International Joint MSc Programme: Geography of Environmental Risks and Human Security

United Nations University
Institute for Environment and Human Security

University of Bonn Department of Geography
Acknowledgement

Ministry of Culture and Science of the German State of North Rhine-Westphalia

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DAAD Deutsche Akademischer Austauschdienst
German Academic Exchange Service

Great appreciation to the German Academic Exchange Service (DAAD) for its support and funding to advance educational opportunities for individuals from developing countries through the Development-Related Postgraduate Courses (EPOS) programme.
Dear reader,

In 2013, as the first 27 students of the Joint Master’s Programme in Geography of Environmental Risks and Human Security started their classes, this programme could have been compared to a ship leaving its harbour for its maiden voyage: watched by a crowd of spectators, some waved and cheered, others wondering with scepticism how such a unique vessel manned by a crew drawn from two so very different institutions would make it through the waves ahead. Almost seven years later, this vessel has paved the way for the creation of a community of talented young scientists from all over the world, who wish to deepen their knowledge and help governments and communities to find solutions for the challenges resulting from environmental and societal transformation.

As is the case with every seafaring craft, regular overhaul is needed. Accordingly, the programme’s curriculum, management and processes have been revisited over time; and this year, we are looking forward to completing the first re-accreditation of our programme. With our global network of partners and alumni growing, and building on the support received from the German Academic Exchange Service (DAAD) since 2017, we are setting sail more excitedly than ever.

Having helped the programme and its administrative processes take off since its first year of implementation, I feel proud and thankful for the achievements within the programme so far: the programme makes valuable contributions to a changing world and the challenges that come with it. Our programme can serve as a model for global collaboration and science-based innovation, which are key to the sustainable transformation that is due for our communities.

The uniqueness of our programme can hardly be overstated; on the one hand, our students benefit from the experience of a German university that has been recently recognized for its excellence; on the other, the students are exposed to an applied research institution and network within the United Nations system that aims to train future thought leaders worldwide.

I look forward to seeing our community of alumni and their lifelong bonds grow, to furthering scientific collaborations, networking and knowledge sharing, and to continuing to meet new generations of students and scholars.

Karen Hattenbach
Education Programme Manager
Facts and Figures
International Joint MSc Programme:
Geography of Environmental Risks and Human Security

In view of the growing frequency and impact of environmental events created by global climate change, population growth, urbanization and poverty, the programme provides postgraduate students with detailed knowledge, critical understanding, and the strategies and tools required to address environmental risks and human security. It does so by addressing the contemporary theoretical and methodological debates relevant to understanding the complex emergence of environmental risks and natural hazards, their implications for human-nature relations in terms of vulnerability, resilience and adaptation, and how to deal with them in practice.

Figure 1: Application overview 2013-2020

A joint initiative by the UNU-EHS and the University of Bonn, Department of Geography, the Master of Science programme in “Geography of Environmental Risks and Human Security” was launched in October 2013 and has continued to grow ever since. As of spring of 2020, more than 80 students have graduated from the programme, 52 are engaged in their internships or thesis work, and 23 students of the most recent cohort are looking forward to their second semester.
Due to its unique concept, the programme continues to attract a large number of applicants from across the globe. Apart from a spike in 2017 following the introduction of the DAAD-funded EPOS scholarships, the application period for the 2020 intake displayed the highest application rate since the beginning of the programme, with 378 applications received. Furthermore, the joint master’s programme is prominent among prospective students from the Global South, who accounted for around 85% of all applicants for both 2019 and 2020.

In terms of its student body composition, the University of Bonn and UNU-EHS remain proud of the continuously strong presence of young female researchers in the programme (ca. 58%), as well as of its efforts to balance the ratio of participants from developed and developing countries.

In terms of its curriculum, the programme enables its students to understand a diverse range of perspectives and scientific approaches at the intersection of natural sciences (especially physical and human geography) and related social sciences. By combining the perspectives of both researchers and practitioners in its modules, the master’s programme offers students great visibility and exposure to international organizations, governmental agencies, academic and non-academic research organizations, as well as private companies and corporations involved in disaster risk reduction and preparedness, humanitarian aid, international relations and climate change research and policy.
**Internship**

As a central element of the master’s programme, all students must complete a study-related internship with a minimum duration of 8 weeks. As of March 2020, 117 internships have been completed with 95 distinct placements since the implementation of the internship module. UN-affiliated placements account for about 45% of these institutions.
UNU-EHS conducts research on problems and solutions related to the environmental dimensions of human security, a concept that puts the individual, social groups and their livelihoods at the center of debate, analysis and policy.

The interdisciplinary research conducted at UNU-EHS examines the impacts of major drivers affecting human security, such as rapid and gradual onset of environmental change (including climate change). The drivers include phenomena such as floods, desertification and land degradation, water depletion and water quality deterioration, and a range of climate change impacts. Its research explores ways to improve human security through vulnerability reduction, disaster risk management and adaptation strategies. With this, UNU-EHS supports policymakers and decision makers with evidence-based research and information.

