the policy that prohibited the use of plastic bags in Rwanda, based on a study conducted.
Research Training/ Female Staff	No impact recorded

Source: UR-Sweden (2017c)

The probably most influential UR impact takes place through personal contacts between UR staff and various public institutions. The majority of the senior academic staff interviewed are involved in such relations, ranging from being regularly called to the President's Office for advice on higher education to sitting on sector-specific boards in, for instance, agriculture.

The current TL of the Innovation sub-programme and director of the UR Centre for Innovation and Entrepreneurship is a graduate of pharmacology from a previous phase of the UR-Sweden programme. He has held a number of high profile positions. He was head of the institution in charge of medical procurement for two years, where he introduced a new system, he is currently the chairman of the Rwandan standards board, and he is on the board of directors of the Rwanda military hospital. He is also part of the National Commission of Science, Technology and Innovation, with a mandate to develop a national framework for innovation, currently mapping innovation initiatives in Rwanda, with an aim to link them to universities to develop synergies. Beyond this, he is part of a team (together with KI) selected for €3M grant in EA in the area of biomedicine, also including researchers from the Ministry of Health.

A number of staff members are also involved in part time employment and consultancies with private institutions (including universities), international organisations and, albeit to a smaller extent, NGOs. This is not organised in any formal way, but it is 'a public secret' that most of our interviewees are open about and explain with reference to a combination of the experience and impact it gives and the need to earn extra money to top up a low university salary – even though no one confirmed this 'in writing' in the TL survey (Annex 12).

Master and PhD students in most cases also have an impact through the link between their study topics and government, other institutions, and local communities. Master students often have full-time employment and study part-time on a topic relevant to their work, and we have seen that most PhD students work on topics that are grounded in Rwandan realities.

A few staff members of UR and the programme also participate in public debates, primarily through engagement in international or national conferences, but also in media—even though appearances on TV, in the radio, and in newspapers seems to be coincidental rather than the result of systematic calls for academic expertise.

UR has a new Corporate Communication Department, which is relatively new and so is far not very active. There is no culture for engaged and critical debate in Rwandan media – different from some other African countries with Swedish Sandwich programmes.

There is very little institutional or systematic work being done at UR to disseminate research in an accessible way for external stakeholders or the wider public, despite

such initiatives being called for in UR policy documents as well as in UR-Sweden programme documents.

Consultancies are in principle seen as an important channel through which knowledge and expertise are shared, and through which relationships with government, the private sector, and civil society are forged. UR has established a Directorate of Consultancy (with offices also at the college level) with the mandate to coordinate consultancy services and expertise in the university. However, our impression is that very few consultancies are channelled through the institution, although the new Consultancy Policy states that this should be the case (UR 2016c).[31]

UR has one publication series accessible to the public ("The Rwanda Journal", see above), but that mainly contains academic papers that are not adjusted to a wider audience, are not easily accessible, and do not have a wide circulation outside academia. UR does not publish any series of reports or briefs meant for the general public, unlike many other universities involved in Swedish programmes (the College of Economics and Management is in the process of producing a series of briefs that may be finalised in 2018).

Finally, dissemination to the general public is hampered by the lack of a Rwandan publisher in a positon to disseminate nationally; this same issue is found in several other countries in which Sweden is involved in research cooperation. There are individual cases of publishing activity, such as the excellent "Rwanda. Its Cultural Heritage Past and Present" published by the Institute of National Museums of Rwanda with links to UR, but these are exceptions.

> *"Many are working with the Government and in consulting, but there is limited capacity within government to apply research." (Supervisor)*

While the direct relations many staff members of UR and this programme have with external institutions is essentially academic knowledge used to give policy or technical advice, the written outputs are generally not aimed at giving advice. Applied research has a different purpose. It should i) bring in new research-based perspectives which the commissioning party or intended users were not conscious about, and ii) give research-based recommendations that are manageable for the users or clients. Thus, good applied research fills a niche between pure research and pure consultancies, with the latter not fulfilling the criteria by not being research based.

[31] We were not able to meet representatives of the Directorate during our fieldwork. See http://agaciro.ur.ac.rw/sites/consultancy/ for more information.

We are not aware of any systematic attempt at UR or in the programme to develop applied research in this sense with the partial exception of E-gov/Instructional Technology —despite the fact that two out of the five objectives of the programme are related to external impact. Activities such as reviewing UR's draft innovation strategy; operationalisation of an advisory Committee; the establishment of innovation teams at all colleges; training of innovation teams; design of the innovation project database; Help Desk Swedish Partner to Center capacity development; and UR staff participation in international innovation conferences have all been postponed to 2017/2018 (UR-Sweden 2017).

So far the main emphasis has been on the initiation of the process of selecting pilot projects. The programme has produced instruments for pilot project selection (template for presentation, criteria for selection, forms for evaluation). Six projects have been selected, but not yet initiated. (Two projects from CST and one from CAVM have been approved, and two projects from CASS and one from CAVM have been considered eligible on the condition of addressing identified weaknesses).

According to the UR Management, the university is in the process of losing ground in the area of applied research and consultancies as researches are not trained to move research into policy briefs and reports, most relevant consultancies are done privately by staff members, and many researchers primarily focus on getting their research published in international journals—which is the main criteria for career advancement as well as for the university's push for increased prestige.

6.2 UR AND RWANDAN SOCIETY

As indicated above, there is currently a limited demand for critical academic research in Rwandan society at large. The demand primarily seems to come from individual public and private sector institutions who employ UR staff members as advisors, and in some cases also as part-time employees. Relations with civil society organisations seem to be more rare, which probably reflects the limited status and role of CSOs in the country (Allfram 2016; Shyaka and Manneh 2015).

Interviews with external stakeholders confirm that particularly senior UR staff are seen as valuable assets in a number of different contexts. More middle-level staff members and students are used as interns in public institutions partly for them to learn and partly to fill gaps, such as in public institutions of ICT and agriculture.

However, the external institutions are generally critical about the relevance and quality of the research done at UR, while admitting that they find it difficult to have a good overview as they see few if any systematic attempts at research dissemination. They argue that they still search internationally if they look for specific research material, and find some of the UR publications they read not to be of adequate quality. Perceptions are generally more positive in cases of concrete cooperation with individual UR researchers.

> *"The UR needs to create demand for their research and findings, otherwise we will not know that they are there". (External Stakeholder).*

UR's relations with external stakeholders also go 'the other way', in that a number of employees in the public and private sector have roles as teachers and supervisors both at Master and PhD level. Many of these have an academic background or PhD from a foreign university and have worked at UR (we did not come across any in the UR-Sweden programme).

Having a combination of the necessary academic credentials and first-hand experience from the government or private sector institutions is important for encouraging relevance and applicability in teaching and research at UR. However, the external interviewees argued that their work as teachers and supervisors is inadequately organised and remunerated, and that they do it primarily as a contribution to UR.

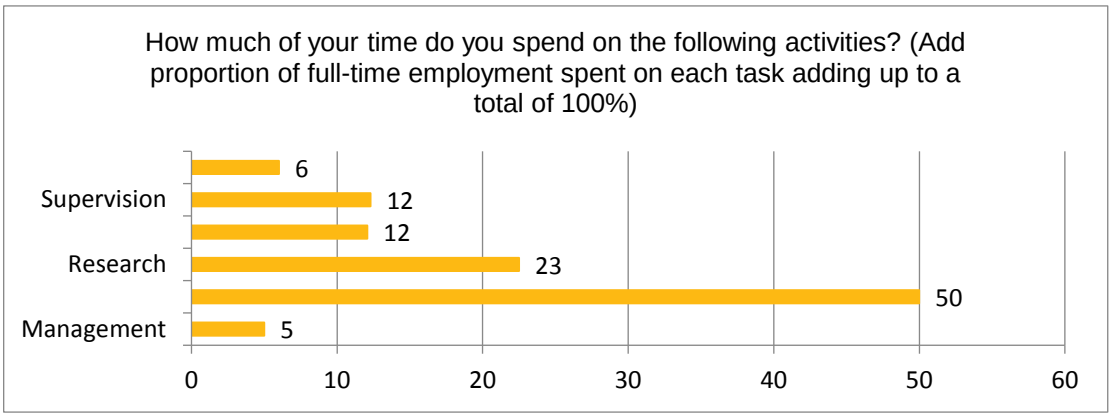
In a number of countries, one way of linking external institutions with the public and private sector and universities is through 'industrial PhDs'. These are arrangements where the PhD candidate develops a proposal jointly with his or her university department and an interested external partner. The PhD is funded jointly by the two partners, and the candidate is committed to work for the external funding institution for a period beyond graduation. We are not aware of any such arrangements at UR or in the UR-Sweden programme. This may reflect the dearth of Rwandan industries with a strong department of research and development – but this could also be an argument for this type of arrangement.

6.3 TRACING RESEARCHERS

Studies of where PhD graduates from Swedish sandwich programmes end up working show that the large majority continue to work for their university of origin also after the obligatory period of 3-5 years (Felleson 2017). This tendency is largely confirmed through the Tracer Study done for this evaluation (see Annex 11 for more details). The survey had relatively few responses (37,5% response rate, 15 respondees), but amongst this group 14 still work at the University of Rwanda (the only exception is one graduate that is employed with the UN). Although we do not have exact figures, we understand that the large majority of graduates continue to work at UR also after the compulsory period.

The Tracer Study shows that graduates see their studies as very relevant, but they do not spend much time on research post-graduation. In fact, only 23% of their time as UR-employees is spent on research, with the major part of their time spent on teaching (see Figure).

Figure 7 Distribution of time as UR Researchers



Whilst the majority (85%) continue publishing after they finish (with between 1-11 publications), they have very limited experiences from relations with external stakeholders/research dissemination/applied research, with most disseminating their research through standard academic means, such as academic articles, monographs or presentations. While there are good arguments for well-qualified PhD graduates to stay on at UR and contribute to the university's still small number of PhD staff, the shared UR/programme goal of contributing to society at large implies that they should also be engaged in applied research/have impact. The graduates, rather, give examples of wider effects through teaching and individual relations with public (and in some cases private) institutions.

> *Since I completed my PhD programme, I have been appointed a Deputy Director of Research and then the Director of the Centre for Instructional Technology at the former NUR before I was appointed as the Head of ICT in Education and Open Distance and e-Learning in Rwanda Education Board. My expertise was used to develop ICT in education related policies, procedures, manuals, capacity building for teachers and students. I developed a pedagogical approach called "Technology-based learning project" widely used in Rwandan schools and Universities.*

In terms of career progression, most described themselves as in an intermediate position (60%) or a senior level position (40%). Most are lecturers, some as senior lecturers, and two are associate professors. In 5 years' time, the graduates see themselves as assistant lecturers (50%), senior lecturers (37%) or professors (14%).

The majority (53%) have had a pay increase since their PhD, with most (67%) currently in the income bracket 501-1,000 USD[32]. None declare to have a part-time job, outside of their current role. The majority (67%) see themselves at the university in 5 years' time, with one third seeing themselves at another university in Rwanda or in a completely new role, outside of Rwanda.

6.4 CONCLUSIONS

The Government of Rwanda, UR as well as the UR-Sweden programme give strong emphasis to the use of research for policies, improved products and services to the private sector/civil society and society at large. Two of the UR-Sweden programme's five main objectives concern the use of research and competences for policy making and development.

While some of the sub-programmes and their research outputs are too recent to expect any significant impact, there is not sufficient *systematic* attention to how the programme/research can contribute to development and poverty reduction.

There are a number of important and relevant contact-points between the UR at large and external stakeholders including Government, mainly through formal or informal relations with senior UR staff, the projects pursued by PhD candidates, and the fact that most Master-students are employed.

The UR-Sweden programme has recently started to record 'Indications of wider effects/impact' for each sub-programme in the annual Programme Progress Report, which is commendable. However, there is no attempt at monitoring the actual impact of the activities recorded.

The UR-Sweden sub-programme explicitly devoted to work on innovation/use of research results has not really gotten beyond the stage of developing organisational structures, policies and plans, partly because of the limited involvement of the Swedish partner institution ISP. The interventions that have taken place mainly stem from initiatives taken by the PCO/other sub-programmes.

The programme focus is primarily on the possible impact of what are essentially academic research/research outputs. There is only limited focus on actual applied research in the sense of research being developed in order to relate to specific problems to be solved/recommendations to be made for specific stakeholder.

[32] According to UR regulations, everyone obtaining a PhD moves from asistat lecturere to lecturer with an accompanying pay-rise.

Examples of wider dissemination of UR/programme research in the form of reports, briefs and public events are relatively few and far between. Also, plans to improve the UR organisation and control of consultancy work among UR staff have not been particularly successful – with most such work still being done on a private basis.

External stakeholders vary in their assessments of the relevance and quality of the research being done at UR/within the programme. Public institutions involved in specific projects with UR researchers are most positive, while others argue that it is difficult to find an intake to the research taking place and that they still primarily relate to international research for specific queries.

The Tracer Study confirms that practically all PhD graduates continue to work at the university, with very few directly engaged in applied research or as employees in external institutions. They also see themselves as university employees/academics in a longer-term perspective.

Summed up with reference to the RBG Log Frame for the programme:

Will be met	May be met	Unlikely to be met	Will not be met

OBJECTIVE 4: To increase the use of research and competences produced within the programme in political and policy making in Rwanda			
Outputs	**Outcome**		**Indicator**
Whenever applicable, programme research includes policy briefs and/or presentations to policy makers.	4.1. Policy makers increasingly take research into account in their decision making.	Academic staff active in giving policy advice, but limited systematic dissemination/receptiveness for critical research	a) Number of policy briefs produced within the programme.
			b) Number of policy advising bodies that programme researchers are part of.
			c) References to programme supported research in policy decisions

OBJECTIVE 5: To increase the use of research and competences produced within the programme by the Rwandan society at large.			
Outputs	**Outcome**		**Indicator**
Programme research is regularly discussed with practitioner in the field in dedicated fora.	5.0 Improved link between research and practice in Rwanda, to address specific problems faced by practitioners and in different organisations .	Staff and students' frequent relations with external stake-holders, but actual impact is poorly monitored. Some stakeholders still sceptical to quality and relevance of UR research.	a) Number of fora for interaction set up by programme researchers, and how often they meet.
A majority of master dissertations produced within the programme address specific problems faced by organisations, firms or other practitioners.			b) Share and nature of master dissertations that address specific problems identified and research in collaboration with organisations, firms or other practitioners.
Whenever applicable, PhD. dissertations produced within the programme address specific problems faced by organisations, firms or other practitioners.			c) Number of Ph.D. dissertations that address specific problems identified and research in collaboration with organisations, firms or other practitioners.
Whenever applicable, programme research leads to submission of patent and copyright applications.	a. Improved link between research, science, technology and innovation in Rwanda	Few known examples, sub-programme on innovation not functioning properly	a) Number of patents/ copyrights applications, and share that is approved.
			b) Country or countries covered by successful applications
Whenever applicable, programme research leads to or initiates product development (e.g. pesticides, crop and animal varieties, pharmaceutical products, technology)	b. Increased absorption of research based products in public poverty alleviation initiatives or by private sector in Rwanda.	Limited direct focus on poverty alleviation in sub-programmes, some links to the private sector	a) Number of products that are developed within the programme or that is based on programme research.
			b) Share that is taken up by poverty alleviation programmes or commercialised.
			c) Number of firms or organisations created to develop and promote products that stem from programme research.
Program research is effectively communicated, and transformed into popular science publications.	5.4 Increased visibility of research results in Rwandan media and popular debates.	Limited receptive-ness to critical re-search in Rwanda, but increasing UR focus on applied research dissemination	a) Media Report and Media publications

7 Conclusions

7.1 RELEVANCE

The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies (Sida 2007).

Swedish/Sida Development Policies

- The UR-Sweden programme is in line with the objective of Sweden's research cooperation within development cooperation, which is to strengthen research training and research of high quality and relevance.
- The Programme is partly in line with accompanying goal of conducting, communicating and utilising research for economically, socially and environmentally sustainable development.

Rwandan/UR Development Policies

- The programme is in line with Rwanda's overall development plans, where higher education and research has been given a particular role in moving Rwanda from an agricultural to a knowledge-based middle-income economy.
- The programme is also in line with central UR policies for the consolidation and development of the university as the only public university in the country, and has been an important and influential external stakeholder at NUR (2002-2012) as well as at UR (2013-2017).

Sub-Programmes

- The different sub-programmes have been developed jointly by UR and their Swedish partner universities. They are broad in scope – encompassing natural- and social sciences – and hence in principle relevant for Rwanda's development challenges. However, for most sub-programmes it is too early to assess the concrete relevance/applicability of the research being done.
- The relevance of interventions to strengthen research capacity building has been high. Rwanda/UR needs high-level researchers and the PhD candidates have returned to UR, even though continued research is hampered by administrative and teaching responsibilities. The Master programmes are also relevant for enhancing the education level among practitioners in government and the private sector, but have inadequate recruitment and graduation rates.
- Interventions for improved management and a more conducive environment for research have related to needs and are relevant, but have not been designed with a clear idea about how to affect change within academic institutions. They have also been negatively affected by ongoing transformation of UR and the concomitant limited absorption capacity.

Cross-cutting issues

- While each sub-programme and research project is established to be relevant for Rwanda's development challenges, the programme does not in a systematic way take the perspectives of the poor, human rights, gender, environment/climate and conflict into consideration. On the one hand, such issues easily become politically charged, and on the other there is no consistent request for doing so in the application process and project implementation with the partial exception of gender.

7.2 EFFECTIVENESS

The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance (Sida 2007).

- The assessment of the extent to which the UR-Sweden programme has contributed to the expected outputs, outcomes and impact, and the sustainability of these results is affected by the limited number of clear indicators in the programme's RBM log-frame and unclear/moving targets.
- This is partly compensated for by an unusually rich and detailed system/organisation of Annual Plans and Annual Progress Reports, even though there is inadequate consistency in the indicators used particularly for the programme as a whole but also for each of the 13 sub-programmes.
- The effectiveness in reaching the objectives of this programme period (2013-2018) has also been negatively affected by the substantial growth/changes in the transition from NUR to UR and in the subsequent delay in the up-start of several sub-programmes.

Capacity Building/Increase in the number of PhDs and Master holders:

- A large number of PhD candidates have been educated through the sandwich programme, with relatively good progress and few drop-outs. Practically all candidates have returned to work at UR. However, most of them continue to primarily work with administration, teaching and supervision with limited research activities. This is a combined result of inadequate resources and mentorship, and to some extent also insufficient preparation and support (conducive research environment) to become independent researchers.
- The Master Programmes are considered important for supplying the public/private sector with qualified staff. However, they have been slow to evolve with lower enrolment and fewer graduates than planned, due to a combination of inadequate human resources at UR/limited attention from the programme and the high costs/practical hindrances for students who usually also work full-time.

Institution building/Conducive environment for research

- The top management of UR has been heavily engaged in the development of the UR-Sweden programme, and see it as a crucial component in the further development of the university. The 'trickle down' effect of the involvement at the level of individual colleges has been hampered by the continued scepticism at colleges to aspects of the merge into one consolidated unit.

- The programme has contributed to the development of a variety of policies at the central level, but there is limited evidence about the extent to which these have been put into practice. This is particularly the case for policies supporting a balanced work load for academic staff, which in turn affects the operation of the programme and the university as a whole.
- The programme has an effective Programme Coordination Office, with good control and follow-up at key stages in the programme's development cycles. The programme also includes interventions to support research infrastructure (ICT, Library), where progress has slowed down during the last phase due to the expansion of the number of UR units involved.
- A number of activities relevant for institution building/a conducive research environment were to be channelled through the UR Directorate of Research. This has not performed as expected, and the activities done (external dissemination, capacity building for research proposals, funding of conference participation etc.) have rather been done at the initiative of the PCO and individual sub-programmes reducing the overall institutional impact.

The quantity and quality of research conducted at the UR/through the programme.

- Outputs in the form of quality publications have been relatively good for PhD candidates, but more limited post-graduation. The bulk of publications with UR researchers as co-authors has been done with co-writers from other international universities, attesting to a relatively low level of continued relations between UR and Swedish university staff after graduation since the first programme graduates. The number of publications through the web-based 'Rwanda Journal' has gradually increased.
- Publications through more accessible channels such as national book outlets, policy papers, applied reports and briefs have not taken place as envisaged. This is partly the result of a dearth of such channels at UR and in Rwanda at large, but also a more limited emphasis on and experience with this type of publications within the programme.

The use of research and competences produced in political decision and policy making

- Senior UR academic staff – including many involved in the programme as team leaders and supervisors – are often heavily engaged with public institutions as advisers or in other capacities. Younger researchers/students are less involved, but often have links to public institutions through their studies or internships.
- However, there are few systematic attempts at developing UR/programme competence and capacity in applied research/consultancies. The sub-programme on Innovation which is vested with that responsibility has been delayed and have few tangible outputs, and the in-house Office for Consulting Services seems to struggle for space in a context where most consultancies are done by UR researchers in their private capacity.

The use of research and competences produced by the Rwandan society at large

- UR/the programme has improved in its efforts to properly record relations between sub-programmes and society at large in its reporting, but so far without concerted attempts at monitoring and evaluating actual impact.
- Some sub-programmes – such as Economics and Management, Medicine and Health and GIS – have relations with the private sector in the form of advice and/or specific projects. Relations with civil society are less common partly reflecting the difficult situation for NGOs in Rwanda.
- There are few examples of active participation in media and other form of public outreach from UR/the programme, which partly reflects the status of such channels in Rwanda. Recent initiatives related to international and international conferences are welcome and should be encouraged, but still need to improve in terms of organisation and quality assurance.
- While external stakeholders acknowledge the importance of UR as a national university, they generally lament that it is difficult to know what they are doing/get access to their research. In some cases, the quality/relevance of UR research as compared with internationally accessible alternatives is also questioned.

7.3 EFFICIENCY

A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results (Sida 2007).

- There have been delays/inefficiencies in delivering interventions related to institutional development/an improved research environment (library, ICT, procurement, research management), which to a large extent can be explained by the ongoing process of restructuring the university.
- The overall UR-Sweden programme budget expenditures were small compared to targets in the initial phase of the current programme period, but this has improved – partly due to the programme's commendable flexibility in terms of moving funds between budget lines.
- The UR-Sweden programme has delivered well on the objective of producing PhD-candidates, with delays usually being explainable by particular circumstances of the individual student. Costs per student are relatively high compared to local/regional alternatives, but these are currently not relevant substitutes.
- The programme is in the process of delivering on support to the development and accreditation of new in-house PhD- and Master programmes, but progress varies between the different sub-programmes and time of actual start-up is still uncertain in some cases.
- Sweden's support first to NUR and then to UR has a long history compared to other donors. Sweden is a trusted partner, and is unique in its broad approach to university support. Other donors have a more focused approach – usually in infrastructure or PhD training – but are not likely to leave the same impact.

7.4 IMPACT

Positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended.

- The impact of the programme is closely related to the degree of fulfilment of the assumptions in its Theory of Change, i.e. that the combination of research training and institutional support will lead to more and better research, and that good research will have an impact on policy-making and society at large (see Chapter 1.2).
- The impact of the programme on research training and outputs has been considerable, in that PhD graduates have stayed on at UR and represent a large and important part of the university's academic staff. They also bring valuable experiences from another research context.
- The impact of the programme on the UR research environment at large has been slower to appear. This is related to the delay and limited absorption capacity of the interventions made, but also to the limited involvement of experts in research administration from the Swedish universities of cooperation.
- Research training and the improvements in the research environment has not had the expected impact on UR research outputs – even though the Central Research Grants have been important for smaller allocations. Obstacles include the inadequate role of Research Directorate, that many PhD graduates are not in positions to devote themselves to research activities, and the inadequate engagement of mentors and/or former Swedish colleagues.
- The impact of research training and institutional support on teaching has been difficult to ascertain, but there is a development towards more interactive systems of instruction that at least to some extent is related to experiences/training from Sweden.
- The impact of the programme on the ability and knowledge of researchers to follow and contribute to 'knowledge frontiers' depends on definitions: There are examples of high quality publications in reputable journals, but overall the quantity of international publications is improving but still relatively low. Alternative channels of publication (reports, briefs etc.) are – with a few exceptions – not frequently used.
- The programme's support to the research training and the research environment has in itself only partially led to an impact on public policies and society at large. There are few interventions explicitly related to making the academic research relevant, and applied research has so far not been given much attention.
- For the Swedish partner universities, programmes of this nature represent an important possibility for establishing or maintaining research relations with the South and for securing funding at a time and in a context where funding through European/Swedish research councils is becoming increasingly difficult to get.

7.5 SUSTAINABILITY

The continuation of benefits from a development intervention after major development assistance has been completed. The probability of continued long-term benefits. The resilience to risk of the net benefit flows over time (Sida 2007).

- The UR-Sweden programme was a crucial part of NUR from its start in 2002, and has continued to be so in the new expanded UR since 2013. The programme is highly appreciated by management as well as the academic staff and students involved.
- While the economic reliance on external funding has been reduced due to the emergence of other donors such as the World Bank, Sweden is alone in supporting the university on a holistic front in institutional development as well as research capacity building.
- Perhaps the main contribution of the programme has been to support the education of highly qualified UR academic staff. However, UR still does not have the critical mass necessary to run its own Master/PhD courses without external cooperation – which is a key indicator of a mature research-based university – even though some colleges/departments are more advanced in this respect than others.
- The UR management is in the process of consolidating the new University of Rwanda in the midst of at times turbulent processes of reorganisation, and the university as such seems firmly established. Continued support seems particularly necessary in order to i) develop/improve central functions in research management (including the Research Directorate), ii) contribute to the consolidation/further development of research at UR by the PhD-candidates, and iii) develop the competence and capacity for multidisciplinary/applied research for UR to comply with its overall policy and mandate.

8 Recommendations

The UR-Sweden programme is generally very well managed, and of high importance and relevance for UR's institutional development and capacity building in research. The programme is in the end of its third phase (2013-2018), and preparations for a fourth phase (2018-2023) are underway.

Our overall recommendation from this evaluation is that the programme continues largely in its present form with the same overall objectives, but that adjustments are made based on i) current processes of change at UR itself and ii) the experiences from the current phase of the programme.

8.1 THE RWANDA/UR CONTEXT

Building on previously Rwandan independent institutions of higher learning, the University of Rwanda was established in 2013 and is hence a relatively new institution. It is still in a process of reorganisation, and is taking a number of decisions that will affect the future of the UR-Sweden programme and its implementation. These include:

- The ongoing organisational changes at UR towards reducing the number of campuses/colleges and a stronger centralisation in Kigali, which may affect the UR's ability to absorb programme interventions.
- The expressed UR policy of moving towards becoming a research-based university with an emphasis on the STEM disciplines, which may affect the relevance of the current disciplinary focus of the UR-Sweden programme.
- The planned change of focus at UR towards a stronger emphasis on clusters and interdisciplinary research, for which there is limited experience/capacity both at UR and among the Swedish counterparts.
- The increasing UR focus on the issue of relevance and impact on public policies, the private sector and civil society, which may affect the relative weight given to basic and applied research respectively.

8.2 THE UR-SWEDEN PROGRAMME

Relevance for Rwanda's Development Needs

1) ***Project applications should address cross-cutting issues.*** The programme covers a wide range of topics relevant for development, but more attention should be given to the cross-cutting issues of poverty, gender, the environment and conflict. This could be done through a combination of requesting each sub-programme to explicitly address such issues in their applications for the new programme phase, and encouraging submission of

projects explicitly dealing with them. Issues related to the distribution and dynamics of poverty seems particularly important.

2) ***Support to project for post-graduate multidisciplinary research*.** The relevance of the programme for Rwanda's development needs will improve with a stronger focus on multi-disciplinary research. PhD/Master training will continue to be done on a disciplinary basis, and multi-disciplinary research projects should involve post-graduate researchers and earmarked research funding. One alternative is to establish a project in geographically confined areas such as one rural and one urban locality, and engage researchers from different sub-programmes/disciplines around a common set of research questions ('Reality Checks').
3) ***Balance the focus on STEM with continuing support to social sciences and humanities.*** The relevance of the programme for Rwanda's development needs will also be affected by the possible change of focus towards the STEM disciplines. Continued Sida support should include the social sciences, in order to balance such a focus. This is also necessary in order to effectively relate to the 10 multi-disciplinary research clusters defined by UR for the period 2018-2023. Support to the planned new College of Law, Economics and Governance – which in many ways is the least established/coherent in the planned new college structure – will be essential.

Overall Research Cooperation Rwanda-Sweden

4) ***Consolidation rather than further expansion***. The UR-Sweden programme is large and comprehensive compared to the current absorption capacity of UR, particularly in the area of institutional support/improved research environment. The programme will benefit from efforts to consolidate ongoing interventions before further expansion into new areas of support and activities.
5) ***More emphasis on institutional development***. The current balance between support to research capacity building (PhD/Master training) and support to UR institutional development/research environment should be tilted towards the latter. Currently the challenges related to post-graduation research may jeopardise the investments made in research capacity building. This should be done through a combination of increasing support to research management and research funding.
6) ***Assess alternative partner institutions for research management***. The Swedish universities/sandwich model is crucial for research capacity building, but the current Swedish university partners involved in the programme do not have particular competence in research management and applied/policy relevant research. Care should be taken in the call for projects for the next phase to secure applications from specialists in these field – if necessary from non-Swedish institutions.
7) ***Delay further regional expansion of programme***. Further expansion in the form of support to East African regional cooperation is not encouraged at this stage. Experiences are mixed, and the regional cooperation that is established (Economics and Management, Peace and Mathematics) should be consolidated and developed further to serve as models at a later stage.

8) ***Cooperation between Swedish programmes in region***. For specific sub-programmes within the UR-Sweden cooperation, collaboration around researcher exchanges and/or research projects with similar sub-programmes at other universities in the region should be considered.

Programme Management

9) ***Strengthening of PCO administrative support***. Too much work/responsibility is vested with the Programme Coordination Office. There is a need for more administrative support staff, and some components of programme management should be decentralised to the relevant colleges/schools particularly in academic affairs.
10) ***Consolidated financial reporting***. In programme financial management, there should be a consolidated reporting of the whole budget, ensuring that such reporting is timed to suit the annual programme cycle.
11) ***Clarify management roles of TLs***. While the relation between Rwandan and Swedish TLs generally function very well, efforts should be made to ensure that there is a mutual understanding of the roles and responsibilities in sub-programmes also where this is not the case.
12) ***Better donor coordination***. There is an increasing number of other donors supporting UR, leading to potential overlaps of support and 'competing interests' for administrative resources, research infrastructure etc. The UR management should take the initiative for more systematic sharing of information about donor activities, and the UR-Sweden programme should take initiatives for close cooperation with the most relevant donors regarding programmes/projects with possible synergies/overlaps (including the World Bank).

