



PERIPERI U

PARTNERS ENHANCING RESILIENCE
FOR PEOPLE EXPOSED TO RISKS

ANNUAL REPORT

26 May 2017 - 25 May 2018

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IRDR ICoE
Integrated Research on Disaster Risk
International Centre of Excellence

Report based on the
**REGIONAL DISASTER RISK AND VULNERABILITY REDUCTION CAPACITY
DEVELOPMENT PROJECT**

(PERIPERI U)

RADAR
Stellenbosch University
ANNUAL REPORT FOR THE PERIOD
26 MAY 2017 TO 25 MAY 2018

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EXECUTIVE SUMMARY

In this second year of Periperi U's 2016-2019 USAID¹¹ award, the consortium 'went to scale'. This was reflected in its reach to **2 453** people through **19 disaster risk-related academic programmes and 25 modules** that reached **1 677 students**, plus **28 short courses** with **776 participants**. These were in addition to strategic and technical engagements that extended across local, national, regional, continental and global scales, as well as diverse outreach and risk research activities.

At least six Periperi U partners revised existing disaster risk curricula or developed new integrated academic programmes. **ARU** developed its curriculum for a new undergraduate elective course *Introduction to Disaster Risk Management*, while **BDU** began developing curricula for new DRM-related (Disaster Risk Management) Masters and PhD level programmes, as well as establishing a satellite campus in Addis Ababa.

UG vigorously pursued a new programme in *Disaster Risk Reduction Science (DRRS)*. This innovative programme (expected to launch in June 2019 or January 2020) will incorporate 21 courses, designed collaboratively with faculty in other departments, including the Regional Institute for Population Studies, Centre for Migration Studies, School of Public Health, and the Climate Change Programme.

In Cameroon, **UBuea** successfully developed a new *MSc in Disaster Risk Management and Safety (DRMS)* to be introduced later in 2018/2019. This **first DRM-related academic programme** in the Economic Community of Central African States (ECCAS) includes course content from health, forestry, agriculture, geology, geography, law and physics.

Similarly, in Mozambique, **UDM** developed a new MSc programme *Environmental Engineering and Risk Management*, which was submitted in March 2018 for registration by Mozambique's Ministry of Science and Technology. **SU's** new Disaster Risk Studies and Development Postgraduate Diploma was approved by South Africa's Council of Higher Education in September 2017, and is set to be launched in 2019.

In addition to its formal academic programmes and modules, Periperi U delivered **28 short courses** that reached **776 people**, including 350 women (45%). Of these, 17 (61%) of this year's courses were 'custom-made', or designed and implemented specifically for an institution, organisation or government partner – often at sub-national level.

With *understanding risk* a central priority in the Sendai Framework, 217 Periperi U-supervised students undertook research for BSc, PGDip, Honours, Masters and PhD degrees, including **176 Masters projects and 16 PhD topics**. 87 of these were completed in 2017-18, including 67 at Masters level. When theses for 2016-17 are added, **265 disaster risk-related theses** were completed by Periperi U in just two years.

Similarly, Periperi U's deliberate "local to global" engagement strategy, along with commitment to work with diverse stake-holders was reflected in active participation in more than **20 meetings, conferences and consultations**. These spanned **five geographic scales** and included **more than 1 000 people**. In each instance, Periperi U participants were involved either as hosts, co-organisers, discussants, panellists, presenters, technical advisors, or had other specialist roles. It was further underlined by a growing range of **memoranda of understanding** between its partner universities and other scientific, governmental and international organisations.

As Periperi secretariat, **RADAR/SU** oversaw compliance with award terms and conditions. It prepared and submitted advance requests to USAID/OFDA that resulted in the disbursement of USD 926 500 to 11 sub-awardees, as well as arranged and paid for 54 international flights. The secretariat also oversaw extensive administrative and logistics arrangements for Periperi U's annual consultative meeting in October 2017 that was hosted by **BDU**. This was in addition to a second consultation, convened in May 2018 with the World Food Programme (WFP) and the New Partnership for Africa's Development (NEPAD) that was hosted by **Makerere University**.

This report of the activities conducted between 26 May 2017 – 25 May 2018, is organised into six parts. **Sections 2 and 3** detail the accomplishments within each sub-sector and their respective focus areas. **Section 4** reports specifically on the supporting activities of the secretariat to the consortium. **Section 5** revisits key programmatic constraints encountered by partners during this period, while **Section 6** concludes the report.

¹¹USAID award AID-OFDA-G-16-00115

Table 1 Summary of Periperi U Training/Education Efforts (26 May 2017 - 25 May 2018)

Institution	Short Courses	Participants	Academic progs/ modules	Students registered 2017/2018
ABU*	1	21	5	455
ARU*	4	154	3	48
BDU*	1	36	4	319
GBU*	4	176	1	73
U. Ghana**	2	41	4	93
Makerere***	3	53	9	44
Moi*	3	58	1	10
SU***	1	13	2	30
Tanà***	5	106	4	138
UBuea**	1	70	8	93
UDM*	2	33	1	253
USTHB*	1	15	2	121
Total	28	776	44	1677

* Programmes only

** Modules only

*** Programmes and modules

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ABBREVIATIONS & ACRONYMS

List of Partner Institutional Acronyms

ABU	Ahmadu Bello University, Nigeria
ARU	Ardhi University, Tanzania
BDU	Bahir Dar Univeristy, Ethiopia
CERED	Centre D'Etudes et de Recherches Economiques pour le Developpement
DMTC	Disaster Management Training Centre
GBU	Gaston Berger University, Senegal
LBE	Built Environment Research Laboratory
Makerere	Makerere University, Uganda
Moi	Moi University, Kenya
RADAR	Research Alliance for Disaster and Risk Reduction
SU	Stellenbosch University, South Africa
Tanà	University of Antananarivo, Madagascar
UBuea	University of Buea, Cameroon
UDM	Universidade Técnica de Moçambique, Moçambique
UG	University of Ghana, Ghana
USTHB	University of Sciences and Technologies – Houari Boumediene, Algeria

Abbreviations and acronyms

ADA	African Doctoral Academy
AU	African Union
AWGDRR	African Working Group on Disaster Risk Reduction
BNGRC	Bureau National de Gestion des Risques et des Catastrophes
BSc	Bachelor of Science
CADRI	Capacity Development for Disaster Reduction Initiative
CRAAG	National Research Center on Astronomy, Astrophysics and Geophysics
DRM	Disaster Risk Management
DRMS	Disaster Risk Management and Safety
DRR	Disaster Risk Reduction
DRRS	Disaster Risk Reduction Science
Dept. ESS & ET	Department of Earth System Science and Environmental Technologies
EAC	East Africa Community
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
GIS	Geographic Information System
GRA	Global Risk Assessment
GRETHA	Research Group for Theoretical and Applied Economics
HEI	Higher Education Institution
HE	Her Excellency
ICA	Integrated Context Analysis
ICSU	International Science Council
IDDR	International Day for Disaster Risk Reduction
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IGAD	Intergovernmental Authority on Development
IGG	Istituto di Geoscienze e Georisorse

Abbreviations and acronyms

IRDR	Integrated Research on Disaster Risk
KAN	Knowledge-Action Network
MA	Masters of Arts
MDM	Masters in Public Health Disaster Management
MDRM	Masters of Disaster Risk Management
MoU	Memorandum of Understanding
MPhil	Masters of Philosophy
MSc	Masters of Science
NEPAD	New Partnership for Africa's Development
(NEPAD) ARCH	(New Partnership for Africa's Development) African Resilience Coordination Hub
NGOs	Non-Governmental Organisations
NWU	North West University
OFDA	Office of U.S. Foreign Disaster Assistance
ORC	Online Research Centre
PDF	Portable Document Format
Periperi U	Partners Enhancing Resilience for People Exposed to Risks
PGDip	Postgraduate Diploma
PhD	Doctor of Philosophy
post-grad	Postgraduate
Progs	Programmes
RRT	Rapid Response Team
ROA	Regional Office for Africa (ICSU)
SADC	Southern African Development Community
SC	Sub-County
TRCS	Tanzania Red Cross Society
u'grad	Undergraduate
UCL	University College London
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNISDR	United Nations International Strategy for Disaster Reduction
UNSTAG	UN Science and Technology Advisory Group
USAID	United States Agency for International Development
USD	United States Dollar
VRAM	Vulnerability and Risk Assessment and Mapping
WFP	World Food Program
WHO	World Health Organisation
(WHO) AFRO	(World Health Organisation) Regional Office for Africa

1. PERIPERI U - AN AFRICAN PARTNERSHIP IN TEACHING AND RESEARCH

1.1 Background

Periperi U is a platform for university partnership to reduce disaster risks in Africa. It stands for 'Partners Enhancing Resilience for People Exposed to Risks' – with a special focus on advancing university action on risk and vulnerability reduction in Africa. Established in 2006, with five original members, the partnership has grown to include twelve universities from Algiers to Antananarivo, with institutions in Algeria, Cameroon, Ethiopia, Ghana, Kenya, Madagascar, Mozambique, Nigeria, Senegal, South Africa, Tanzania and Uganda.

Periperi U seeks to reduce disaster risks in among African countries through improved national and local disaster risk management, due to enhanced strategic human capacity to integrate risk reduction into critical developmental sectors and programmes. Periperi U partners advance this mission through building and embedding sustainable 'multi-tasking' capabilities in disaster risk and vulnerability reduction capacity building across its 12-member consortium. These efforts are consistent with the global disaster reduction priorities reflected in the 2015 Sendai Framework for Disaster Risk Reduction.

Key to Periperi U's ability to conduct research, initiate academic programs, carry out short courses and take part in various meetings and exchanges across the continent and globally comes from the financial support offered by USAID's Office of Foreign Disaster Assistance.

This report that details activities conducted from 26 May 2017 – 25 May 2018, is organised into six parts. **Sections 2 and 3** detail the accomplishments within each sub-sector and their respective focus areas. **Section 4** reports specifically on the supporting activities of the secretariat to the consortium. **Section 5** revisits key programmatic constraints encountered by partners during this period, while **Section 6** concludes the report.