Our Departments:
- Vulnerability Assessment, Risk Management & Adaptive Planning (VARMAP)
- Environmental Vulnerability & Ecosystem Services (EVES)
- Environment and Migration: Interactions and Choices (EMIC)
- Pan African Cooperation and Educational Technologies (PACET)
- The Munich Climate Insurance Initiative (MCII)
- Global Mountain Safeguard Research (GLOMOS)
To date, graduates from the University of Bonn include several scholars of global importance. Today, the University comprises 7 faculties offering 200 programmes and subjects.

The University of Bonn has developed a wide network of partnerships with renowned research institutes and government bodies.

The Department of Geography (GIUB) has a rich history that spans more than 140 years of teaching and research. It is the largest and one of the most distinguished geography departments in Germany, and has 14 independent research units that encompass a wide variety of geographical topics. Each of the research fields is under the auspices of one or more professors in the department. This enables the University of Bonn to provide its students with high quality and unique education, especially if they choose an interdisciplinary or an applied study approach. Its research units are combined in the common interest of risk analysis that embodies one of three major research priorities at the Department (source: www.geographie.uni-bonn.de).

The GIUB boasts expertise in a wide range of thematic research areas, including Climatology and Landscape Ecology, Geomorphology, Hydrology and Water Resource Management, Development Geography, Urban and Regional Geography, Economic and Social Geography, Historical Geography, Remote Sensing and GIS.

The GIUB offers undergraduate and postgraduate programmes both for German and international students in German and English.

Besides the joint collaboration with UNU-EHS, the GIUB is a member and initiator of other projects and societies. The Start Study Bonn initiative intends to help refugees in Bonn to return to their studies. The Geographical Society aims to make research findings in Geography and Ethnology available to the interested public and present them in layman’s terms. The Geoverbund ABC/J is a geoscientific network connecting research institutes from Bonn, Aachen, Cologne and Jülich for the purpose of knowledge sharing and forging bonds and networks.

Founded in 1818, the University of Bonn has become a learning environment to more than 38,000 students from all around the world. The University is one of the leading research-based universities in Germany and beyond.
At UNU-EHS and University of Bonn’s Geography Department (GIUB) our students are provided with first hand cross-cutting knowledge. The curriculum is taught jointly by lecturers from both institutes, which brings added value to the quality of teaching. The students get to experience the traditional German educational system, as well as the UNU training method.

With UNU-EHS and GIUB’s research areas, our lecturers offer expertise in geography, environmental risks and human security, sustainable development, climate change, adaptation to natural hazards, natural disaster risk management, climate risk insurance, and geographical information systems (GIS), etc.

The ruling body of our programme is the Joint Academic Board, which is composed of lecturers from both institutes. This way, our joint group of experts determine the curriculum and content of the programme.

Our Lecturers and Thesis Supervisors

- Prof. Dr. Julia Verne, Head of Joint Academic Board, University of Bonn, GIUB
- Dr. Zita Sebesvari, Head of Joint Academic Board, UNU-EHS, EVES
- Dr. Sonja Ayeb-Karlsson, UNU-EHS
- Dr. Veit Bachmann, GIUB
- Ms. Kehinde Balogun, UNU-EHS
- Dr. Emmanuel Cheo, UNU-EHS
- Dr. Jennifer Cissé, UNU-EHS
- Dr. David Daou, UNU-EHS
- Prof. Dr. Mariele Evers, GIUB
- Prof. Dr. Klaus Greve, GIUB
- Dr. Michael Hagenlocher, UNU-EHS
- Dr. Konrad Hentze, GIUB
- Dr. Mostapha Harb, UNU-EHS
- Prof. Dr. Joerg Szarzynski, UNU-EHS
- Mr. Soenke Kreft, UNU-EHS
- Dr. Lisa Krieg, GIUB
- Prof. Dr. Detlef Müller-Mahn, GIUB
- Dr. Robert Oakes, UNU-EHS
- Dr. Simone Sandholz, UNU-EHS
- Prof. Dr. Lothar Schrott, GIUB
- Dr. Zita Sebesvari, UNU-EHS
- Ms. Viktoria Seifert, UNU-EHS
- Dr. Maxime Souvignet, UNU-EHS
- Dr. Christiane Stephan, GIUB
- Prof. Dr. Joerg Szarzynski, UNU-EHS
- Dr. Kees van der Geest, UNU-EHS
- Prof. Dr. Julia Verne, GIUB
- Dr. Yvonne Walz, UNU-EHS
- Mr. Michael Zissener, UNU-EHS
Alumni Portraits
We are proud to see our alumni working in decision-making and cutting-edge sectors, such as research, government, NGOs and the private sector.