Institutional Development/Research Environment

13) ***Clearer distinctions UR/programme responsibilities***. The programme should be clearer on the distinctions between UR-responsibilities and its own interventions in order to better prepare the ground for UR independence/self-reliance and sustainability. Transfers of tasks/ responsibilities (administration, finance, external relations etc.) should be done as early as possible, but not in ways that jeopardise the effectiveness of the programme.
14) ***Increasing support to Research Directorate***. Key UR-units for research management supported by the programme do not yet function adequately (Research Directorate, Centre of Innovation, Directorate Teaching and Learning Enhancement). These should receive increased attention in the new programme period, involving partners with expertise in the area of research management.
15) ***More attention to research culture***. More attention should be given to support to the UR's enabling environment in 'non-tangible' terms of an inclusive and encouraging ambiance. At the university level, larger international conferences should be organised in cooperation with Swedish counterparts with longer experience with these types of events. Sub-programmes should increase the number of open/public seminars. And seminars between sub-

programmes should also be encouraged in anticipation of interdisciplinary clusters.

16) ***Final push for better ICT and library services***. It will be essential to get the ICT and library services up to a level where they properly serve the research community. At the same time, increasing efforts should be made in creating awareness among staff and students about importance and utility of library services. Both relevant sub-programmes have a long history (since 2002) with programmes showing signs of fatigue, and there should be openings for possible new partners in the new round of applications for the next phase of the programme.

Research Capacity Building

17) ***Increased funding for research grants***. The focus on producing more PhD students should be balanced against the importance of securing that PhD graduates are in a position to continue research upon their return to UR. This should be done by a considerable increase in funding for research grants and post-docs – including funding for a proper system of mentorship/continued international cooperation particularly for people in early phases of their careers.
18) ***Enhanced UR responsibility for Master***. The total number of Master programmes at UR seems to be too high given the current administrative, teaching and supervision capacity at the university. The master-component of the sub-programmes should to a larger extent be left to the UR to implement with less direct engagement by Swedish institutions, in order to secure UR ownership and stronger engagement from the relevant schools/departments.
19) ***Clearer roles for co-supervisors***. The cooperation around supervision of PhD students does not function optimally. While the Swedish supervisors must retain the overall responsibility for students enrolled in Swedish universities, the status and role of the UR co-supervisors should be enhanced by i) more clearly define their responsibilities also in academic terms, ii) continue the training of UR staff in supervision and iii) make successful supervision of PhD candidates a criterion for promotion at UR.
20) ***More support for gender equality***. Support to and promotion of women in research should be done through a combination of a more active enforcement of current government policies on women empowerment/quotas; positive discrimination when PhD candidates and other university positions are to be filled; and continued practical support for women with children to do their research. More efforts should also be given to promote UR female staff as 'role models' for under-graduate students.

Increase the Quality and Quantity of Research

21) ***Mentors for PhD graduates.*** To secure production of quality research, a system of mentorship should be introduced for PhD-graduates returning to UR. Mentors should be a combination of UR, Swedish and other international senior academic staff.
22) ***Wider range of publication arenas***. To secure an increase in the quantity of research outputs, more emphasis should be put on enhancing competence in

selecting among different types/channels of publications in disciplinary as well as interdisciplinary/applied journals. The quality of the main local journal should be improved.

23) ***Programme advisor in quality control***. The quality control for local post-graduate programmes is inadequate, and the in-house capacity is limited due to time-constraints for senior academic staff and a limited tradition for assessing peers. A special 'programme advisor' for quality control, working closely with the Teaching and Learning Enhancement Unit on an advisory function, should be considered.

Use of Research and Competences in Policy Making

24) **Contribute to the establishment of a multi-disciplinary research centre**. There is growing international awareness that complex development challenges (governance, climate change, poverty reduction etc.) require multi-disciplinary approaches. UR/the programme should consider the establishment of a multidisciplinary research centre.

25) ***Monitoring frequency and impact of external policy advice***. The involvement of senior UR staff with public institutions should continue to be encouraged, but more emphasis should be put on monitoring impact and making sure that UR is sufficiently credited/remunerated.

26) ***Challenging research restraints***. UR/the programme should seek to extend the current (partly self-imposed) limitations on its research by doing more research that analyses/challenges central policies and interventions for development and poverty reduction. Research of this nature should be published in the form of applied reports rather than in academic publications, in order to demonstrate the relevance and utility of the research done.

Use of Research and Competences by Rwandan society at large.

27) ***Improved research dissemination***. The use of research is an issue of both supply and demand. UR/the Programme should strengthen its efforts to disseminate research in an organised and accessible way – in the form of report series, briefs and public events - taking the needs of different target groups into consideration.

28) ***'Accompanying research'***. Support to the development of innovative project ideas require a pro-active approach from the programme. This could be done by entering relations with relevant public and private sector entities at an early stage, and systematically combine research and applied research outputs.

29) ***Industrial PhDs***. In order to support innovative processes with partners in the public and private sector, UR/the programme should be attentive to their needs and expectations. One alternative is to more systematically include them by initiating 'industrial PhDs', in which projects are developed and funded jointly by UR/the programme and the relevant institution/company.

30) ***From recording to measuring impact***. The recording of the engagement of sub-programmes with society at large should be strengthened, with stronger emphasis on monitoring real impact as the relevant projects develop. The latter will require special funding from the programme to be done systematically.

Risks and Risk Mitigation

- UR is still in a process of considerable reorganisation and change, representing a risk for limited absorption capacity particularly of interventions for institutional support/an enabling research environment. This should be mitigated by maintaining a primary focus on the most essential components of the institutional support, which are ICT/library and the Directorate of Research, Innovation and Post-Graduate Studies.
- Also, possible changes towards a stronger emphasis on the STEM sciences and interdisciplinary research clusters may represent a risk for the programme – currently largely discipline based – to become less relevant. This should be mitigated by making sure that the status of the planned changes is known by Sida/the programme during the project selection process; by securing that the possible changes and their implications are properly communicated to the applicants; and by opening up for the involvement of multi-disciplinary/applied research institutions.

List of Literature

Abbot, Pamela, Roger Sapsford and John Rwirahira (2015). “Rwanda's Potential to Achieve the Millennium Development Goals for Education.” In: *International Journal of Educational Development* (40) pp.117-125.

Alffram, Henrik (2016). *Sida Help Desk on democracy and Public Administration in Africa. Shrinking Space for Civil Society in Rwanda?* Stockholm: SKL International.

Andersson, Rebecca (2017). "The Sandwich Model. A Successful Case of capacity Building". *Internationalisation of Higher Education. A Handbook.*: International Association of Universities.

Andersson, Ingrid, Anne Marie Kagwesage and Joseph Rusanganwa (2013). “Negotiating Meaning in Multilingual Group Work: A Case Study of Higher Education in Rwanda.” In: *International Journal of Bilungual Education and Bilugualism* Vol. 16(4) pp.436-450.

Ansons, An, Esther Marijnen, Guiseppe Cioffo, et al. (2016). “Statistics versus Livelihoods: Questioning Rwanda's Pathway Out of Poverty.” In: *Review of African Political Economy* Vol. x(x) pp.x.

Bank, World (2017). *Doing Business 2016. Measuring Regulatory Quality and Efficiency*. Washington: World Bank.

FCG (2017). *Technical Proposal. Evaluation of the Sida supported research capacity and higher education development program in Rwanda, 2013-2017.* Stockholm: Finish Consulting Group, Sweden.

Felleson, Måns (2017). *Research Capacity in the New Global Development AgendaThe Expert Group for Aid Studies. EBA Report 08/2017*. Stockholm: The Expert Group for Aid Studies.

Finnoff, Kade (2015). “Decomposing Inequality and Poverty in Post-War Rwanda: The Roles of Gender, Education, Wealth and Location.” In: *Development Southern Africa* Vol. 32(2) pp.209-228.

Göthenberg, Andreas *Bibliometric Comparison Rwanda-Sweden*. Stockholm: The Swedish Foundation for International Cooperation in Research and Higher Education.

HEC (2016). *A Report of External Assessment of Higher Learning Institutions in Rwanda. Consolidated Report*. Kigali: Higher Education Council.

HR (2014). *Building a Culture of research: Recommended Practises*. Hanover: Hanover Research.

IDRC (2016). *A Holistic Approach to Evaluating Research*. Ottawa: International Development Research Centre.

Kagwesage, Anne Marie (2013). “Coping with English as Language of Instruction in Higher Education in Rwanda.” In: *International Journal of Higher Education* Vol. 2(2) pp.1-12.

Kruse, Stein Erik, Matti Tedre and Godfrey Kayobyo (2014). *Evaluation of the Swedish Government Funded Research Cooperation Support to Uganda*. *Sida*

Decentralised Evaluation.2014:39. Sockholm: Swedish International Development Cooperation Agency.

Kruse, Stein Erik, Matti Tedre, Teshome Nekatibeb, et al. (2014). *Evaluation of the Swedish Research Cooperation with Tanzania 2009-2013. Sida Decentralised Evaluation. 2014:14*. Stockholm: Swedish International Development Cooperation Agency.

Kruse, Stein Erik, Inge Tvedten, Matti Tedre, et al. (2017). *Evaluation of Swedish Government Research Cooperation with Eduardo Mondlane university, Mozambique 2011-2016. Sida Decentralised Evaluation. 2017:9*. Stockholm: Swedsih International Development Cooperation Agency.

Longman, Timothy (2017). *Memory and Justice in Post-Genocide Rwanda*. Cambridge: Cambridge University Press.

Mann, Laura and Marie Berry (20016). "Understanding the Political Motivations that Shape Rwanda's Emergent Developmental State." In: *New Political Economy* pp.119-144.

Mayne (2010). "Reporting on outcomes: setting performance expectations and telling performance stories." In: *The Canadian Journal of Program Evaluation* Vol. 19(1) pp.31-60.

MFA-Sweden (2015). *Strategy for Research Cooperation and Research in Development Cooperation 2015-2021*. Stockholm: Ministry for Foreign Affairs Sweden.

Millard, Ananada S., Mattim Tedre, Erik W. Thulstrup, et al. (2017). *Evaluation of Sida's Research Cooperation with Bolivia, 2007-2016. Sida Decentralised Evaluation, 2017:24*. Stockholm: Swedish International Developement Cooperation Agency.

MINECOFIN (2013). *Rwanda's Foundations for the Future: Growth, Business and Development*. Kigali: Ministry of Finance and Economic Planning.

MICROFIM (2014). *Republic of Rwanda: A Model of Reform-Driven, Market-Based, Sustainable Development: Investor Presentation.* Kigali: Ministry of Finance and Economic Planning.

MLPC (2007). *National Employment Policy*. Kigali: Ministry of Labour and Public Service.

Morley, Louise (2010). "Gender mainstreaming: myths and measurement in higher education in Ghana and Tanzania." In: *Journal of Comparative and International Education* Vol. 40(4) pp.533-550.

Mutwarasibo, Faustin, Pierre Canisius Ruterana and Ingrid Andersson (2014). "Boundary Crossing between Higher Education and the World of Work: A Case Study in Post-1994 Rwanda." In: *Higher Education, Research and Development* Vol. 33(5) pp.962-977.

Ndikumana, Raymond and Bengt Ove Turesson (2014). *UR-Sweden Programme for Research, Higher Eduction and Institutional Advancement.: Supplementary Guidelines*. Kigali: University of Rwanda.

NISR (2015). *Integrated Household Living Conditions Survey (EICV) 2013/2014*. Kigali: National Institute of Statistics of Rwanda.

NISR (2015a). *Rwanda Integrated Household Living Conditions Survey [EICV] 2013/2014. Thematic Report: Gender*. Kigali: National Institute of Statistics of Rwanda.

NISR (2015b). *Rwanda Poverty Profile Report - Result of EIUV 4*. Kigali: National Institute of Statistics of Rwanda.

NUR (2012). *Concept Paper. NUR Plan for Capacity Building Research and Graduate Training 2013-2023*. Kigalai: National University of Rwanda.
NURC (2015). *Rwanda Reconciliation Barometre*. Kigali: National Unity of Reconciliation Commission.
NUR-Sida (2013). *National University of Rwanda. Overall Proposal*. Kigali: National University of Rwanda and Sida.
NUR-Sida (2014). *ADDENDUM to the Full Proposal from the Former National University of Rwanda (NUR), dated 23 June 2013*. Kigali: National University of Rwanda - Sida.
Pain, Adam (2012). *Evaluation of Sida's Support to the National University of Rwanda (NUR) 2007-2011. Sida Decentralised Evaluation 2012:26*. Stockholm: Sida.
Prunier, G. (1995). *The Rwanda Crisis (1995-1994)*. London: Hurst.
PwC (2016). *UR-Sweden programme for research, Higher education and Institutional Advancement. Management Letter for the Year Ened 30 June 2016*. Kigali: PricewaterhouseCoopers.
PWC (2017). *Rwand's 2017/18 Budget Bulletin. Rwanda FY 2017/2018. June 2017*. Kigali: PriceWaterhouseCoopers Rwanda.
Reuters, Thomson (2016). *Bibliometric Performace Report: University og Rwanda*. [New York]: Thomson Reuters.
RoR (2007). *National Employment Policy*. Kigali: Republic of Rwanda.
RoR (2012). *Rwanda Vision 2020. Revised 2012*. Kigali: Republic of Rwanda.
RoR (2013). *EDPRS II 2013-2018*. Kigali: Republic of Rwanda.
RoR (2017). *Mid-Term Evaluation of Economic development and Poverty Reduction Strategy 2 (EDPRS 2). Final Report*. Kigali: The Republic of Rwanda - Ministry of Finance and Economic Planning.
Rwanda, TI (2015). *Rwanda Civil Society Development Barometer*. Kigali: Transparency International Rwanda.
Schendel, Rebecca, Jolly Mazimhaka and Chika Ezeanya (2013). "Higher Education for Development in Rwanda." In: *International Higher Education* (70, Winter 2013) pp.19-21.
Shyaka, Anastase and L.M. Manneh (2015). *Rwanda Civil Society Barometre*. Kigali: Transparency International.
Sida (2007). *Looking Back, Moving Forward. Sida Evaluation Manuel. 2nd Revised Edition*. Stockholm: Sida.
Sida (2008). *Guidelines: Support to National Research Development*. Stockholm: Swedish International Development Agency.
Sida (2008). *Guidence on Programme-Based Approaches*. Stockholm: Swedish International Development Cooperation Agency.
Sida (2014). *Appraisal of Intervention - Final*. Stockholm: Sida.
Sida (2015a). *Strategy for Sweden's Development Cooperation with Rwanda 2015-2019*. Stockholm: Ministry of Foreign Affairs.
Sida (2015b). *Strategirapport för Strategin för Sveriges utvecklingssamarbete med Rwanda 2015–2019. Sammanfattning av måluppfyllelse ach insatsportföljens genomförande*. Stockholm: Swedish International Development Agency.
Sida (2015c). *Gender Mainstreaming*. Stockholm: Swedish International Development Agency.
Sida (2016). *Questions to Integrate a Gender Perspective into Research Cooperation*. *Gender Tool Box* Stockholm: Sida.

Thomson, Reuters (2016). *Bibliometric Performance Report: University of Rwanda*. Rockville, Mayland: Thomsons Reuters.
UNDP (2016). *Human Development Report 2016. Human Development for Everyone*. New York: UNDP.
UR (2015). *University of Rwanda Intellectual Property Policy*. Kigali: University of Rwanda.
UR (2016a). *Resource Mobilisation Strategy and Implementation Plan*. Kigali: University of Rwanda.
UR (2016b). *Facts and Figures March 2016*. Kigali: University of Rwanda.
UR (2016c). *Consultancy Policy*. Kigali: University of Rwanda.
UR (2016d). *Academic Staff Development Guidelines*. Kigali: University of Rwanda.
UR (2016e). *Gender Policy*. Kigali: University of Rwanda.
UR (2017). *Towards the University of Rwanda We Want: UR Concept Note for Research capacity Development and Institutional Advancement 2018-2023*. Kigali: University of Rwanda.
UR-Sweden (2014). *Specific agreement of cooperation between Sweden and the University of Rwanda (UR) during the period 1 July 2014-30 June 2018*. Kigali: Sida and University of Rwanda.
UR-Sweden (2014). *UR-Sweden Programme for research, Higher Education and*
UR-Sweden (2014). *UR-Sweden Programme for Research, Higher Education and Institutional Advancement. Supplementary Guidelines*. Kigali: University of Rwanda.
UR-Sweden (2015a). *UR-Sweden Programme for Research, Higher Education and Institutional Advancement. Programme Progress Report. Activity Period July 2014 to June 2015*. Kigali: University of Rwanda.
UR-Sweden (2015b). *Programme Financial Statement and Report July 2014-June 2015*. Kigali: University of Rwanda.
UR-Sweden (2017a). *UR-Sweden Programme for Research, Higher Education and Institutional Advancement. Programme Progress Report. Activity Period July 2015 to June 2016*. Kigali: University of Rwanda.
UR-Sweden (2017b). *UR-Sweden Programme for Research, Higher Education and Institutional Advancement. Programme Plan. Activity Period 2017-2018*. Kigali: University of Rwanda.
UR-Sweden (2017c). *UR-Sweden Programme for Research, Higher Education and Institutional Advancement. Programme Progress Report. Activity Period July 2016 to June 2017*. Kigali: University of Rwanda.
Verpoorten, Marijke (2014). *Growth, Poverty and Inequality in Rwanda. A Broad Perspective. WIDER Working Paper 2014/138*. Helsinki: World Institute for Development Economics Research.
Verwimp, Philip (2012). *Peasants in Power. The Political Economy of Development and Genocide in Rwanda*. New York: Springer.
Vlir-uos (2016). *Country Sheet Rwanda*. Brussels: The Belgian Development Cooperation.
WEF (2017). *The Global Gender Gap Report 2016*. Geneva: World Economic Forum.
World, Bank (2016). *Rwanda Economic Update. Rwanda at Work*. Kigali: World Bank.
World, Bank (2017). *Doing Business 2016. Measuring Regulatory Quality and Efficiency (Rwanda)*. Washington: World Bank.

Annex 1 – Terms of Reference

EMBASSY OF SWEDEN

Terms of Reference for the evaluation of the Sida supported research capacity and higher education development program in Rwanda, 2013-2017

22 May 2017

The Embassy of Sweden in Kigali is requesting services for the evaluation of the *UR-Sweden Programme for Research, Higher Education and Institutional Development* at the University of Rwanda (UR), hereinafter referred as Program, 2013-2017.

1. Background

The objective of Sweden's research cooperation within development cooperation is to strengthen research of high quality and of relevance to poverty reduction and sustainable development, with a primary focus on lowincome countries and regions. This is based on the conviction that access to scientifically based knowledge is an important condition for development. Therefore, Sida's research cooperation aims at strengthening partner countries' capacity to undertake high quality research training and to conduct, communicate and utilize research for economically, socially and environmentally sustainable development. Within bilateral research cooperation the focus is on research capacity building and strengthening the environment that is conducive for research and research training.

Rwanda is one of Sweden's bilateral partner countries with regards to research cooperation. The focus is on capacity building in order for Rwanda to independently undertake research training and conduct high quality research and teaching, to produce relevant research result and graduates with skills appropriate for the sustainable development of Rwanda (economically, socially and environmentally).

Swedish support to capacity building in research in Rwanda was initiated in 2002, in collaboration with the former National University of Rwanda (NUR). The first phase (2003-2006) included three Swedish university partners and eight sub-programs with a budget of SEK 78 million. The second phase (2007-2013) continued with the same partners within the same sub-programs, and its total funding was SEK 185.4 million.

In the current, third phase 2013-2018, the Program has followed the former NUR into the new University of Rwanda (UR), established in September 2013. Its overall objective is to increase production and use of scientific knowledge of international quality that contributes to Rwanda's development. There are two parts to the Program. The first aims to promote research and research training and to develop institutional capacity in an effort to strengthen the national systems for research and innovation in Rwanda, within the framework of national policies and plans. This is reflected in the Research Training Partnerships (RTP) part. The second aims at promoting professional skills development at the level of tertiary education in Rwanda, and to support applied research and innovation with direct relevance to the public and private sectors in the country. This is reflected in the Higher Education and Development (HED) part. It has to be emphasized that although the two parts are financed from two different appropriations, they are seen and managed as one coherent program.

The Program, implemented in partnership between the UR and 12 Swedish universities, includes PhD training in the so-called sandwich mode, Master's training, development of curricula (both for Master's and local or inhouse PhD programs), joint research projects and institutional capacity building in a handful of areas key to organisational development, such as policy development and research management. Research infrastructure improvement is supported through sub-programs in library, MIS, instructional technology and ICT infrastructure. The Program includes all of UR's six colleges, plus central level units. The total budget is SEK 334 million for five years.

Sida considers the Program as a pillar in Rwanda's efforts to make the transformation to a knowledge-based economy and achieve its goals in terms of human resource development as spelled out in a number of national strategy documents (Vision 2020, EDPRS II).

Last external evaluation of the research cooperation with Rwanda was conducted in 2012 when NUR was Sida's partner. The current Program, now with the UR, will end in 2018 and there are preparations going on for the possible continuation of the cooperation. This process follows the guidelines of the Sida's Research Training Partnership Program[33].

[33] For details visit http://www.sida.se/English/partners/our-partners/research-cooperation/guidelines-forpartners/national-research-development/application/

2. Evaluation Purpose

The purpose of the evaluation is to analyse, assess, generate knowledge and provide lessons from the Sida funded *UR-Sweden Program for Research, Higher Education and Institutional Development* at the University of Rwanda. The evaluation is also expected to serve as a learning opportunity for the UR. The results of the evaluation will inform the design of a possible continuation of the program and Sida's support to the UR 2018– 2023. As such it will form an important basis for the future decision on support.

The point of departure is the overall objectives of the *Strategy for research cooperation and research of relevance in development cooperation 2015–2021* "to strengthen research of high quality and of relevance to poverty reduction and sustainable development, with a focus on low-income countries". In addition, the objectives of the *Strategy for Sweden's development cooperation with Rwanda, 2015–2019*, in particular the objective of the results area 3, "better opportunities and tools to enable poor people to improve their living conditions" should be taken into consideration.

The evaluation shall be imbedded in a context analysis of higher education and research in Rwanda. It shall take its departure from the analysis of the major organisational changes, i.e., the merger of public higher learning institutions and a general overview of the shift in mandate from a teaching university to a research led university. The evaluation is expected to go beyond studying outputs (number of PhD graduates, number of publications etc.) and assess results also at outcome and impact level with focus on changes in research capacity and in the enabling environment since the start of the Swedish support in 2003 but with a focus on the current program period, and to understand how the Program has contributed to these changes.

The Program shall be evaluated against its Theory of Change that assumes that postgraduate training and support to creating an environment conducive to research at the UR leads to more research being conducted by the academic staff who also incorporate their finding in teaching and who are able to follow the scientific frontiers, and contribute to it, in their respective fields. Also, research produced within the Program is expected to contribute to better policy making and improved products or services by the private sector and civil society organisations in Rwanda. Furthermore, graduates from the Master's programs, developed and delivered with support from Swedish universities, are expected to get relevant quality education that enables them to contribute to the development of Rwanda in the jobs they take or create.

The evaluation shall describe and assess past progress with focus on future direction and management of the support in Rwanda and Sweden resulting in concrete and realistic recommendations. Specifically, the evaluation shall:

a) Assess to what extent the Program has contributed to the expected outputs, outcomes and impact, and the sustainability of these results;
b) Assess the improvement of the Program over time (capture the learning or adaptation process as well as unexpected results, if any);

c) Assess the efficiency (including cost-effectiveness) of the program design, organizational-set up and cooperating partners in the delivery of expected results;
d) Establish achievements and weaknesses and put forward recommendations for the possible future programming phase.

The evaluation process shall include participatory methods. The evaluation process, including methods and reporting, shall adhere to OECD/DAC Evaluation Quality Standards. Key definitions used shall follow *DACs Glossary of Key Terms in Evaluation and Results Based Management*.

3. Scope

The evaluation is expected to focus on the ongoing phase of the Program from 2013 up till now, but with a brief outlook to the evolvement of the research cooperation from the beginning. Since this is a comprehensive program with 17 subprograms the consultants should propose an appropriate evaluation method that besides providing an accurate account of the results achieved focuses on the Program's contribution to the UR's institutional development and human resource development.

4. Stakeholder involvement and intended users

The direct intended users of this evaluation are UR: UR-management, the Programme Coordination Office, the Embassy of Sweden in Kigali, and Sida Research Cooperation Unit. In addition, this evaluation will be important for all collaborating partners in the ongoing and future research collaboration with Rwanda as well as other development cooperation partners and national stakeholders in the area of research and higher education, such as the Ministry of Education, Higher Education Council, Rwandan Education Board, National Council for Science and Technology etc.

Note that the Program Coordination Office (responsible for program implementation) at the UR and in Sweden has been asked to provide comments on the Terms of References of this evaluation.

5. Specific evaluation questions

The evaluation questions are to be developed in full scope by the Consultant based on the conceptual framework of this evaluation.

The evaluation questions will follow the five standard OECD/DAC evaluation criteria, namely relevance, effectiveness, efficiency, impact and sustainability complemented with a criterion on scientific quality. They include without being limited to:

Relevance

1) To what extent has the Program been consistent with UR's priorities, needs, long-term strategy and institutional capacity?
2) To what extent has the Program in general, and the research projects and post-gradual trainings supported in the Program in particular, been relevant to the current development goals of Rwanda, especially related to poverty reduction and inclusive growth?
3) To what extent has the Program aided the institutional changes at the UR with relevance to research environment?
4) To what extent has the Program been relevant to the Sweden's development cooperation with Rwanda and to the objective of Sweden's research cooperation?
5) To what extent have the perspective of the poor, human rights, gender, environment/climate and conflict perspectives been taken into account in the implementation of the Program?

Effectiveness, Scientific Results and Quality

6) Has the Program effectively and sustainably supported strengthening of the research capacity and research environment at UR?
7) How has the program increased capacity to formulate research problems and proposals? Describe the role and impact of the UR research fund, and propose future possible changes.
8) How has the program increased research management capacity within the university structure? Assess the quality, efficiency, effectiveness of the research management (including of funds) during the evaluation period.
9) Make an assessment of the current tools and practices used to monitor the scientific outcomes at the UR and within the Program.
10) What is the quantity and scientific quality of the research conducted at UR in general and within the Program in particular, in terms of academic publications in peer-reviewed international/national scientific journals and presentations at international conferences?
11) What are the main scientific results in the supported thematic sub-programs? Are there any special outstanding or acknowledged results? Describe them.
12) Outline and evaluate the review process of research proposals at university level used for university wide funds. What role have the UR research fund grants played to encourage research at UR and what are the scientific outputs?
13) Has the capacity at UR to attract national and external research funds increased?
14) What are the quality assurance mechanisms and guidelines/regulations for postgraduate training? To what extent are they effectively used in practice? Does the local Master's and (sandwich) PhD supervision follow UR quality assurance regulations?
15) Assess, to the extent possible, the PhD by research receiving funding from the Central Research Fund.

16) Specifically assess the scientific quality of the Master's programs supported by Sida and the graduation rates of those programs when applicable.
17) Has the number of local Master's and PhD programs increased at UR? How many students have been trained locally with Swedish support?
18) Assess the Swedish and Rwandan PhD supervision within the program, including communication between supervisors at UR and in Sweden, and between supervisors and students. To what extent, if at all, has supervision capacity at the UR increased as the result of the Program? Has any change to regulations in relation to supervision been institutionalised beyond the program?
19) Assess the collaboration between UR and the Swedish partner universities based on communication/scientific partnership/mutual project ownership. Suggest possible improvements. 20. Assess the efficiency of the management and the coordination of the program by the Program Coordination Office (PCO). Assess the effectiveness and value of other management structures at UR for the program (e.g. sub-program coordination). Suggest possible improvements.
20) Evaluate the reporting mechanisms within the program, i.e. the Annual Progress Reports, the Annual Plans and the Result Framework. Assess the extent to which the Results Based Management (RBM) is in use and the understanding of the RBM tool at the different management levels.
21) Are there any efforts by the university to promote the use of research in society with respect to communication of research and research results, extension services, dialogues with stakeholders, innovation, protection of national knowledge production through patents, intellectual property rights etc.?

Efficiency

22) In the context of research cooperation, assess the added value and comparative strengths of Sweden as a partner to UR, as compared to other international funding partners.
23) How cost-efficient are the Master's and PhD studies within the Program compared to other alternatives?
24) Considering the objective to create an enabling environment for research, what other modalities of research capacity building could be applicable at the UR? Assess the cost efficiency of the current Program in relation to these alternatives.

Impact

25) What is the impact of Swedish support to the NUR/UR since the year 2003, with focus on the evaluation period, within and beyond the UR?
26) Assess to what extent the program has contributed to improved research capacity and quality higher education at UR and in Rwanda. What is the

evidence (if any) for the Program bringing about a research culture at the university?

27) Outline to what extent the Program has impacted on academic quality and research culture in the context of Master's and PhD training and supervision at UR.
28) Is there evidence that the supported post-gradual trainings have contributed to addressing the knowledge needs in the private and public sector? To what extent can the Master's trainings contributed to enhanced opportunities for productive employment and entrepreneurship?
29) What evidence is there for research results being taken up within the academia in Rwanda and internationally?
30) What evidence is there for research results being taken up by non-academic stakeholders external to the UR (public and private sector, civil society) to serve the development needs of Rwanda? If research uptake is limited, what are the reasons for that?
31) Describe any change in university strategies and priorities for research and in research training in which the Swedish supported research cooperation may have contributed to strategic long-term transformation and change. To what extent has the Program contributed to the strategic processes at the UR that aim at transforming the UR from a teaching university to a research-led university?
32) What impact has the research program had on the Swedish partner universities?
33) Has support been given in a way that has enhanced innovative processes and innovative thinking within UR, the partner universities and stakeholders?
34) Are there proofs of innovative ideas or ways of working that have emerged during this program? Has research been conducted with potential for innovation or that has led to innovation (defined in a broad sense as products, procedures and services)?
35) Describe UR developments with regard to produced scientific innovations and links to private sector development and private-public partnerships.

Sustainability

36) To what extent can the results of the current Program (both in terms of research capacity and institutional changes aiming to create an enabling environment) be sustained?
37) To what extent have regional (Africa) and international long-term research collaborations been established as a direct or indirect result of the Program? In what ways and to what extent has the Program contributed to the UR's research capacity development (or other) undertaking outside the Program (e.g., East Africa Centres of Excellence)?
38) To what extent are preconditions, such as critical mass of supervisors, courses, infrastructure, and management capacity in place at the UR to shift from the sandwich model to in-house PhD training?

39) Does UR have sufficient institutional capacity and mechanisms to maintain and sustain the built research infrastructure capacity?
40) In what ways have the Program contributed to reducing the main bottlenecks for development of research capacity within UR and what are the challenges that still need to be addressed?