Figure 1 Periperi U partners & representatives of other institutions attending its 2017 annual consultative meeting in Bahir Dar

1.2 Periperi U Partners

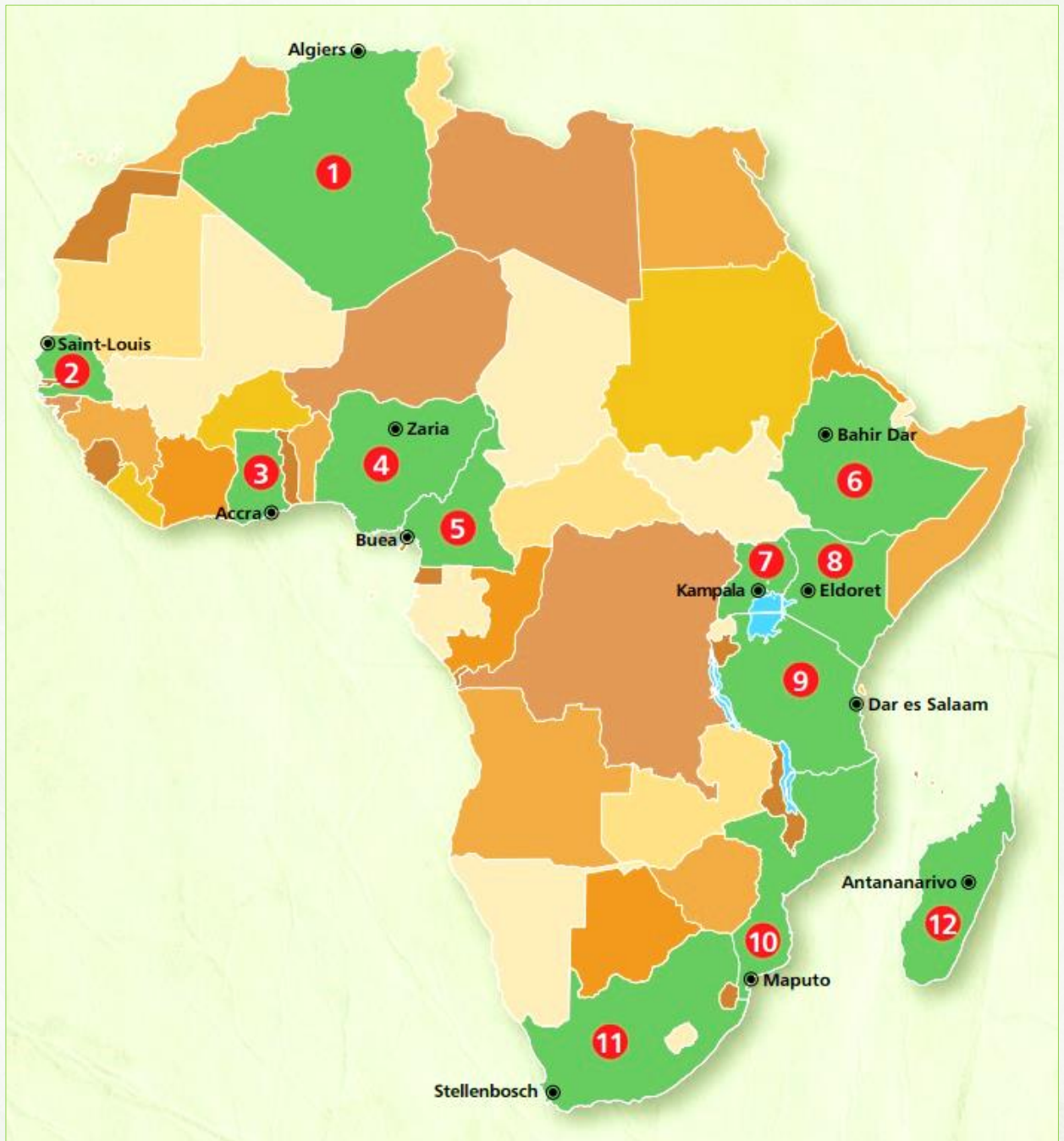


Figure 2 Map of the Periperi U partners across the African Continent

- | | | |
|---|---|--|
| 1 University of Sciences & Technology Houari Boumediene, ALGERIA | 5 University of Buea, CAMEROON | 9 Ardhi University, TANZANIA |
| 2 Gaston Berger Université, SENEGAL | 6 Bahir Dar University, ETHIOPIA | 10 Universidade Técnica de Moçambique, MOÇAMBIQUE |
| 3 University of Ghana, GHANA | 7 Makerere University, UGANDA | 11 Stellenbosch University, SOUTH AFRICA |
| 4 Ahmadu Bello University, NIGERIA | 8 Moi University, KENYA | 12 University of Antananarivo, MADAGASCAR |

2. PROGRESS UPDATE: GLOBAL ADVOCACY & ENGAGEMENT IN DISASTER RISK REDUCTION

2.1 Overview

Periperi U activities for this sub-sector aimed to promote global and continental awareness of the role higher education institutions (HEIs) potentially play in advancing disaster risk reduction, along with mobilising material support to better enable this, particularly in at-risk developing countries.

During the 2017-18 reporting period, the partnership's efforts proved crucial for enabling closer engagement between Africa's higher education enterprise and stakeholders from local to global scales. Materially, 61 consortium members (individually and collectively) participated in 17 regional, continental and international events, involving more than 1 000 people. These included two instances in Africa where Periperi U co-organised and facilitated consultations at both continental and regional scales.

2.2 Periperi U consultative meeting 9-10 October, 2017

Periperi U's annual consultative meeting, *A call to engage: deepening risk knowledge - advancing resilience*, represented a catalytic event for advancing Africa's scientific and academic engagement in the disaster risk domain. Hosted by Bahir Dar University, Ethiopia and co-organised with the IFRC, the meeting was attended by 71 participants, including representatives of 15 African universities² and nine international agencies.³



Figure 3 AU Commissioner for Human Resources, Science and Technology standing centre among the delegates attending Periperi U's annual consultative meeting in Bahir Dar Ethiopia October 2017

Of historic significance was the active participation of the African Union (AU) Commissioner for Human Resources, Science and Technology (HRST), HE Professor Sarah Anyang Agbor. This represented the first instance in which the AU's HRST Commission had directly interacted with the disaster risk reduction community. The Commissioner's presence and guidance reinforced the urgency for closer collaboration

² Algeria, Burkina Faso, Cameroon, Chad, Ethiopia, Ghana, Kenya, Madagascar, Mozambique, Niger, Nigeria, Senegal, South Africa, Tanzania and Uganda.

³ ICRC, IFRC, NEPAD, UNDP, UNICEF, UNISDR, WFP, WHO, Addis Ababa City Fire, Emergency Prevention and Rescue Agency, Christian Children's Fund of Canada, National Disaster Risk Management Commission and the Organisation for Relief, Rehabilitation and Development in Amhara.

between the continent's science, academic and higher education constituencies and those active in the humanitarian action and disaster risk fields.

The annual consultative meeting was also instrumental in advancing other collaborative opportunities. Materially, these included discussions with the United Nations Development Programme (UNDP) and the World Health Organisation (WHO) on their potential participation in Periperi U's planned risk methods school foreseen for 2018. They also were reflected in preliminary planning with WFP and NEPAD to implement the NEPAD-ARCH initiative.

2.3 NEPAD-ARCH consultation 15-17 May, 2018

Growing recognition by WFP and NEPAD of the importance of African HEIs as disaster risk-related research and capacity-building partners gained traction during 2017-2018. Within the context of NEPAD ARCH (African Resilience Coordination Hub), Periperi U co-facilitated a technical meeting in Kampala, Uganda (15-17 May, 2018). Hosted by Makerere University, the consultation explored prospects for closer collaboration between Periperi U partners, NEPAD and WFP. It specifically focused on the role that Periperi U universities might play in introducing and training in WFP's '3PA' process⁴, as well as contributing to research and overseeing programme monitoring and evaluation.

2.4 Growing credibility of African academics and scientists – across scales

A recurrent feature of Periperi U's engagement during 2017-18 was evidence of growing credibility of African scientists and academics in the disaster risk domain – from global to local scales. In an encouraging development, African scientists and academics were invited participants across a range of international, continental and regional events.

At global scale, representatives of three Periperi U partners (**BDU**, **Tanà** and **UDM**) participated in UNISDR's global expert consultation on the Global Risk Assessment (GRA) Framework, convened in Geneva from 20-21 November, 2017. Similarly, SU's (Stellenbosch University) representative on the UNISDR's Science and Technology Advisory Group (UNSTAG) attended a focused consultation also in Geneva on 11 December. Her participation resulted in the introduction of a dedicated collaborative initiative to probe the cross-cutting issue of capacity building for disaster risk-related science, policy and practice.

In addition, from 23-25 November, 2017, Periperi U representatives from **SU** and **USTHB** attended the Global Forum on Science and Technology for Disaster Resilience in Toyko Japan, with both actively participating in panel discussions. With support from UNISDR, they were also joined by a senior policy advisor from the AU's Human Resources, Science and Technology Commission – an outcome of the Periperi U consultative meeting in Bahir Dar a month earlier.

Continentially, Periperi U continued to represent Africa's academic and scientific communities at the 11th and 12th Sessions of the African Working Group on Disaster Risk Reduction (AWGDRR). These sessions, jointly convened by the Africa Union and UNISDR^{5 6}, took place respectively in Mombasa, Kenya (26-27 September, 2017) and in Bahir Dar, Ethiopia (13-14 March, 2018).

The partnership's active influence also cascaded to (sub) regional scales. This was reflected in the attendance of an ARU representative at the East African Community (EAC) Sub-Regional Platform on DRR. It was also indicated by the active participation of **ARU**, **SU**, **Tanà** and **UDM** attendees at the Southern African Development Community (SADC) Regional Disaster Risk Reduction (DRR) Conference, convened from 26-28 March in Pretoria, South Africa.