Their area of expertise covers natural disaster prevention, management and response, as well as humanitarian work, sustainable development and climate change, etc.

Currently, our former students hold positions in renowned organizations such as the UN, GIZ, ICRC, FSC, ICLEI, Welthungerhilfe and the World Bank, as well as in universities and research institutes, including UNU-EHS and the University of Bonn.

Their area of expertise covers natural disaster prevention, management and response, as well as humanitarian work, sustainable development and climate change, etc.

As of 2020, more than 80 students have graduated from the programme. Furthermore, our alumni are working in crucial sectors and in locations around the world.

We are proud to see our alumni working in decision-making and cutting-edge sectors, such as research, government, NGOs and the private sector.

True to its mandate to advance sustainable development and offer equal educational opportunities to individuals from all around the globe, our programme trains future thought leaders to drive change and strengthen vulnerable places and communities.

Gender balance is integral to the programme, which seeks to offer equal opportunities to both women and men and achieve gender parity as much as possible. Currently, our worldwide GeoRisk alumni network comprises 46 females and 38 males.
Looking back, how would you describe your experience in the joint master’s programme? How did you benefit from it?

It was a perfect potpourri of scientific, policy and practical experiences. Benefiting from both the University of Bonn and the United Nations University, I thoroughly enjoyed the opportunity to switch from studying concepts of risk and vulnerability to being able to interact with the UN and other international organizations, and learning through role-playing as members of emergency response teams! Most importantly, I have met and learned so much from fantastic professors, lecturers, colleagues and my fellow cohort of students from all over the globe. I liked the diversity of courses we had, especially the module on concepts of risk, which I benefit from even today, and is a niche of this programme in my eyes.

Delivering on the promise of the Paris Climate Agreement: is adaptation finance allocation prioritizing the most vulnerable?

Against the background of the increasing importance of the allocation of adaptation finance to ‘particularly vulnerable’ countries, as manifested in the goals of the Paris Climate Agreement, this study was initiated in order to find out if these promises are being translated to practice. Despite methodological and political challenges of measuring vulnerability, studies show that vulnerability is not a prioritization criterion. Going beyond current literature, which largely concentrates on tracking adaptation finance flows, this study percolates deeper to contribute to the gap in understanding the ‘why (not) axis’ of adaptation finance allocation, i.e. factors beyond vulnerability that play a role.

The empirical focus is on the case of Germany and India, both of which are highly influential and significant actors in the field of climate adaptation finance. The theoretical lens adopted for this study triangulates principles of justice and neo-institutional and organizational theories. Integrating and juxtaposing the donor-recipient perspectives as well as bilateral adaptation aid and multilateral adaptation funds, this study adopts a mixed methods approach. Empirical findings reveal a plethora of factors, underlining the complexity, dynamics and uncertainties characterizing the allocation process of both aid and funds. Theoretical guidance from neo-institutional and organizational theory and theories of justice helps to explain the empirical findings to some extent.

This study makes a valuable contribution to the understanding of adaptation finance allocation beyond the tracking of trends, and the role of vulnerability as an emerging topic in literature. This is of crucial importance to the success of the Paris Agreement, which is contingent on the implementation of its goals.

How did your thesis work contribute to your professional/academic path?

My thesis experience played a major role in my decision to pursue a PhD. My passion for my topic and excitement in doing research to challenge a given hypothesis made my thesis experience very enjoyable. Although I very much liked focusing on larger national/global trends in my thesis, I am now eager to conduct research on a topic of finer granularity. Hence, my PhD offered a perfect opportunity to design my own sub-project within a larger research project.
Looking back, how would you describe your experience in the joint master's programme? How did you benefit from it?

Overall, my experience in the joint master's programme was highly positive. After completing the programme, I felt prepared and confident to ease myself into a career in the development/humanitarian sector. Some of the biggest benefits, apart from the content of the different courses, were the exposure to a network of humanitarian and development professionals, institutions and peers from a range of different backgrounds and cultures, which is really what makes this programme so special. The balance between theoretical inputs and the chance to apply the gained knowledge in more practical settings, including case studies, projects and various simulation exercises, is something that, looking back, was probably the biggest advantage.

What do you do today?

I have been working for one of the largest German NGOs, Welthungerhilfe, for the last two years. Since January 2020, I have been based in Port-au-Prince, Haiti, working as a Junior Expert in Programme Coordination. I will shortly be transitioning into one of Welthungerhilfe’s largest running projects, focusing on ecosystem-based adaptation to climate change in Cuba, Haiti and the Dominican Republic, where my responsibilities will include, amongst others, monitoring and evaluation and knowledge management.

In which ways did the joint master’s programme lead you here?