6. Recommendations and lesson learnt for the future

The evaluation shall provide the Embassy of Sweden and UR with recommendations, in the short and the long-term. The recommendations shall be based on an in-depth analysis of the entire evaluation, be unambiguous and possible to act upon. Recommendations should be made primarily for the design of the next program phase complemented with recommendations implementable already during the current phase for the improvement of the Program. The recommendations shall address (not exclusively) the following questions:

- How can the research cooperation with Rwanda be made more relevant for the development needs of country? Give recommendations on how to better address research capacity needs, knowledge gaps and meet labour market demands both within the private and public sector.
- How can the present research cooperation with Rwanda be improved and made more effective and efficient?
- How can the Program be redesigned in order to encourage innovative processes with partners, in order to support new ideas of working and critical thinking?
- What actions can UR take to actively support and promote more women to do research? How should Sida support the UR in its efforts to decrease gender disparities?
- How could the system for quality control of the local postgraduate programs be improved?
- How can the research cooperation contribution to the further improvement of the research environments?
- How can the overall coordination of the program at UR be improved, and timely implementation of the programs be ensured?
- How can the Swedish partner universities be better utilised/drawn upon in innovative and sustainable ways within the program?
- How can Sweden and Rwanda cooperate in the improvement of supervision of PhD students?
- Could the Swedish universities play additional roles within the program or collaborate in a different way?
- How can the innovation be further strengthened at the UR? How can the link between research result uptake/innovations and public/private partnerships/private sector development be strengthened? What role should Sweden play?
- How can donor support to research at UR be harmonised to ensure a better research environment at UR, and avoid duplications?

- Make recommendations to the Embassy on how to ensure that Sida's cross-cutting perspectives (perspective of the poor, human rights, gender, environment/climate and conflict perspective) are taken into due consideration in the design of the next program phase.
- What risks does the Evaluation Team foresee in the research cooperation and how can these be mitigated?

7. Methodology

The evaluators shall propose an evaluation methodology, including particular evaluation techniques in the proposal, and elaborate them further in an inception report. The Embassy expects the evaluation to serve as a learning opportunity and thus the Consultant is expected to suggest a participatory evaluation method. This also implies that representative samples of stakeholders (such as team leaders; supervisors; researchers; Master's and PhD students; other staff; the Management Team) should be consulted. The Consultant may consider holding workshops as part of data collection and/or validation. Beyond the methodology, the inception report should include specific time and work plan with delivery dates for the reports, field visits, dissemination and other major activities. The inception report will form the basis for the continued evaluation process and methods to be used.

The methodology to be used must be identified and elaborated by the evaluators, but will include, at a minimum, document review and analysis, semi-structured interviews with stakeholders both in Rwanda and Sweden.

The methodology used shall be described and annexed to the final report. All conclusions should be supported by data, and if not, it should be stated that the conclusions are based on the opinions of the authors.

8. Resources

The Program Coordination Office at UR and in Sweden will assist the evaluation team in collecting relevant documents and data as well as coordinating meetings, interviews and workshops. The Embassy will provide documents related to appraisal and decision making.

9. Timeframe and budget

The suggested timeframe of the assignment is the following.

Activity	Period/Point in Time	Whom
Contract signing	30 June 2017	Embassy and Consultant
Content analysis of documents	1-25 July	Evaluation team
Inception report submitted to the Embassy	25 July	Evaluation team
Approval of Inception Report	7 Aug	Embassy
Field work Sweden/Rwanda	7 Aug – 31 October	Evaluation team
Draft evaluation report to be presented to the Embassy and UR	1 November	Evaluation team
Comments to the evaluation team	10 November	Embassy/Reference group
Revised evaluation report to be submitted to Embassy	31 November	Evaluation team
Possible comments to Evaluation team	7 December	Embassy/Reference group
Final evaluation report submitted	15 December	Evaluation team

The budget for the evaluation, including fees and reimbursable costs shall not exceed 1.2 MSEK.

10. Reporting

The following outputs shall be delivered by the evaluators:

- Written inception report
- Draft written evaluation report
- Revised written evaluation report
- Final written evaluation report

The draft evaluation report should be submitted electronically to the Embassy of Sweden, Kigali, and to the University of Rwanda, no later than 1 October, 2017. A presentation must be held where the draft report is presented and discussed with participation from collaborating partners.

The final reports shall be submitted to the Embassy of Sweden, Kigali, no later than 15 November, 2017, in electronic form in Microsoft Word for Windows and should be presented in a way that enables publication without further editing.

Reporting requirements:

The report shall be in English and not exceed 50 pages, excluding annexes.

- The reporting shall adhere to the evaluation terminology of the OECD/DAC Glossary of Evaluation and Results-Based Management as far as possible.

- The evaluation report should consider the report format presented in Annex B of Sida's evaluation manual Looking Back Moving Forward, 2nd revised edition, 2007.
- The reports will be assessed against standard quality criteria for evaluation reporting, such as the DAC Evaluation Standards of 2006.
- The reports shall contain a list of persons interviewed during the evaluation, detailing their names, gender, positions and affiliations.
- The recommendations given shall be based on an in-depth analysis of the entire evaluation, be unambiguous and possible to act upon.
- The report shall contain an Executive Summary which shall provide an overview of the reporting highlighting the main conclusions and recommendations.
- The report shall answer all the issues addressed in the Terms of Reference. If this is not possible, reasons and explanations shall be provided.
- The evaluators shall, upon approval of the final report, insert the report into the Sida template for decentralised evaluations and submit it to Sida's consultant responsible for Sida's graphic profile (currently Sitrus), for publication and release in the Sida publication data base.

Subject to the Embassy of Sweden, Kigali, and Sida decisions, the report may be published and distributed within the Sida Evaluation series. All documents and correspondence related to this assignment should be done in English.

11. Quality Control

A reference group will be attached to this evaluation to review draft reports and provide comments for improvement. The reference group will consist of representatives from Embassy of Sweden, Sida's Africa Department, UR and one Swedish collaborating institution.

12. Evaluation team

The team should preferably reflect an understanding of higher education and research in East Africa in general. The team should demonstrate a solid understanding of research capacity building in low income countries. To the extent possible, the team should include both male and female members.

Team Leader:

- PhD in relevant area with a minimum of 10 years' experience of carrying out research, with up to-date record of publications;
- Knowledge of sustainable research capacity building;
- Broad knowledge of higher education and research management and institution building; Knowledge of academic contexts and circumstances in Sub-Saharan Africa;
- Proven experience in evaluating university research capacity building programs;

- Familiarity of Sida's approach to research capacity building is a merit.

Team members:

- At least two team members must have PhDs (including the Team leader)
- At least two team members (including the Team leader) should have deep understanding of the functioning of research-led universities and the necessary conditions for doing scientific research at universities;
- Additional team members must have a minimum of Masters' degree
- Knowledge of sustainable research capacity building;
- Experience and proven knowledge of higher education and research management;
- Experience in gender mainstreaming in higher education and/or research;
- Experience from universities in low income countries or from collaboration with such universities;
- Knowledge of Rwanda, and the East African region.

All members are expected to be fluent in spoken and written English. The evaluators must be independent of the evaluated activities and have no stake in the outcome of the evaluation.

The response to this call should include the CVs of all prosed team members, bios with explanation on how the team members' previous experience is relevant to this specific assignment, as well as descript of their specific role in the implementation of the evaluation.

Annex 2 – UR-Colleges and Schools

College of Agriculture, Animal Sciences and Veterinary Medicine (CAVM)	CAMPUSES
• School of Food Science and Technology • School of Agricultural Engineering and Environmental Management • School of Agriculture, Rural Development and Agricultural Economics • School of Animal Sciences and Veterinary Medicine • Poultry Research Centre • Seed Centre • Food Science and Technology Centre • Agro-forestry Research and Extension Centre (Tonga)	NYARUGENGE HUYE NYAGATARE BUSOGO RUBIRIZI
College of Arts and Social Sciences (CASS)	**CAMPUSES**
• School of Law • School of Journalism and Communication • School of Social, Political and Administrative Sciences • School of Arts and Languages • Centre for Conflict Management (CCM) • Centre for Gender, Culture and Development (CGCD) • University Centre for Arts and Drama (UCAD) • Radio Salus • University Language Centre	HUYE NYARUGENGE
College of Business and Economics (CBE)	**CAMPUSES**
• School of Business • School of Economics • Centre for Entrepreneurship Development (CED)	GIKONDO HUYE NYAGATARE RUSIZI
College of Education (CE)	**CAMPUSES**
• School of Education • School of Inclusive and Special Needs Education • School of Lower Secondary Education • School of Open and Distance Learning • Confucius Institute • Centre for Instructional Technology • Affiliated Teacher Training Colleges • African Virtual University (AVU)	REMERA RUKARA
College of Medicine and Health Sciences (CMHS)	**CAMPUSES**
• School of Dentistry • School of Medicine and Pharmacy • School of Public Health • School of Health Sciences • School of Nursing and Midwifery • Centre of Excellence for Biomedical Engineering • Centre of Excellence for Vaccines, Immunisations, and Health Supply Chain Management • Centre for Mental Health • Media Centre	NYARUGENGE KICUKIRO HUYE NYAMISHABA BYUMBA KIBUNGO NYAGATARE

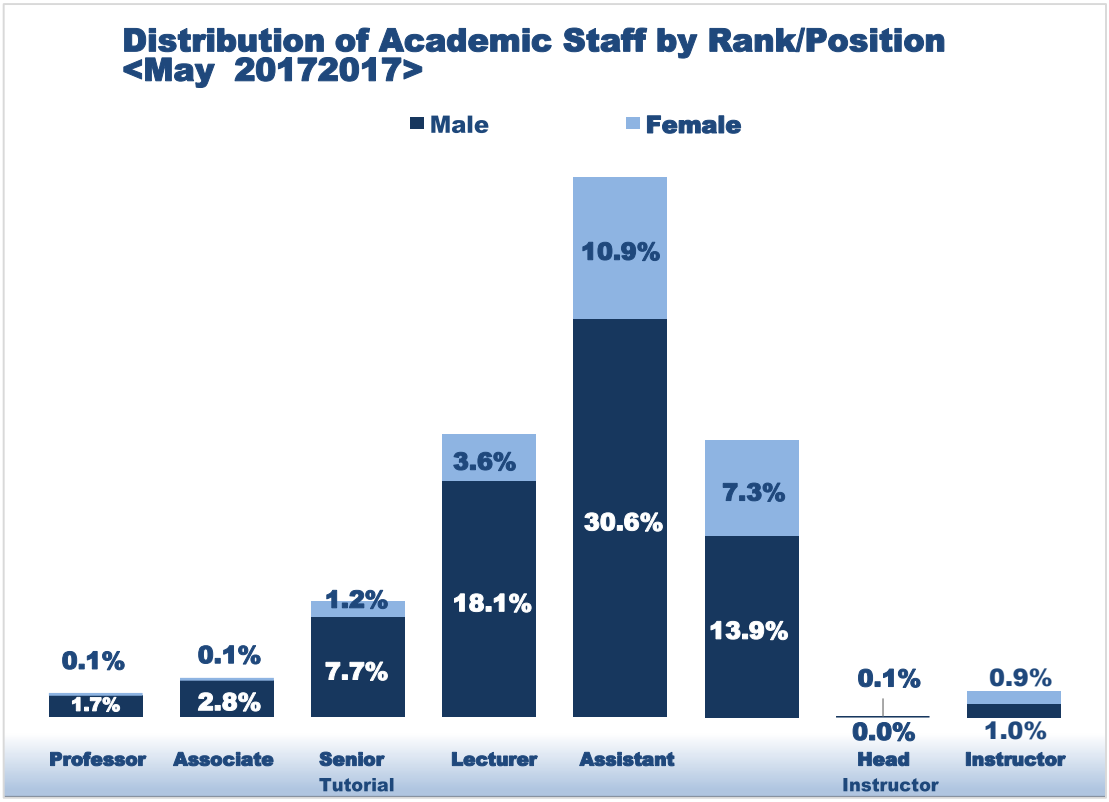
College of Science and Technology (CST)	CAMPUSES
• School of Engineering • School of Information and Communication Technology • School of Sciences • School of Architecture and The Built Environment • School of Mining and Geology • Centre for Information and Communication Technology (ICT) • Centre for Continuous Training and Communications (CTC) • Centre for Geographic Information Systems and Remote Sensing (CGIS) • Centre for Excellence in Biodiversity and Natural Resources Management • Centre for Research-driven Innovation in Science and Technology	NYARUGENGE HUYE NYAGATARE

Annex 3 – Distribution of Academic Staff by Academic Position and Gender

Total staff at UR by Gender (2014-2017)

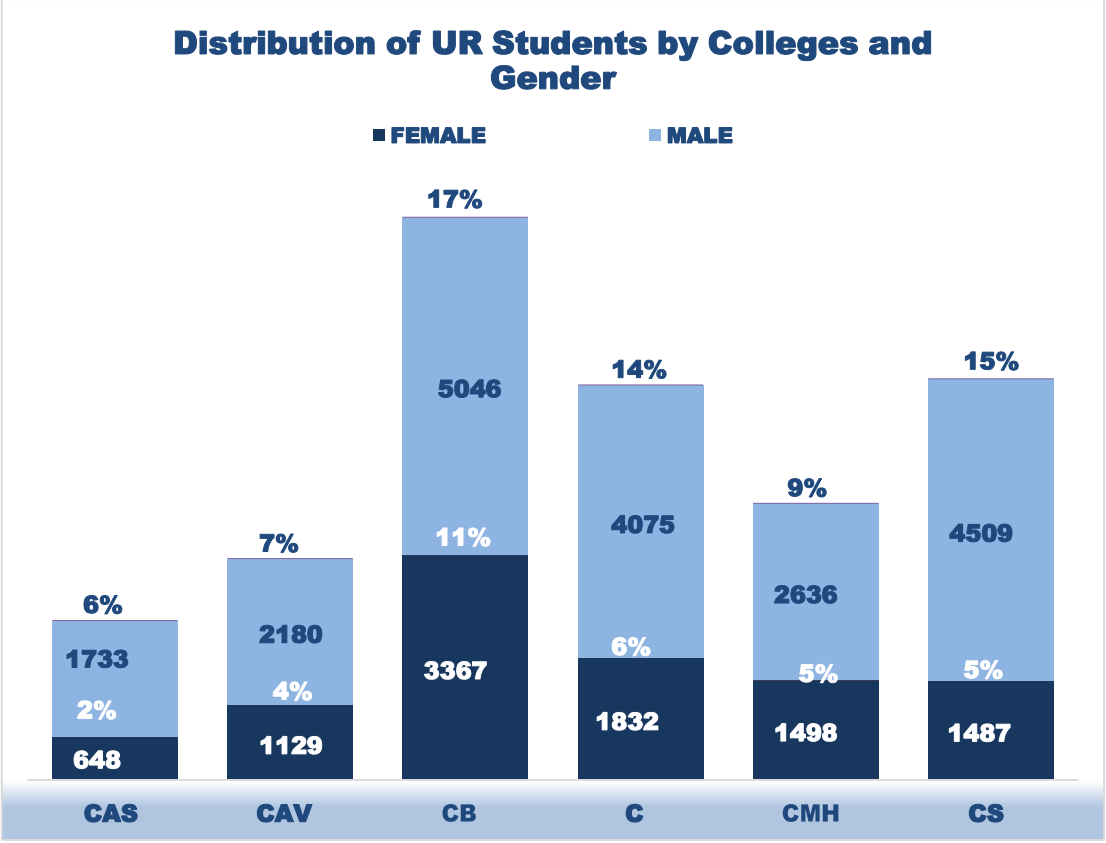
		2014	2015	2016	2017
Academic staff					
Female	Bachelors	104	102	126	102
	Master	177	170	199	181
	PhD	34	33	37	39
	Others	5	5	23	11
	Total	*320*	*310*	*385*	*333*
Male	Bachelors	295	292	306	193
	Masters	598	597	629	588
	PhD	255	238	246	247
	Others	14	13	35	17
	Total	*1161*	*1140*	*1216*	*1045*
Total		1481	1450	1601	1378
Admin staff					
Female		457	313	300	309
Male		759	503	426	457
Total		1216	816	726	766
Grand total		**2697**	**2266**	**2327**	**2144**

Source: UR Facts and Figures 2014, 2015, 2016, 2017.



Source: UR Facts and Figures 2017

Annex 4 – Distribution of UR Students by College and Gender



Source: UR Facts and Figures 2017

Annex 5 – UR Budget Execution by Sub-programme 2013-2017

Sub-programmes	Total original budget	Total re-allocated budget	Total exp	%ge total exp vs original budget	%total exp vs revised budget
Agriculture (RTP+HED)	8 291 000	6 762 257	5 878 846	71%	87%
Applied Mathematics And Statistics (RTP+HED)	3 274 000	2 788 029	2 840 318	87%	102%
E-Governance (HED)	3 346 000	2 885 346	2 447 614	73%	85%
Economics And Management (RTP+HED)	6 723 000	5 922 813	5 842 071	87%	99%
Geographical Information Systems (HED)	2 786 000	3 001 010	2 861 911	103%	95%
Medical And Health (RTP+HED)	7 721 000	6 775 741	6 135 673	79%	91%
Law (RTP)	1 608 000	1 837 366	1 723 276	107%	94%
Peace, Conflict & Development (RTP+HED)	8 997 000	6 826 205	5 952 373	66%	87%
Ict Infrastructure (RTP)	11 741 000	11 051 820	10 938 099	93%	99%
Innovation (HED)	2 532 000	2 502 515	1 493 991	59%	60%
Instructional Technology (HED)	2 313 000	3 254 065	2 919 620	126%	90%
Library Program (RTP)	10 944 000	10 723 383	8 734 357	80%	81%
Research Fund	10 978 000	11 280 387	9 414 482	86%	83%
Res Mgt_Pco	11 213 000	11 187 842	10 653 247	95%	95%
Res Mgt_Research Directorate	7 233 000	8 118 853	7 600 778	105%	94%
Res Mgt_Institutional Advancement	6 587 000	8 233 325	7 136 666	108%	87%
Rmgt-Mis & System Support	11 537 000	11 393 053	11 088 132	96%	97%
Res Mgt_Phd Training	1 055 000	425 078	245 936	23%	58%
Environment-Cont Students	1 111 000	854 471	820 542	74%	96%
Female Training-Cont Students	1 603 000	1 956 788	1 792 962	112%	92%
Ict Research-Cont Students	925 000	804 078	753 842	81%	94%

Source: PCO budget executive work sheet

Annex 6 - Swedish Universities Budget Execution by Sub-Programme 2013-2017

Sub-programmes	Total original budget	Total re-allocated budget	Total ex-penses	% total exp vs original budget	%total exp vs revised budget
Agriculture	16 141 000	19 359 040	10 877 509	67%	56%
Applied Math. And Stati. (HED & RTP)	16 255 000	16 716 180	13 489 572	83%	81%
Economics And Management	15 077 000	15 538 714	14 438 852	96%	93%
E-Government	9 661 000	9 921 315	7 053 216	73%	71%
Environment	1 758 000	1 687 732	1 835 382	104%	109%
Gis And Remote Sensing	6 453 000	6 966 470	5 968 424	92%	86%
Ict Research	1 800 000	1 914 024	1 797 991	100%	94%
Law	2 940 000	4 480 000	2 616 531	89%	58%
Medicine And Health Sciences	11 380 000	13 499 216	9 475 007	83%	70%
Peace, Conflict And Dev't Studies	13 129 000	14 111 982	11 297 082	86%	80%
Ict Infrastructure	885 000	1 533 998	724 808	82%	47%
Innovation	1 753 000	3 743 908	1 152 113	66%	31%
Instructional Technology	4 570 000	5 515 000	5 344 211	117%	97%
Library	5 328 000	5 867 062	5 104 652	96%	87%
Pco	7 017 000	9 680 386	10 072 025	144%	104%
Research & Postgraduate Studies Ur- Ripgs	915 000	1 445 984	1 823 412	199%	126%
Res Mgt_Phd Training	1 500 000	1 534 764	315 402	21%	21%

Source: PCO financial status worksheet

Annex 7 - UR Post-Graduate Programmes

College	Masters Programmes
CASS	Masters of Arts in Translation &Interpreting LLM of International Criminal Justice And The Law Of Human Rights LLM in Business Law Master's In Development Studies Master of Social Sciences In Local Governance Studies Master's of Arts In Genocide Studies And Prevention Master's Program In Peace Studies And Conflict Transformation Masters In Security Studies Masters of Arts In Social Sciences: Gender And Development
CAVM	Masters In Soil And Agroforestry Masters In Agribusiness Masters In Crop Science Masters In Animal Production Masters In Agriculture Engineering
CBE	Master's In Business Administration With Various Options (8) Masters Of Science In Economics
CE	Masters Of Education In Curriculum And Instructions Postgraduate Diploma In Education Postgraduate Certificate Of Learning And Teaching In Higher Education Masters Of Education In Education Leadership And Management Postgraduate Diploma In School Guidance And Counselling Postgraduate Diploma In Vocational And Technical Pedagogy Masters Of Education In Special Needs Education Postgraduate Diploma In Special Needs Education
CMHS	Master Of Science In Field Epidemiology And Laboratory Management Master Of Science In Epidemiology Master Of Science In Health Informatics Master Of Public Health Master Of Medicine In Urology Master Of Medicine In Neurosurgery Master Of Medicine In Ear, Nose And Throat, Head And Neck Surgery Master Of Medicine In Anatomical Pathology Master Of Medicine In Psychiatry Master Of Science In Clinical Psychology And Therapeutics Master Of Pharmaceutical Sciences, Quality Assurance And Quality Control Master Of Medicine In Anaesthesia Master Of Medicine In Paediatrics Master Of Medicine In Internal Medicine Master Of Medicine In Obstetrics And Gynaecology Master Of Medicine In Surgery Master Of Medicine In Orthopaedic Surgery
CST	Masters In Highway And Transportation Engineering Masters In Gis For Environment And Sustainable Development Masters In Ict (Option: Operational Communications) Masters In Is (Option: E-Government) Masters In Is (Option: Internet Technology) Masters In Water Resources And Environmental Management Masters In Biodiversity And Natural Resources Management Masters In Applied Mathematics Masters In Renewable Energy Masters In Atmospheric Science

Source: UR (2017)

Annex 8 – Rwanda/UR Publication Profile

For evaluating the quality of research, this evaluation uses two proxies: journal ranking and number of article citations. Journal ranking refers to various third-party lists that rank journals by different criteria, and article citations refers to the number of other studies that have cited an article. Journal prestige is measured by annual citations to the journal (impact factor, IF) as well as each journal's impact in relation to other journals in the same field.

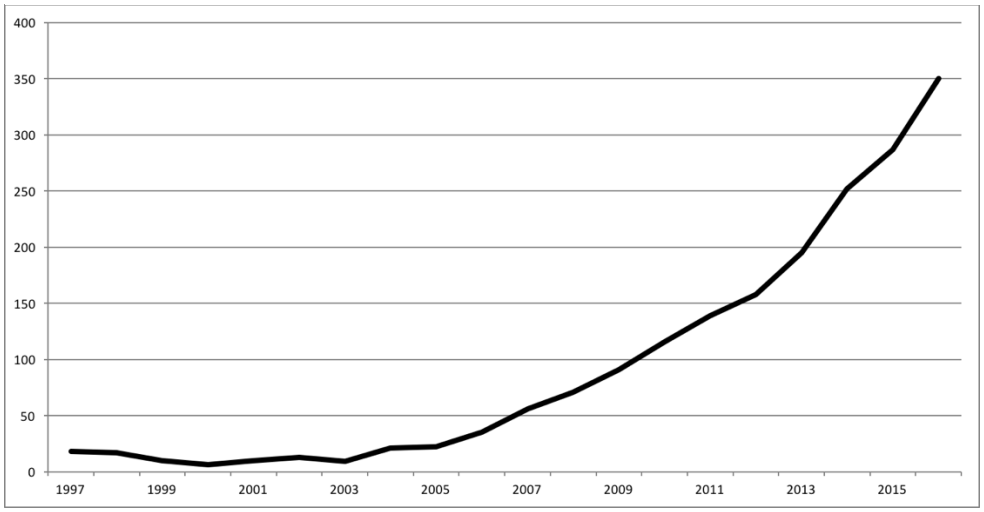
The journal with highest number of publications in Rwanda's national portfolio over 2013–2017 was *Rwanda Medical Journal*, with 73 publications in it, followed by the massive non-field-specific mega journal *Plos One* (66 publications), *AIDS Research and Human Retroviruses* (44 publications), and the authoritative *The Lancet* (38 publications, half of which had dozens or hundreds of authors).[34] University of Rwanda did not feature in most of the prestigious *The Lancet* or *PLoS One* publications—they were chiefly from University of Global Health Equity and Rwanda Biomedical Center. Of the 30 most common periodicals for publication, only three were not in the field of medicine.

Aside from *Rwanda Medical Journal*—which belongs to the lowest Q4 (bottom 25%) quartile of journals—the most published journals were predominantly leading journals in their fields. Most belonged to the highest Q1 (top 25%) quartile in their respective fields, and nearly all of the rest belonged to the second Q2 quartile in their fields. It is notable that the articles in the top journals were predominantly done in collaboration with US institutions—a sign of active and fruitful partnership. The Rwandan authors publishing in those journals were largely not from UR.

[34] Scopus (AFFILCOUNTRY(rwanda) AND PUBYEAR AFT 2012). ISI Web of Science shows different figures from Scopus, with PLoS One leading, followed by AIDS Research and Human Retroviruses (44), Lancet (38), Lancet London England (31), and Tropical Medicine International (26).

In 2013–2017 the Rwandan national publication portfolio featured 24 articles that belonged to the top 1 percent of most-cited articles in their fields within the past ten years. Six of those articles had a Rwandan author from University of Global Health Equity and another six from Rwanda Biomedical Center[35]. Four had a Rwandan author from the Ministry of Health, two from EAHRC, and two from University of Rwanda. The rest were from RNRA, RZHRG, King Faisal Hospital, IGCP, and WE-ACTx.[36] Many of those high-profile articles were mega-articles with hundreds of authors among which a handful of the same Rwandan names appeared. In the Rwandan research portfolio, highly cited and influential research comes mostly outside of University of Rwanda.

Figure 8 Rwanda's national research output 1997-2016

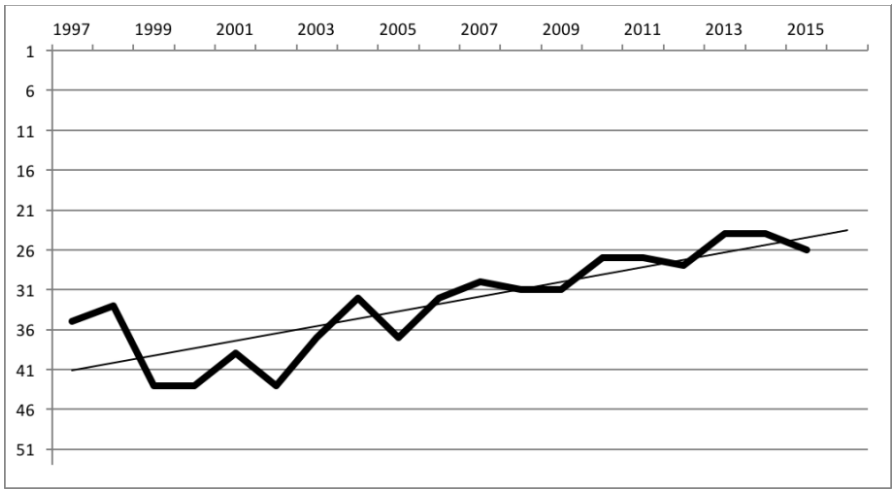


Source: WoS

[35] ISI Web of Science (CU=Rwanda, TS=2013–2017, DB=All, Analyze by institution, highly cited).

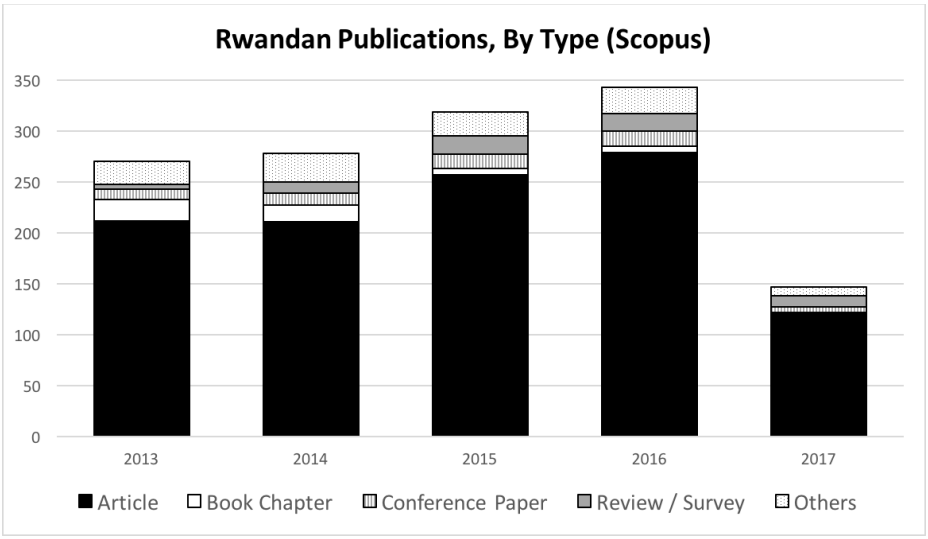
[36] RZHRG (Rwanda Zambia HIV Research Group), RNRA (Rwanda National Resources Authority), IGCP (International Gorilla Conservation Programme), WE-ACTx (Women's Equity in Access to Care & Treatment).