⁴ http://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp276340.pdf

⁵ This meeting was held 26-27 September 2017 in Mombasa, Kenya

⁶ This meeting was held 13-14 March 2018 in Addis Ababa, Ethiopia

3. PROGRESS UPDATE: INTEGRATION/ENHANCEMENT OF DRR WITHIN EDUCATION AND RESEARCH PROGRAMMES.

3.1 Overview

Periperi U efforts within this sub-sector sought to enhance HEI disaster risk reduction efforts through five interlinked strategies. These included improving the consortium's collective effectiveness as well as its continued expansion. At the level of individual universities, they included actions to better institutionally embed DRM capacity building and research, combined with expansion of the core disaster risk academic activities. The fifth component comprised a deliberate focus on partner strategic engagement across multiple scales and stake-holder groups

During the 2017-18 reporting period, Periperi U's reach and stability at consortium-scale were enabled by streamlined systems for managing sub-recipient awards as well as complex performance and financial reporting. These attributes were underlined by the successful implementation of the partnership's October 2017 annual consultative meeting in Bahir Dar, Ethiopia, and growing visibility with both international organisations as well as the African Union.

In compliance with grant provisions, by April 2018, the Periperi U Secretariat initiated efforts to identify a skilled programme evaluator, with the intent of concluding a summative evaluation process before March 2019.

3.2 Strategic scaling-up of DRM/DRR educational activities across Africa to extend capacity-building, technical support and disaster risk research services.

This Periperi U phase specifically foresaw a progressive scaling up of DRM/DRR educational activities across Africa, with a specific focus on introducing an affiliate programme to reach up to ten additional universities as well as two 'summer schools'.

3.2.1 Extending Periperi U to include other African HEIs

Although Periperi U had planned to introduce an 'affiliate member programme', during the past year, a more diverse range of collaborating partnerships unfolded than had been originally foreseen. These went well beyond the expectations of the previously conceptualised affiliate programme, and included:

- **Mentoring collaborations** (to integrate DRM/DRR content into existing programmes/courses, as well as DRM/DRR-related research, community outreach and short courses).
- **Collaborative DRM/DRR innovations**, including joint short courses, joint academic programmes and collaborative integrated research.
- **Collaborative DRM/DRR networks** (national and international scales) to advance scholarship, including capacity for DRM/DRR research, development of new programmes and technologies and outreach in at-risk areas and communities.

Table 2 summarises these emerging collaborations to illustrate how Periperi U has extended its support to 20 African HEIs. This model well exceeds the original target of ten universities envisaged in the 'affiliate' programme.

Table 2 Collaborations between Periperi U Partners and other African HEIs

Partner	Partnering institutions	Theme
GBU	Univ. Abou Mouny, Niamey, Niger Univ. Nazi Boni, Bobo-Dioulasso, Burkina Faso Univ. Ndjamena, Chad Univ Cheikh Anta Diop, Dakar, Senegal	Specific focus on agricultural risk management and prevention/mgmt. of food insecurity risks, building on GBU's experience.
UBuea	Univ Yaounde 1, Cameroon	Collaborative teaching to extend DRR/M knowledge into existing curricula.
UDM	Universidade Pedagógica - Delegação da Beira Universidade Católica de Moçambique	MOUs signed to make DRM short courses & programmes accessible to more remote areas of Mozambique.
ARU	Dodoma University, Dodoma, Tanzania	Collaboration on internships & field placements
Makerere	Gulu Univ, Gulu, Uganda	Mentorship and support for university closer to refugees
USTHB	Mostaganem Univ, Mostaganem, Algeria	Technical support and capacity building to better reach western areas of Algeria
BDU	Ambo Univ, Arba Minch Univ Debratabor Univ, Gambella Univ Gondar Univ, Jigjiga Univ Semera Univ, Addis Ababa Univ Mekele Univ, Hwasa Univ	National network already self-organised to share DRM curricula and work with other stakeholders.

3.2.2 Periperi U African Risk methods School ('summer school') planning

In keeping with projected activities in the 2016-2019 Periperi U project proposal, numerous preparatory steps were taken to implement the two summer school-styled events titled the 'Periperi U Risk Methods Schools'. These are convened in association with WHO and United Nations Development Programme (UNDP) as well as SU's African Doctoral Academy (ADA), with the first school from 10-22 September 2018 at **ARU**. Parallel teaching streams and course titles are shown in figure 4. The curriculum for a second school, to be hosted at **GBU** in early 2019, is expected to have similar themes and format.



RISK METHODS SCHOOL

10 – 22 SEPTEMBER 2018

ARDHI UNIVERSITY - DAR ES SALAAM, TANZANIA

Risk Methods Stream	Week One 10 – 14 September	Week Two 17 – 21 September
Investigating Africa's Urban Risks: Geo-spatial applications	Assessment and Mapping of Urban Risks in Africa: Introduction to GIS & urban risk	Understanding & Managing African Urban Risks: Advanced Geospatial Analysis
Probing Risk and Vulnerability in the Health Sector	Integrated qualitative methods for disaster risk research in the health sector	Vulnerability and Risk Assessment in the health sector
Integrated Research Methods in Disaster Risk and Resilience Studies	Introduction to integrated research methods in disaster risk and resilience studies	Advanced research methods for disaster risk and resilience studies
Specialised Post-Disaster Research Methods		Post-Disaster Needs Assessment (PDNA) Methodology and Disaster Recovery Framework

Figure 4 African Risk Methods School programme

3.3 Institutional embedding of DRM academic activities and staffing expansion

3.3.1 Ensuring programme quality and enabling institutional arrangements

Recognising the need for robust disaster risk-related academic programmes, from 24 January - 5 February 2018, two senior Periperi U **ABU** staff members attended a Higher Education Management training programme at the Galilee International Management Institute in Mizrah, Israel. This aimed to enhance **ABU** staff's administrative and management capacity of its DRM centre, as well as their management of academic programmes and short courses.

Similarly, four internal technical exchange visits took place within the consortium, presenting excellent opportunities for sharing expertise. In July 2017, **USTHB's** Vice Rector for External Relations and its Director of Research for the Built Environment Research Laboratory visited **SU**. This led to an MoU to broaden the two universities' existing partnerships, especially in the disaster risk domain (see figure 5).



Figure 5 Signing of MOU between SU and USTHB to deepen partnership on disaster risk research and teaching

In August 2018, three **Tanà** staff members visited **USTHB** to learn from Algeria's experience in earthquake prevention and management, to specifically strengthen **Tanà's** teaching and research capacity on earthquake risk management. In addition to consultations at **USTHB**, **Tanà** staff also met with the General Directorate of Civil Protection (based in Algeria's Ministry of Interior) as well as an operational seismology centre.

In February 2018, **USTHB's** Periperi U focal point reciprocated with an exchange visit to **Tanà** to provide lectures to postgraduate students. This enabled **Tanà** students, whose focus typically relates to cyclones/severe weather events as well as the economic impacts of disasters, to strengthen their understanding of engineering solutions to seismic and flood risks.

Also in February, two **UBuea** staff travelled to **USTHB** in Algeria. Among the visit outcomes was an agreement between **UBuea** and Algeria's National Research Centre on Astronomy, Astrophysics and Geophysics (CRAAG) to establish an MoU for future collaboration on research and capacity building for the management of geo-risks.

3.3.2 Institutional transitions for greater interdisciplinary scholarship

In September 2018, in order to better implement cross-disciplinary disaster risk-related programmes, **SU's** RADAR centre (secretariat for Periperi U) officially transitioned to a *Type 2 Centre*. With the approval of the University Council, RADAR's institutional reporting line shifted from the Department of Geography and Environmental Studies to the Faculty of Arts and Social Sciences. This institutional transition specifically sought to unlock prospects for greater cross-disciplinary engagement in RADAR's teaching and research.

3.3.3 Consortium staffing

Overall partner staffing levels remained consistent with the previous year, with the exception of **Makerere** University, where staff numbers grew by 40 to 66 people. This was attributed to reduced numbers of core staff compared with 2017-18, as well as the introduction of a more diverse teaching portfolio that required additional teaching support from elsewhere in the university, as well as through external resource people.

Table 3 shows the distribution of Periperi-U engaged teaching/supervision, research and administrative support staff. It underlines the relatively small 'core' staffing complement for many partners (no more than five staff) even when huge student loads were carried (by **ABU**, for instance). The high numbers of internal and external contributing staff (65% of total) also underline the challenges in introducing new cross-disciplinary academic programmes that require applied expertise. The implementation of teaching and research for such complex programmes places heavy course coordination demands on core academic and administrative staff.

Table 3 Partner Staffing distribution by gender: Periperi U (26 May 2017 - 25 May 2018)

University	Periperi U team			Contributing staff - internal			Contributing staff - external			Total		
	M	F	Tot	M	F	Tot	M	F	Tot	M	F	Tot
ABU	4	-	4	23	1	24	-	-	-	27	1	28
ARU	6	1	7	2	-	2	3	3	6	11	4	15
BDU	17	4	21	-	-	-	-	-	-	17	4	21
GBU	10	1	11	8	2	10	10	-	10	28	3	31
Ghana	7		7	2	1	3	-	1	1	9	2	11
Makerere	2	1	3	31	25	56	6	1	7	39	27	66
Moi	-	6	6	-	-	-	3	1	4	3	7	10
SU	3	8	11	1	-	1	2		7	9	10	19
Tanà	5	2	7	5	5	10	-	-	-	10	7	17
UBuea	3	2	5	1	-	1	-	2	2	4	4	8
UDM	4	2	6	12	-	12	4	1	5	20	3	23
USTHB	3	2	5	2	2	4	5	1	6	10	5	15
Total	64	29	93	87	36	123	36	12	48	187	77	264

Across all partners, women continued to constitute less than one-third of all core staff members (29 out of 93 core staff), and only 29% of the entire staff complement (77 out of 264 staff).