I would say that the programme led me to my current position in many ways. Firstly, thanks to the aforementioned exposure to a large network of professionals in my field, as a result of opportunities to take part in conferences, simulation exercises and trainings, as well as the course content, which from the beginning corresponded well to my personal interests. Secondly, my internship at OCHA in Geneva allowed me to gain valuable insights into the humanitarian sector and to further develop my own interests and goals, opening my eyes to what I could or could not imagine myself doing in the future. Lastly, and probably most importantly, my master’s thesis really was where I defined my interests, as it luckily led me to become more and more involved, over time, in different strategic processes at Welthungerhilfe, which was vital in leading me to where I am today.

Bridging the humanitarian-development divide: A critical reflection of linking relief, rehabilitation and development in complex and permanent emergencies

Thesis Abstract

The causes for human suffering manifest in today’s humanitarian landscape, which is overwhelmed by conflicts and environmental pressures in many parts of the world. Closing the gap between humanitarian and development work, also known as linking relief, rehabilitation and development (LRRD), is no doubt a challenge when it comes to implementing it in practice, not only because humanitarian assistance and development assistance are built on different principles, but also because the concept of LRRD itself is not well understood. This study demonstrates that LRRD can have a considerable practical relevance in the field, and highlights the most important factors enabling it to benefit the humanitarian system. Success factors mainly include the availability of more flexible (often longer-term) funding; the greater involvement of local civil society actors and thus community ownership and participation; more conflict sensitive approaches; and generally more holistic planning, including a clear exit strategy and the rooting of actions in existing systems rather than building new ones.

How did your thesis work contribute to your professional/academic path?

I can confidently say that the process of writing my thesis is directly reflected in my work today. After finishing my thesis, I immediately got the chance to work on the same topic professionally, which allowed me to directly apply my knowledge to practice by joining an internal study on Welthungerhilfe’s work in fragile contexts. One thing led to another and I am now a development practitioner implementing projects in a very politically and socioeconomically fragile context, in Haiti. To sum it up, strategically choosing a topic which I knew was being widely discussed and becoming highly relevant in the humanitarian and development community at the time, and also knowing that I wanted to go into practical development work after finishing my master’s, somehow led me to where I am now.
In which ways did the joint master’s programme lead you here?

This programme has strengthened my ambition to contribute to my country, which remains vulnerable to natural disasters. After completing the degree, I decided to continue my career by taking on a research position at LIPI. I quickly became aware that with my position as a government official, I could influence environmental policy at both local and national levels with scientific evidence.

Beyond Technology – Investigating the Implementation of the Indonesia Tsunami Early Warning System (InaTEWS) and its Challenges in Central Sulawesi

Thesis Abstract

This thesis seeks to understand the implementation of the Indonesia Tsunami Early Warning System (InaTEWS) and its challenges in Central Sulawesi. After the tsunami battered Palu and Donggala on 28 September 2018, the discussion has started to focus more on the efficacy of the InaTEWS. Even though the development of InaTEWS has adopted newly developed technology, the number of fatalities and scale of destruction remain high. Based on the results derived from qualitative interviews with 33 informants in Palu, Donggala and Jakarta, the implementation of InaTEWS was still inadequate in technical aspects. On top of that, this case study illustrates an apparent lack of attention to the local context, especially the sociocultural dimension, such as tsunami risk misperception, beliefs or faiths, and the overlooking of historical events. In terms of political aspect, it shows a lack of commitment to EWS efforts with regards to budget allocation and program prioritization. Hence, for a better implementation of InaTEWS in Palu and Donggala, this study recommends integrating local knowledge with a technical solution.

How did your thesis work contribute to your professional/academic path?

My thesis work has been very important for my academic path. I published part of my master’s thesis in both German and Indonesian academic journals: this step was just the beginning and a part of my task as a researcher at LIPI. Since I plan to pursue a PhD in the near future, I would say my thesis was the perfect training before actually facing a tough doctoral life. My goal now is to strengthen my findings with better analysis or comparative case studies.
Looking back, how would you describe your experience in the joint master’s programme? How did you benefit from it?

Joining the master’s programme was a tough decision I had to take. I had the option to continue with my involvement with what was then the Ministry of Disaster Management in Rwanda, where I was working as a Disaster Risk Management Consultant, or to join UNESCO-IHE for a MSc in Environmental Science. The uniqueness of this joint master’s programme was the ultimate reason for choosing it. Two institutions with remarkable reputations offering this programme made the joint master’s programme distinctive and rich in content. The GIUB offered vast academic experience, while UNU-EHS enabled the link to real-world scenarios, exposing students to current debates going on across the globe. It is hard to come across such a configuration in normal universities.

What do you do today?

Currently, I am working with the World Bank as a Disaster Risk Management Specialist, attached to the urban space unit, Disaster Risk Management (DRM), Resilience and Land Global Practice. I provide technical support to a wide range of DRM and urban resilience investment and Trust Fund projects in my unit.

