



**Alexander von Humboldt**  
Stiftung/Foundation

# Stipendiatinnen und Stipendiaten 2018/2019

Internationales Klimaschutzstipendium

Fellows 2018/2019

International Climate Protection Fellowship



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## Emissions Trading Scheme to Contribute to Bangladesh's Greenhouse Gas Mitigation Efforts: Design Features and Rationale

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In its Nationally Determined Contributions (NDC) Bangladesh has committed to reducing its greenhouse gas (GHG) emissions in the energy, transport and industrial sectors by a total of 5% unconditionally and 15% conditionally by 2030 compared to business-as-usual scenarios. While globally carbon pricing instruments, i.e. carbon tax or the national Emissions Trading Scheme (ETS), play an important role in GHG mitigation, no such instrument is included in the NDC of Bangladesh. On the other hand, instruments such as low-cost finance for energy efficiency or technology mandates for polluting industries, for example brick kiln, are having little impact. In light of this situation, Shafiqul Alam intends to explore the role of carbon pricing in the form of ETS in GHG mitigation and seeks to demonstrate its rationale in a Bangladeshi context. The research is expected to provide recommendations for ETS requirements in e.g. institutional, legal, governance and other contexts, along with design features and an implementation framework. In the course of this work, pertinent energy and climate change policies of Bangladesh will be analyzed. Shafiqul Alam will conduct interviews with relevant local and international experts. The outputs of the research are expected to help policymakers form appropriate policy responses in relation to using ETS as a GHG mitigation instrument in Bangladesh.



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### Alam, Shafiqul

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**Degree:** Master of Economics | **Field:** Environmental Economics | **Affiliation at the time of application:** Deutsche Gesellschaft für Internationale Zusammenarbeit, Dhaka, Bangladesh

**Host Institution in Germany:** Ecologic – Institute for International and European Environmental Policy, Berlin | **Host:** Benjamin Görlach

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## Biogas Development in Rural Areas of Kyrgyzstan

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Kyrgyzstan produces about 90% of its electricity from hydropower. Few steps have so far been taken towards the diversification of renewable energy sources – despite the risks in the context of climate change and the rarefaction of glaciers on the Tian Shan and Pamir mountain chains. Today, diversification of energy sources is key for the future development of rural Kyrgyzstan, where agriculture, cattle breeding and poultry farming are expanding. A real opportunity to address the energy problems of the rural population, including significantly reducing the impact on the country's environment by preventing methane emissions into the atmosphere, is the application of biogas technologies in Kyrgyzstan. Political, economic, social and environmental aspects of biogas integration perspectives are therefore important for the rural community's transition efforts towards renewable energy and climate change mitigation activities in Kyrgyzstan. Gulnara Anapiiaeva aims to generate information on possibilities for biogas production at the small-scale farmer and community-based level in rural areas both in Kyrgyzstan and in Germany. She will examine the pitfalls and barriers to incentivizing the integration of biogas technologies in both countries. Results of the project will provide useful insights for those involved in the formulation and implementation of energy and climate change mitigation policies, supporting their progress and implementation.

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## Anapiiaeva, Gulnara

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**Degree:** Master of Arts | **Field:** Energy and Environment, Political Science | **Affiliation at the time of application:** JSC (Joint-stock company) Severelectro, Bishkek, Kyrgyzstan

**Host Institution in Germany:** Technische Universität Dresden, Institut für Abfall- und Kreislaufwirtschaft | **Host:** Professor Dr-Ing. Christina Dornack

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## Linkages and Practical Applications of Human Rights as a Tool for Tackling Climate Change in Latin America

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In his project, Juan Auz will explore the nexus between two narratives within the Inter-American Human Rights System: climate change and human rights. The interrelation between these two legal dimensions has not yet been fully analyzed for Latin America. Juan Auz will assess the relevance of international human rights law, along with the strategic utilization of regional human rights institutions, to address the challenges posed by the asymmetrical impacts of climate change. In so doing, a thorough examination of different sources of law will be combined with socio-political and scientific evidence provided by the Potsdam Institute for Climate Impact Research (PIK). The study will also consider arguments conveyed in burgeoning domestic climate litigation cases from around the world. The main outcome of Juan Auz' project will be a legal academic piece with a multidisciplinary approach and an action plan tailored to Latin American organizations and aimed at linking climate change and human rights before the Inter-American Human Rights Commission.