3.4 Establishment and/or enhancement of core disaster risk academic activities in each partner, including academic programmes, short courses, risk research and outreach

3.4.1 Overview

Since its inception in 2006, Periperi U has underlined the importance of aligning disaster risk-related capacity building with the core academic activities of teaching, research and outreach. The consortium has also explicitly emphasised the importance of social responsiveness, given the high levels of risk faced across the continent. To optimise their reach and impact, Periperi U partners aim to provide an interlinked activity portfolio that includes disaster risk-related academic programmes, practitioner short courses risk research and outreach.

3.4.2 Academic programmes and modules

Overview of courses and students

Periperi U's founding partners shared a strong conviction that Africa's universities should become more involved in advancing disaster risk reduction efforts. They understood that academic programmes could potentially produce graduates with new skill-sets to tackle local risks – and that new curricula could transform local and national risk management practice across the continent.

During 2017-18, the Periperi U partnership offered 19 disaster risk-related academic programmes and 25 modules to 1 338 and 339 students respectively, reaching 1 677 students. Of these, 598 were undergraduate students (35,7% of those registered), with 649 women registered across all course offerings (38.7%). Altogether, 63 students graduated this year, including 48 post-graduate students. The modest graduating numbers are in part due to the two-year durations of most masters-level programmes (with expected graduation either later in 2018 or 2019). Table 4 specifically foregrounds the challenges faced by African women students who pursue DRM-related university qualifications.

Table 4 Comparative numbers of male and female students registered in Periperi U academic courses 2017-18

Students registered in Periperi U courses	Males	Females	Total	% Females
Students registered in all programmes & modules	1 048	649	1 677	38.7
Students registered in u'grad progs (BDU, UDM)	173	269	442	60.9
Students registered in post-grad programmes	672	224	896	25.0
U'graduate students who graduated	12	3	15	20.0
Post-graduate students who graduated	34	14	48	29.1
Total students dropped-out/failed	61	80	141	56.7
U'grad students dropped-out/failed.	33	64	97	66.0
Post-grad students dropped-out/failed	28	16	44	36.4

Although women comprised up to 61% of those registered in DRM-related undergraduate programmes, they constituted only 20% of the graduates – but 66% of those who dropped-out/failed. These high attrition numbers were starkly foregrounded in Mozambique, where 60 women students enrolled in **UDM's BSc Environmental Engineering and Disaster Management** withdrew in 2018 due to financial constraints. This pattern persisted at post-graduate levels, with women comprising 25% of registered students, and continued with low enrolment at doctoral level.

While there was little change in the academic programmes, 12 new modules were offered. These primarily reflected the revised curriculum for **Makerere's** Masters in Public Health Disaster Management (MDM) programme, and included new courses such as *Legal and Human Rights in Disaster Situations*, *Mental Health and Psychosocial Issues in Disaster Situations* and *Logistics Management in Emergencies*.

Table 5 Students registered in under- and post-graduate disaster risk-related programmes 2017-18

University	Current Academic Programme/s	Level	Year 2: 2017/18														
			New			Existing			Graduated			Drop-out /failed			Total		
			M	F	Tot	M	F	Tot	M	F	Tot	M	F	Tot	M	F	Tot
ABU	DRM & Development Studies	PgDip	23	9	32	13	7	20	-	-	-	-	-	-	36	16	52
	DRM & Development Studies	MA	112	21	133	112	42	154	-	-	-	-	-	-	224	63	287
	DRM & Development Studies	MSc	25	3	28	9	5	14	-	-	-	-	-	-	34	8	42
	DRM & Development Studies	MPhil	26	5	31	32	5	37	-	-	-	-	-	-	58	10	68
	DRM & Development Studies	PhD	2	-	2	3	1	4	-	-	-	-	-	-	5	1	6
Subtotal			188	38	226	169	60	229	-	-	-	-	-	-	357	98	455
ARU	DRM	Master	3	1	4	8	3	11	6	5	11	-	-	-	17	9	26
	DRM	MSc	3	3	6	-	4	4	5	4	9	-	-	-	8	11	19
	DRM	PhD	2	-	2	-	-	-	1	-	1	-	-	-	3	-	3
Subtotal			8	4	12	8	7	15	12	9	21	-	-	-	28	20	48
BDU	DRM & Sustainable Development	U'grad	28	27	55	47	61	108	12	3	15	7	4	11	94	95	189
	DRM & Sustainable Development	MSc	11	4	15	26	4	30	11	-	11	-	-	-	48	8	56
	DRM & Sustainable Development (distance)	MSc	-	-	-	59	3	62	-	-	-	2	-	2	61	3	64
	Climate Change & Development	MSc	4	1	5	4	1	5	-	-	-	-	-	-	8	2	10
Subtotal			43	32	75	136	69	205	23	3	26	9	4	13	211	108	319
GBU	Prevention & RM of Food Insecurity	MSc	15	5	20	58	26	84	-	-	-	19	12	31	54	19	73
Subtotal			15	5	20	58	26		-	-	-	19	12	31	54	19	73
Makerere	Public Health Disaster Management	Master	8	4	12	1	4	5	-	-	-	-	-	-	9	8	17
Subtotal			8	4	12	1	4		-	-	-	-	-	-	9	8	17
SU	DRS and Development	MPhil	-	1	1	3	3	6	1	-	1	1	-	1	5	4	9
Subtotal			-	1	1	3	3	6	1	-	1	1	-	1	5	4	9
Tanà	DMGRC	MDGRC	-	-	-	11	7	18	10	5	15	6	4	10	27	16	43
Subtotal			-	-	-	11	7	18	10	5	15	6	4	10	27	16	43
UDM	Environmental Engineering & DM	BSc	13	16	29	40	98	138	-	-	-	26	60	86	79	174	253
Subtotal			13	16	29	40	98	138	-	-	-	26	60	86	79	174	253
USTHB	Structural Dynamics & Earthquake Engineering	MSc	-	-	-	72	43	115	-	-	-	-	-	-	72	43	115
	Earthquake & flood risk reduction	PhD	-	-	-	3	3	6	-	-	-	-	-	-	3	3	6
Subtotal			-	-	-	75	46	121	-	-	-	-	-	-	75	46	121
Total			275	100	375	501	320	732	46	17	63	61	80	141	845	493	1 338

Table 6 Students registered in under- and post-graduate disaster risk-related modules 2017-18

University	Current Academic Programme/s	Level	2017/2018		
			M	F	Total
Moi	MPH: Principles of Disaster Management and Conflict Resolution	Masters	4	6	10
Subtotal			4	6	10
Makerere	Legal and human rights in disaster situations	Masters	7	5	12
	Post disaster recovery and rehabilitation	Masters	1	4	5
	Mental Health and Psychosocial Issues in Disaster Situations	Masters			
	Logistics Management in Emergencies	Masters			
	Food & Nutrition In Disaster Situations	Masters			
	Research Methods	Masters	6	4	10
	Disaster preparedness and risk reduction	Masters			
Subtotal			14	13	27
SU	Disaster Risk Studies & Development	Honours	10	11	21
Subtotal			10	11	21
Tanà	Economic Valuation Techniques (in Development Economics)	U'grad	40	37	77
	CNTMAD (2017-2018)	Masters	6	4	10
	Introduction to DRM/DRR (in IOGA Master's Programme : Géomatique)	Masters	5	3	8
	Subtotal		51	44	95
UBuea	Natural Hazards, Disasters and Impacts of Climate Change	U'grad	16	18	34
	Groundwater, Pollution and Protection	Masters	8	9	17
	Current topics in Climate Change	PHD	4	2	6
	Current trends in Environmental hazards	PhD	1	1	2
	Global commons, natural disasters and environmental risk management	MSc	9	7	16
	MSc thesis in Natural Resources and Environmental Management	MsC	3	3	6
	PhD Research Project/Thesis	PhD	3	3	6
	Advanced Topics in Surface and Groundwater Management	PhD	4	2	6
Subtotal			48	45	93
Ghana	Applied Integrated Disaster Risk Reduction in Urban Ghana	Masters	6	4	10
	Theories and Analytical Methods for IEH and Integrated DRR	U'grad	19	9	28
	Concepts and Methods in Advanced Integrated DRR	U'grad	11	6	17
	Policies and Strategies for Integrated DRR	Masters	20	18	38
Subtotal			56	37	93
Total			183	156	339



Figure 6 Students from BDU's DRM & Sustainable Development undergraduate programme about to conduct a field research exercise

Curricula innovation and development

During this reporting period, at least six Periperi U partners from Africa's EAC, ECCAS, ECOWAS, IGAD and SADC regions revised existing disaster risk curricula or developed new integrated academic programmes.

ARU reviewed the curricula for its two postgraduate DRM degree programmes and developed the curriculum for a new undergraduate elective course - *DM 101 Introduction to Disaster Risk Management*. In addition to streamlining of disaster risk management elements into undergraduate degree curricula, ARU also initiated planning for a new masters degree. This will focus on environment, climate change and disaster risk management.

In mid-2017, BDU began developing curricula for new DRM-related Masters and PhD level programmes, as well as establishing a satellite campus in Addis Ababa. Significant progress was also reported at UG which, in 2017-18, vigorously pursued a new programme in Disaster Risk Reduction Science (DRRS). This innovative, cross-disciplinary programme will incorporate 21 courses, designed collaboratively with faculty in other departments, including the Regional Institute for Population Studies, Centre for Migration Studies, School of Public Health, and the Climate Change Programme. The new programme is expected to launch in either June 2019 or January 2020.

Makerere - WHO partnership

Makerere University collaborated closely with the World Health Organisation Regional Office for Africa (WHO/AFRO) on **Rapid Response Team (RRT) training**. This partnership aims to equip national authorities to increase in-country RRT capacity to investigate, detect and provide an early response for public health-related emergencies.