In which ways did the joint master’s programme lead you here?

The joint master’s programme prepared me for this work. The curriculum for the programme is closely linked to the nature of my work. This made the whole process a bit smoother. The programme also equipped me with distinctive skills to deal with the day-to-day challenges associated with my job. The exposure received through this programme gave me the knowledge and confidence to be involved in current global debates linked to my work. These include climate negotiations, Sustainable Development Goals and the Sendai Framework for Disaster Risk Reduction.

Livelihood Resilience of Inland Fishers in the context of Climate Change in Northern Benin

Thesis Abstract

My thesis investigated the livelihood security of inland fishermen in Northern Benin, based on two theoretical perspectives: the Sustainable Livelihood Approach (SLA) and Bourdieu’s Theory of Practice. Using a mixed approach of qualitative (interviews) and quantitative (regression, crop tabulation, etc.) methods, the study attempted to understand how entitlement and endowment of assets contribute to the livelihood security of the inland fishing communities, examine the influence of institutions and policy instruments, and determine the livelihood strategies which provide better outcomes to local and migrant fishermen in Northern Benin.

How did your thesis work contribute to your professional/academic path?

The thesis allowed me to pay more attention to qualitative data in my profession. Previously, I was more inclined towards a quantitative approach, but after writing my thesis, I now pay particular attention to the narrative of communities. This enables an understanding of their perceptions, choices and decisions, which in one way or another influence their vulnerability and resilience to a particular shock and crisis.
Looking back, how would you describe your experience in the joint master’s programme? How did you benefit from it?

Even though I was previously engaged in an international working environment, the level of exposure and interaction in the joint master’s programme was altogether very different. It was more personal and, thus, very inclusive since it combined more than 14 nationalities and fields of expertise amongst my fellow classmates and teaching staff. This surely enhanced my professional and multicultural growth. Additionally, studying within the UN system exposed me to several UN agencies based in Bonn, with multiple opportunities for internships, workshops and expert seminars, all of which enriched my UN experience and professional network.

What do you do today?

I am a proud Carlo-Schmid Fellow at the World Food Programme Regional Office for Asia and the Pacific. I work with the information and knowledge management team. One of my responsibilities within the team is to map out the operational presence of WFP in the region, including the activities and programmes, as well as the evidence products generated in the process or as a result. Additionally, I support emergency preparedness and response by producing maps and other spatial information products.

In which ways did the joint master’s programme lead you here?

Studying at both UNU-EHS and the University of Bonn gave me an edge in critical thinking and strategic problem solving because I had direct contact with experts in diverse fields, connecting the physical and human sciences. Learning from this pool of experts, coupled with my previous experiences, has enabled me to contribute significantly to my work assignments, particularly as it relates to the physical, economic and social vulnerabilities of populations in environmentally unstable regions of the world. Understanding the complex nexus between disaster risk assessments and management, resilience building and general development, the joint master’s programme prepared me not only to work in emergency contexts but also in more long-term development programmes. This was one of my professional and personal expectations before joining the joint master’s and I am immensely happy to have fulfilled this goal.

Green Growth for whom? The effects of Green Growth initiatives on community well-being and ecological sustainability – A case study of South Western Mau Forest Complex, Kenya

Thesis Abstract

Over the past two decades, the Mau Forest Complex has been targeted with a myriad of approaches and activities aimed at restoring and rehabilitating this crucial landscape. Using a gendered and age lens, this research analyses the socioeconomic and ecological effects of projects under the green growth umbrella in the southwestern block of the Mau Forest Complex, focusing on community involvement in the success of such projects. Furthermore, it evaluates and discusses how these initiatives influence the coping and adaptive capacities and mechanisms of the communities affected by climate stresses and disasters.

Conducted as a case study, the research approach is both qualitative and quantitative, using Weft QDA and Geographic Information Systems (GIS) software for data analysis. The results indicate a positive socioeconomic and ecological effect of green growth initiatives, especially with the elderly population. It further reveals a gradual evolution of adaptive and coping strategies used by the forest-adjacent communities when faced with natural disasters.

Nevertheless, there is a need for enabling structures and political will to promote the contribution of women and youth to a green growth economy.

How did your thesis work contribute to your professional/academic path?

My fieldwork allowed me to get a glimpse into the world of researchers, practitioners and communities, how we all collaborate (or not) and how this affects the success of projects. Now working in a field with a practical focus on building resilience (including emergency response), I feel confident each day as I carry out activities aimed at helping people affected directly and indirectly by environmental risks. I am able to contribute to strategic programming efforts within my organization, thanks to the classes (including the simulation exercises) and fieldwork experiences from the joint master’s programme.
Looking back, how would you describe your experience in the joint master's programme? How did you benefit from it?