Figure 9 Rwanda's Regional Ranking in Raw Number of Publications (Africa, out of 53)



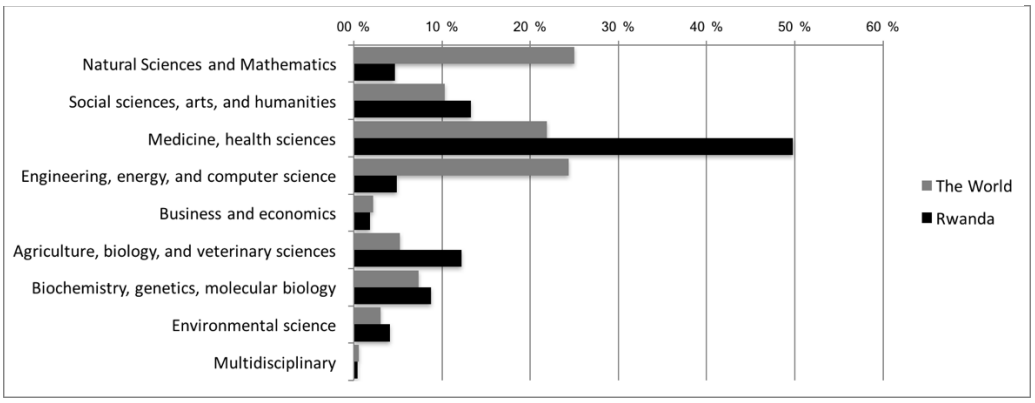
Source: Scopus

Figure 10 Rwandan Publications by Type (2013/1-2017/1)



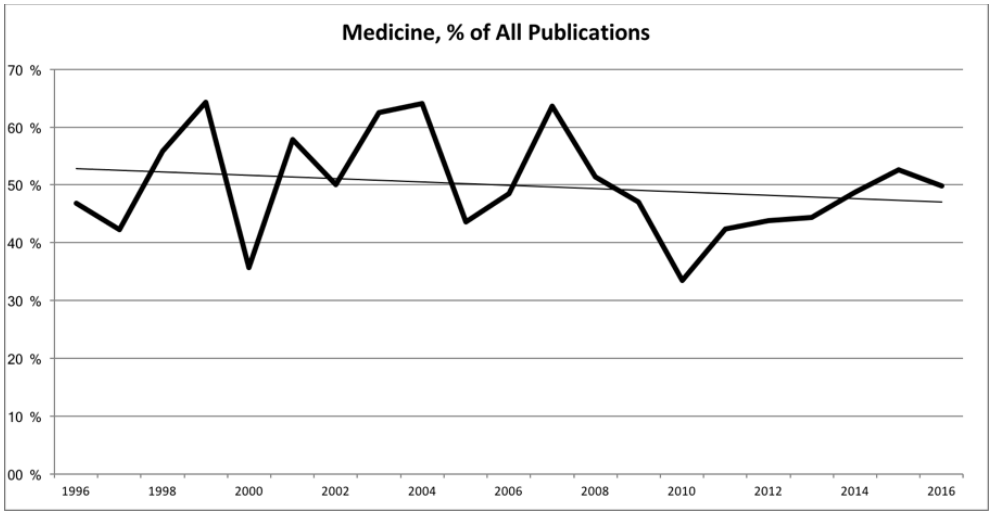
Source: Scopus

Figure 11 Research Profiles of Rwanda and the World Average



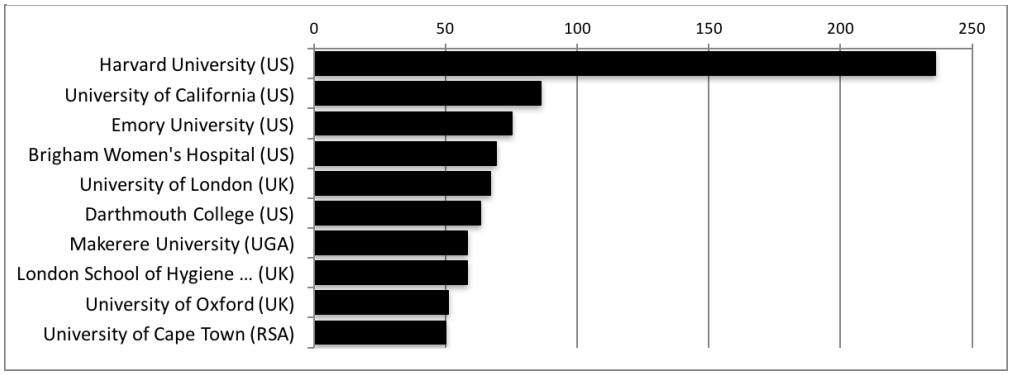
Source: Scopus

Figure 12 Share of Medical Research of Rwandan Research Output



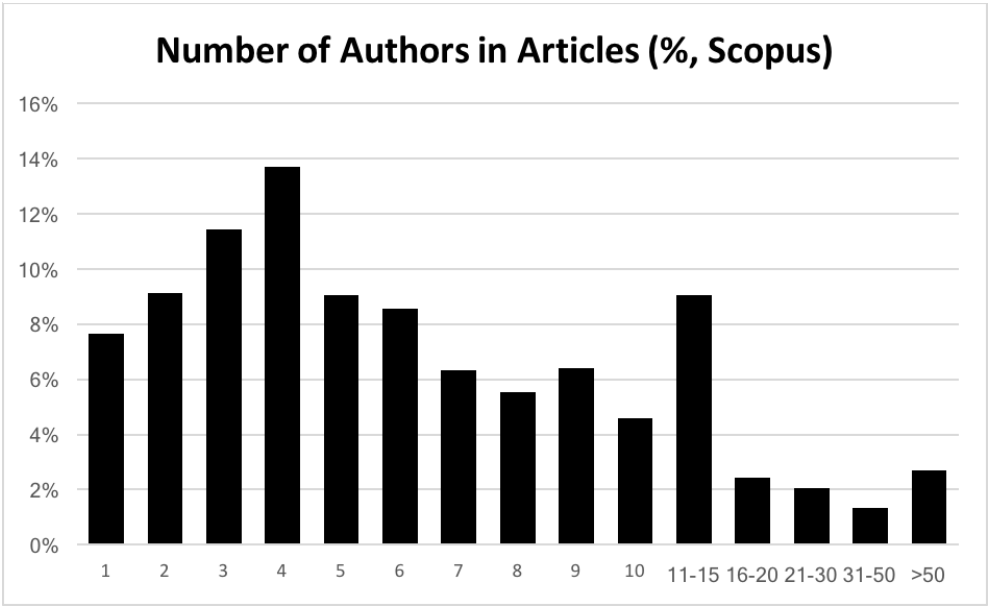
Source: Scopus

Figure 13 International Partners in Publications with Rwandan Authors (2013–2017/7)



Source: WoS

Figure 14 Number of Authors in Rwandan Publications (%) (2013–2017 June)



Source: Scopus

Predatory open access journals

Along with the growing popularity of the open-access publishing model, a new threat to academic integrity has emerged. The past fifteen years has seen a rapid growth of shady business models that churn out open-access articles at a rapid pace disregarding peer review, ignoring quality control and academic criteria, and charging hefty publication fees. Their aggressive e-mail marketing practices has earned them the name "predatory open-access journals." The journals prey especially on young, inexperienced researchers, and the problem is especially common in the developing world (Xia et al., 2015). "Impact factor" is no guarantee of quality, because along with bogus journals, also bogus impact factors have emerged. In addition to predatory journals, there is an increasing number of "spamferences"; conferences that mass advertise through spam email, charge high fees, and have little to no academic value. Recognizing both requires expertise that young academics are not expected to have, which underscores the importance of experienced supervisors.

The academia has recently awoken to that problem, attacking the problem on several fronts. On the one hand, some academic initiatives have tried to create blacklists of allegedly predatory journals and publishers (such as the so-called "Beall's list"). On the other hand, some initiatives try to create an accreditation system for high quality journals (such as the Norwegian register of accredited journals or the South African DHET). Some commercial indices, such as Web of Science and Scopus, rigorously vet journals before including them in their indexes, and actively remove journals that fail to maintain their quality.

Annex 9 – Team Leader/Deputy Team Leader Survey Summary

See separate Annex 12 for the full analysis of results.

Key findings:

- The analysis compares the views of the Swedish and Rwandan TLs and DTLs. Swedish TLs and DTLs generally express more dissatisfaction with the programme than their Rwandan counterparts.
- Most respondents say they spend between 25-50 per cent of their time on the Programme, with UR TLs and DTLs spending more time than the Swedish TL/DTLs. This does not match findings from interviews, where there is a perception among Swedish partners that their Rwandan colleagues spend less time than they do.
- Most of the time of TLs and DTLs is spent on management (43%) and administration (36%), with an average of 24% on supervision, 23% on teaching, 16% on own research and 7% on other duties. For UR TLs and DTLs, the amount of time spent on supervision and administration is smaller than their Swedish counterparts, with more time spent on research and teaching.
- TLs and DTLs have visited Rwanda and Sweden respectively in very different patterns. The number of times will depend on the time spent in the programme, but TLs and DTLs have taken on very different roles, with the number of visits ranging from 0 to 25.
- UR TLs and DTLs are on the whole more satisfied with the programme that their Swedish counterparts, but the groups agree on the areas they are most satisfied with (programme management, the sandwich programme) and least satisfied with (locally developed masters programmes, procurement, reporting procedures).
- Procurement is seen as most problematic. Swedish stakeholders are dissatisfied with financial flows and predictability, most probably due to the problems with UHR. Both groups agree that there is room for improvement in the relationship between Swedish and Rwandan TLs and DTLs.
- Both groups agree that UR is strongest in its ability to effectively manage research, to relate to partners and to provide clear direction. This matches the view of UR TL and DTLs, who also emphasise the ability to secure external funding.

- When looking at the areas of most progress, the ability to provide clear direction and the ability to organise are the top responses, which is the same for both UR and Swedish TLs and DTLs. (The new Concept Note may be one reason for this result, as it is seen to show ability to organise, plan, implement and report).
- The areas of least progress are identified as the ability to raise external funds and to deliver agreed outputs in time and of quality. Although UR has raised additional funds, there is still lack of funds for research. There are also issues with delays in the programme which may have influenced Swedish stakeholders to focus on the lack of progress in delivery.
- In terms of an enabling environment for research, the ability to provide practical support is seen as strongest, with the ability to promote research integrity and openness as good practice also rated as relatively strong. The area of least progress is the ability to provide a balanced/fair workload.
- Respondents were able to provide more examples of contributions to teaching and to knowledge frontiers than to policy-making, the private sector and civil society and local communities.
- Both groups of TLs and DTLs identify academic benefits as the most important for Swedish university involvement in this programme, along with contributing to Rwanda's development and solving future global challenges. Although financial benefits on the Swedish side are seen to cause tension in the relationship, this is not borne out by this survey.
- Examples of the benefits were mostly related to academics and the broadening of knowledge in Sweden. One quote is worth mentioning: Young Swedish Professor "When retired I will probably not be remembered for my publications in international journals but maybe for my contributions in Rwanda"
- There is general agreement that the new UR concept note aligns with the research priorities of all stakeholders – presumably also the focus on interdisciplinarity and research clusters.

Respondents also provided more general comments, quite a number of which that highlighted issues with constantly new reporting templates.

Annex 10 - List of People Interviewed

M/F	First name	Last name	Position	Programme/Department	Institution
M	Alex	Karara	Team leader UR (also Director of Resource Mobilisation)	Central Institutional Avancement	UR
F	Alice	Dukuze	UR CRA Financial Administrator & DTL	UR Research Coordination Office	UR
F	Aline	Umubyeyi	Dean	Medicine & Health Sciences	UR
F	Alphonsine	Mukamuhirwa	PhD Student	Agriculture	SLU/UR
F	Anna	Stockman	Deputy Team leader Sweden	Library	BTH
F	Anna	Norman Haldén	Deputy Team leader Sweden	Agriculture	SLU
F	Anne	Kagwesage	PhD graduate	Education	UR
F	Beatrice	Mugwaneza	Team Leader	Programme Coordination	UR
M	Belson	Rugwizangoga	PhD Student	Medicine & Health Sciences	GU/UR
M	Bengt-Ove	Turesson	Programme Coordinator Sweden	Programme Coordination	LiU
M	Bengt-Ove	Turesson	Team leader Sweden	Applied Mathematics and Statistics	LiU
M	Björn	Mattsson	Team leader Sweden	ICT Infrastructure	BTH
F	Brice	Mukashema	Programme Administrator	Swedish Embassy	Swedish Emb. Kigali
F	Brigitte	Nyirambangutse	PhD graduate	Environment	UR
M	Callixte	Karege	Co-supervisor and Vice Chairperosn HEC Board	Agriculture	UR
F	Camilla	Orjuela	Supervisor	Peace, Conflict and Development Studies	GU
M	Charles	Kabiri	PhD graduate	ICT Research	BHT
M	Charles	Gakomeye	Administration & Logistics Manager	Programme Coordination	UR

M/F	First name	Last name	Position	Programme/Department	Institution
M	Charles	Murigande	Deputy Vice Chancellor Institutional Advancement	VC's Office	UR
M	Charles	Kabwete	Co-supervisor	Peace, Conflict and Development Studies	UR
F	Charline	Mulindahabi	PhD graduate	Peace, Conflict and Development Studies	GU/UR
M	Daton	Ngilinshuti	Team leader UR	ICT Infrastructure	UR
M	Didace	Kayihura	Principal CASS		UR
M	Egide	Kaitare	Co-supervisor	Medicine & Health Sciences/CMHS	UR
M	Emile	Bienvenu	Team leader UR/ Director of Centre of Innovation and Entrepreneurship)	Innovation	UR
F	Emilia	Molnar	First Secretary/Program Manager Research	Swedish Embassy	Swedish Emb. Kigali
F	Emma	Bergstedt	Administrator	Medicine & Health Sciences	GU
M	Enock	Niyondamya	Monitoring and Evaluation specialist	SPIU	UR
M	Ernest	Mutwarasibo	PhD Student	Peace, Conflict and Development Studies	GU/UR
F	Ethel	Brundin	Team leader Sweden	Economics & Management	JIBS
M	Etienne	Ntagwirumugara	Director	Africa Center of Excellence in Energy for Sustainable Dev.	UR
F	Ewa	Wredle	Team leader Sweden	Agriculture	SLU
M	Francois	Masabo	CCM Director	CCM /CASS	UR
	Francois Xavier	Naramabuye	Co-supervisor	Agriculture	UR
M	Fredrik	Söderbaum	Supervisor	Peace, Conflict and Development Studies	GU
M	Froduald	Minani	Team leader UR	Applied Mathematics and Statistics	UR
M	Gasanabo Jean	Damascene	Director General	Research and documentation centre / CNLG	CNLG
M	Gaspard	Rwanyiziri	Team leader UR	GIS and Remote Sensing	UR
M	George	Njoroge	Principal	College of Education (CE)	UR
	Guillaume	Nyagatare	Deputy Team leader UR	Agriculture	UR
F	Gunilla	Blomqvist Sköldberg	Team leader Sweden	Peace, Conflict and Development Studies	GU

M/F	First name	Last name	Position	Programme/Department	Institution
F	Gunilla	Krantz	Team leader Sweden- Health Sciences	Medicine & Health Sciences	GU
M	Gustav	Aldén Rudd	Deputy Team leader Sweden	Peace, Conflict and Development Studies	GU
M	Henrik	Hansson	Team leader Sweden	Instructional Technology	SU
M	Ignace	Gatare	Principal	College of Science and Technology (CST)	UR
M	Ildephonse	Musafiri	Co-supervisor	Economics & Management /CBE – Office of the President	UR
F	Immaculée	Bugingo	Program Manager	SPIU	UR
	Innocent	Musonera	Deputy Team leader UR	Law	UR
M	Jean Bosco	Gahutu	Team leader UR- Medicine	Medicine & Health Sciences	UR
M	Jean Pierre	Nkuranga	Acting Deputy VC /Admin. and Finance	VC's office	UR
M	Jean-Bosco	Habyarimana	PhD Student	Peace, Conflict and Development Studies	GU/UR
M	JMV	Ndayizigiye	Director of Audit	Directorate of Internal Audit	UR
M	John	Mugisha	Deputy Team leader UR	GIS and Remote Sensing	UR
	Joseph	Nzaba	Co-supervisor	Applied Mathematics and Statistics	UR
M	Joseph	Ntaganira	Team leader UR - Public Health	Medicine & Health Sciences	UR
F	Kajsa		Program Administrator, Sweden	Programme Coordination / PCO	LiU
M	Kalema	Gordon	Principal Senior Technologist	Ministry of ICT	Ministry of ICT
M	Kato	Njunwa	Team leader UR	UR Research Coordination Office, Research Directorate (Also UR Research Director)	UR
M	Kristofer	Månsson	Supervisor	Economics & Management / JIBS	Jönköping University
F	Laetitia	Nyinawamwiza	Principal	CAVM	UR
M	Lars	Hartvigson	Deputy Team leader Sweden	Economics & Management	JIBS
M	Leif	Abrahamsson	Team leader Sweden	Research and Postgraduate Studies	ISP
M	Leon	Niyibizi	PhD Student	Agriculture	SLU/UR
M	Louis	Sibomana	PhD Student	ICT Research	BHT
F	Lucia	Naldi	Supervisor	Economics & Management / JIBS	Jönköping University
M	Marcel Ndengo	Rugengamanzi	PhD Student	Applied Mathematics and Statistics	LiU/UR

M/F	First name	Last name	Position	Programme/Department	Institution
M	Marcel	Ndengo	Co-supervisor	Applied Mathematics and Statistics	UR
F	Margueritte	Umubyeyi	Deputy Team leader UR	Library	UR
F	Marie Francoise	Mukanyangezi	PhD Student	Medicine & Health Sciences	GU
F	Marie Christine	Gasingirwa	Director General	Directorate of Science, Technology and Research	MINEDUC
M	Martin	Ntawubizi	Co-supervisor	Medicine & Health Sciences	UR
M	Mathias	Nduwingoma	Team leader UR	Instructional Technology	UR
M	Mikael	Boström	Head of Development Coopeation	Swedish Rmbassy	Swedish Emb. Kigali
M	Muhebera	Bizimana	PhD Student	Library	University of Borås
M	Mucyo	Cyprien	Publication Officer	UR Research Coordination Office	UR
M	Mupenzi	Gashugi	Finance Manager	UR Research Coordination Office	UR
M	Mupenzi	Mutimura	Senior Research Fellow in Animal Nutrition	Rwanda Agricultural Board	BAB
M	Musekura	Celestin	Co-supervisor	Economics & Management	UR
M	Nelson	Ijumba	Deputy Vice Chancellor Academic and Research Affairs	VC's office	UR
M	Ntagwirumugara	Etienne	Team leader	World Bank funded Centre of Excellence in Energy, UR	UR
F	Olive	Niyomubyeyi	PhD Student	GIS and Remote sensing	LU/UR
M	Oliver	Habimana	PhD Student	Economics & Management	JIBS/UR
M	Paul	Vaderlind	Deputy Team leader Sweden	Applied Mathematics and Statistics	SU
M	Peter	Johnson	Deputy Team leader Sweden	Law	UU
M	Philip	Cotton	Vice Chancellor	VC's office	UR
M	Rama Rao	Bokka	Team leader UR	Economics & Management	UR
M	Raymond	Ndikumana	Overall Programme Coordinator	Programme Coordination / PCO	UR
M	Rob Van	de Gevel	Coordinator	Strengthening Education for Agriculture Development (SEAD)-Niche	UR
F	Robinah Kalamera	Namuleme	Team leader UR (Also Director of UR Library)	Library	UR
M	Said Ngoga	Rutabayiro	Team leader UR	ICT Research	UR

M/F	First name	Last name	Position	Programme/Department	Institution
M	Samuel	Kamugisha	PhD Student	Economics & Management	JIBS/UR
M	Samuel	Sibomana	Previous Deputy Team leader UR	Central Institutional Advancement	UR
M	Simon	Rukera-Tabaro	Team leader UR	Agriculture	UR
M	Sirajul	Islam	Deputy Team leader Sweden	E-Governance	Örebro
M	Steven	Rulisa	Co-supervisor/Dean	Medicine & Health Sciences /CMHS	UR
F	Sylvie	Mucyo	Dep. Progr. Coordin./Student Manager UR	Programme Coordination /PCO	UR
F	Sylvie Mukunde	Mboyo	Team leader UR/Chief Information Officer)	University MIS & Project Manag. Systems	UR
M	Theogene	Twagirumugabe	PhD Student	Medicine & Health Sciences	GU
M	Theophile	Niyonzima	Deputy Team leader UR	Innovation	UR
F	Theresa Lagali	Hensen	Program Admin./Student Manager, Sweden	Programme Coordination / PCO	LiU
M	Thomas Kigabo	Rusuhuzwa	Chief Economist & Director General	Central Bank of Rwanda	Cent. Bank Rwanda
M	Tom	Umulisa	PhD Student	Law	UU/UR
M	Eugene	Kazige	Coordinator	SPIU	UR
M	Samuel	Nizeyimana	Director of Finance and Administration	SPIU	UR
M	Kamuzinzi	Masengesho	Co-supervisor	Arts and Social Sciences/Education	UR
M	Faustin	Gasheja	Acting Principal	College of Business and Economics (CBE)	UR
M	Vincent	Byusa	Team Leader UR	College of Business and Economics	UR
M	Vincent	Ngarambe	Director of Procurement	Directorate of Procurement	UR
M	Vivien	Munyaburanga	Coordinator	Academie de Recherche et d'Enseignement Superieur	UR
M	Åke	Grönlund	Team leader Sweden	E-Governance	Örebro

Annex 11 – Tracer Study

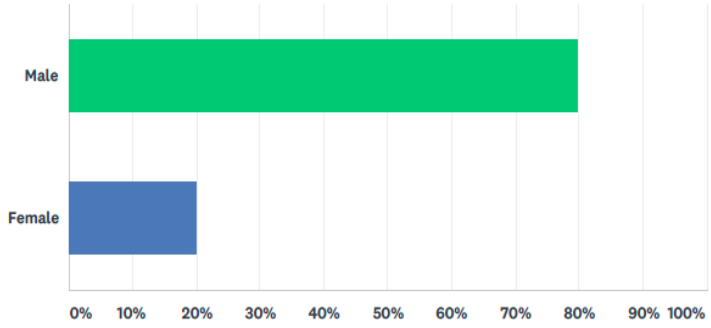
Q1 Name:

Answered: 15 Skipped: 1

ANSWER CHOICES	RESPONSES	
Family name	100.00%	15
First name	100.00%	15

Q2 Sex:

Answered: 15 Skipped: 1



ANSWER CHOICES	RESPONSES	
Male	80.00%	12
Female	20.00%	3
TOTAL		15

Q3 Age:

Answered: 15 Skipped: 1

ANSWER CHOICES	RESPONSES	
Year of birth	100.00%	15

Q4 Country and city of permanent residence:

Answered: 15 Skipped: 1

ANSWER CHOICES	RESPONSES	
Country	100.00%	15
City	100.00%	15

Q5 Full title of award:

Answered: 15 Skipped: 1

Q6 Year of PhD initiation:

Answered: 15 Skipped: 1

ANSWER CHOICES	RESPONSES	
Year	100.00%	15

Q7 Year of PhD completion:

Answered: 15 Skipped: 1

ANSWER CHOICES	RESPONSES	
Year	100.00%	15

Q8 College/school of study at UR/NUR (complete as applicable):

Answered: 13 Skipped: 3

ANSWER CHOICES	RESPONSES	
College	100.00%	13
School	100.00%	13

Q9 University/faculty/department in Sweden (complete as applicable):

Answered: 15 Skipped: 1

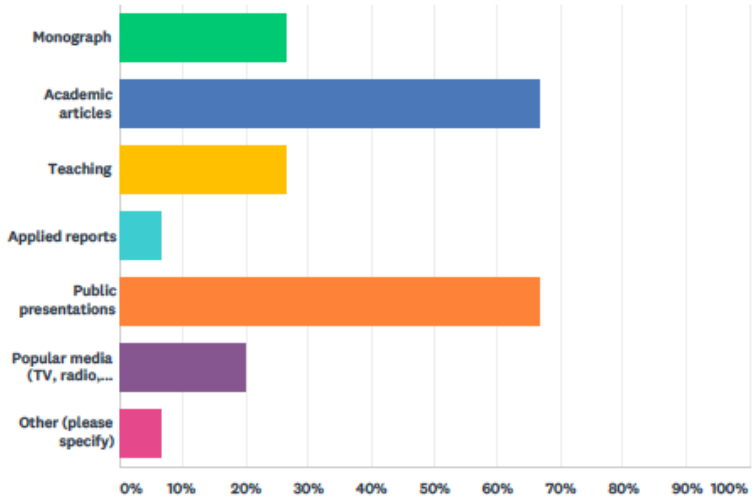
ANSWER CHOICES	RESPONSES	
University	100.00%	15
Faculty	93.33%	14
Department	100.00%	15

Q10 Title of thesis:

Answered: 15 Skipped: 1

Q11 How have your research results been disseminated? (tick all that apply)

Answered: 15 Skipped: 1



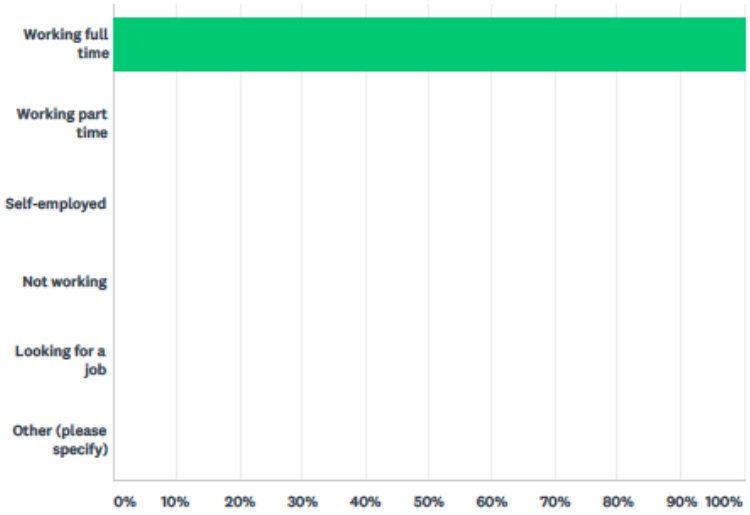
ANSWER CHOICES	RESPONSES	
Monograph	26.67%	4
Academic articles	66.67%	10
Teaching	26.67%	4
Applied reports	6.67%	1
Public presentations	66.67%	10
Popular media (TV, radio, newspapers etc.)	20.00%	3
Other (please specify)	6.67%	1
Total Respondents: 15		

Q12 Please give an example of wider effect/impact of your work:

Answered: 13 Skipped: 3

Q13 Describe your current position:

Answered: 15 Skipped: 1



ANSWER CHOICES	RESPONSES	
Working full time	100.00%	15
Working part time	0.00%	0
Self-employed	0.00%	0
Not working	0.00%	0
Looking for a job	0.00%	0
Other (please specify)	0.00%	0
TOTAL		15

Q14 How long did it take you to find a job after graduation (months)?

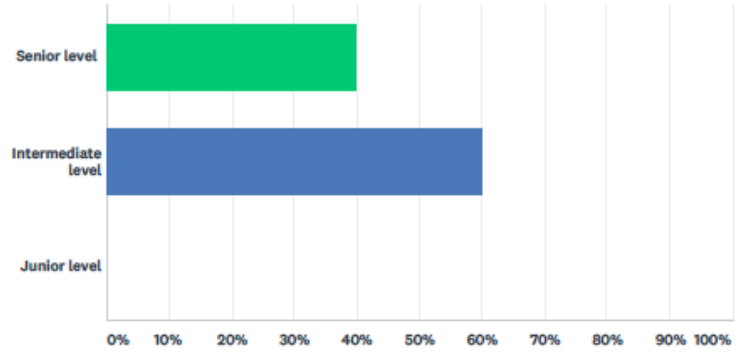
Answered: 15 Skipped: 1

Q15 What is your current job title/position(s)?

Answered: 15 Skipped: 1

Q16 What is your job status?

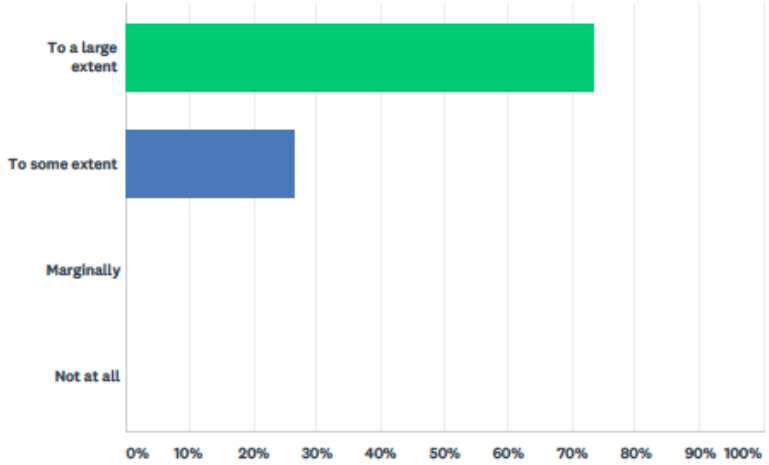
Answered: 15 Skipped: 1



ANSWER CHOICES	RESPONSES	
Senior level	40.00%	6
Intermediate level	60.00%	9
Junior level	0.00%	0
TOTAL		15

Q17 To what extent was your PhD programme/study relevant for your current position?

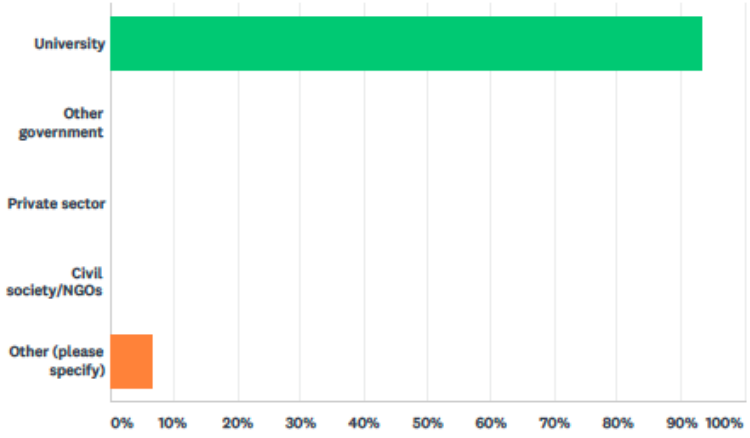
Answered: 15 Skipped: 1



ANSWER CHOICES	RESPONSES	
To a large extent	73.33%	11
To some extent	26.67%	4
Marginally	0.00%	0
Not at all	0.00%	0
TOTAL		15

Q18 In which sector do you work?