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### Auz, Juan

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**Degree:** LL.M. | **Field:** Climate Change, Human Rights and Environmental Law | **Affiliation at the time of application:** Terra Mater, Quito, Ecuador

**Host Institution in Germany:** Potsdam-Institut für Klimafolgenforschung, Dresden | **Host:** Professor Dr Detlef Sprinz

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## Integrated Systemic Assessment of the Indian Energy Transition in Low-Carbon Future Scenarios

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In India, all electricity sources, especially solar, coal and nuclear energies, are being promoted and installed with ambitious targets, with no cross-curtailment. The present policies might either create stranded coal or nuclear power assets or lock out new renewable energy sources in the near future. The impacts of climate change are however multidimensional and hence cannot be combated with technological options that have a positive impact only on greenhouse gas emissions. This underscores the necessity to examine India's future energy planning from a systems perspective so as to ensure long-term sustainable development.

To date, policy research in India has often focused only on the economic and technical aspects of energy technologies. During his stay in Germany, Mitavachan Hiremath will develop an Integrated Systemic Assessment Framework for the Indian power system from a holistic and practical point of view. He will use it to evaluate future energy scenarios for India. The trade-offs involved in choosing low-carbon pathways dominated by renewable energies vis-à-vis conventional power systems will be quantified. Mitavachan Hiremath will additionally evaluate the role of carbon capture and storage in future Indian low-carbon scenarios in terms of environmental aspects and economic trade-offs. Results are intended to guide the country's policymakers in developing future pathways for sustainable energy transition in India.

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## Hiremath, Mitavachan

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**Degree:** Master of Science | **Field:** Sustainable Energy Policy | **Affiliation at the time of application:** Center for Sustainability, Policy and Technology Management, Bangalore, India

**Host Institution in Germany:** Wuppertal Institut für Klima, Umwelt, Energie, Abteilung Zukünftige Energie- und Mobilitätsstrukturen | **Host:** Dr Peter Viebahn

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## Safe Use of Wastewater in Agriculture: An Adaptation Strategy to Climate Change and Climate Variability in Colombia

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In the context of water scarcity accentuated by climate change and climate variability and the excessive water demand for irrigation in a post-conflict scenario in Colombia, safe use of wastewater in agriculture (SUWA) is an essential, promising alternative for increasing the productivity and resilience of the agricultural sector. It also constitutes an important strategy for controlling the pollution of soil and water bodies by wastewater discharge. In her project, Natalia Jimenez Contento aims to generate recommendations for the Colombian government to improve current policy to incorporate SUWA. She will review and identify the best strategies, policies, regulations, methods, tools, and approaches from Germany and other countries that can be replicated in a Colombian context. Furthermore, interviews with stakeholders as well as an evaluation of their roles for SUWA will be undertaken.

Natalia Jimenez Contento will work closely with the Ministry of Environment of Colombia and under the guidance of UNU-FLORES. Project results are not only intended to be applied in Colombia; it is hoped that they will be adapted to many other regions facing similar challenges in the wastewater sector.



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### Jimenez Contento, Natalia

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**Degree:** Master of Science | **Field:** Environmental Resources, Water, Soil, Waste | **Affiliation at the time of application:** Ministry of Environment and Sustainable Development, Bogotá, Colombia

**Host Institution in Germany:** United Nations University, Institute for Integrated Management of Material Fluxes and of Resources (UNU-FLORES), Dresden | **Host:** Professor Dr Hiroshan Hettiarachchi

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## Potential Contribution of Indigenous and Naturalized Fruit Tree Planting to Sustainable Food Systems, Climate Change Adaptation and Resilience in Rural Communities of Central Uganda