I would like to highlight three main aspects of the joint master’s programme that I highly appreciated:

Firstly, the programme brings together students from various parts of the world and different specializations. Besides making wonderful friends, the cultural exchanges and profound interdisciplinary discussions inside and outside the classroom enabled me to think about different perspectives.

Secondly, the programme adopts a very practical approach: it combines lectures with work experiences from international (research) organizations. Their insight and knowledge were highly valuable.

Lastly, I cannot emphasize enough the immense value gained in terms of personal and professional development as a result of the flexibility of the programme. I was able to gain experience in my specific field of interest by tailoring class papers to my favourite topics (gender and migration).

What do you do today?

After 16 months working for a Norwegian NGO as a humanitarian information analyst based in Geneva, Switzerland and Amman, Jordan, I returned to northern Uganda in January 2020. Now at GIZ, I support a project that aims to link humanitarian relief operations for DRC and South Sudanese refugees to long-term development interventions, anchored at the national level. By directly working with the ministries in Uganda’s Arua district, I advocate for mainstreaming host and refugee communities’ needs in the district development plans to ensure equal access to critical infrastructure and lifesaving services.

In which ways did the joint master's programme lead you here?

The joint master’s programme has laid a profound theoretical foundation for my current work. It provided me with analytical tools to better understand human-environmental systems and complex dynamics in insecure and fragile environments — very relevant aspects when working in the humanitarian world.

Educational Opportunities for South Sudanese Refugee Girls in Northern Ugandan Settlements - A Case Study on the Challenges Faced by Refugee Girls Accessing Primary Education in Ayili I & II Settlements

During the conflicts in South Sudan, many children will spend their youth in northern Ugandan refugee settlements. In line with the progressive Ugandan refugee response framework, this thesis aims to understand the gendered aspects of the educational situation for refugee girls in northern Uganda settlements.

In a second step, the thesis concludes that the underlying progressive policies and structures under the CRRF are good and unique foundations, but these have not created educational opportunities for the South Sudanese refugee girls. The potential that the Ugandan refugee response framework offers could be utilized if three factors were ensured. Firstly, a mutual understanding amongst all stakeholders of the root causes of girls’ drop-outs/non-enrolments in educational programmes is necessary. This would, secondly, allow combined, innovative efforts to create an enabling environment that sees flexibility in the educational system and tailors educational services to the individual and setting-specific needs of refugee girls. Thirdly, a better collaboration is needed between national ministries and local district officials in order to understand conflicting roles and responsibilities.

How did your thesis work contribute to your professional/academic path?

While conducting my research in northern Uganda, I worked for a national NGO and am a full member of the South Sudanese refugee response community. Building upon previous theoretical knowledge from the joint master’s programme, I gained first-hand experience in UN- and government-led humanitarian responses, including emergency procedures, operational structures within the cluster system and daily challenges of humanitarian interventions in fragile settings. These insights not only allowed me to better understand the humanitarian system in East Africa, they also enabled me to find a job as a humanitarian analyst right after graduation.
Looking back, how would you describe your experience in the joint master’s programme? How did you benefit from it?

At first, I was somewhat sceptical whether I would master the challenges of studying in a foreign language and in a new environment. However, right from the start, it turned out to be very nice. The relationship between us students and the lecturers was very unique, friendly, familiar and comfortable. Thus, it is no wonder that I expanded my personal network. I would consider this a major benefit and outcome of the joint master’s programme, besides getting insights into the international system of the UN and acquiring new knowledge and experience in many fields. The network, especially connections to other organizations and the University of Bonn, led me to the position I am currently in.

What do you do today?

I am a Research Assistant in the Research Group of Professor Dr. Lothar Schrott in the GIUB. I am writing my PhD thesis on ‘Approaches towards a resilient environmental and disaster-related risk management’. Conducting mainly societal scientific research, I am identifying important actors and stakeholders in the field of risk management in Germany, Switzerland and the UK. Apart from my research, I am also teaching the university’s undergraduate students.

In which ways did the joint master’s programme lead you here?

The network I established during my studies led me to Professor Schrott since he is also one of the senior lecturers and is known for his research and educational expertise in the field of natural hazards and disaster risk management and prevention. The joint master’s programme introduced me to new research approaches and methods that I am still benefiting from today, and which have remarkably shaped my current research design.

Analysis of Ecosystem Services provided by Mangroves in North Jakarta, Indonesia using the Toolkit for Ecosystem Service Site-based Assessment (TESSA)

Thesis Abstract

My MSc thesis aims to identify the ecosystem services of mangroves in North Jakarta with (at that time) a new assessment toolkit. The main aim of this thesis was to establish what benefits (in terms of ecosystem services) and challenges mangrove ecosystems provide/cause and impose on local residents in an urban environment, such as North Jakarta. Additionally, it questioned what the future of the mangrove ecosystems of North Jakarta in the context of urban and coastal development is, and what the resulting implications are for decision makers. It was outlined that the two assumed scenarios, one with the construction of a Giant Sea Wall, the other with the preservation and rehabilitation of destroyed mangrove areas, would either lead to a complete loss of ESS functions or to a stabilizing and extended ESS provision respectively. Implications and recommendations for decision makers were made accordingly.