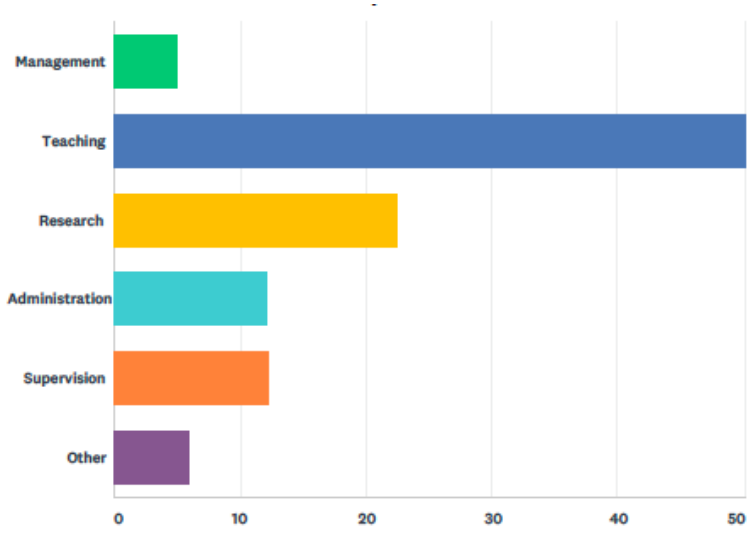
Answered: 15 Skipped: 1



ANSWER CHOICES	RESPONSES	
University	93.33%	14
Other government	0.00%	0
Private sector	0.00%	0
Civil society/NGOs	0.00%	0
Other (please specify)	6.67%	1
TOTAL		15

Q19 How much of your time do you spend on the following activities? (Add proportion of full-time employment spent on each task adding up to a total of 100%)

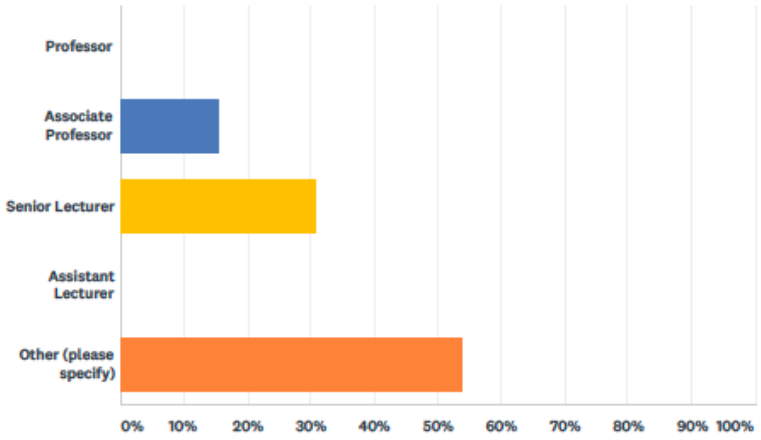
Answered: 14 Skipped: 2



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
Management	5	50	10
Teaching	50	700	14
Research	23	315	14
Administration	12	145	12
Supervision	12	160	13
Other	6	30	5
Total Respondents: 14			

Q20 What is your current rank at the university?

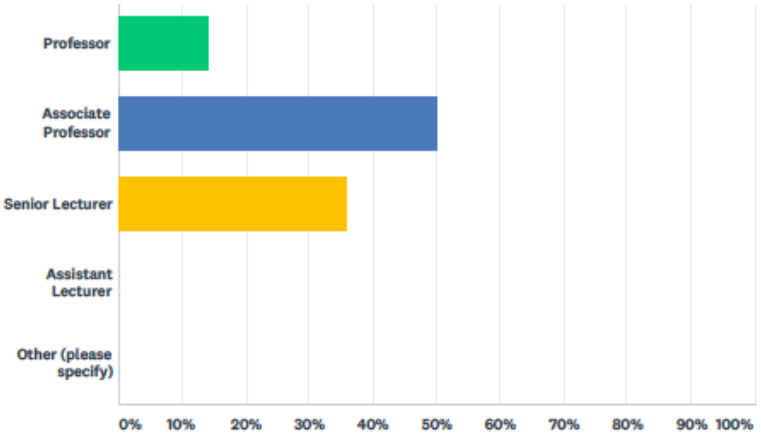
Answered: 13 Skipped: 3



ANSWER CHOICES	RESPONSES	
Professor	0.00%	0
Associate Professor	15.38%	2
Senior Lecturer	30.77%	4
Assistant Lecturer	0.00%	0
Other (please specify)	53.85%	7
TOTAL		13

Q21 In what rank do you see yourself in five years?

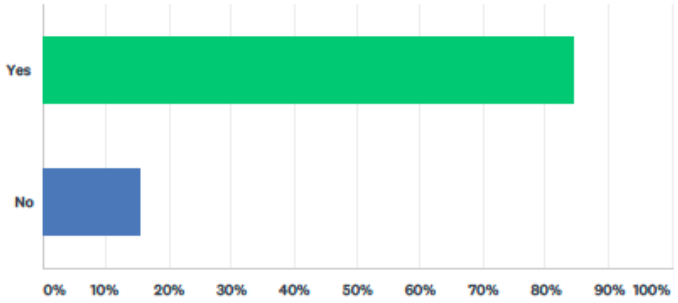
Answered: 14 Skipped: 2



ANSWER CHOICES	RESPONSES	
Professor	14.29%	2
Associate Professor	50.00%	7
Senior Lecturer	35.71%	5
Assistant Lecturer	0.00%	0
Other (please specify)	0.00%	0
TOTAL		14

Q22 Since your graduation, have you continued to publish in academic journals?

Answered: 13 Skipped: 3



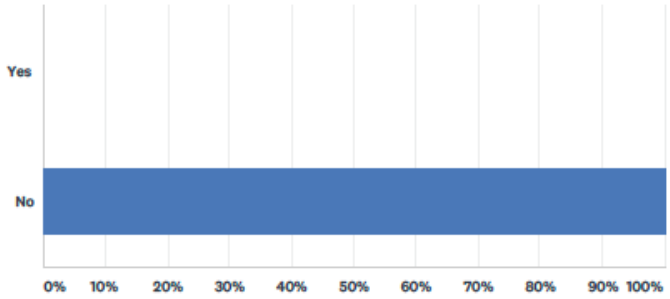
ANSWER CHOICES	RESPONSES	
Yes	84.62%	11
No	15.38%	2
TOTAL		13

Q23 If yes, how many journal articles have you published?

Answered: 11 Skipped: 5

Q24 Do you have an additional part-time job?

Answered: 14 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	100.00%	14
TOTAL		14

Q25 If yes, in what sector is your part-time job?

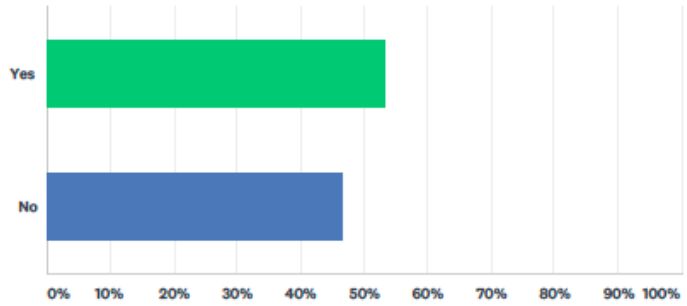
Answered: 0 Skipped: 16

⚠ No matching responses.

ANSWER CHOICES	RESPONSES	
University	0.00%	0
Other government	0.00%	0
Private sector	0.00%	0
Civil society/NGOs	0.00%	0
Other (please specify)	0.00%	0
TOTAL		0

Q26 Has there been any substantial increase in your remuneration following completion of your PhD?

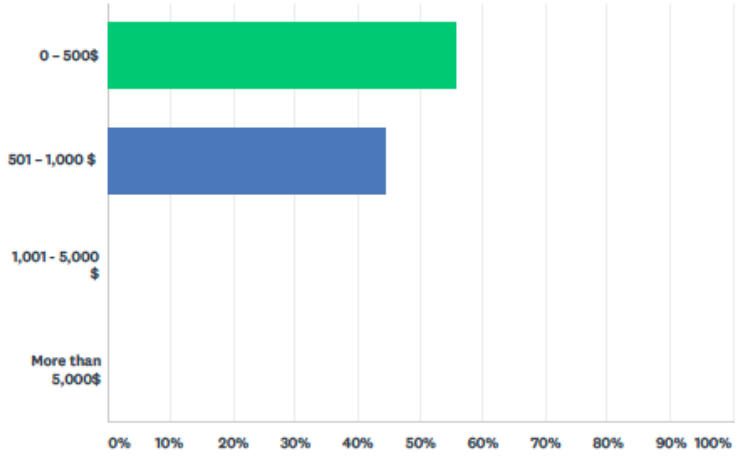
Answered: 15 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	53.33%	8
No	46.67%	7
TOTAL		15

Q27 If yes, what was your monthly income range before your PhD?

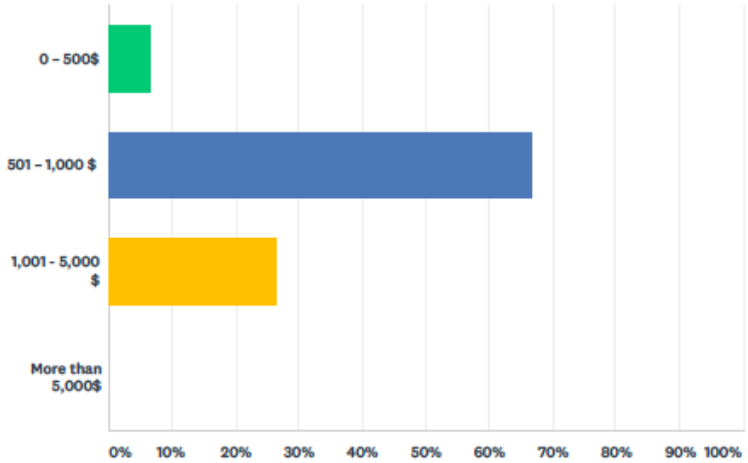
Answered: 9 Skipped: 7



ANSWER CHOICES	RESPONSES	
0 – 500$	55.56%	5
501 – 1,000 $	44.44%	4
1,001 - 5,000 $	0.00%	0
More than 5,000$	0.00%	0
TOTAL		9

Q28 What is your current monthly income range?

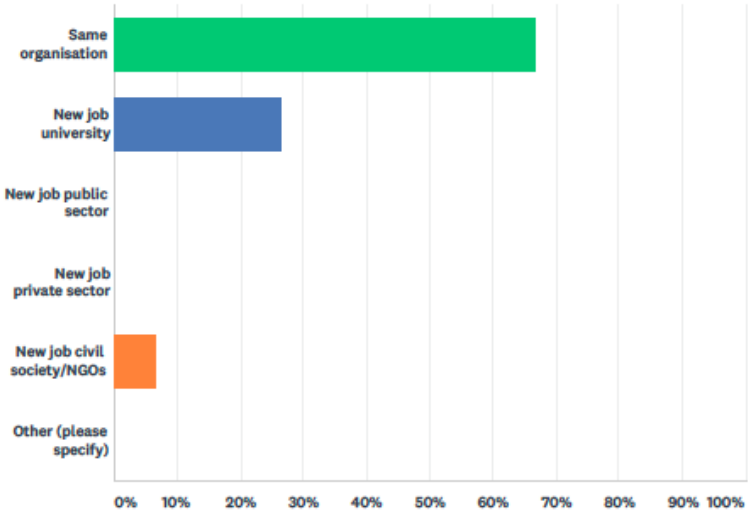
Answered: 15 Skipped: 1



ANSWER CHOICES	RESPONSES	
0 – 500$	6.67%	1
501 – 1,000 $	66.67%	10
1,001 - 5,000 $	26.67%	4
More than 5,000$	0.00%	0
TOTAL		15

Q29 Where do you see yourself in terms of employment in five years?

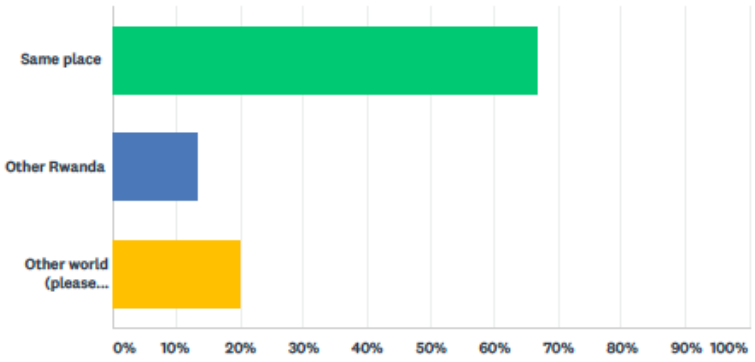
Answered: 15 Skipped: 1



ANSWER CHOICES	RESPONSES	
Same organisation	66.67%	10
New job university	26.67%	4
New job public sector	0.00%	0
New job private sector	0.00%	0
New job civil society/NGOs	6.67%	1
Other (please specify)	0.00%	0
TOTAL		15

Q30 Where do you see yourself in terms of geographical location in five years?

Answered: 15 Skipped: 1



ANSWER CHOICES	RESPONSES	
Same place	66.67%	10
Other Rwanda	13.33%	2
Other world (please specify)	20.00%	3
TOTAL		15

Annex 12 – Team Leader/Deputy Team Leader Survey

Basic statistics (Q1, Q2, Q3, Q10)

- Respondents: 25 verified answers
- Response rate: 50%
- Rwanda: 10 (40%), however one of the respondents did not complete the survey and did not answer any of the questions.
- Sweden: 15 (60%)
- Male: 17 (68%)
- Female: 8 (32%)
- Sub-programmes: Nearly all of the sub-programmes (13) were represented by a respondent. Some had both TLs and DTLs responding, both on UR and Swedish side.
- TLs: 15
- DTLs: 10
- Q4, Q5, Q&, Q7, Q8, Q9, and Q11 relate to questions of academic rank and position within the universities and length of time in the Programme, which only provide background, but are not reported here.

Q12: How much time do you spend on the Program as a proportion of your full time employment? (Tick one)

Most respondents say they spend between 25-50 per cent of their time on the Programme, with UR TLs and DTLs more likely to spend more time and Swedish TL/DTLs spending less time.

This does not match findings from interviews, whereby there is a perception from Swedish partners that their Rwandan colleagues spend less time than they do. This is of course self-reported time and we cannot say anything about actual time spent on the programme.

Figure 15 All respondents (24)

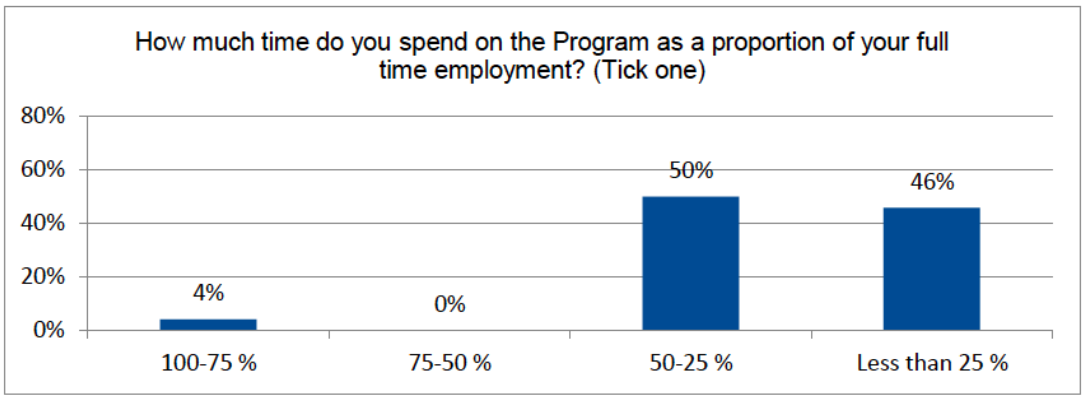


Figure 16 Rwanda TL/DTLs (9 responses)

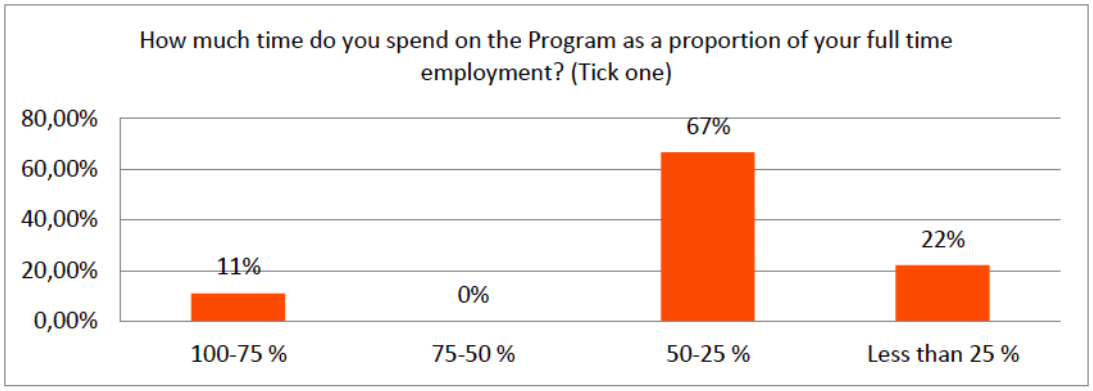
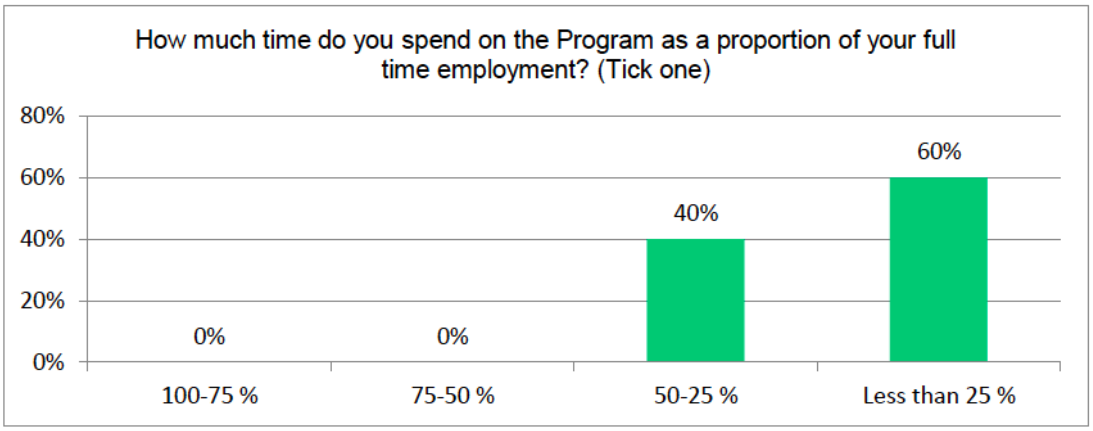


Figure 17 Swedish TL/DTLs (15 responses)



Q13: What proportion of the total time you spend on the Program goes to the following activities? (The sum of these proportions should be 100)

Most of the time of TLs and DTLs is spent on management (43%) and administration (36%), with an average of 24 per cent on supervision, 23% on teaching, 16% on their own research and 7% on other duties. For UR TL and DTLs, the amount of time spent on supervision and administration is smaller, with more time spent on research and a bit more on teaching.

Figure 18 All respondents (22)

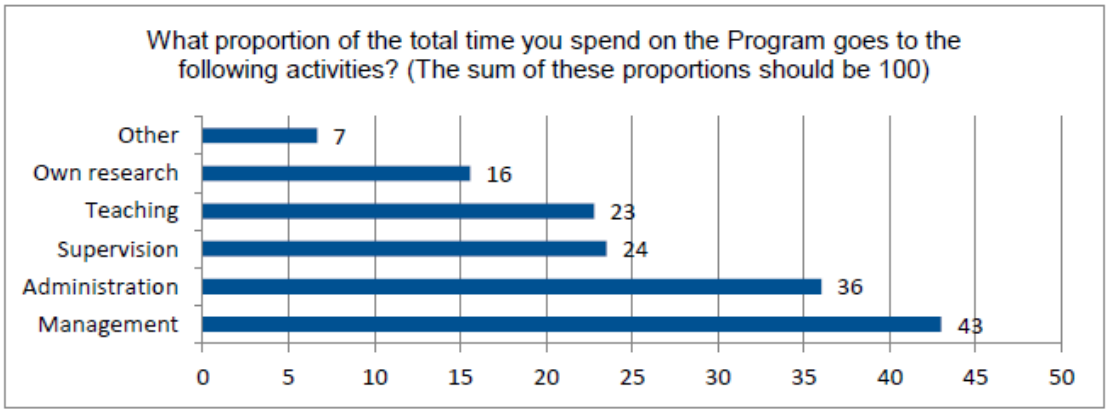


Figure 19 Rwanda TL/DTLs (8 responses)

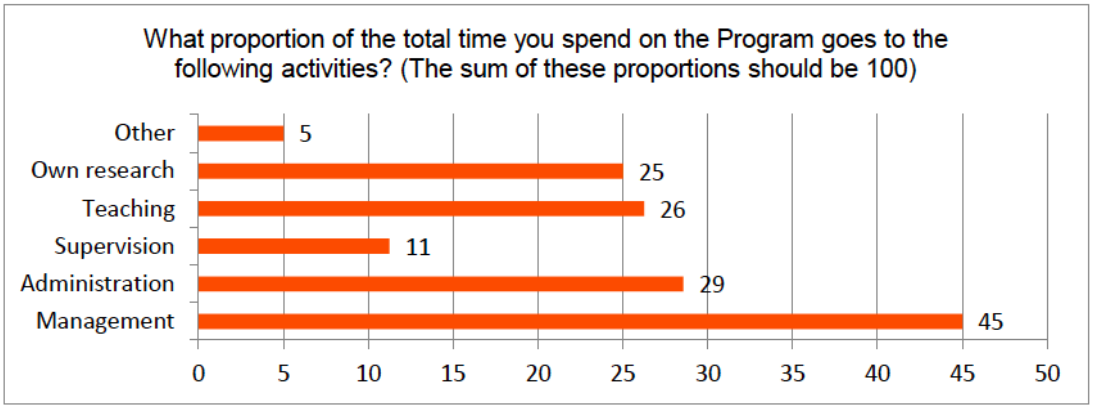
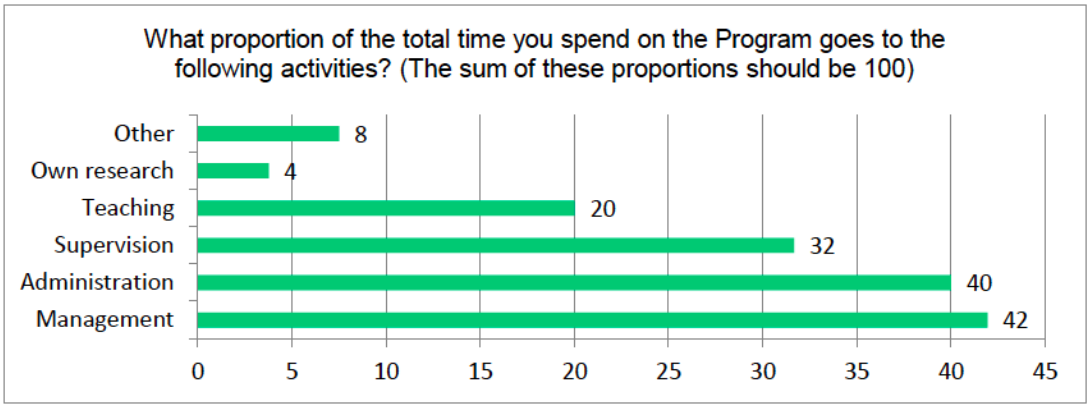


Figure 20 Swedish TLs and DTLs (14 responses)



Q14: How many times have you visited Sweden/Rwanda for Program activities in the period 2013-2017 (Rwanda for Swedish TL/DTLs and Sweden for Rwandan TL/DTLs)?

TL and DTLs have visited Rwanda and Sweden respectively in very different patterns. The number of times will depend of course on the time spent in the programme, but it is clear that TLs and DTLs have taken on very different roles, with the number of visits ranging from 0 to 25.

- All: ranges between 0 to 25 times.
- Rwanda: The number of times range from 0 to 5 times
- Sweden: Ranges from 0 to 25 times

Q15: What has been the estimated average duration per stay in Sweden/Rwanda (in days, excluding travel)?

The visits tend to be for around 1 week.

- All: varies between 3 to 11 days, with most in the region of 4-5 days.
- Rwanda: between 3-7 days, with most 5 days duration.
- Sweden: Ranging from 3 to 11 days, with some noting that they have stayed up to a month on occasion.

Q16: How satisfied are you with programme management in Sweden? (Tick one)

Most respondents are satisfied with programme management in Sweden (21% very satisfied and 54% satisfied). However, of the Swedish cohort expresses some dissatisfaction, with 33% dissatisfied.

Figure 21 All respondents (24)

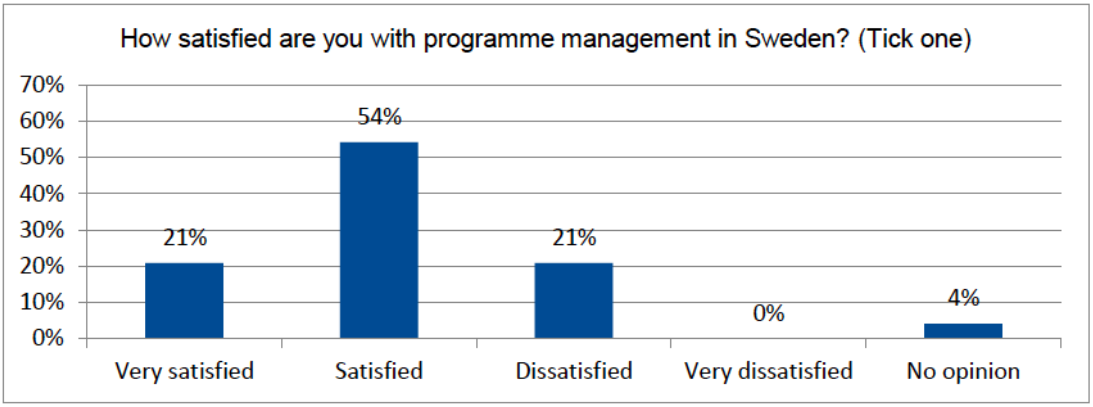


Figure 22 Rwandan TLs and DTLs (9 responses)

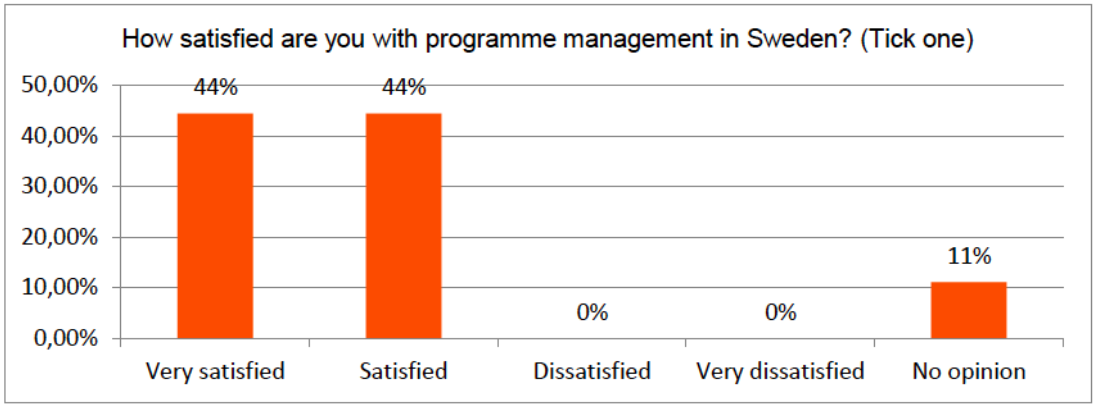
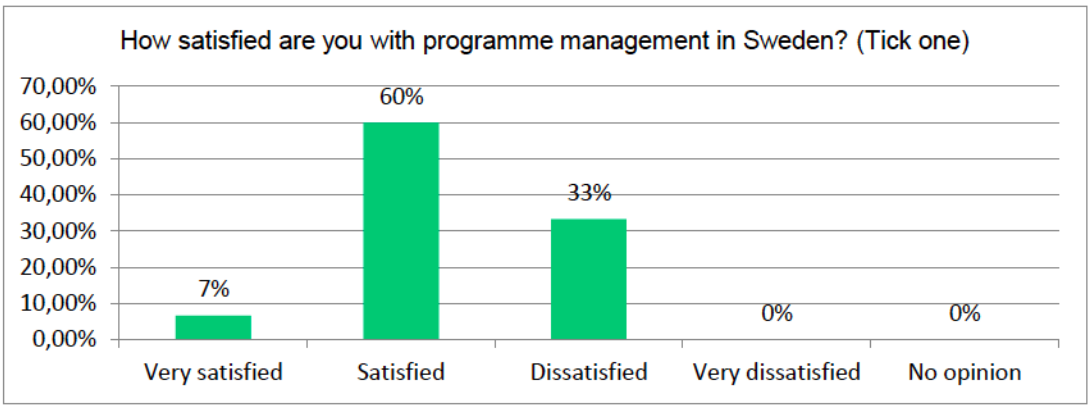


Figure 23 Swedish TLs and DTLs (15 responses)



Q17: How satisfied are you with programme management in Rwanda? (Tick one)

Similarly, there is general satisfaction with programme management in Rwanda (17% very satisfied and 46% satisfied). Again, Swedish stakeholders express more dissatisfaction, with 53% dissatisfied with Rwandan programme management. We cannot link this to our interview results directly to explain the reasons for the dissatisfaction, but could be linked to a perception of a relative centralised, slow and bureaucratic project management that is seen to slow down implementation of the programme.