ARU and GBU: student placements and internships

ARU implemented an internship programme in collaboration with the **Humanitarian Leadership Academy of Kenya, the TRCS and the Universities of Dar es Salaam, and the Dodoma**. Between December 2017 and April 2018, 26 graduates, including 11 from ARU, were placed in local and international institutions in Tanzania

GBU was also able to secure internships for four students with WFP in Senegal (after it signed an MOU with WFP).

In Cameroon, **UBuea** successfully developed a new *MSc in Disaster Risk Management and Safety (DRMS)* to be introduced by the Department of Environmental Science in the 2018/2019 academic year. This first DRM-related academic programme to be launched in ECCAS, was developed by staff drawn from disciplines including health, forestry, agriculture, geology, geography, law and physics. **UBuea** also revised course content of an existing MSc programme module (ENV 609: Global Commons, Natural Disasters and Environmental Risk Management) to strengthen the course's DRM and DRR content.

Similarly, in Mozambique, **UDM** developed a new MSc programme *Environmental Engineering and Risk Management*, which was submitted in March 2018 for registration by Mozambique's Ministry of Science and Technology. **SU's** new Disaster Risk Studies and Development Postgraduate Diploma was approved by South Africa's Council of Higher Education in September 2017, and is set to be launched in 2019.

3.4.3 Short courses

There was a dramatic surge in short courses conducted during 2017-18. Altogether, **28 short courses were offered, reaching 776 people**, including 350 women (45%). This represents a substantial increase from the previous year, with only seven courses that reached 370 attendees (29% women).

As indicated in Table 7, 17 (61%) of this year's courses were 'custom-made', or designed and implemented specifically for an institution, organisation or government partner.

The short courses offered were highly varied, reaching out to local authorities, humanitarian and nongovernmental organisations, as well as academic staff and students. GBU conducted four customised short courses that reached 176 participants (52% women). These covered contextually relevant risk themes, including *Risk of Water-borne Diseases of Livestock in the Senegal River Valley*, *Agricultural Risk Management in the Sahel* and *Integrated Context Analysis (ICA)*.



Figure 7 Staff and participants at Moi University's Emergencies Short Course for Local Health Practitioners

Table 7 Periperi U short courses convened May 2017-May 2018

Univ.	Course Title	Male	Female	Total
ABU	Training of staff of National Emergency Management Agency (NEMA) on Fundamentals of Disasters	15	6	21
Ardhi	Emergency preparedness and response course for Tanzania Red Cross Society (TRCS) volunteers from Ilala, Temeke and Kinondoni Districts of Dar es Salaam Region	40	37	77
Ardhi	Understanding of disaster and the role of Arusha District Council in DRR	5	6	11
Ardhi	Understanding of disaster and the role of Meru District Council in DRR	31	17	48
Ardhi	Understanding of disaster and the role of Moshi Municipal Council in DRR	12	6	18
BDU	First Aid Training	32	4	36
GBU	Risk of Water-borne Diseases of Livestock in the Senegal River Valley	45	15	60
GBU	Disaster Risk Management and Prevention: Implications of Food Safety and Chronic Disease.	24	11	35
GBU	Agricultural Risk Management in the Sahel	6	39	45
GBU	Integrated Context Analysis (ICA) using 3PA, PCP, PSME toolkit concepts	9	27	36
Ghana	Introduction to disaster risk reduction	10	12	22
Ghana	Resilience building in urban communities	7	12	19
Makerere	Qualitative research for health sciences	4	6	10
Makerere	Public Health in Complex Emergencies	6	17	23
Makerere	Advanced Qualitative Research for Health Scientists	13	7	20
Moi	Planetary health	4	11	15
Moi	Nutrition in Emergencies	6	19	25
Moi	Food Hygiene and Safety	5	13	18
SU	Community Risk Assessment: Focus on informal settlements	6	7	13
Tanà	Introduction aux concepts de Gestion / Réduction des Risques et des Catastrophes, résilience et le développement (dans Alaotra Mangoro)	19	5	24
Tanà	Introduction aux concepts de Gestion / Réduction des Risques et des Catastrophes, résilience et le développement (dans Betsiboka)	18	5	23
Tanà	Introduction aux concepts de Gestion / Réduction des Risques et des Catastrophes, résilience et le développement (dans Itasy)	18	5	23
Tanà	Introduction aux concepts de Gestion / Réduction des Risques et des Catastrophes, résilience et le développement (dans Vatovavy Fitovinany)	18	4	22
Tanà	Les médias, acteurs incontournables de la gouvernance des risques et des catastrophes	3	11	14
UBuea	The basics of GIS and its application in disaster risk reduction (DRR) and management	40	30	70
UDM	Management Techniques in Economic, Preventive and Monitoring context within disaster prone regions	0	2	2
UDM	Integrated Distrital Programming Toward Resilience	20	11	31
USTHB	Progress of the International strategy for Disaster Risk Management 1990-2015.	10	5	15
Total		426	350	776

Tanà also held a series of five short courses over July 2017, reaching 106 people (28.3% women). Four of these, targeted to *local authorities and municipal staff*, sought to strengthen understanding of disaster risk and improve risk governance, as well as the need to integrate DRR within development. The fifth targeted *professional journalists* from local television and radio stations. This emphasised key DRM and DRR concepts. It highlighted the importance of the media in mainstreaming DRR, especially in gaining public support for inclusive DRM activities.

Closer engagement with *humanitarian organisations* was underlined by **ARU's** efforts. As part of its agreement with the Tanzanian Red Cross Society (TRCS) to establish a student internship programme, **ARU** customised a short course that prioritised 'emergency preparedness and response' for 77 TRCS volunteers drawn from the Temeke, Kinondoni and Ilala Districts in the Dar es Salaam region.

Focusing specifically on *university staff and students*, in Cameroon, **UBuea** organised a short course introducing the basics of GIS and its application to both DRM and DRR. The team initially anticipated a maximum of 50 participants. However, university-wide response from faculties and departments was so overwhelming (over 100 students and staff applied), that 70 participants were eventually accepted.

3.4.4 Risk research

Post-graduate student research

In 2017-18, 217 students across Periperi U undertook research for BSc, PGDip, Honours, Masters and PhD degrees, including **176 Masters projects and 16 PhD topics**. Despite limited resources, 87 theses were completed during the year. These included 67 at Masters level, with 34 and 24 of these attributed to students at ABU and ARU respectively (Table 8). When theses for 2016-17 are included, an impressive 265 student theses were completed across the partnership in just two years.

The steady increase in disaster risk-related PhD-level research is particularly significant, with doctoral-level students undertaking difficult, in-depth studies on complex disaster risks. Not only do these studies require nuanced understanding of the specific risk context, including its cultural and socio-political dynamics; the growth in PhD-level research signals maturation and rising confidence in Africa's scientific capability in the disaster risk domain.

Table 8 Total Periperi U postgraduate research projects: 26 May 2016 - 25 May 2018

University	Y1: 2016/17			Y1: 2017/18			Total		
	Completed	Ongoing	Total	Completed	Ongoing	Total	Completed	Ongoing	Total
ABU	13	0	13	44	46	90	57	46	103
ARU	44	13	57	26	10	36	70	23	93
BDU	31	17	48	6	26	32	37	43	80
GBU	20	0	20	0	1	1	20	1	21
Ghana	6	0	6	0	6	6	6	6	12
Makerere	14	0	14	2	5	7	16	5	21
Moi	2	0	2	0	0	0	2	0	2
SU	7	1	8	2	13	15	9	14	23
Tanà	16	0	16	1	22	23	17	22	39
UBuea	4	0	4	1	0	1	5	0	5
UDM	21	4	25	5	0	5	26	4	30
USTHB	0	5	5	0	1	1	0	6	6
Total	178	40	218	87	130	217	265	170	435

The diversity of student research themes is also illustrated in Figure 9. While the most frequently reported student thesis themes related to disaster risk management and climate-related risks, health and fire-related concerns were also studied. Table 9 illustrates the range of research topics, including those pursued by PhD students.

Table 9 Illustrative examples of research undertaken by postgraduate students (26 May 2017 - 25 May 2018)

University	Illustrative Student Research Topics
ARU	Combined hydrological and hydrodynamic modelling in uncertain and data scarce areas for flood hazard assessment: A case of Wami/Ruvu Basin in Tanzania (PhD)
BDU	Challenges and opportunities of humanitarian intervention in a drought prone area: the case of Raya Kobo woreda, North Wollo Zone (Masters)
GBU	The Role of Public Transport in the Spread of Infectious Diseases: A Case of Accra Metropolitan Area (Masters)
SU	Exploring the vulnerabilities of young men in informal settlements as a driver of urban risk (PhD)
Tanà	Vulnerability and resilience strategies of rural households on the east coast of Madagascar in the face of natural hazards: the case of the SAVA region in the face of cyclones. (PhD)
UBuea	Assessing Water Security In The Abiergueu And Ekozoa Sub River Basin Of The Mfoundi, Yaoundé (Masters)
USTHB	Assessment of the vulnerability of the old heritage buildings of the city of Algiers (PhD)

Student theses: primary themes for 2017/18

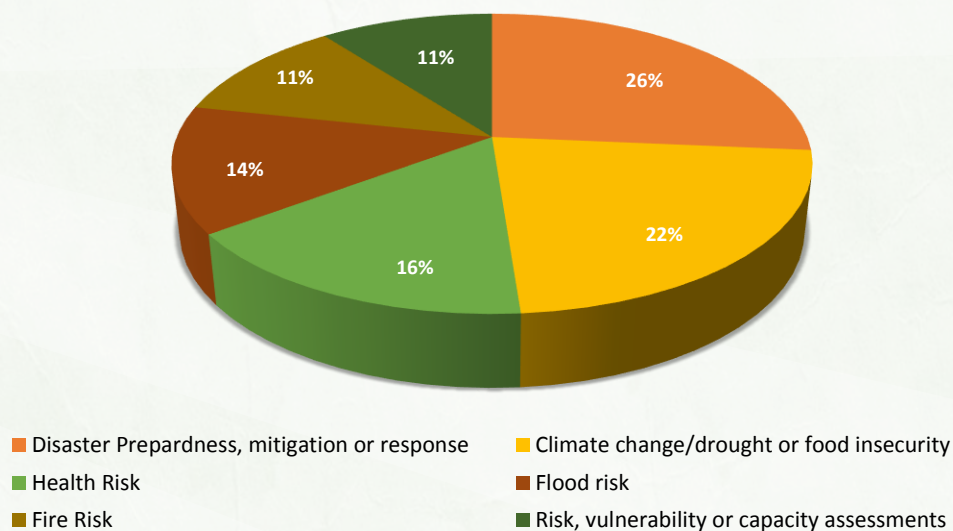


Figure 8 Primary themes for Periperi U student theses (26 May 2017 - 25 May 2018)

Faculty-led disaster risk research

During 2017-18, Periperi U **faculty-led research collaborations** continued with government, non-governmental organisations (NGOs), international research groupings and international agencies. This signalled growing confidence in the capacity of Africa-based researchers and scientists in the disaster risk domain – both within and outside the continent. Box 1 below provides a snapshot of this increasing capability.