How did your thesis work contribute to your professional/academic path?

Since my pre-master’s career was characterized by my background in Physical Geography, the joint master’s programme offered me many new opportunities, research directions and methods. This experience shaped my current work and research approach significantly, and it also built my current professional and personal networks.
Looking back, how would you describe your experience in the joint master’s programme? How did you benefit from it?

Looking back, I can describe this experience as simply outstanding as it has been a good strategic decision, a fulfilling investment and an exciting journey of learning, which has fine-tuned my professional interests and provided confidence in my more ambitious future aspirations.

What do you do today?

I am a Low Emission Development Program Officer at the World Secretariat of ICLEI-Local Governments for Sustainability, based in Bonn. My work focuses on the development and implementation of low emission development strategies, while mainstreaming air quality and health considerations in local government planning and development.

In practice, I lead ICLEI’s role in enhancing institutional frameworks through climate advocacy and multi-level governance as part of the European Union-funded Covenant of Mayors in Sub-Saharan Africa initiative. Similarly, in the joint implementation of the urban health and short-lived climate pollutant reduction project (in cooperation with WHO and UN-Habitat), I lead the component on stakeholder engagement in the pilot city of Accra, Ghana.

I am currently the coordinator of ICLEI’s flagship project, Urban-LEDS II, which aims to accelerate integrated climate action through the promotion of urban resilience and low emission development strategies (Urban-LEDS) involving 60 cities in 8 project countries and Europe.

How did your thesis work contribute to your professional/academic path?

This study helped me to appreciate the importance of integrated climate action and the need to avoid ‘one size fits all’ approaches. It also highlighted the importance of tailoring solutions to the needs of local communities, where the impacts of climate change are most felt. This, in essence, formed the basis of my interest to professionally engage with local governments as far as sustainable development is concerned, and it also links to my climate advocacy work through which I engage with national governments to strengthen collaborations with their respective local governments to enhance inclusiveness in decision-making.

The conditions and processes framing the capacity of cocoa farmers to practice climate-smart agriculture in Ghana

Thesis Abstract

Agriculture in Africa is not only exposed to climate change impacts, but is also a source of greenhouse gases (GHGs). In Ghana, agricultural emissions are accelerating, mainly due to the ensuing deforestation, with which smallholder cocoa farming is largely associated. Climate Smart Agriculture (CSA) thus offers a way to reduce the sector’s GHG emissions and to adapt the sector to the adverse impacts of climate change. This study assesses the potential of CSA vis-à-vis conventional cocoa systems to enhance production, mitigate and/or remove GHG emissions and build resilience, in addition to understanding key determinants influencing CSA practices. A farm budget analysis of productivity and economic performance shows that CSA practitioners have a 29% higher income per ha compared to the conventional farmers. Estimations using the FAO Ex-Ante Carbon-Balance Tool (EX-ACT) indicate CSA practices preserve forest resources, without which the effect on carbon balance, as presented by conventional farming, would remain a source of GHG emissions. Farm tenures, the age of farmers, location of farms, residential status and access to extension services were the main determining factors influencing CSA practices among cocoa farmers.

In which ways did the joint master’s programme lead you here?

The joint master’s programme not only reinforced my interest in pursuing a career in the fields of sustainability, environmental risk management and climate change, but it also enabled me to form the much-needed theoretical, conceptual and research base required in these fields. The programme equipped me with a good understanding of resilience principles, particularly in the context of local, national and international development, as underpinned by the interrelations between hazards, risk, exposure and vulnerability. Participating in the programme came with valuable insight into the UN system and the general community of practice — particularly the processes of UNFCCC and the climate change negotiations and discourses.
External Voices
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Benjamin Schraven
Deutsches Institut für Entwicklungspolitik / German Development Institute (DIE)

I knew about the plans to initiate a joint master’s programme right from the start. At that time, I was working a lot with colleagues from both UNU-EHS and GIUB. I even encouraged a talented young scholar from Ghana, who I met while I conducted field research in West Africa, to apply for the programme. He got accepted! Today, he is an alumnus from the first batch of the programme, and is working on his PhD thesis at the Center for Development Research (ZEF), which is also connected to the University of Bonn. Ever since, I have frequently interacted with students of the joint master’s programme, especially those completing internships or working as research assistants at DIE.

As a development policy institute, it is essential for DIE to integrate “Southern” voices at all levels – otherwise we are not credible. That is another solid reason why the joint master’s students are well-suited for our institute. I can definitely see alumni of the programme becoming part of our projects in the future.