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Trees and forests form one of the most important ecosystems for the survival and wellbeing of humans. They provide a wide range of regulating, provisioning, cultural and supporting ecological services: from purification of air, regulation of climate, carbon sinking, water cycling, and fuel, timber, medicines, fodder, construction and fencing material to facilitation of soil formation, prevention of its erosion, and provision of habitats for biodiversity. Food-bearing trees play an even greater role as they provide food for the nutritional needs of humans as well as livestock and wildlife. The effects of the continuing deforestation that is reducing global forest and tree resources have therefore been devastating. 129 million hectares of forest cover were lost globally between 1990 and 2015 alone, threatening 21% of global plant species with extinction and reducing tree-based food potentials. With the support of his host, Benedicto Kabiito explores the distribution of indigenous and naturalized food-bearing trees. Social, cultural, ecological and economic benefits of a range of selected species will be established. A cost-benefit analysis will be drawn up. By designing a framework for sustainable livelihoods through tree planting, Benedicto Kabiito's study aims to provide a foundation for the propagation and integration of important local food-bearing trees into afforestation, reforestation and agroforestry systems as a sustainable response to food insecurity, biodiversity loss, and climate change effects in rural communities of central Uganda.

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## Kabiito, Benedicto

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**Degree:** Master of Arts | **Field:** Environmental and Biodiversity Conservation | **Affiliation at the time of application:** Uganda Martyrs University, School of Arts and Social Sciences, Kampala, Uganda

**Host Institution in Germany:** Hochschule Rhein-Waal, Fakultät Life Sciences, Kleve | **Host:** Professor Dr Dietrich Darr

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## Analysis of Trade-offs and Synergies among Climate-related Ecosystem Services in Agroforestry Systems

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Agroforestry holds great promise for climate protection because there are vast amounts of agricultural land with trees and degraded soils that can be converted to agroforestry. Agroforestry provides multiple ecosystem services. The provision of ecosystem services is context-specific and has trade-offs. Lack of data and limited understanding of these trade-offs make it difficult to optimize land use for climate protection in Africa. In his project, Shem Kuyah will determine the overall effect of agroforestry on ecosystem services and develop a generic prediction model for the potential of agroforestry for carbon sequestration and other ecosystem services. Shem Kuyah and his host will use a meta-analysis to compare ecosystem services in tree-based and treeless systems. They will apply probabilistic modeling to develop a generic prediction model for estimating agroforestry's potential. The results will provide a holistic valuation framework that accounts for benefits offered by agroforestry. Total valuation of agroforestry's potential for ecosystem services will improve land use as it will contribute to policy recommendations that can improve land use management.



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### Kuyah, Shem

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**Degree:** PhD | **Field:** Plant Ecology and Ecosystem Research | **Affiliation at the time of application:** Jomo Kenyatta University of Agriculture and Technology, Department of Botany, Nairobi, Kenya

**Host Institution in Germany:** Universität Bonn, Institute of Plant Sciences and Resource Conservation (INRES) – Horticultural Science | **Host:** Professor Dr Eike Luedeling

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## Challenges and Opportunities for Climate Change During the Peacebuilding Process in Colombia

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Colombia has suffered armed conflict for over 60 years. After four years of negotiation, a peace agreement was signed in 2014. In 2015, Colombia submitted its Nationally Determined Contribution to reduce its greenhouse gas emissions by 20% compared to the business-as-usual scenario.

Taking this initial situation into account, the Colombian context provides an opportunity *sui generis* to evaluate how climate change policies are related to the peacebuilding process. The peace agreement could, e.g., promote a migratory pattern towards areas that have been previously isolated because of the war, increasing the pressure on natural resources that could result in deforestation. For this reason, Miguel Sebastian Lema Dimate will provide specific inputs for policymakers for the formulation of public policies on peacebuilding and climate change in Colombia. With his research project he will contribute to the academic literature on the relationship between climate change and conflict under peacebuilding scenarios.