Examples of research collaboration

ARU continued its participatory risk and vulnerability assessment for communities around the Kzinga River catchment in *the Temeke Municipality of Dar es Salaam*. The ARU team augmented this with a suite of research that included integrating settlement improvement and community coping strategies for *flood risks in informal settlements*, as well as studies on assessing potential for disaster due to the *mis-management of hospital waste-water*.

Makerere continued data analysis for two research projects on refugee health in the *west Nile district of Adjumani*. These focused on *integrating refugee and host health services*, as well as infant and young child feeding practices among refugees.

Tanà began a collaborative research project with *the Research Group for Theoretical and Applied Economics (GRETHA) at Bordeaux University, France*, investigating *social protection and resilience* to disaster risk in Madagascar. Preliminary findings were presented in June 2018 at the IDEA-GRETHA conference in France.

USTHB's collaboration with *the National Delegation for Major Risks of Algeria* aims at establishing a *nationwide loss and damage database for Algeria*. During 2017-18, USTHB collected and analysed data for this database.

Box 1 Examples of Periperi U disaster research collaborations (26 May 2017 – 25 May 2018)

Publications

Consortium partners **produced 34 disaster risk-related publications**, including 16 research reports and ten peer-reviewed journal articles (Figure 10 below). Although peer-reviewed journal output was modest due to partner publications being recorded during the previous year, 2017-18 saw a marked increase in locally-relevant research reports. This suggests the growing credibility of disaster risk research carried out by African institutions, and associated demand for local research support. Table 10 provides a short, illustrative list of publications produced in the past year.

Publications per partner

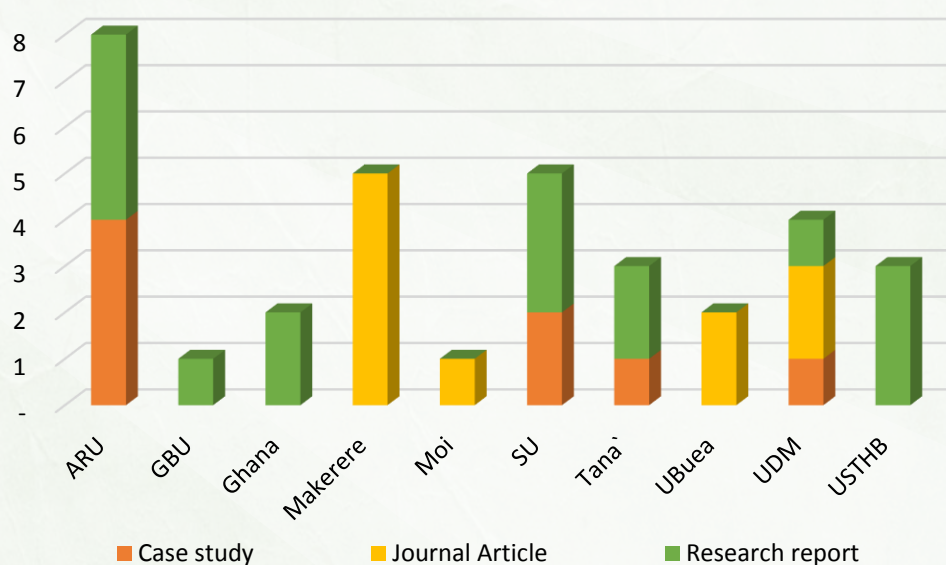


Figure 9 Types of publications produced by Periperi U partners (26 May 2017 - 25 May 2018)

Table 10 Illustrative list of publications (26 May 2016 - 25 May 2017)

University	Output type	Research author/s	Research title
GBU	Commissioned research	Diack, M., M. Loum, M.B. Sane and A. Guisse	Dynamics of agricultural lands and <i>the risk to food insecurity</i> in the Niayes Region of Diamniadio, West of Senegal
Makerere	Journal article	Bwire, G., Ali, M., Sack, D.A., Nakinsige, A., Naigaga, M., Debes, A.K., Ngwa, M.C., W. Abdullah Brooks, W.A., & Orach, C.G.	Identifying <i>cholera "hotspots"</i> in Uganda: An analysis of cholera surveillance data from 2011 to 2016
Moi	Journal article	Braitstein P., Keino S., Lama et al.	<i>Increasing food security and nutrition resilience</i> in response to climate change in east Africa: findings from a multi-sectoral symposium
Tanà	Faculty research	Michel, S. and Randriamanampisoa, H.	The <i>capability approach</i> as a framework for assessing <i>the role of microcredit in resource conversion</i> : the case of rural households in the Madagascar highlands
Tanà	Case study	Randrianalijaona T. Mahefasoa	Measuring the <i>economic impacts of cyclones</i> in Madagascar
UG	Journal article	Songsore, J.	The complex interplay between everyday risks and disaster risks: <i>the case of the 2014 cholera pandemic and 2015 flood disaster</i> in Accra, Ghana

5.4.1 Community outreach – Social impact

Community outreach that advances social impact represents a key component of Periperi U risk reduction efforts. It extends the partners' reach to highly vulnerable communities through the core areas of research, teaching/learning and strategic partnership. These efforts fall specifically within the remit of *social impact*, where university action mobilises *engaged citizenship* and *engaged research*, as well as *engaged teaching and learning*.

During 2017-18, Periperi U partners were actively involved in a wide range of community outreach activities, involving local radio broadcasts, community consultations and local capacity building.

Examples of *engaged citizenship* included local radio broadcasts by **Moi** and **SU**. In Kenya, **Moi** university staff gave a broadcast on Bulala Radio station on DRR issues in the flood prone of Bunyala Sub-County, Budalangi (potentially reaching up to 18,000 people).

What is Social Impact?

'**Social impact** is the evaluable change incurred:

- through *mutually beneficial associations, collaborations and partnerships* between the university (staff, students and alumni), and external societal partners in government, industry and the various institutions of civil society;
- on the basis of the *university's tacit knowledge*, scholarly expertise and *society's wisdom* and experience;
- through *innovative excellent practices* that prioritise the active, responsible and critical citizenship of students and staff.'

<https://www.sun.ac.za/si/en-za/Documents/Events/Antoinette%20Smith-Tolken.pdf>



Figure 10 SU student assists installing a smoke alarm in an informal dwelling as part of IDDR 2017 outreach

Also in October, **SU** staff gave two interviews on Smile FM in Cape Town related to the “Home Safe Home” theme for the 2017 International Day for Disaster Reduction. **SU**’s other activities in support of IDDR 2017 involved the installation of smoke alarms by staff and students in the backyard dwellings of a low-income housing estate (with provincial disaster management authorities, *Working on Fire*, Santam Insurance and Klapmuts community members) as seen in figure 11.

In Accra, Ghana, **UG** underlined the importance of *Global Hand Washing Day* in Sabon Zongo. In collaboration with the Janok Foundation, the University of California’s Education Abroad Programme, women and youth groups, community leaders and city authorities, **UG** staff actively promoted better hand washing behaviour to reduce environmental health burdens in low income but crowded settlements.

Examples of partners’ engaged research include ARU’s implementation of a participatory risk and vulnerability assessment for communities around Kizinga River catchment area in Temeke Municipality and community workshops by UBuea held in

October and December 2017, in collaboration with the **Buea** Urban Council. The first two **UBuea** workshops aimed at raising community awareness concerning impact of climate change on food and water security, including measures for reducing impacts. The third focused on reducing the impacts of natural hazards posed by volcanic eruptions and seismic activity from Mount Cameroon. Altogether, 150 people were reached through the three interventions.

While most outreach activities were single-day events, several partners’ activities involve sustained engagement over time. For instance, since 2017, **UDM** has provided assistance to local communities in Manjacaze, Mozambique to develop and maintain irrigation systems to enable sustainable agriculture. In January-February 2018, **UDM** staff evaluated these irrigation systems, to assess their performance and protective contribution against inundation during their past rainy season.

UDM and **Tana**’s efforts illustrate *engaged teaching and learning*. In November 2017, **UDM** and **WFP** jointly conducted a training exercise in *Sustainable Livelihood Programming* for 42 farmers and district directors. This focused on integrated planning for key district activities, from farming to basic social services. Similarly, in September 2017, **Tanà** promoted sustainable community-based flood early warning in Madagascar’s Mahanoro District / Atsinanana Administrative Region, using a participatory approach.

Altogether in 2017-18, Periperi U outreach activities such as these (excluding radio broadcasts) reached almost 600 people. They also provided crucial learning opportunities for university and staff that deepened understanding and empathy for local risk conditions – that add depth and context for future teaching and research.

3.5 Strategic engagement to advance robust DRM policy and practice

3.5.1 Overview

Strategic engagement is an integral Periperi U programme component to improve DRM policy and practice through interactions with governmental officials, national and international NGOs, international agencies and other international initiatives.