Figure 25 All respondents (24)

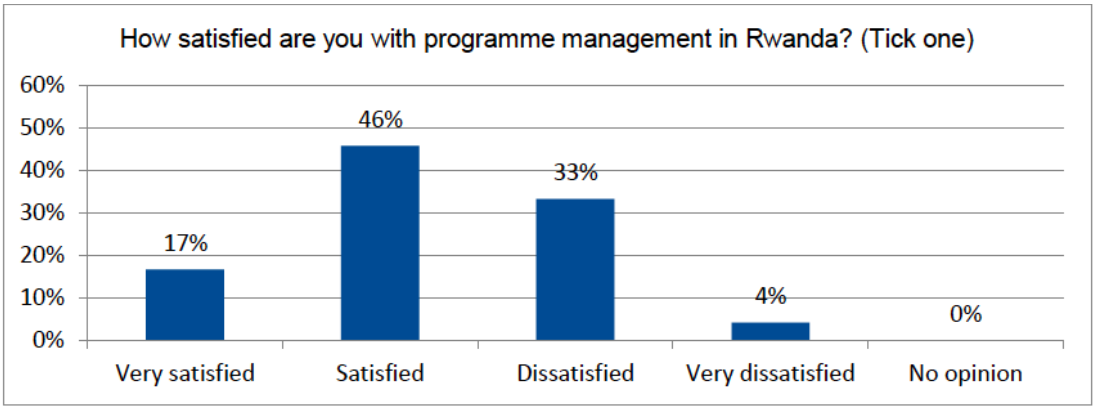


Figure 24 Rwanda TLs and DTLs (9 responses)

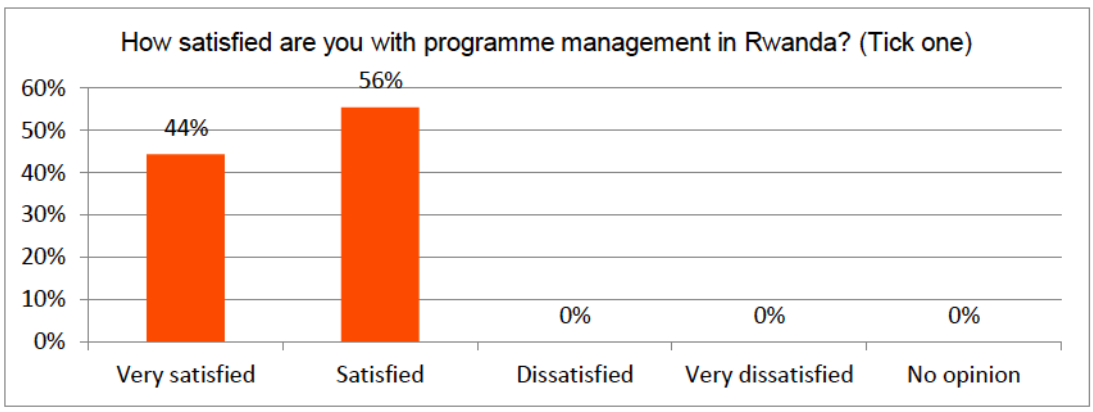
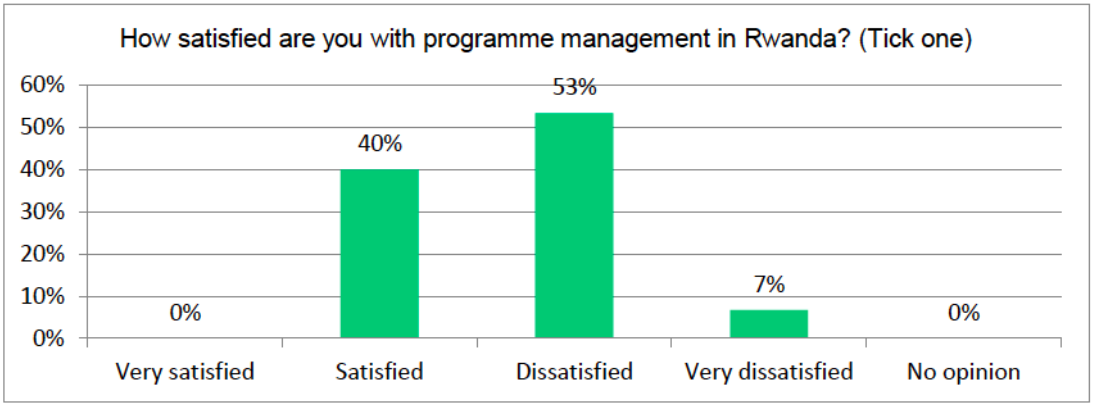


Figure 26 Swedish TLs and DTLs (15 responses)



Q18: How satisfied are you with reporting procedures (progress reports/reviews)? (Tick one) (24 responses)

More than 50% view reporting procedures with satisfaction, but here there is more dissasticfaction, particularly from Swedish stakeholders, with only 20% satisfied. One of the open comments elaborates on this view: *"Too much time spent on administration. New templates for planning and review tested one year and rejected the next. More involvement by UR management in planning and review - it's for UR we are doing this work. We filter our plans and reviews through the PCO, that's OK because it gives more unified and perhaps more comparable reports and plans. Still, the primary partner is the UR, not the PCO."*

Figure 27 All respondents (24)

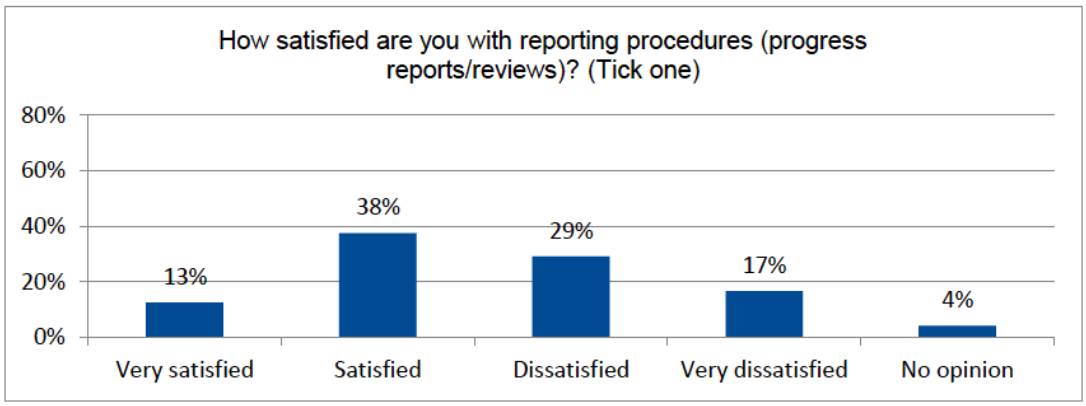


Figure 28 UR TL/DTLs (9 responses)

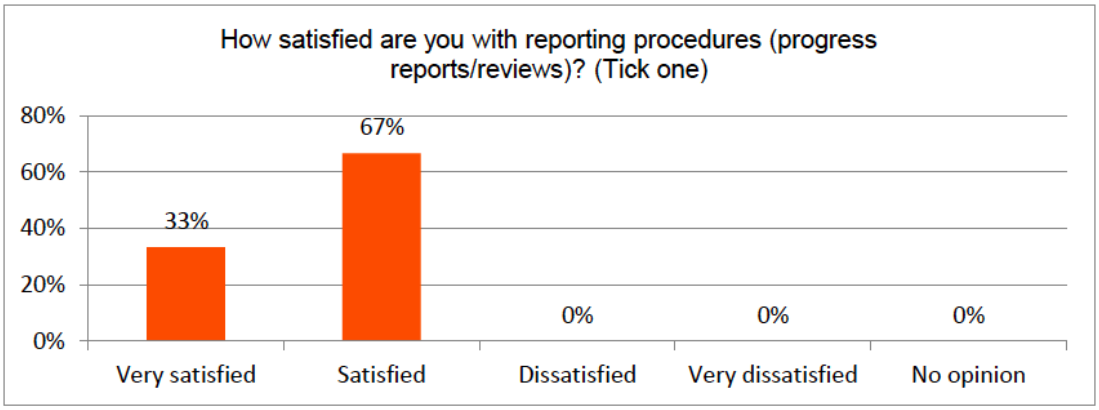
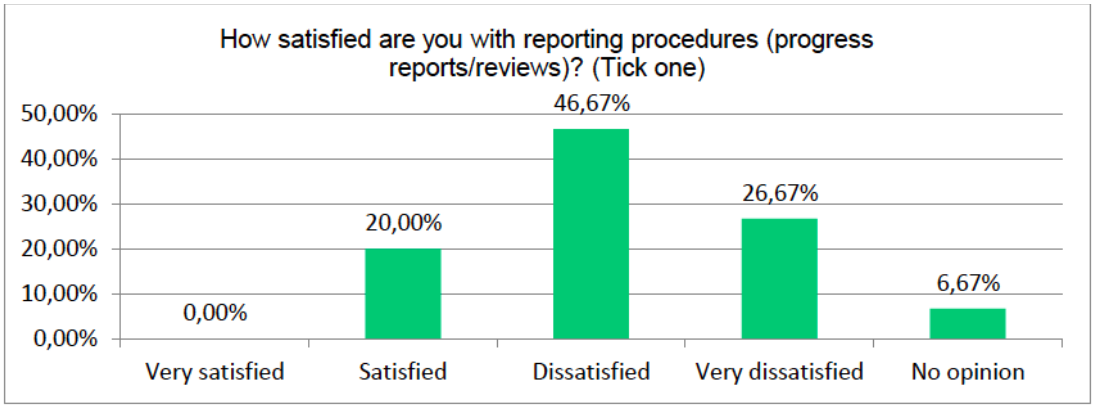


Figure 29 Swedish TLs/ DTLs



Q19: How satisfied are you with the quality of the sandwich PhD programme? (Tick one)

A majority of stakeholders involved are satisfied with the Sandwich programme (13% very satisfied and 46% satisfied). This is in line with the interviews, where issues related to the setup of the programme were discussed, but most in agreement that it was the best model.

Figure 30 All respondents (24)

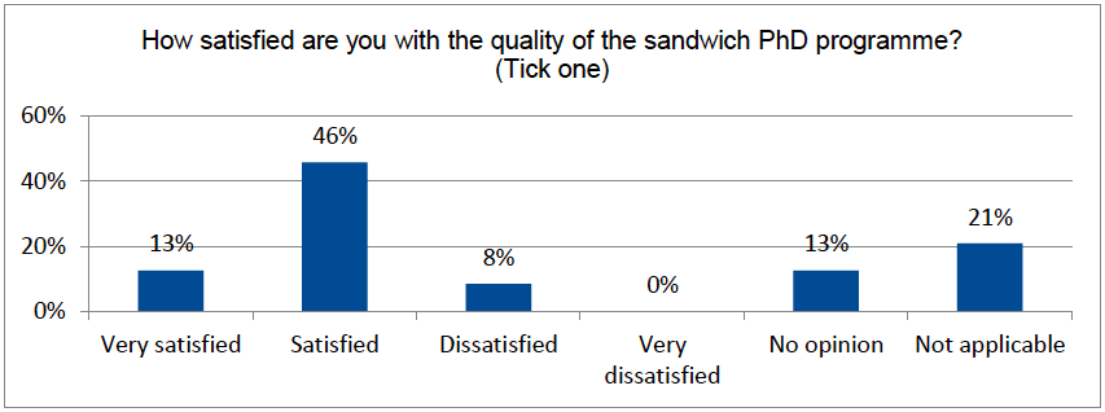


Figure 32 UR TL/DTLs (9 responses)

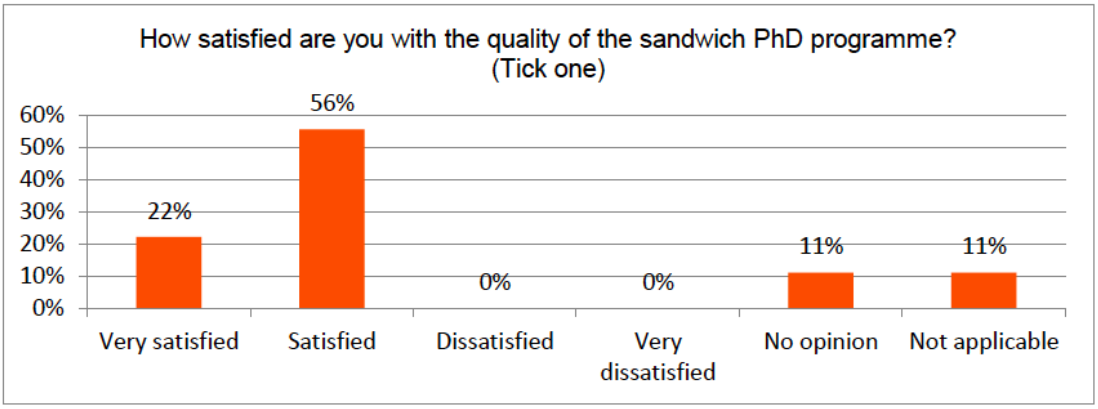
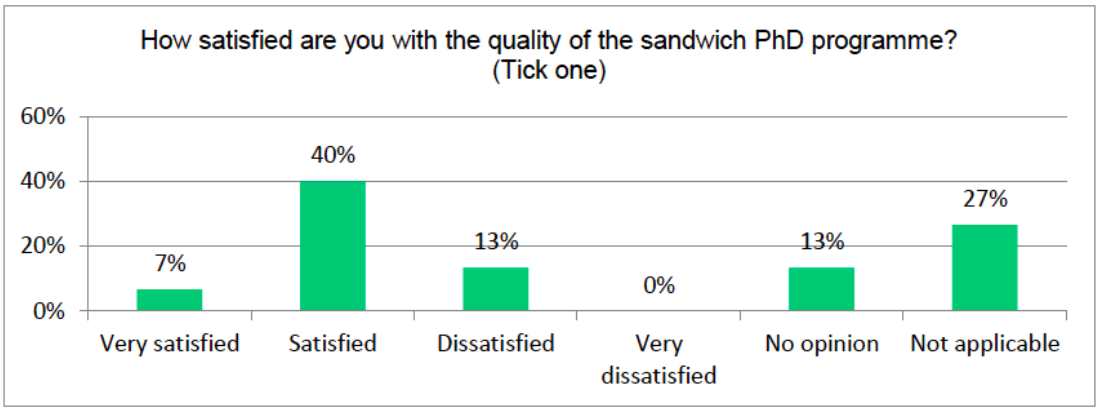


Figure 31 Swedish Tl/DTLs (15 responses)



Q20: How satisfied are you with the quality of locally developed master programmes? (Tick one)

Quite a few of the respondents have not been involved the masters programmes, but those that have been are split between being happy with progress and not. The number of responses is probably too few to draw many conclusions, but this does reflect the varied progress on the Masters programmes detailed in Chapter 5.

Figure 33 All respondents (24)

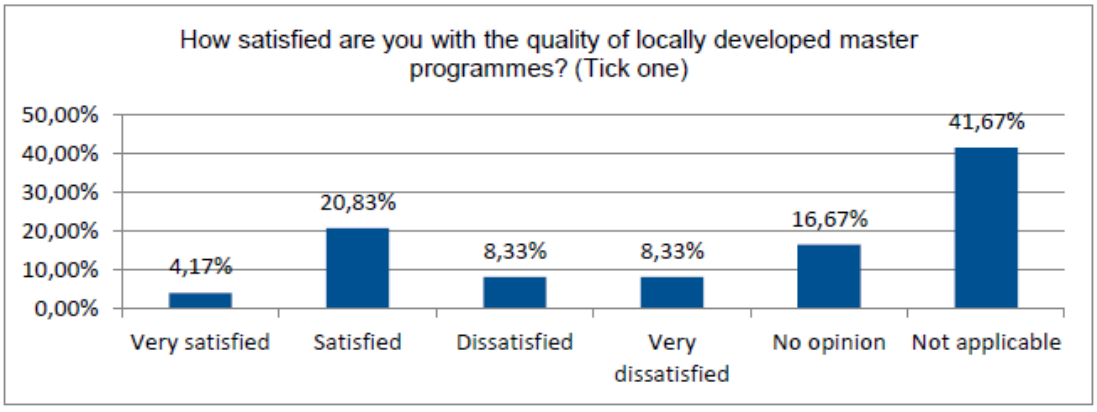


Figure 35 UR TL/DTLs (9 responses)

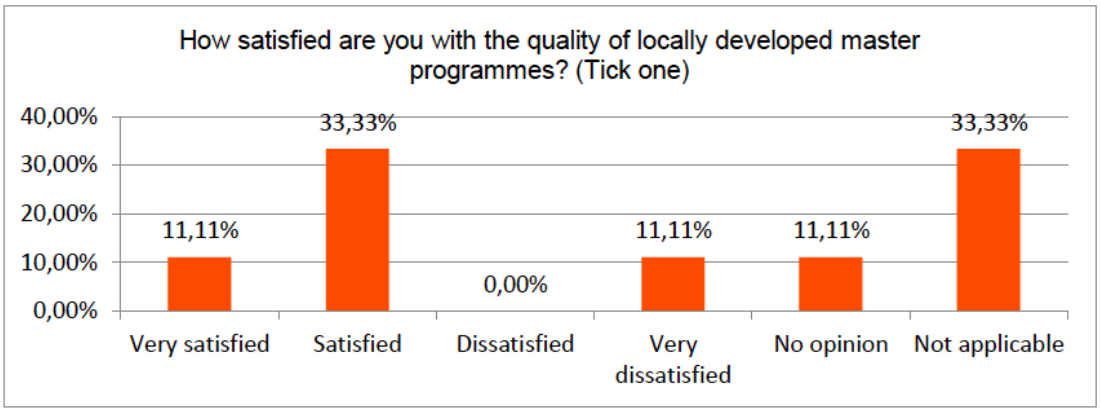
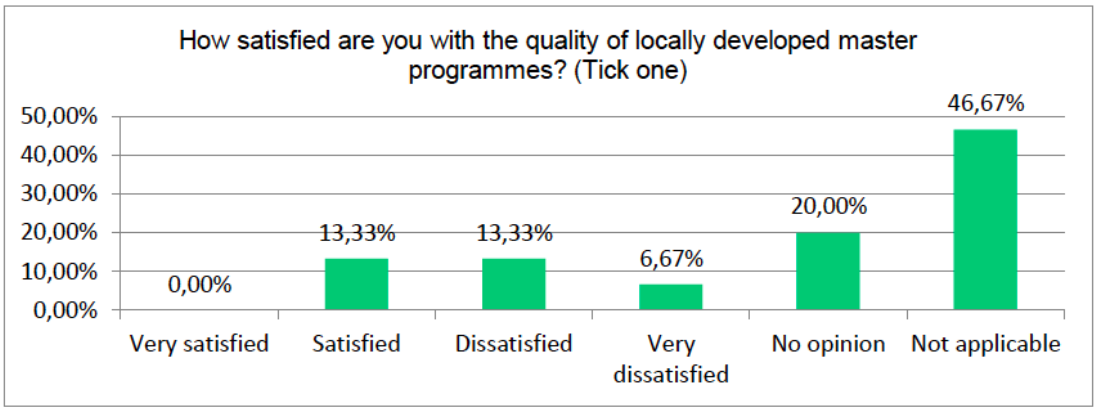


Figure 34 Swedish TLs/DTLs



Q21: How satisfied are you with the procedures for procurement in Rwanda in the Program? (Tick one)

This is an area where there is general dissatisfaction. Only 29 per cent are satisfied, and although the general level of satisfaction is quite good for the Rwandan side, it is worth noting that the level is less than for others areas, with some respondents expressing direct dissatisfaction, which is not the case for other areas of enquiry. This also matches out view from interviews, and our conclusion that procurement is one of the key bottlenecks in the programme.

Figure 36 All respondents (24)

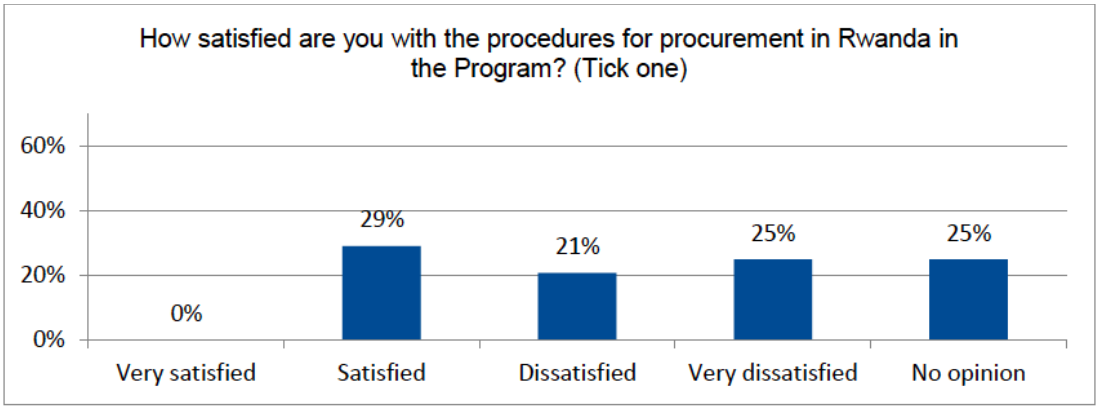


Figure 37 UR TL/DTLs (9 responses)

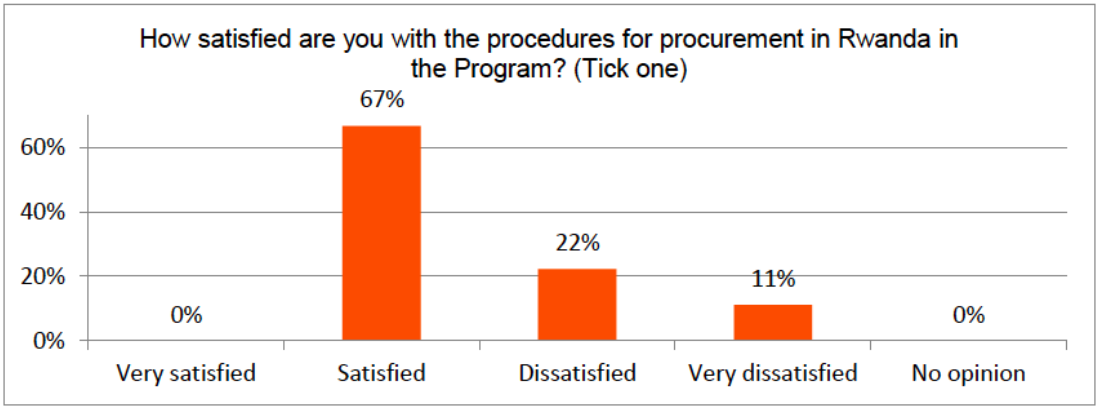
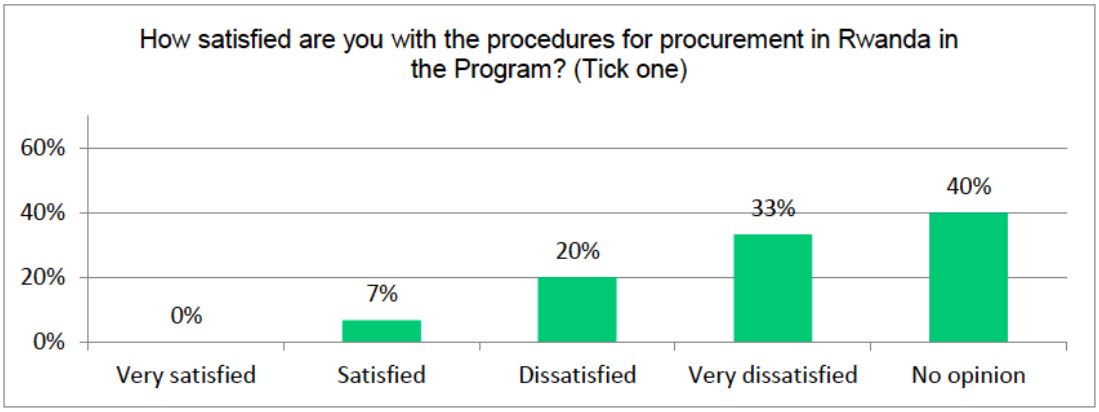


Figure 38 Swedish TLs/DTLs



Q22: How satisfied are you with the financial flows/payment predictability in the Program? (Tick one)

Overall, a majority of stakeholders are dissatisfied with financial flows, mainly by Swedish stakeholders, probably related to the issues with UHR and non disbursement of funds.

Figure 39 All respondents (24)

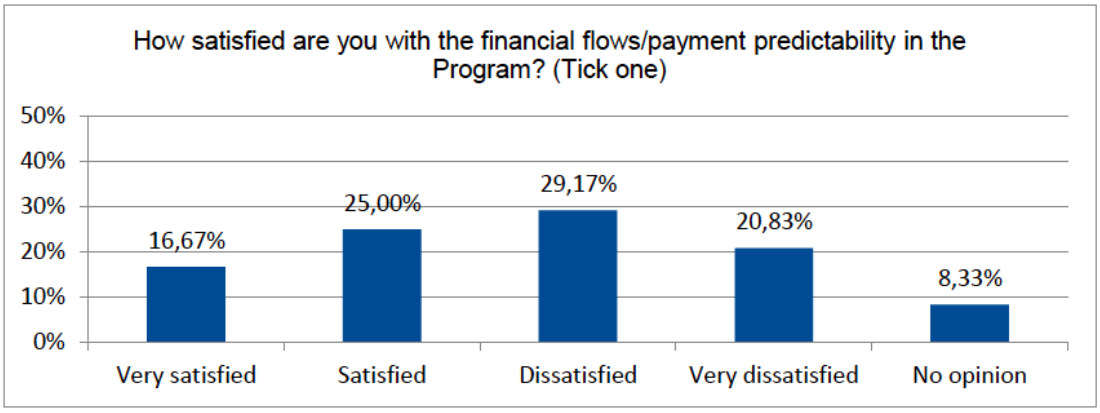


Figure 40 UR TL/DTLs (9 responses)

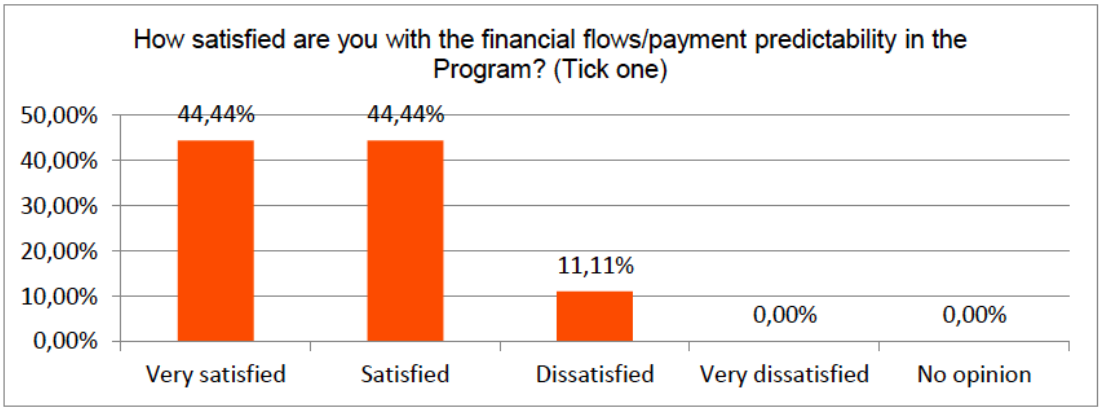
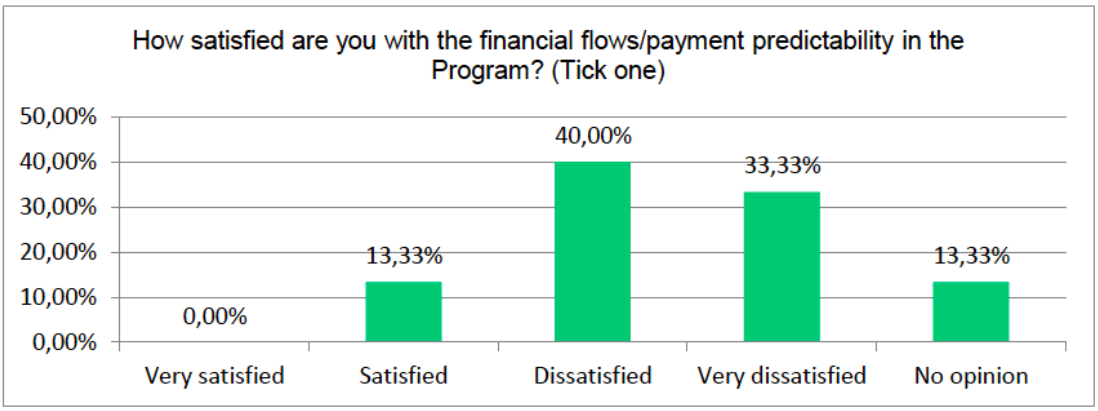


Figure 41 Swedish TLs/DTLs



Q23: To what extent is there room for improvement in the relations between you and your TL/DTL counterpart? (Tick one)

A majority of respondents think that there is a great room for improvements in the relationship between TLs/DTLs in Rwanda and Sweden. This reflects the findings from interviews, where there are a number of areas of tension.

Figure 42 All respondents

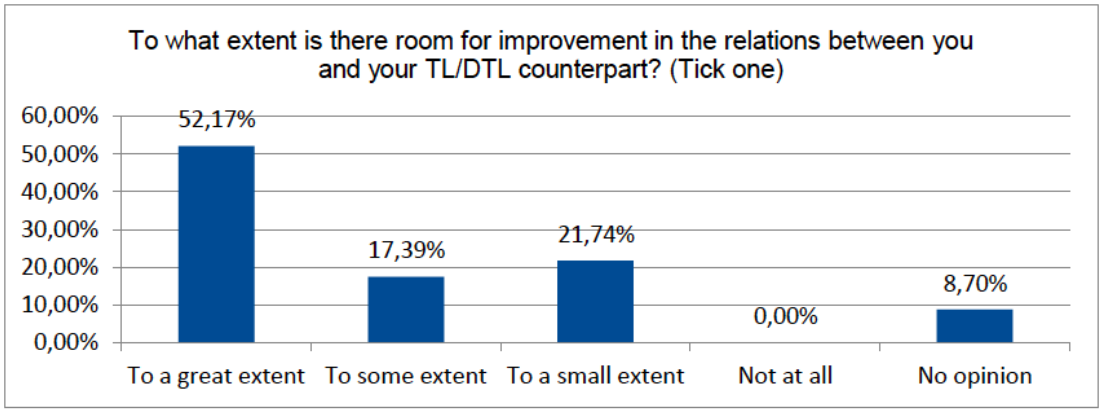


Figure 43 UR TLs/DTLs (9 responses)

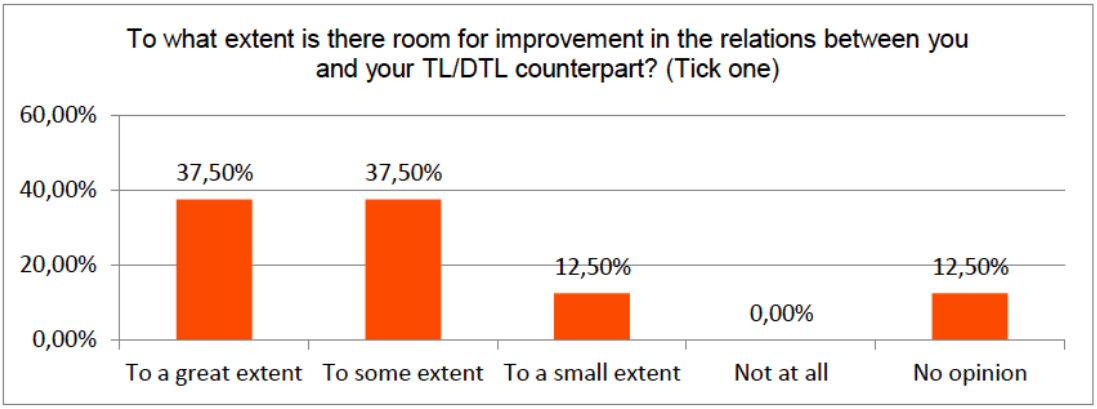
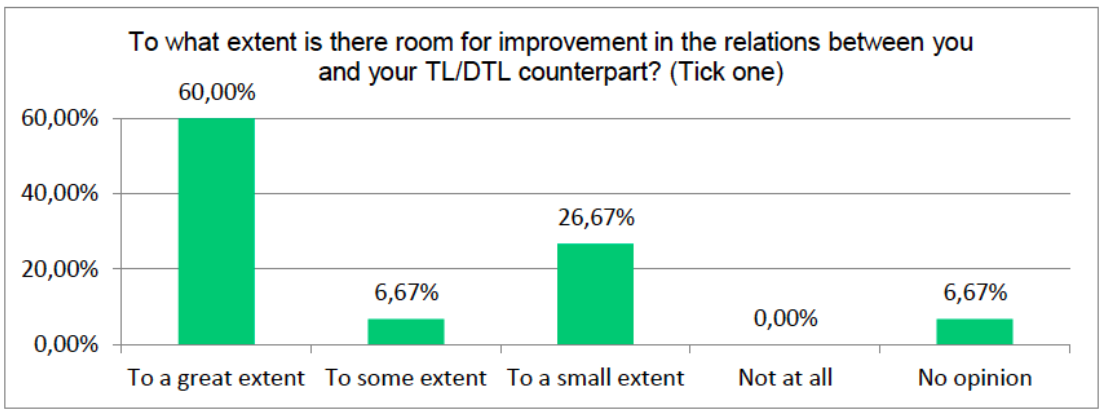


Figure 44 Swedish TLs/DTLs



Q24: How do you assess the ability of the University of Rwanda to effectively manage research along the following lines? (Tick one for each aspect)

This was assessed on a weighted scale between 1-4 (Very good, Good, Poor, Very poor), with the figures showing a weighted average, with a lower average showing the better ability. The results show that respondents view of UR's ability to relate to partners and provide clear direction as the strongest. This also matches the view of UR TL and DTLs, who also emphasise the ability to secure external funding. However, it is worth bringing up the views of Rwandan TLs and DTLs here specifically, as our understanding is that all Swedish TLs and DTLs do not have that great an insight into the whole of UR, beyond the college that they work with. Note: two options are very similar (ability to secure external funding and ability to raise funds and ensure sustainability).