Dr. Benjamin Schraven is a Researcher at the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE). His research focuses on migration and development policies, linkages between environmental change and migration, as well as adaptation to climate change.

All of the students I have met and worked with at DIE are talented and dynamic young people, eager for knowledge. I appreciate their soft skills, as well as their knowledge about certain topics, such as vulnerability and human mobility, which are central research topics for DIE and my individual research work. Moreover, I also appreciate that many of the students are from the Global South. As a development policy institute, it is essential for DIE to integrate “Southern” voices at all levels – otherwise we are not credible. That is another solid reason why the joint master’s students are well-suited for our institute. I can definitely see alumni of the programme becoming part of our projects in the future.
How did you become aware of our joint master’s programme and our students?

Throughout the last five years of working on ecosystem-based adaptation (EbA) and disaster risk reduction (Eco-DRR) at GIZ, there has been a strong interaction with UNU-EHS, in particular with Dr. Fabrice Renaud and Dr. Zita Sebesvari. From the beginning, there had been discussions about engaging students in some way, and fostering opportunities to form a partnership to facilitate an exchange between project implementers, researchers and practitioners. This was how I became aware of the master’s programme.

In what ways have you interacted with our students in recent years?

There have been many opportunities – from international conferences and workshops on ecosystem-based adaptation organized by GIZ, to the UNFCCC climate change negotiations, to frequent interactions at similar events, such as the Friends of EbA network meetings, the EbA Community of Practice, EbA Knowledge Days and events of the PANORAMA solutions’ initiative. On all of these occasions, there was a strong engagement by the joint master’s students, who participated quite actively.

Also, cooperation was formed within one of the programme’s seminars on EbA and Eco-DRR, where we provided inputs for the students on questions such as: What does EbA mean in practice? What is the role of the German government in international cooperation? What is GIZ doing in partner countries- from policy advice to capacity building to technical cooperation on the ground? This fruitful exchange led to further collaborations in the form of internships within our projects. Additionally, a list of potential thesis topics relevant to our project work was agreed upon with UNU-EHS, which the students and graduates could apply for to work together with GIZ in the form of a master’s study.

We did this quite successfully with a student within one of our projects in Peru, who assessed the social and biophysical impacts and benefits of EbA measures in mountain ecosystems, grasslands and wetlands. This resulted in a joint publication, as well as the student’s master’s thesis. So this was really a triple win situation for our partners at the Ministry of Environment in Peru, for us and for the student, of course.

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Mathias Bertram
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

Mathias Bertram is an advisor in the IKI-funded Global Project for the Design and Implementation of the New Global Biodiversity Framework (BioFrame 2020), implemented by GIZ, supporting Germany’s CBD focal point in UN negotiations with a particular focus on the interface between biodiversity conservation and climate change. His background is in International Forest Management. His work focuses on nature-based solutions for climate change and disaster risk reduction, biodiversity conservation and natural resources management.
What qualifies our students for their internships/student assistant jobs/theses at GIZ? What makes them well-suited for your section/department?

Firstly, they have a very broad thematic background on topics such as environmental risks, climate change, global change processes, transformation and disaster risk reduction. Also, they are all very aware of UN negotiations, processes and discussions between researchers and policymakers, which is a critical asset.

Besides this, they all come from diverse global backgrounds, have solid international experience, possess intercultural sensitivity and speak a variety of languages. All of these aspects are critical assets when working at GIZ.

What, however, makes the students really outstanding in my opinion is that they possess cutting-edge, applied research knowledge relevant to the pressing questions of our time, such as global transformation, sustainable development, climate change, biodiversity and disaster risk reduction, among other issues.

To me, they are an excellent blend of highly motivated and professional researchers with intercultural sensitivity and a high awareness of global issues and UN processes. This is a perfect mixture for working with us in our projects and for being part of our teams.

In which ways could you imagine our alumni as staff members within your team / your projects in the future?

We do in fact have alumni from the joint master’s programme in our GIZ teams already. Thus, it’s not a question of if we can imagine them working with us, but rather where they are best suited. Given the fact that GIZ’s growing project portfolio is at least 50 percent in some way related to climate change, I would say that there is a big opportunity for alumni of the programme to become future staff members. This could be either as young professionals, for which GIZ has a dedicated programme, or - if they have already gained some work experience abroad - they may apply for an advisor or junior advisor position, depending on their experience. Next to climate change, biodiversity conservation and disaster risk reduction are also very prominent topics.

Alumni abroad could potentially join our projects worldwide, of which we have more than 1,500, and thus become part of the 20,000 staff that GIZ currently has. In the context of GIZ projects in Germany, alumni could join us in providing advice to German ministries in the context of sector or global projects, for instance to the Federal Ministry for Economic Cooperation and Development (BMZ) or the Federal Ministry for the Environment (BMU), and to international initiatives for sustainable development.