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## Lema Dimate, Miguel Sebastian

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**Degree:** Master of Science | **Field:** Climate and Security | **Affiliation at the time of application:** National Planning Department, Bogotá, Colombia

**Host Institution in Germany:** Adelphi, Berlin | **Host:** Alexander Carius

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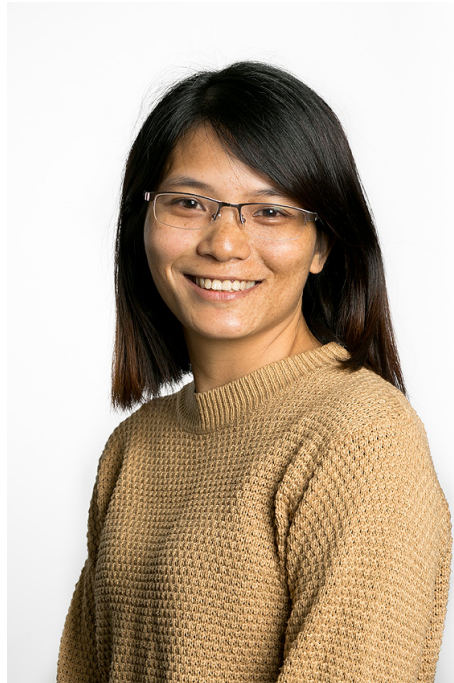
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## Opportunities for and Barriers to Women's Employment in the Off-grid Solar PV System in African and Asian Regions

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The renewable energy sector has become a significant employer worldwide. There is however a paucity of gender-aggregated data and in-depth analysis on how women and men differently participate in and benefit from this sector. In both industrialized and developing countries gender stereotypes are powerful inertial forces. They continue to restrict women's participation in and contribution to the renewable energy sector, despite the fact that companies with more diverse workforces perform better financially.

Being the largest renewable energy employer, with 2.8 million jobs worldwide, distributed solar photovoltaics (PV) increasingly offers promising solutions for energy access. It potentially creates significantly more jobs for men and women in different parts of the value chain. However, factors like social, cultural, religious, economic and educational aspects ultimately encourage the disadvantaged status of woman-led solar PV enterprises. Gian Thi Thu Luu investigates the opportunities for and barriers to women's participation in the off-grid solar PV industry, focusing on key countries in Africa and Asia as the most highly-populated regions without energy access. The study will include a review of statistical data, an analysis of the gender and employment situation, an online survey and a case study of different organizations working in the off-grid solar PV segment.



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### Luu, Giang Thi Thu

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**Degree:** Master of Science | **Field:** Biology and Environment | **Affiliation at the time of application:** CARE International in Vietnam, Hanoi, Vietnam

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**Host Institution in Germany:** Care Deutschland-Luxemburg e.V., Bonn | **Host:** Sven Harmeling

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## The Paris Agreement and Climate Change Adaptation: Inducing Environmental Law and Policy Change in Central America, Research into Public Participation and the Human Rights Dimension

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Public participation and human rights are intertwined in the Paris Agreement to guarantee its transparency, justice, and effectiveness. Countries face the task of transforming their legal and policy frameworks to facilitate socially constructed change in order to meet the climate challenge. In Central America, adaptation is a priority for countries due to the adverse effects of climate change and their contextual vulnerability. Public participation in adaptation activities can have a significant effect on efficacy. The inclusion of this element in climate law and policy can help to link these activities to the existing context while protecting human dignity. Adrián Martínez's research aims to highlight to what extent human rights, public participation, and adaptation are considered in the current policy- and law-making process. Adrián Martínez intends to compare policy and legal frameworks to find the best practices and structures available. His goal is to create a guide for public engagement to make these issues more present in the climate agenda.