Figure 45 All respondents

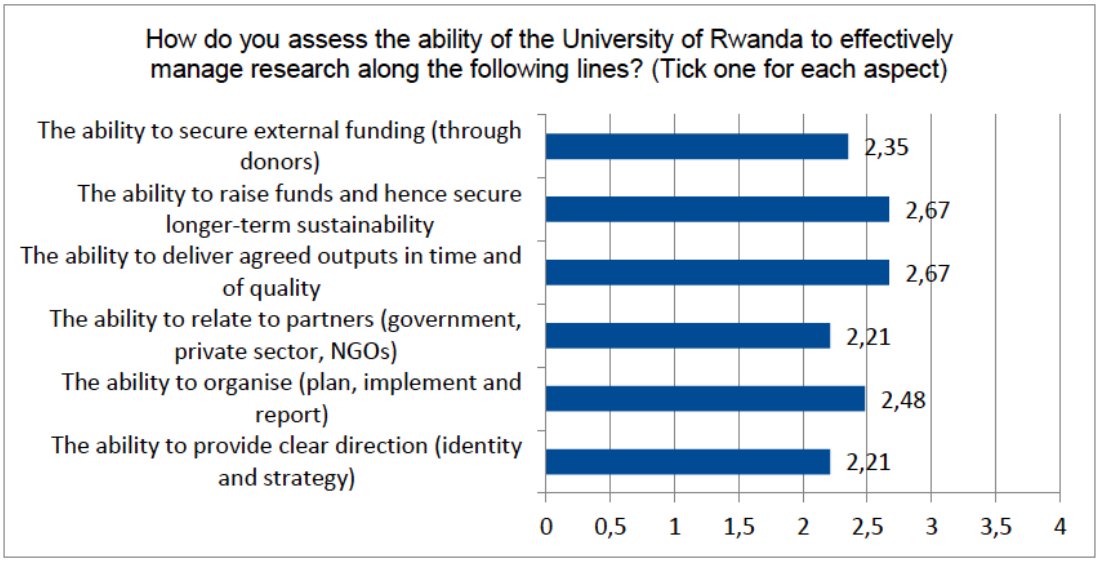


Figure 46 UR TLs/DTLs (9 responses)

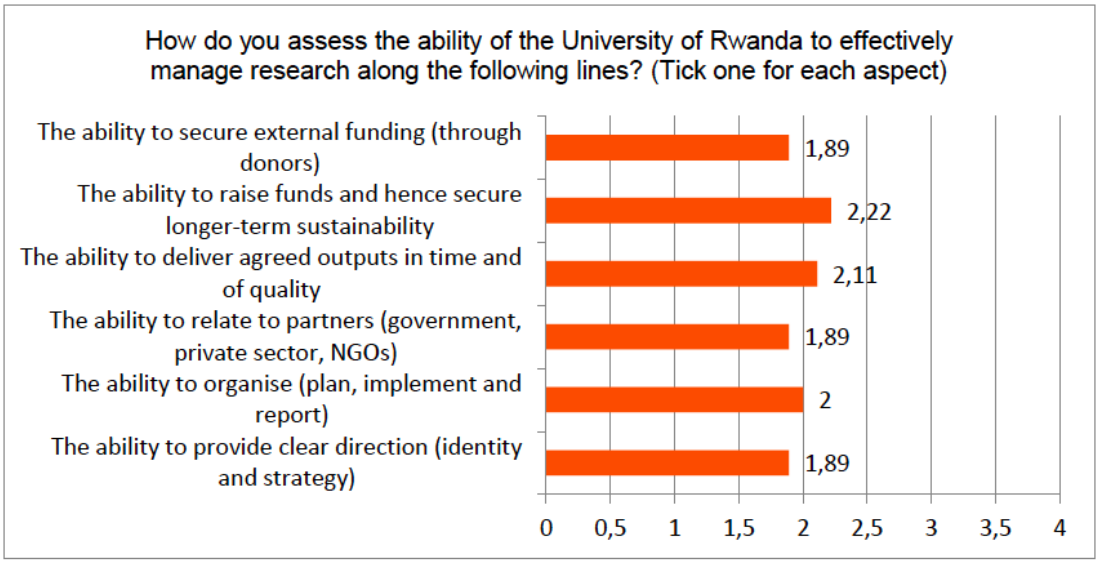
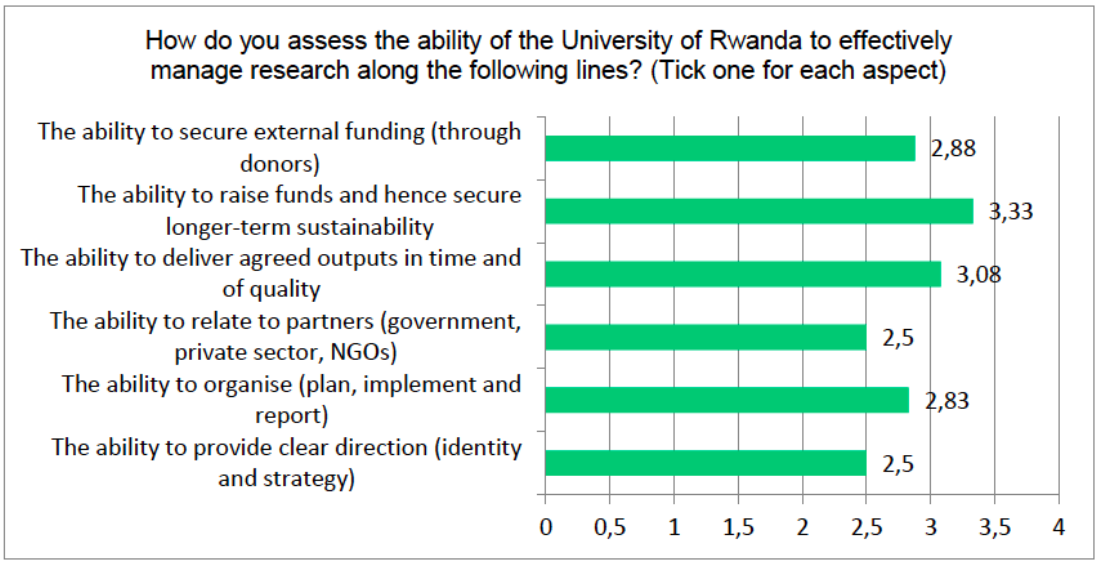


Figure 47 Swedish TLs/DTLs



Q25: In what area have you seen most progress in the period 2013-2017? (Tick one)

When looking at the areas of most progress, the ability to provide clear direction and the ability to organise are the top responses, which is the same for both UR and Swedish TLs and DTLs. The concept note if probably a reason for this result and the UR-Sweden programme management does show that UR has developed its ability to organise.

Figure 48 All respondents (23)

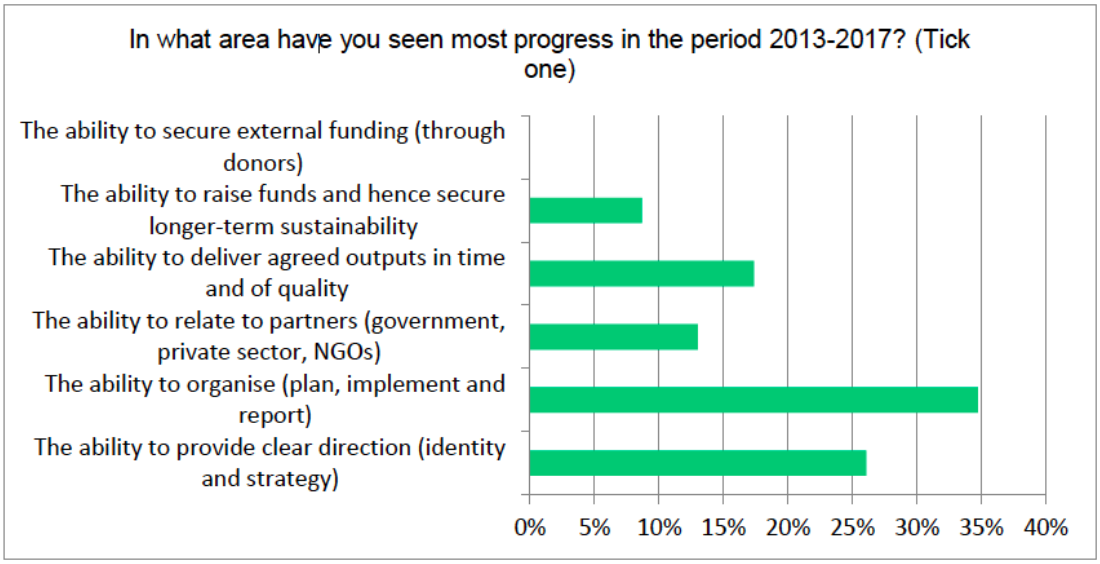
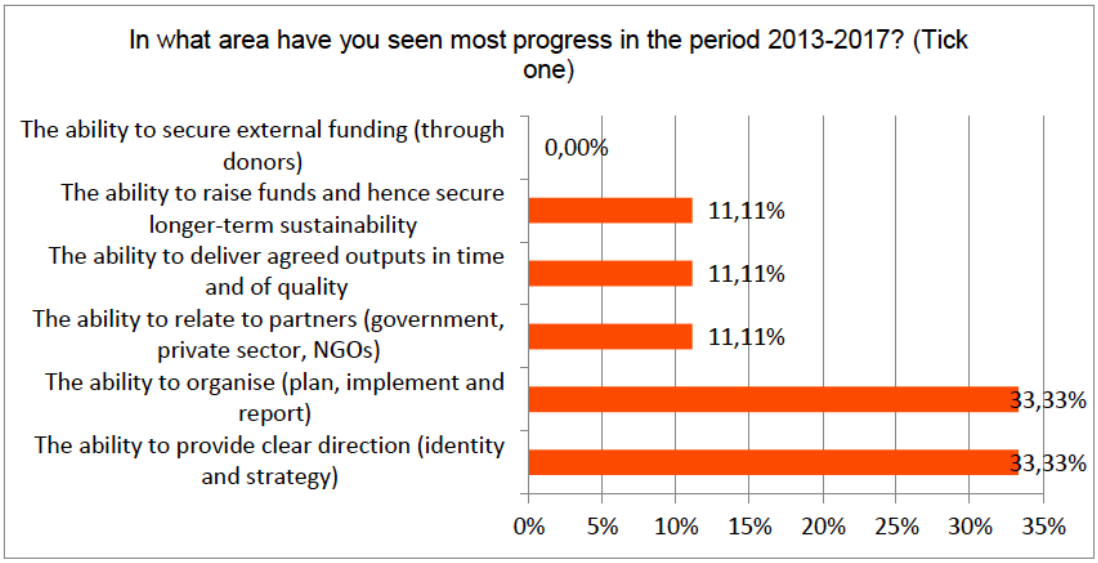
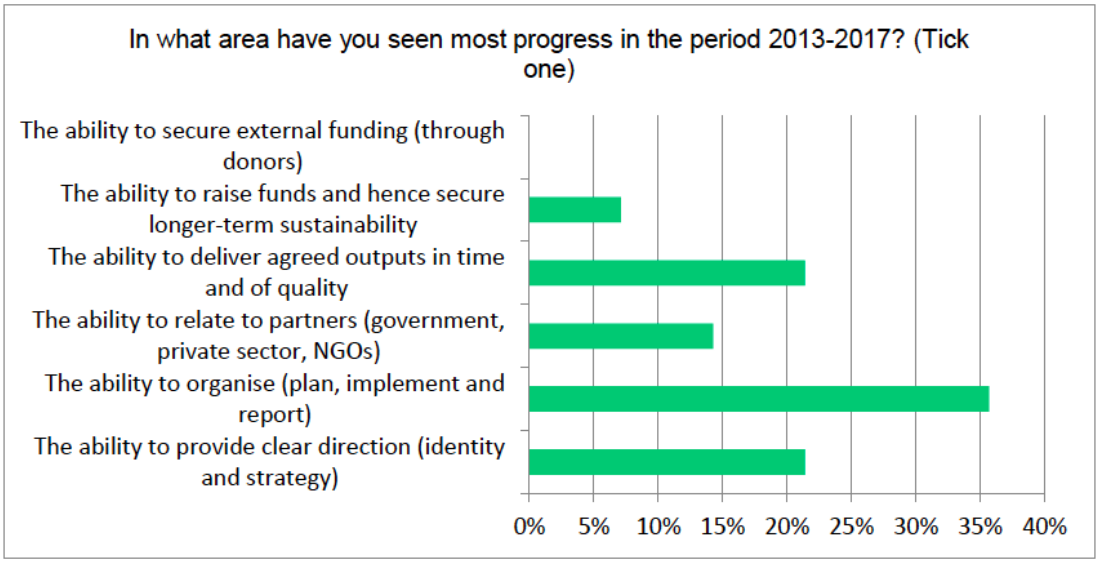


Figure 49 UR TLs/DTLs



Figur 50 Swedish TLs/DTLs



Q26: In what area have you seen least progress in the period 2013-2017? (Tick one)

The areas of least progress are identified as the ability to raise external funds and to deliver agreed outputs in time and of quality. Although UR has raised additional funds, there is still lack of funds for research, as shown in the report. There are also issues with delays in the programme which may have influenced Swedish stakeholders to focus on the lack of progress in delivery. The two top responses reflect the differences between the groups in this case.

Figure 51 All respondents

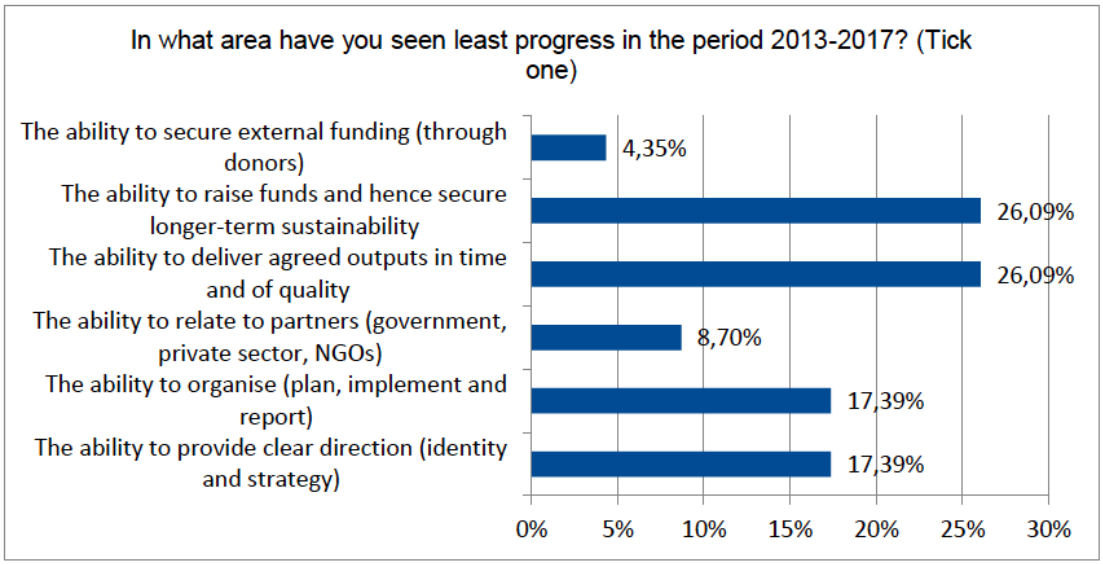


Figure 52 UR TLs/DTLs

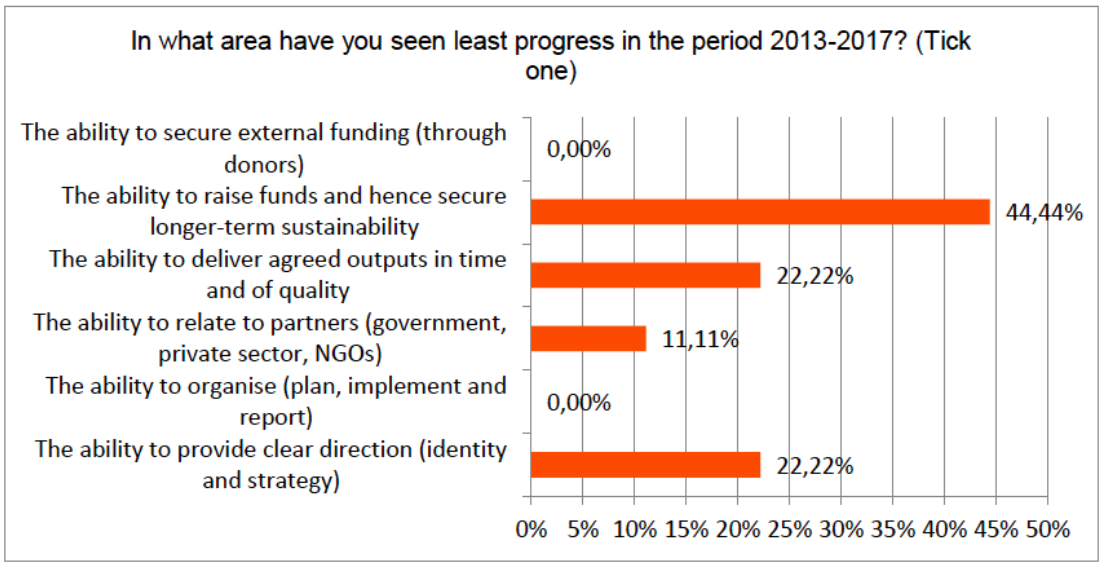
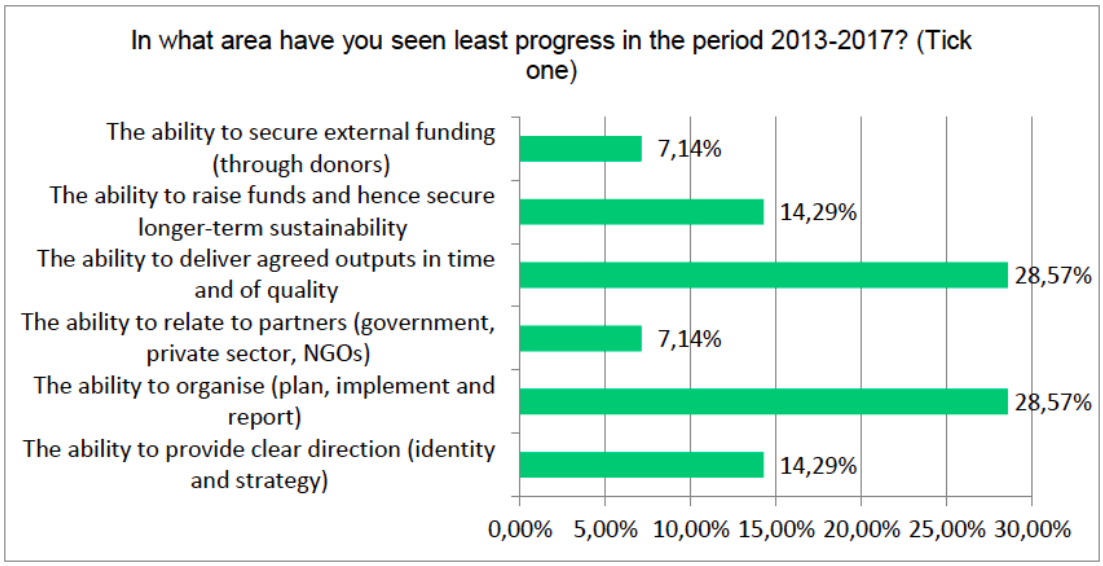


Figure 53 Swedish TLs/DTLs



Q27: How do you assess the ability of the University of Rwanda to create/support an enabling environment for research along the following lines? (Tick one for each aspect)

This was assessed on a weighted scale between 1-4 (Very good, Good, Poor, Very poor), with the figures showing a weighted average, with a lower average showing the better ability. Here, the ability to provide practical support is seen as strongest, with the ability to promote research integrity and openness as good practice. Both groups agree with this assessment, which seems to indicate that the programme is starting to contribute to a research culture, but there are still structural issues related to incentives and a balanced work load. This is in line with the rest of our findings, although we have identified practical support (ICT and libabry) as an area of weakness in the programme, where not enough progress has been made.

Figure 54 All respondents

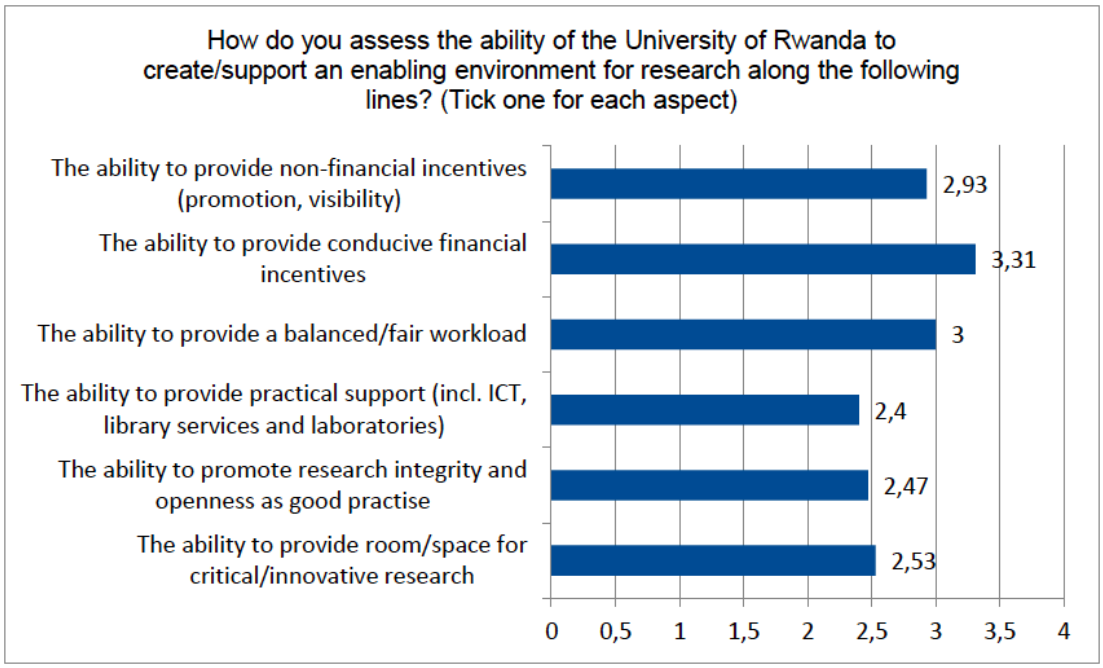


Figure 55 UR TLs/DTLs

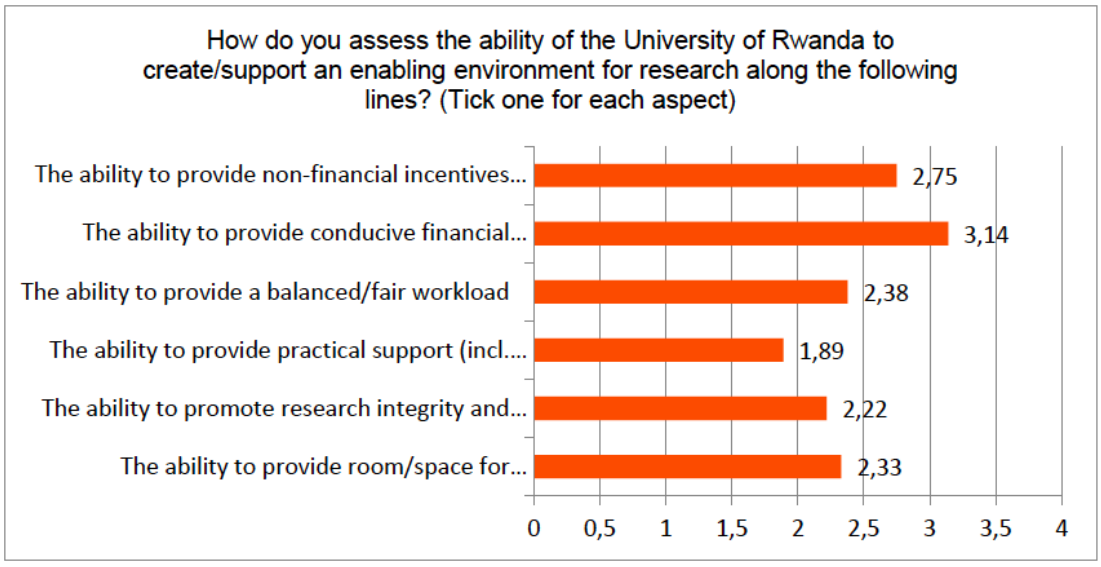
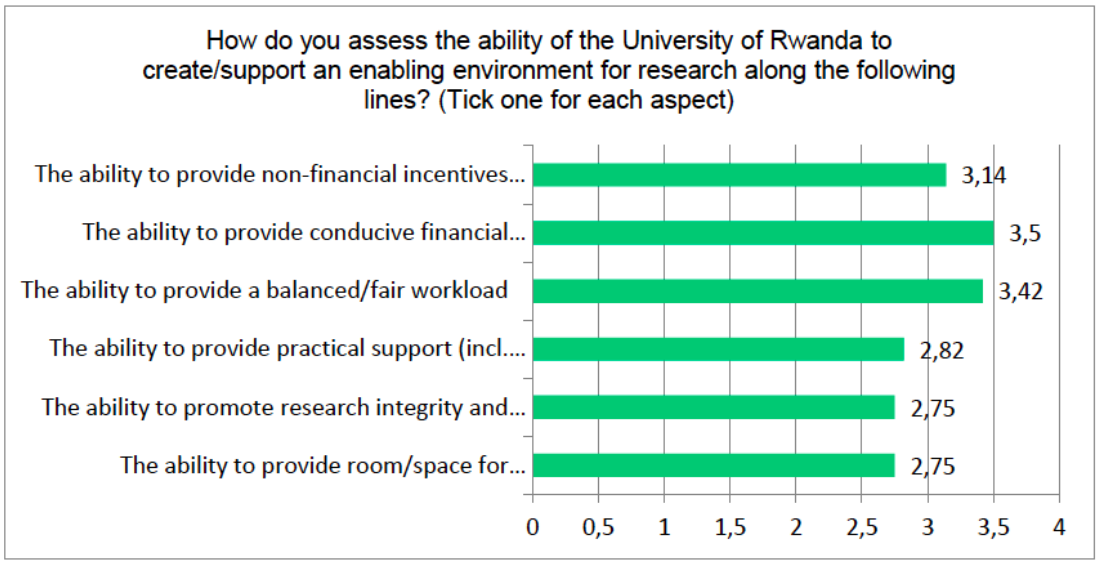


Figure 56 Swedish TLs/DTLs



Q28 In what area have you seen most progress in the period 2013-2017? (Tick one)

The area of most progress is again, the ability to provide practical support, in the form of ICT, library services and laboratories. This is generally the same between the groups, although Swedish TLS emphasise the ability to provide room/space for critical/innovative research.

Figure 57 All respondents

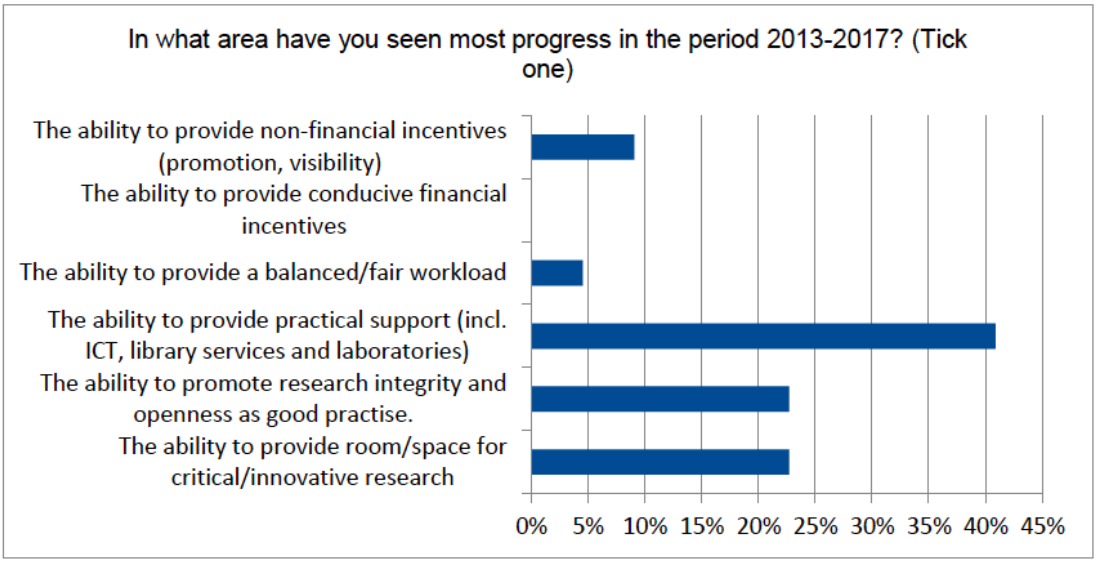


Figure 58 UR TLs/DTLs

Figure 59 Swedish TLs/DTLs

Q29 In what area have you seen least progress in the period 2013-2017? (Tick one)

The area of least progress is the ability to provide a balanced/fair workload, also in line with our other findings.