However, in 2017/18, as partner activities became increasingly diversified by scale and institution, it was necessary to differentiate the more 'strategically-oriented' engagements from those that were technically important. A third category, specifically related to *collaborative engagements*, was also recognised. This acknowledged the rapidly expanding port-folio of Memoranda of Understanding that characterised many partners' relationships with their governments, international agencies or research and teaching institutions. Box 2, on the following page, shows how the Periperi U differentiated *strategic* from *technical* engagement to strengthen coherence and consistency across the partnership.



Figure 11 Tanà's CERED and Madagascar's National Bureau of DRM (BNGRC⁷) sign MOU to strengthen cooperation and collaboration between the two institutions.

⁷ Bureau National de Gestion des Risques et des Catastrophes

A. Strategic engagement

Strategic engagement represents an explicit focus area for Periperi U partners. In our agreement with USAID, our strategic engagement activities aim for clearer recognition (across all scales) of the contribution that African higher education institutions play in strengthening national capacities to better understand and reduce risk.

For reporting purposes, *strategic engagement* is defined as:

"purposeful engagement by each participating university *in (sub) national, regional, continental or international disaster risk reduction policy-making and strategic decision-making fora or similar processes* (e.g. in national DRR platforms or local disaster risk management committees) to advance recognition of the contribution of higher education, science, technology or innovation to the field".

or

"purposeful engagement by each participating university in *relevant higher education and science policy-making and strategic decision-making fora at university, (sub) national, regional, continental or international levels* to advance disaster risk-related scholarship (e.g. National Academies of Science/Research Foundations)".

In addition, at least *one of the following two criteria* must apply:

1. An explicit *strategic planning process must precede the event*, with decision on the type of intervention to be taken (e.g. presentation, concept note, policy document, facilitated panel, site visit), and evidence of implementation.

and/or

1. The terms of reference of the event/process *are already strategic* (e.g. a national consultation on flood early warning systems, or membership of an institutional planning committee for curriculum approval).

This means that attending a national conference as a participant, with no specific strategic role or intervention made, would not automatically be considered a 'strategic engagement'.

A. Technical engagement

Technical engagement differs from strategic engagement, as instead of focusing on policy and strategic decision-making, it profiles partners' technical, academic and scientific contributions to the disaster risk domain.

For reporting purposes, technical engagement is defined as:

"purposeful engagement by each participating university *in (sub) national, regional, continental or international disaster risk reduction academic, scientific, technical and research fora or similar processes* (e.g. technical advisory committees on urban planning or impact-based forecasting), to strengthen the technical robustness of disaster risk-related interventions and strategies".

In addition, at least *one of the following two criteria* must apply:

1. An explicit scientific, technical, academic or research *communication planning process must precede the event*, with decision on the type of intervention to be taken (e.g. presentation, concept note, policy document, research briefing, site visit), and evidence of implementation.

and/or

1. The terms of reference of the event/process *are already explicitly technical or scientific* (e.g. an expert group on epidemic preparedness during floods, or membership of an expert scientific or technical group on fire prevention).

This means that attending a national technical conference on flooding as a participant, with no specific technical advisory role or intervention made, could not be classified as a 'technical engagement' (participation – 'yes', but engagement, 'no').

Table 11 Range and scale of strategic engagements by Periperi U partners May 2017-May 2018

Date	Title	Partners attended	Att.	Venue	Host
International					
20 - 21/11/2017	The 18th IRDR Scientific Committee Meeting	USTHB (Technical Advisor)	30	Tokyo	ICSU/IRDR
23 - 25/11/2017	Global Forum on Science and Technology for Disaster Resilience	SU (Co-panelist), USTHB (Discussant)	228	Tokyo	IRDR
20 - 21/11/2017	GRA Framework in support of Sendai Framework	BDU, Tana, UDM, USTHB (4 Technical Advisors)	150	Geneva	UNISDR
22/11/2017	KAN Scoping Workshop	USTHB (Presented)	50	Tokyo	IRDR
11/12/2017	UN STAG on DRR Consultation	SU (Technical Advisor)	20	Geneva	UNISDR
14/03/2018	UNISDR's global strategy for capacity development	Makerere (Presented)	100	Geneva	UNISDR
23/01/2018	Arab Coordination Mechanism for DRR	USTHB	40	Tunis	UNISDR- Office Arab States
Subtotal			618		
Continental					
9 - 10/10/2017	Periperi U Annual Consultative meeting	All Periperi U partners (All presented, BDU hosted)	71	Bahir Dar	BDU
26 - 27/09/2017	The 11th Session of the AWGDRR	SU (Presented)	40	Mombasa	AU & UNISDR
13 - 14/03/2018	The 12th Session of the AWGDRR	SU (Presented)	40	Addis Ababa	AU & UNISDR
			151		
Regional					
19 - 21/09/2017	19 th Session of the Board Members' Meeting of the RA of ICSU	UBUEA (Presented)	10	Durban	ICSU - ROA
3/06/2017	EAC- Sub-Regional Platform on DRR	ARU (Presented)		Kigali	ISDR and EAC
5/06/2017	Belmont Forum Collaborative Research Action Scoping Workshop	USTHB (Presented)	29	Florence	IGG & Dept. ESS & ET
19 - 20/12/2017	Experts Group Meeting on Coordinating Responses to Climate Change and DRR in the Arab Region	USTHB (Presented)	32	Beirut	ESCWA & UNISDR
22 - 23/04/2018	First Arab Partnership Meeting for DRR	USTHB (Presented)		Cairo	UNISDR, Office: Arab States
15 - 17/05/2018	NEPAD ARCH – Technical meeting	Tana, SU, Makerere, ARU, BDU, UDM (6 presenters)	25	Kampala	Makerere
26 - 28/03/2018	SADC Regional DRR Conference	ARU, SU, Tana, UDM (4 Technical Advisors)	149	Pretoria	SADC - WB - NWU
Subtotal			245		
National					
28/03/2018	START Network and CERED meeting	Tana (Discussant)	24	CERED - Tana	WHH
Subtotal			24		
Local					
25/05/2018	Academic curriculum planning meeting	Ubuea (Discussant)	5	Yaounde	Ubuea
27/03/2018	Consultation with Mellon Foundation	SU (Presented)	8	SU	SU
12 - 14/02/2018	DRR strategic meeting with County management	Moi (Technical Advisor)	15	Busia	Busia County
19/03/2018	DRR strategic meeting with SC DRR Committee Reps	Moi (Technical Advisor)	20	Bunyala SC	Bunyala SC DRR rep
10/01/2018	Masinde Muliro University School of DRR	Moi (Facilitator)	4	Kakamega County	Masinde Muliro Univ.
7/02/2018	RADAR strategic meeting	SU (Presented)	17	SU	RADAR, SU
Subtotal			69		
Total participants			1 107		

3.5.2 Strategic engagements in 2017/18 – multiple scales, multiple stake-holders

Table 11 above illustrates the consortium’s complex, multi-scalar reach through a diversity of partner interactions and deliberate “local to global” engagements. It indicates participation at more than 20 meetings, conferences and consultations that spanned subnational/local, national, regional, continental and global scales and included more than 1 000 people. In each instance, Periperi U participants were actively involved as hosts, co-organisers, discussants, panellists, presenters, technical advisors, or had other specialist roles.



Figure 12 BDU hosting and presenting at the Third National Conference on Building Disaster Resilient Communities

3.5.3 Technical and collaborative engagements.

Technical engagements

Partner efforts in 2017-18 provide evidence of rising *technical engagement* of Africa’s HEIs in the risk and resilience domains. Periperi U reports indicate participation at 80 technically-oriented events that drew on university expertise, primarily at national and sub-national/local levels. These included capacity-building for other subnational HEIs keen to introduce disaster risk-related programmes. They also were reflected in technically-gearred public seminars on current risk topics, as well as national consultations with government and international organisations on complex risk issues.

Altogether, 61 (76%) of the 80 technically-oriented engagements occurred at national or subnational/local levels, signalling the specific value-added that engaged HEIs can bring to risk and resilience efforts, especially at local and subnational levels.

Concrete examples include **ABU’s** capacity-building support through a *training workshop to lecturers* in the Department of Disaster Management and Control at the Adamawa State Polytechnic, in Adamawa State, Nigeria. They were also reflected in post-graduate research communications, as illustrated by **ARU’s** presentation in Dar es Salaam at the International Association of People-Environment Studies Symposium on the *mismatch between human settlement planning and disaster risk reduction initiatives*.

SU demonstrated the value of profiling a highly relevant risk theme, when it convened a *public open seminar* on the *Western Cape Drought* on-campus in April 2018. This annual initiative, now an integral component of SU’s DRSD Honours teaching programme, was attended by 90 people – including post-graduate students and municipal disaster management practitioners.

In the past year, it is clear that at national level, Periperi U partners are increasingly consulted on issues of risk and vulnerability. For instance, in April 2018, **Tanà** representatives participated in a national workshop on *Vulnerability and Risk Assessment and Mapping (VRAM) Madagascar* – to strengthen national capacity to assess and analyze health risks in Madagascar.

Collaborative engagements

In 2017-18, the increasing traction on technical issues between Periperi U partners and other stake-holders was further advanced through formal *collaborating agreements*. In this context, at least six partners signed Memoranda of Understanding with other HEIs, scientific/research institutions, government ministries or international agencies - signalling a growing capability to work collaboratively with stake-holders across sectors, disciplines and geographic scales, as illustrated in Box 3.

Formal Collaborative Agreements

ARU signed MOUs with:

University College London (UCL) to collaborate with Ardhi's Disaster Management Training Centre to implement applied research on informal settlement risk, community knowledge and policy action

The Humanitarian Academy of Kenya and TRCS, to implement an internship programme for graduate students from ARU (as well as Universities of Dar es Salaam and Dodoma).

GBU signed MoUs with:

the International Food Policy Research Institute (IFPRI) in Senegal for collaborative training programmes and joint research on issues related to food insecurity, vulnerability and resilience, as well as opportunities for graduate student internships.