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## Martínez Blanco, Adrián Alberto

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**Degree:** Master of Arts | **Field:** Climate Change Governance, Public Participation and Human Rights | **Affiliation at the time of application:** Association La Ruta del Clima, San Jose, Costa Rica

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**Host Institution in Germany:** Institute for Advanced Sustainability Studies e.V. (IASS), Potsdam | **Host:** Professor Dr Patrizia Nanz

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## Cities and Climate Change, Assessing the Role of Urban Green Space as an Adaptation Strategy to Climate Change

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Rapid urbanization produces critical environmental problems. Among the many environmental impacts of urbanization such as reduced carbon sinks, increased surface runoff and high temperatures in cities have received significant attention. Projected climate change impacts will reinforce non-climatic challenges posed by urbanization, which will render urban systems more vulnerable. Consequently, there has been increasing focus on sustainable approaches to urban planning. Urban Green Space (UGS) has been gaining importance as a cost-effective strategy for attaining sustainable cities. UGS has the potential not only to reduce urban heat stress but also to provide several benefits in terms of reducing energy consumption, increasing carbon sinks, increasing water infiltration, and promoting food security. Ghana is strongly committed to addressing climate change and promoting urban sustainability, yet UGS is less emphasized in relevant policy planning and implementation. With her project, Yvonne Nti assesses the role of UGS as an adaptation strategy. She focuses on Accra, a city already suffering from high temperatures and floods attributed to urbanization and compounded by climate change impacts. In carrying out her research, Yvonne Nti closely collaborates with the Climate Research Institute of Potsdam University and partners with the Urban Planning Department of Ghana as well as further relevant stakeholders.



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### Nti, Yvonne

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**Degree:** Master of Science | **Field:** Climate Change and Sustainable Cities | **Affiliation at the time of application:** Y&M Regeneration Limited, Accra, Ghana

**Host Institution in Germany:** Universität Potsdam, Institut für Erd- und Umweltwissenschaften | **Host:** Dr Torsten Lipp

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## Combining Methods to Determine the Origin of Wood in Tropical Forests: A Complementary Approach

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The constant selective logging of commercially valuable species is not only a threat to rare species; it has also contributed to increased worldwide deforestation. On the one hand, the correct identification of the species to be harvested presents a significant challenge when relying only on the expertise of local people or limited expert support because many species present similarities either in their botanical or anatomical characteristics. As a result of this scenario many threatened species are mislabelled as species that can legally be harvested. On the other hand, the timber provenance control system based on the respective declaration of origin is very weak. Many certificates have been manipulated, with falsely declared wood coming from unauthorized areas. DNA and isotopic analyses represent a potential and useful methodology for tracing timber as they are non-manipulable characteristics that can be used to create a reference database. On the assumption that these techniques offer a high potential for identifying illegal logging, Kathelyn Paredes aims to test their applicability for the *Cedrela* species. She assesses the degree of differentiation among populations and carries out an evaluation of statistical analyses combining these different methodologies. In this way, Kathelyn Paredes' project work supports the implementation of sustainable forest management.

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## Paredes Villanueva, Kathelyn

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**Degree:** PhD | **Field:** Environment, Tropical Forest Management | **Affiliation at the time of application:** Universidad Autónoma Gabriel René Moreno, Santa Cruz, Bolivia

**Host Institution in Germany:** Johann Heinrich von Thünen-Institut, Bundesforschungsinstitut für Ländliche Räume, Wald und Fischerei, Institut für Forstgenetik, Großshansdorf | **Host:** Dr Bernd Degen

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## Forecasting Low-carbon Sustainable Transportation in Kathmandu Valley, Nepal: Improving Air Quality and Combating Climate Change

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The transport sector is one of the major sectors accounting for poor air quality, resultant adverse health effects and greenhouse gas (GHG) emissions in the Kathmandu Valley. It has grown rapidly over the last two decades: the number of vehicles in the Bagmati Zone, where the Kathmandu Valley is located, has increased more than twentyfold, from around 34,600 in 1989/90 to around 755,000 vehicles in 2014. Over 90% of these vehicles are fossil-fuel based small vehicles such as cars, taxis, minibuses and motorcycles. This is leading to heavy dependency on fossil fuel and to high GHG and air pollutant emissions.