Figure 60 All respondents

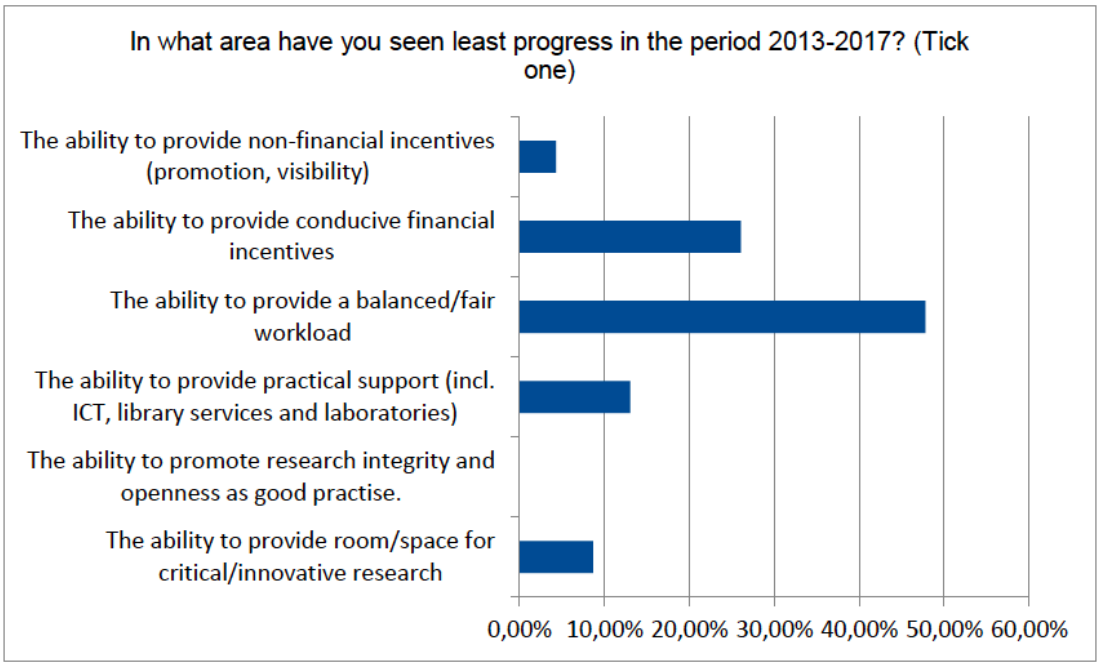


Figure 61 UR TL/DTLs

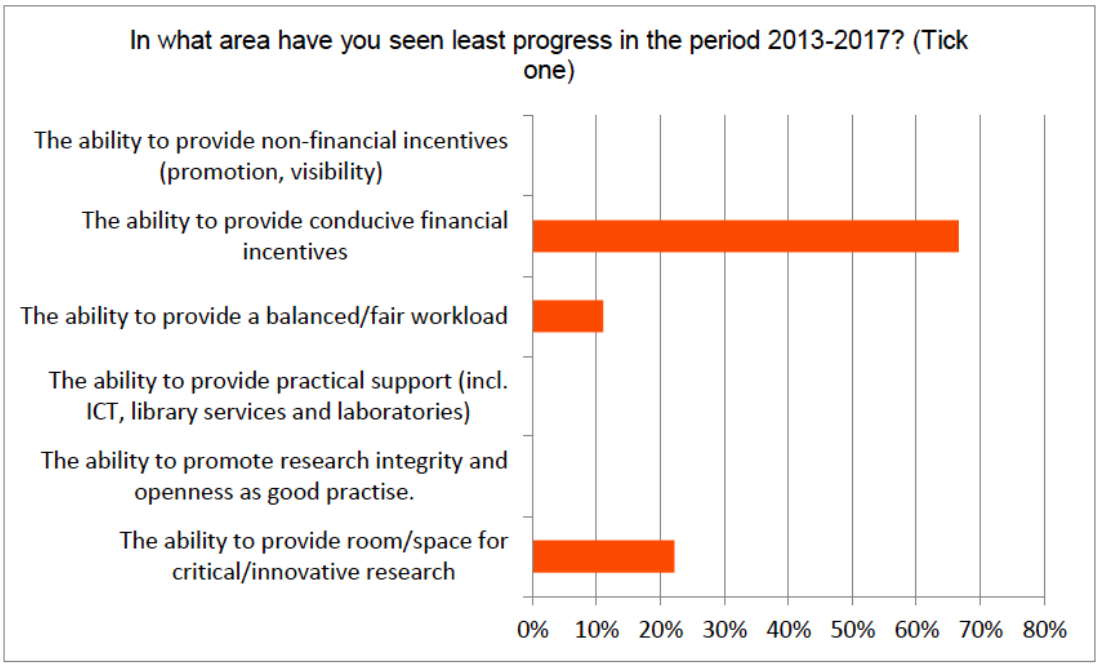
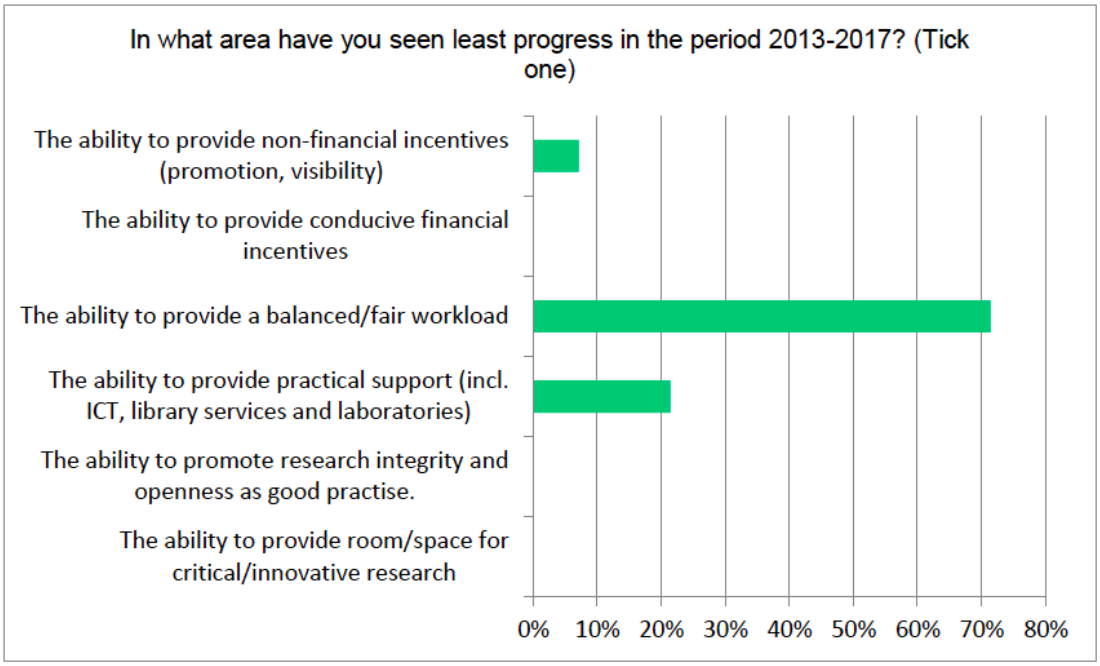


Figure 62 Swedish TLs/DTLs



Q30: Please give an example of your UR-Sweden sub-programme contribution to teaching:

Many examples of contribution to teaching were given (18), some of which were more detailed (others noted the role of PhD graduates in teaching and training of supervisors):

- Through our GIS Sub-program, Swedish professors have been contributing to teaching through short courses. Although our master's program has not been launched yet, it is planned that Swedish Professors will contribute to teaching and supervision. In addition, our current 4 PhD students in Sweden will contribute to teaching in postgraduate programs.
- Home grown teaching solutions were developed- 8 case studies were written by CBE staff and published.
- Though Insufficient & not yet optimized – the internet access is but at least every one within the UR now access internet and UR Sweden Program has played an indispensable role in this endeavour: either providing end user equipment or back office equipment need to avail the network + so far 100% in-house training for ICT staff were supported by Sida."
- Contribution to the development of curriculum on innovation and entrepreneurship at UR
- Crosscutting course program on Innovation and Entrepreneurship
- Technological Platforms and Tools for researchers (Elearning Platform, Plagiarism Control Tool -Turnitin, ...)
- We have developed programmes of Master of Science in clinical physiology and Master of Science in clinical microbiology for the University of Rwanda. They have been approved by the University Senate and we are now waiting for approval from HEC.

- Review of master programs, assessment of master programs, no of seminars targeting CBE faculty, introduction to international accreditation processes, co-teaching in master programs, co-supervision of master thesis, development of howe-grown teaching solutions i.e. Rwandan Case studies and not at least an improved research culture

Q31: Please give an example of your UR-Sweden sub-programme contribution to knowledge frontiers:

Again 18 examples where given, some more general and other more detailed:

- Research collaboration between students and researchers from UR and researchers and students from Sweden and other countries
- Co-authorship in international publications "
- Our sub-program has supported academic staff to participate in international conferences. One of the staff supported has received an award for the best paper in the international conference on remote sensing.
- By using Moodle and Turnitin, lecturers are helping learning , teaching and assessment process at UR to be done also remotely
- 5 books by Springer, 1 by Rutledge, 1 by Edward Elgar and 1 by JIBS Press were published where in all 113 papers/chapters were published. 52 CBE staff were involved.
- Knowledge frontiers is not a concept that the library sub-programme has actively worked with. But as responsible for it together with our Rwandan partners, we know that a functioning library is needed for an enabling research environment. By educating librarians and raising their competence and self reliance, meetings between professional librarians (recognised as such and not as people shelving books) and researchers may well via their competences, contribute to expanding knowledge development. A modern research library may very well be part of that process and that is one of the reasons why the library is so important for a university to develop.
- UR is relatively upgraded to international standards thanks to ICT Infrastructure Sub Program: E.g having EZ proxy for UR library resources, management of domain names internally, web-hosting.
- "Highly relevant PhD theses topics, such as: gender equality and policy, food in/security, statebuilding, peacebuildning, reconciliation, the role of cooperatives, environmental conflict management, trust"
- Our studies on maternal health with four PhDs working in this area have produced very important findings for the policy level and for practitioners in health care services. Thes findings now call for action from the MoH. Our articles are easy to publish and of a good quality in wet acknowledged journals within the field.
- Factors associated to maternal and child mortality in the Northern Province of Rwanda.
- One to the Rwandan PhD-students has studies measles seroprevalence and infectious outbreaks in Rwanda. He found that though the measle

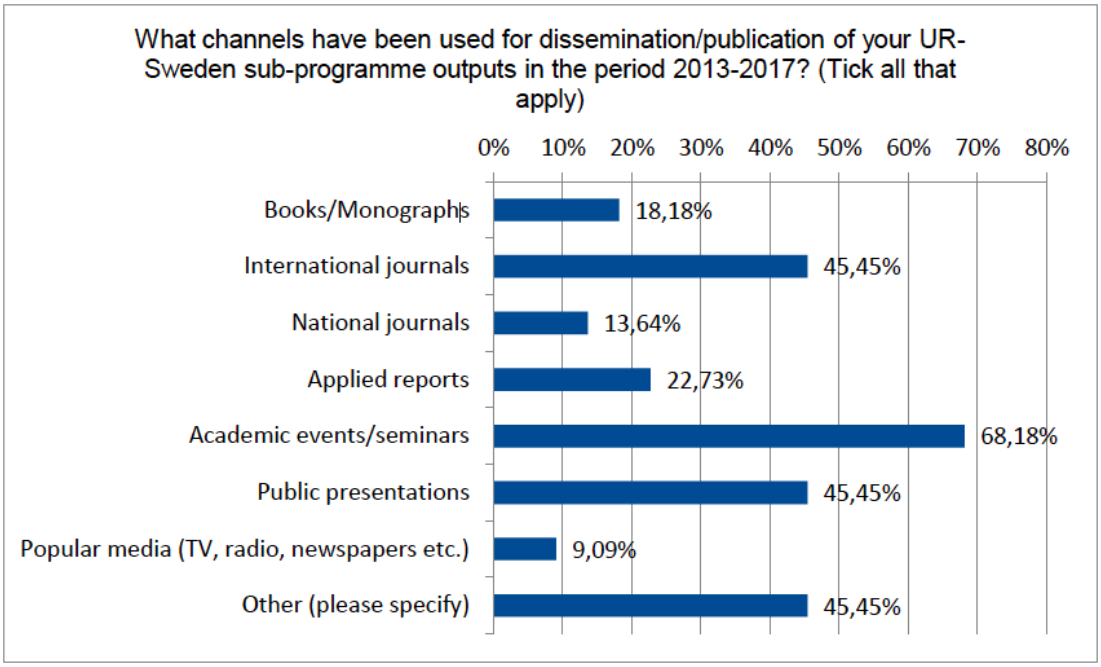
seroprevalence in blood donors in Rwanda was lower compared to Swedish subjects, the coverage of the vaccine has increased and the number of reported measles cases in Rwanda has decreased during the study period. Hence, the current vaccine coverage in Rwanda appears good enough to limit the circulation of measles.

- 77 articles produced by Rwandan authors, in various activities promoting an improved research culture, another 25 articles presently undergoing language correction and peer-reviewing

Q32: What channels have been used for dissemination/publication of your UR-Sweden sub-programme outputs in the period 2013-2017? (Tick all that apply)

The channels used for dissemination are general standard academic outlets, including academic events, journals, and presentations. This is in line with the findings in chapter 5. Other channels mentioned include blogs, and social media. This has not be analysed by group as it is the same publications discussed.

Figure 63 All respondents



Q33: Please give an example of your UR-Sweden sub-programme contribution to public policy-making:

For this question, 10 examples were given, although none of these gave enough detail to merit citation here. The policy handbook developed by the E&M sub-programme mentioned twice.

Q34: Please give an example of your UR-Sweden sub-programme contribution to improved products and services to the private sector:

A few more specific examples where given for products and services for the private sector, including:

- UR is the most complex and complicated ICT infrastructure in Rwanda – so it is an opportunity for any IT person and so far, most of the highest operators in ICT in Rwanda has passed at UR and worked with the subprogram in one way or another (MYICT, Airport, RISA, Banks, Smart Rwanda, ISPs)
- reports for AEGIS trust
- Support to entrepreneur on energy efficient stoves
- we trained private agents in Gender based violence, STDs and other related issues
- Links established between business sector representatives in Sweden and Rwanda energy commission

Q35: Please give an example of your UR-Sweden sub-programme contribution to improved products and services to civil society and local communities:

A few more specific examples where given for products and services to civil society and local communities were given:

- Community interaction workshops were organised and our staff have done good job in encouraging students to create enterprises
- Reports for NGOs and the outreach programme 'Community dialogue for peace'
- One of the projects is expected to improve the Rwanda traditional dance for its use for fitness
- E-resources (mostly journals) made available to all non-for-profit organizations in Rwanda
- One of the Rwandan PhD-students collects samples from women in Rwanda and analyze for human papillomavirus subtypes and early signs of cancer. The participating women are notified about the results and which actions to take, if needed.
- Inclusive and participatory leadership program drafted to be delivered jointly by JIBS and CBE targeting senior management within Rwandan civil society sector

Q36: In your opinion, what are the two most important benefits to Swedish universities from their involvement in the UR-Sweden Program? (Tick 2 reasons only)

Both groups of TLs and DTLs identify academic benefits as the most important for Swedish university involvement in this programme, along with contributing to Rwanda's development and solving future global challenges. Although financial

benefits on the Swedish side are seen to casue tension in the relationship, this is not borne out by this survey.

Figure 64 All respondents

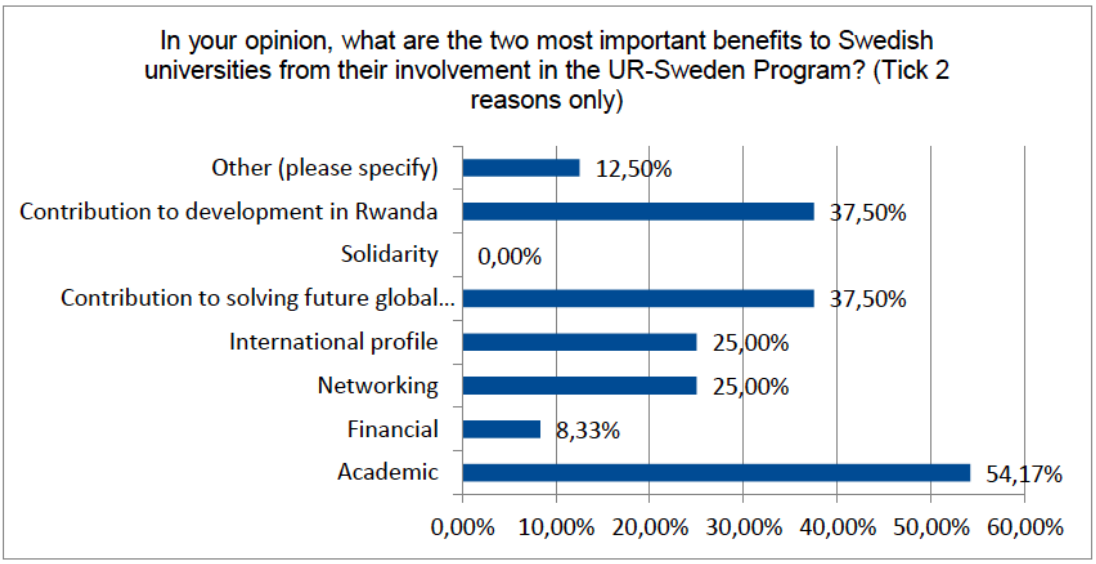


Figure 65 UR TL/DTLs

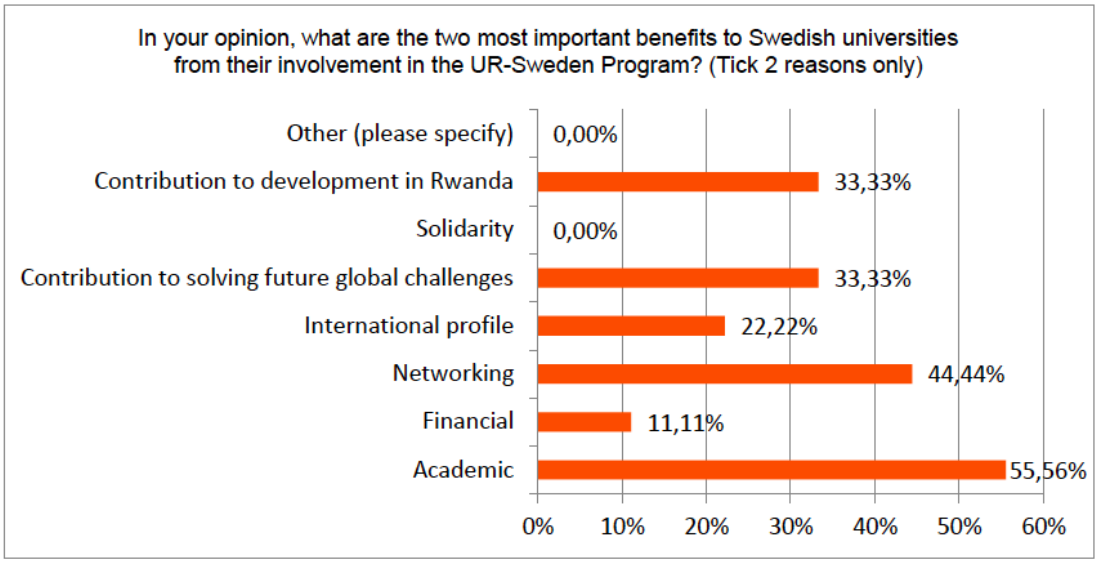
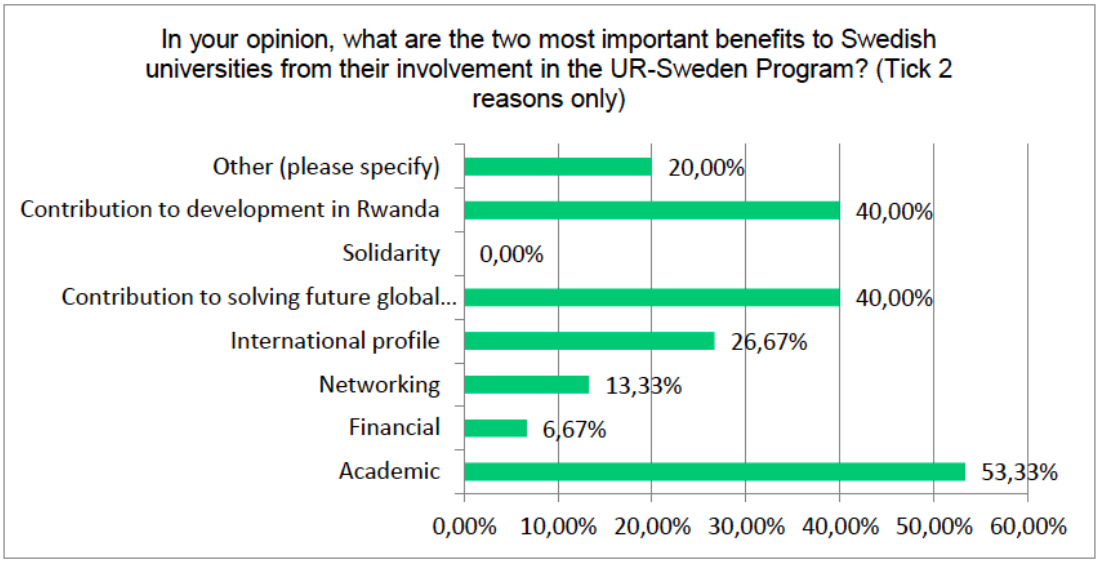


Figure 66 Swedish TL/DTLs



Q37: Please give an example of impact of the UR-Sweden Program on the Swedish universities involved:

Examples given for benefits include, often specifying the type of academic benefit:

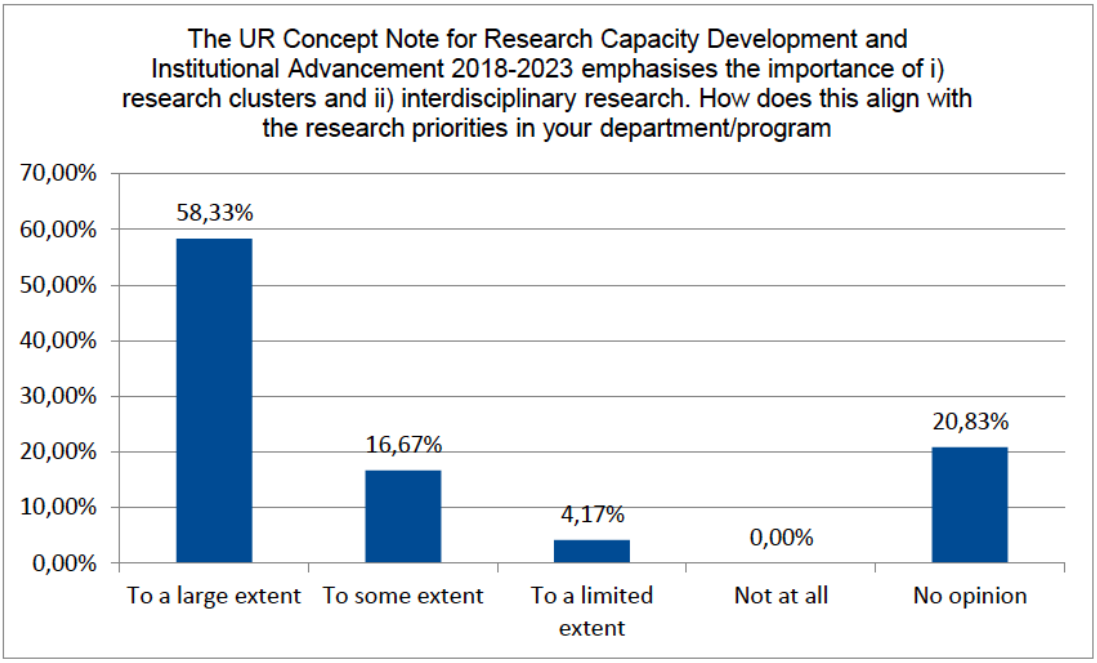
- "Through PhD training of academic staff from University of Rwanda, visibility and ranking of Swedish universities increase because of high volume of academic papers being published by the students as part of their training."
- Joint publications
- "Impact of what kind? Impact can be research based -- thesis and articles. It may also be part of teaching. I would say that the cooperation has had a great impact on the international profile of the department, on global competences of the academic and support staff, and international experiences brought into research, curricula, teaching. The organisation as a whole has seen the Sida cooperation grow and it engages not only one department, but several, including the library."
- Swedish students regularly go to Rwanda for thesis work, master level, medical and public health students and bring back knowledge and experiences that are used to the benefit of the university and the health care services.
- In Rwandan samples a greater variety of infectious agents are found compared to Swedish samples. Hence, important studies regarding clearance of various infectious agents are made possible via to the UR-Sweden program.
- Young Swedish Professor "When retired I will probably not be remembered for my publications in international journals but maybe for my contributions in Rwanda"

Some negative comments include a lack of leveraging the collaboration to other departments at one Swedish university.

Q38: The UR Concept Note for Research Capacity Development and Institutional Advancement 2018-2023 emphasises the importance of i) research clusters and ii) interdisciplinary research. How does this align with the research priorities in your department/programme? (Tick one)

There is general agreement that the new UR concept note aligns with the research priorities of all stakeholders.

Figur 67 All respondents



Q39: Please add any comments that you have on the UR-Sweden Program in the box below:

These comments related to the programme's progress, particular issues identified or recommendations for the next phase. Many of these relate to the reporting requirement and the continuous development of new templates. Some of the comments include:

- UR-Sweden program has contributed to enabling of research environment at UR, and improved teaching through capacity building of academic staff. However, provided that the number of academic staff with PhD is still low at UR, more PhD training would be important in the next agreement. The UR-Sweden program would emphasize on the engagement of public institutions and the private sector in the research done at UR so as to impact the society through informed policy-making.
- UR- Sweden Programme is the best programme. The PCO is very professional. The entire credit of success goes to this team of PCO.
- Although we see the point in using RBM, the usage of RBMs but especially the changes in budget and reporting templates (may it be four times since the start!?!? more!!?!?) are really time consuming and annoying. They draw

interest and time for what we are in this for - CHANGE - and force us all to do, redo, administer something that we have already administered in endless processes.

- For budgeting and reporting in the future, I would look at the templates for Uganda (Makerere University), that are simpler, but where the ToRs are guiding and not everything is accepted even if the template is better. Although I know that the Swedish coordinators do their best for the sake of securing transparency and that the funding is used the way planned for (for follow ups), the present reporting templates only work if disbursements are done on time. In our case, since disbursements are late, the numbers are almost fictional.
- Skype meetings was for a long time a very good way of communicating with our Rwandan partner. We had regular Skype meetings every second week. We think that the importance of communication should be communicated more within the programme as a whole and maybe we should all be forced to have regular Skype meetings.
- Another point I want to make is that although Sida works rigths based, this is something that we have not talked about during our soon five years in Rwanda. I have asked for this on several occasions. How can we work in Rwanda without reminding us of Sida's tool box? How can we work in such an environment without approaching the issue at least when we are back home in Sweden. Not only at individual institutions, but together, as during Team Leader Meetings. I really do not understand! Sida should also know that not everybody that works with this is a development expert. So to introduce, to share, to problematise the background of international cooperation, would be a suggestion.
- If there was a better support from the UR administration, such as implementing plagiarism policies when the teachers are ready to use the plagiarism tools, recognising the professional development courses at the university level, releasing teachers to follow offered courses, acknowledging the teachers who followed the training etc. We had enormous problems in finding participants to courses and workshops, and letting them following the courses. Participants had no time to follow the courses. There were times where two or three of us traveled to Rwanda for workshops and not more than handful of participants were showed up. "
- Even if there are managerial problems in a program like this, the people involved on both sides are very eager and good at producing results, making the research move forward and we really like to work together, it is a real pleasure but time demanding.
- To request to UR to remain with the Overall coordination apart instead of include it in UR-SPIU in order to avoid unnecessary administrative procedures
- The merger into UR has had negative impact on the programs where I have been involved, effects of reorganization and centralization has hampered subprogram development. The capacity of UR is very thinly distributed. It is important to decentralize and engage more people for a real impact to be made. "

- "Too much time spent on administration. New templates for planning and review tested one year and rejected the next.
- More involvement by UR management in planning and review - it's for UR we are doing this work. We filter our plans and reviews through the PCO, that's OK because it gives more unified and perhaps more comparable reports and plans. Still, the primary partner is the UR, not the PCO."
- The complexity of building a national sustainable research institution requires several and parallel actions in different areas implemented by an adaptive management - its not good enough to only produce PhDs.

interest and time for what we are in this for - CHANGE - and force us all to do, redo, administer something that we have already administered in endless processes.

- For budgeting and reporting in the future, I would look at the templates for Uganda (Makerere University), that are simpler, but where the ToRs are guiding and not everything is accepted even if the template is better. Although I know that the Swedish coordinators do their best for the sake of securing transparency and that the funding is used the way planned for (for follow ups), the present reporting templates only work if disbursements are done on time. In our case, since disbursements are late, the numbers are almost fictional.
- Skype meetings was for a long time a very good way of communicating with our Rwandan partner. We had regular Skype meetings every second week. We think that the importance of communication should be communicated more within the programme as a whole and maybe we should all be forced to have regular Skype meetings.
- Another point I want to make is that although Sida works rigths based, this is something that we have not talked about during our soon five years in Rwanda. I have asked for this on several occasions. How can we work in Rwanda without reminding us of Sida's tool box? How can we work in such an environment without approaching the issue at least when we are back home in Sweden. Not only at individual institutions, but together, as during Team Leader Meetings. I really do not understand! Sida should also know that not everybody that works with this is a development expert. So to introduce, to share, to problematise the background of international cooperation, would be a suggestion.
- If there was a better support from the UR administration, such as implementing plagiarism policies when the teachers are ready to use the plagiarism tools, recognising the professional development courses at the university level, releasing teachers to follow offered courses, acknowledging the teachers who followed the training etc. We had enormous problems in finding participants to courses and workshops, and letting them following the courses. Participants had no time to follow the courses. There were times where two or three of us traveled to Rwanda for workshops and not more than handful of participants were showed up. "
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Evaluation of the Sida supported research capacity and higher education development program in Rwanda, 2013–2017

The evaluation assessed, generated knowledge and provided lessons from the Sida funded *UR-Sweden Program for Research, Higher Education and Institutional Development* at the University of Rwanda. The evaluation provided information of the design of a possible continuation of the program as well as provided lessons learned for the UR.

The overall objective of the UR-Sweden programme is to *"Increase production and use of scientific knowledge of international quality at the UR that contributes to the development of Rwanda"*.

The evaluation concludes that the programme is generally very well managed, and of high importance and relevance for UR's institutional development and capacity building in research. The overall recommendation is that the programme continues largely in its present form with the same overall objectives, but that adjustments are made based on i) current processes of change at UR itself and ii) the experiences from the current phase of the programme.

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