The World Food Programme, in Senegal to strengthen collaboration in student capacity building and research related to food security, as well as the prevention and management of risk.

Makerere signed an MoU with WHO/AFRO to collaborate on RRT training programmes to strengthen countries' capacities to identify and respond to public health emergencies.

Tanà signed MoUs with:

the Ministry of Population, Social Protection and Family Planning, to collaborate on research and contribute towards Ministry staff training courses for capacity development on social protection.

the National Bureau of DRM (BNGRC) to assist in to collaborate on research and contribute towards training courses for DRM personnel and emergency responders

GRETHA research centre (Bordeaux University, France) to conduct joint research investigating social protection and resilience to disaster risk in Madagascar.

UDM signed MoUs with two Mozambican HEIs, Universidade Pedagógica - Delegação da Beira and Universidade Católica de Moçambique to collaborate on risk related research, implement joint short courses, and conduct student exchanges.

Box 3 Illustrative examples of Memoranda of Understanding signed by Periperi U partners

4. SECRETARIAT REPORT

4.1 Overview of secretariat support

During this reporting period, **RADAR**, in its capacity as the Periperi U Secretariat, continued to provide support to the consortium. The secretariat was also responsible for planning and facilitating the attendance of partners at strategic events such as Periperi U's annual consultative meeting convened from 9-11 October 2017 in Bahir Dar.

4.2 Operational support for core Periperi U activities

The secretariat's operational support included assistance for the day-to-day running of the consortium (including financial management and reporting to USAID).

As Periperi U project manager, **RADAR/SU** oversaw compliance with award terms and conditions, facilitated transfers of funds, secured international flight authorisations and ensured reporting compliance as required by the current grant. In addition, the secretariat prepared and submitted advance requests to USAID/OFDA that resulted in the disbursement of USD 926 500 to 11 sub-awardees.

Altogether, during the reporting period, **RADAR/SU** reserved and paid for 54 international flights for partner travel. This included travel in July 2017 for 11 finance officers from all sub-awardees to attend a financial management consultation in Stellenbosch, as well as international flights for partners to attend meetings in Ethiopia and Uganda.

4.3 Facilitation of strategic international engagement and cooperation

The secretariat also oversaw extensive administrative and logistics arrangements for two consultations. Specifically, it co-organised the annual consultative meeting from 9-10 October in Bahir Dar, with the IFRC and **BDU**. Preparatory arrangements included travel logistics for 21 attendees to travel to Ethiopia, as well as hotel and conferencing in Addis Ababa for Periperi U partners to attend IDDR celebrations at the AU.

In addition, the secretariat co-organised the 15-17 May 2018 NEPAD-ARCH meeting with WFP, NEPAD and Makerere University. It also coordinated closely with the organisers of the 26-28 March 2018 SADC Regional DRR Conference, to ensure attendance of partners from Madagascar, Mozambique and Tanzania.

4.4 Riskreductionafrica.org and online research centre (ORC)

With increasing needs for systematic data management, the secretariat recruited a dedicated data capturer in June 2017. This appointment strengthened maintenance support for the Online Research Centre (ORC), as well as capacity to upload and categorise electronic copies of reports, articles and documents onto the site.

During 2017-18, there was a steady increase in the number of electronic documents viewed and downloaded (see Table 12 and Figure 14), with 2 580 341 searches and 158 944 PDFs viewed. This compares with 1.7 million searches and 166 287 PDFs viewed the previous year. It is estimated that by April/May 2018 more than 11 000 searches were being conducted daily, along with 550 PDF views.

Table 12 Number of searches conducted on ORC & number of PDFs viewed (June 2017-May 2018)

Month	Searches	PDFs views
Jun - Aug '17	451 487	27 152
Sep - Nov '17	566 045	41 424
Dec '17 - Feb '18	585 888	37 682
Mar - May '18	976 921	52 686
Total	2 580 341	158 944

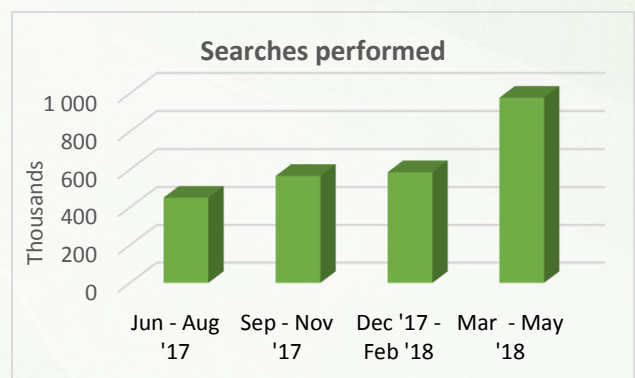


Figure 13 Graph indicating number of searches conducted on Periperi U's ORC (26 May 2017 - 25 May 2018)

In addition to the ORC, the secretariat continued to manage and update the www.riskreductionafrica.org website and its Facebook page to ensure a strong online presence. These platforms were used largely to provide information on each of the partner's academic courses, advertise short courses as well as report on consortium related events and news.

5. PROGRAMMATIC CONSTRAINTS

5.1 Overview

Despite its 2017-18 successes, Periperi U partners encountered difficult challenges and obstacles that disrupted academic programmes and outreach activities. These included persisting obstacles to student financing, staffing challenges, political disruptions and slow university approval processes for introducing new cross-disciplinary curricula. They also faced increasing pressure from beyond the higher education enterprise due to growing demands from government and other stake-holders.

5.2 Obstacles to student financial support

As already noted (see 3.5.2), many students struggled to support themselves financially, with funding obstacles delaying study completion or forcing student withdrawal from DRM-related academic programmes. This represented a disproportionately high burden for women students, who were more likely to withdraw from courses than their male counterparts or took longer to complete their programmes.

Constrained financial support at post-graduate levels ultimately deters talented women from pursuing studies at doctoral levels. This translates into poor progression of women into early career disaster risk-related academic and research positions – which was materially reflected in the consortium's highly skewed gendered staffing profile, which remains predominantly male.

5.3 Staffing challenges

The absence of skilled human resources to cater for complex, interdisciplinary and transdisciplinary academic programmes represented a continuing constraint. **Makerere** specifically, faced significant difficulties in recruiting qualified and experienced core academic staff to deliver quality teaching and supervision of students for its MDM and newly approved modules. This resulted in the need for a large number of adjunct or part-time staff, whose teaching availability could not always be guaranteed.

In anticipation of these later disciplinary and teaching challenges, **UG** and **UBuea** explicitly negotiated teaching input from a diverse range of disciplines and fields into the curriculum design of their new interdisciplinary disaster risk-related Masters programmes prior to programme approval.

In early 2018, the secretariat reported the retirement and resignation of *two key administrative/financial management* staff. While a successor for one post was appointed by February, the project accountant position remained unfilled until June 2018. In the interim, Periperi U's financial management responsibilities were distributed across remaining staff, with significant opportunity costs to other activities and commitments over this period.

5.4 Political disruptions and unrest

As in previous reports, political disruption and unrest continued to interrupt programme activity for several partners. This influenced approval processes for new courses, outreach activities and even basic communication and in-country travel. For instance, **Moi** reported continuing delays in University Council approval for several new MSc courses, that was attributed to Kenya's political unrest in the latter half of 2017 as well as nation-wide strike action across HEIs in early 2018.

The unrest associated with Kenya's national elections as well as university staff strikes significantly curtailed **Moi's** activities, especially its planned short courses, community outreach and strategic engagements in Budalangi sub-county in Busia County. Due to the strong political opposition presence in Budalangi, this sub-county was affected by violent protests in 2017-18, constraining safe access by **Moi** teaching staff.

Similarly, persisting unrest in Cameroon disrupted **UBuea's** research and teaching during much of this reporting period. In particular, access to internet and electricity was periodically interrupted, posing substantial obstacles to **UBuea** staff to communicate with the secretariat as well as other stake-holders in Cameroon and beyond.

In Ethiopia, the country's *state of emergency* in 2017 and until June 2018 also imposed substantial constraints on **BDU's** activities. However, although the national state of emergency temporarily delayed the consortium's annual consultative meeting in Bahir Dar, the meeting went forward successfully in October 2017. This represented a catalytic event for the profile of Africa's HEIs in the risk and resilience domains, stimulating and unlocking new collaborations with a diversity of partners.

5.5 Slow approval time-frames for new academic programmes

A recurrent challenge reported was the slow, multi-layered process for approving new academic programmes. While this was most pronounced for **Moi** and **UG**, it also applied widely across the partnership – with approval times (including final authorisation from national ministries of higher education) extending beyond two-three years. The protracted nature of such approval processes underline the importance of sustained institutional advocacy and tenacity within individual universities, as well as in-depth knowledge of the complex navigational steps and stake-holders involved.

6. CONCLUSION

During this second year, Periperi U demonstrated its capability to 'go to scale', across the continent. Not only did this reflect in an expanded teaching port-folio and focused short courses. Its commitment to engage with diverse stake-holders was also reflected in a vigorous participation that spanned local to global scales. Significantly, greater technical collaboration between Periperi U HEIs and other stake-holders at subnational/local levels underlined the value-added that engaged HEIs can bring, especially to address the 'last mile' challenges in reaching at-risk communities.

Despite the extremely trying conditions faced by many Periperi U partners, this year's wide-ranging achievements foreground the consortium's capacity to operate at scale. They also underline the value-added that many engaged HEIs are already bringing to risk and resilience efforts across Africa, especially in at-risk, resource-constrained communities.

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Periperi U represents an innovative collaboration of African universities committed to strengthening strategic capacity to reduce and manage contextually relevant disaster risks. It gives explicit priority to 'closing the gap' between Africa's institutions of higher learning, and contemporary disaster risk management policy and practice within countries and across the continent. Its members also work closely with many governmental partners as well as with bilateral and multilateral organisations and nongovernmental organisations.

Consortium efforts are enabled through a small secretariat, located at the Research Alliance for Disaster and Risk Reduction (RADAR), Stellenbosch University, Stellenbosch, South Africa
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