More aggressive, yet low-carbon transport interventions are essential for the development of sustainable transport systems that can mitigate CO<sub>2</sub> emissions and improve air quality. In her study, Jyoti Prajapati aims to identify low-carbon transport policy options and to examine options for reducing GHG and air pollutant emissions in the Kathmandu Valley. Data and policies on current transport systems will be taken into consideration in order to determine appropriate local options under plausible socio-economic development scenarios. By analysing the energy mix evolution and by discussing with key experts and stakeholders Jyoti Prajapati will formulate a science-based report that will help Nepal to achieve its socio-economic development goals while putting a low-carbon transport system into practice in the country.



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### Prajapati, Jyoti

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**Degree:** Master of Science | **Field:** Environmental Science | **Affiliation at the time of application:** Clean Energy Nepal, Climate Change and Clean Air Unit, Lalitpur, Nepal

**Host Institution in Germany:** Institute for Advanced Sustainability Studies e.V. (IASS), Potsdam | **Host:** Professor Dr Mark Lawrence

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## Understanding Electricity Use Related Behaviour under Extreme Weather Conditions

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Energy efficiency is one low-cost option to mitigate climate change. Indeed, increasing energy efficiency and curtailing activities that consume energy may be the best options for reducing greenhouse gas emissions per capita. In her research, Luciana Puebla Rentería aims to identify what drives households' electricity consumption under extreme weather conditions in order to provide decision-makers with an understanding of the nature of consumers' behaviour. She will analyse Hermosillo municipality – a northern Mexican city – as a case study due to its high electricity consumption for air conditioning during the summer, when temperatures can reach up to 50 degrees Celsius. According to the Mexican Environmental Ministry, Hermosillo is already suffering an increase of one degree Celsius in its average temperature that may be linked to climate change phenomena. The results of Luciana Puebla Rentería's analysis can be used to encourage efforts to raise citizens' awareness in order to promote energy conservation through behavioural change.

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## Puebla Rentería, Luciana

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**Degree:** Master of Science | **Field:** Economics, Energy, Behavioural Science | **Affiliation at the time of application:** Commission of Ecology and Sustainable Development of the State of Sonora, Hermosillo, Mexico

**Host Institution in Germany:** Westfälische Wilhelms-Universität Münster, Lehrstuhl für Mikroökonomik | **Host:** Professor Dr Andreas Löschel

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## Research on the Possible Replication of the Sponge City Concept in Jamaica

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The term 'Sponge Cities' refers to cities where the urban underground water system operates like a sponge to passively absorb, store, release and purify rainwater in an ecologically friendly way. This is done by creating an environment that absorbs the water and then releases it when required – in a similar manner to a sponge. There are several associated techniques involved, among them rainwater harvesting, permeable roads, rooftop gardens, rain gardens, green space, and blue space such as lakes and ponds. In recent years the island of Jamaica has found itself grappling with the need to design and implement an effective development and planning management system. This need has become even more evident with the rapid urbanization of its cities, changing weather patterns due to global warming and the necessity of setting the country on a sustainable path where all its resources are optimally utilized.

Winston Donovan Dane Quest seeks to visit and explore examples of the 'Sponge City' concept in Germany. Implementation measures will be one of the major points of his research. By, e.g., holding consultations with experts, Winston Quest will finalize a 'Sponge City' concept for his home country, which will make cities functioning as a sponge more resilient to environmental challenges and natural disasters. Winston's findings and adaptation strategy for Jamaica will also take improved water quality, reduced flood severity and water saving by inhabitants into consideration.



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### Quest, Winston Donovan Dane

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**Degree:** Bachelor of Science | **Field:** Architecture, Urban Planning and Development, Landscape, Traffic, Infrastructure Planning | **Affiliation at the time of application:** National Environment and Planning Agency, Spatial Planning Division, Kingston, Jamaica

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**Host Institution in Germany:** Leibniz-Institut für ökologische Raumentwicklung (IÖR), Dresden | **Host:** Professor Dr Dr h.c. mult. Bernhard Müller

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## German Energy Transition 'Energiewende' and Low-Carbon Urban Development Concept in Germany: Lessons for Municipal Greenhouse Gas Emission Reduction Initiatives in Tajikistan

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In order to achieve its greenhouse gas (GHG) reduction goals and meet Paris Agreement commitments, Tajikistan has to adopt a paradigm shift towards initiatives for GHG reduction by embracing low-carbon urban development concepts. Bakhodur Sheraliev's research project focuses on the question to what extent Germany's experience of a top-down strategy combined with municipal, bottom-up initiatives could be replicated in other countries. He assumes that the bottom-up approach can eliminate the lack of implementation on local levels and yield transformational effects for Tajikistan.

In his project work, Bakhodur Sheraliev will, firstly, explore the development of 'Energiewende' formulation processes with the involvement of key stakeholders, which could provide an interesting case for paradigm shift in the formulation of a Low Emission Development Strategy in Tajikistan. Secondly, he will analyze to what extent the German institutional setup and municipal low-carbon urban initiatives could be replicated in the context of a developing country. Bakhodur Sheraliev's findings will enable the effective transfer of knowledge and guidelines for low-carbon urban development concepts to Tajikistan.

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## Sheraliev, Bakhodur

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**Degree:** Master of Arts | **Field:** International Political Economy | **Affiliation at the time of application:** Committee for Environmental Protection under the Government of the Republic of Tajikistan, Dushanbe, Tajikistan

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**Host Institution in Germany:** Agora Energiewende, Berlin | **Host:** Dr Patrick Graichen

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## Water-Energy-Land Nexus: Implementation Challenges to Brazilian and German Climate and Energy Policies

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Climate change poses a twofold challenge for energy, water, and land resources: first, through the urgency to mitigate greenhouse gas emissions; and second, through the need to adapt the systems through which they are interconnected. While much work has been done to advance understanding of the nexus in terms of physical interdependencies, political and institutional dimensions in this realm have received little attention. Inaie Takaes Santos aims to investigate what the policy implementation challenges for the nexus are and how to overcome them, accounting for the interaction of physical linkages with social, economic, and political aspects. By focusing on the bioenergy sector, the first building block of her qualitative research project examines governance issues. The second project part will explore the role economic instruments play in integrated sustainable resource management. In this way, Inaie Takaes Santos will assess the level of convergence in sectoral policy instruments and provide practical recommendations on policy integration.



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### Takaes Santos, Inaie

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**Degree:** Master of Science | **Field:** Public Management and Environmental Economics | **Affiliation at the time of application:** Fundação Getulio Vargas, Center for Sustainability Studies, Sao Paulo, Brazil

**Host Institution in Germany:** Institute for Advanced Sustainability Studies (IASS) e.V., Potsdam | **Host:** Professor Dr Ortwin Renn

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## How can China Achieve its Intended Nationally Determined Contribution (INDC) Target in 2030 based on the Emissions Trading Scheme?

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Reducing greenhouse gas emissions is an important means of limiting the pace of global climate change. As the country with the greatest energy consumption and CO<sub>2</sub> emissions, China has in its Intended Nationally Determined Contribution set itself the target of reducing its carbon intensity by 60%-65% of the 2005 level by the year 2030. While the emissions trading scheme (ETS) has been selected as the most important climate policy in China, a long-term impact assessment of the nationwide carbon market is essential for regional coordinated development and the dynamic mechanism design of ETS. In her project, Jie Wu will develop a dynamic multi-regional computable general equilibrium model for China. Based on this model the long-term impact of a nationwide carbon market and a dynamic scheme design for emissions cap and allowance allocation adjustment will be evaluated. Finally, Jie Wu will provide policy suggestions for optimal ways of reducing emissions.

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## Wu, Jie

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**Degree:** PhD. | **Field:** Energy-Environment-Economy Modelling and Climate Policy | **Affiliation at the time of application:** Shanghai University of Finance and Economics, School of Statistics and Management, Shanghai, China

**Host Institution in Germany:** Zentrum für Europäische Wirtschaftsforschung, Forschungsbereich Umwelt- und Ressourcenökonomie, Mannheim | **Host:** Dr Sebastian Voigt

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