



Zentrum für internationale Entwicklungs- und Umweltforschung (ZEU)

Newsletter



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UPCOMING EVENTS

PhD Seminar
„Spatial Data Analysis“ by Prof. Timo Mitze
July 11-12, 2017, 9-17h

Lecture (in charge of Faculty of Economics)
"Information and Disease Prevention: Tu-
berculosis Dispensaries" by Prof. Peter
Jensen
July 31, 2017, 16h, room 601, Campus Li-
cher Str.

Panel Discussion - Science Meets Practice
Sustainable Encouragement of smallholder
farming systems in Sub Sahara-Africa: Chal-
lenges and opportunities
tba

PhD Seminar
„Quasi Experiments“ by Prof. Peter Schmidt
Sept. 1-2, 2017, 9-17h

PhD Seminar
Introductory Workshop to Applied Intercul-
tural Communication: Developing Intercul-
tural Competence for the International
Workplace
In preparation

IMPRINT

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Winter School “Sustainable Energetics for Africa (SE4A)”

Project responsible: Prof. Daniel Egbe (ANSOLE e.V.); Prof. Michael Düren (II. Physics Institute, ZEU)

Recently, the first of two Summer Schools coping with the topic of “Sustainable Energetics for Africa (SE4A)” was held in Burkina Faso at the 2ie “Institut International d’Ingénierie de l’Eau et de l’Environnement”.

From 27th February to 3rd of March, 61 lecturers and students came together at the 2ie in Ouagadougou to discuss about sustainable solutions for West Africa in terms of energetics.

Initiated by ANSOLE e.V, the multinational summer school was organized in cooperation with the “Centre of International Developmental and Environmental Research (ZEU)” at the Justus-Liebig-University Giessen and further partners. Funding was generously provided by VolkswagenStiftung.

Accordingly, during Summer School 1 emphasis was put on the African energy situation and finding solutions to both the lack of energy and the resulting environmental problems. To address these research topics, an interactive and interdisciplinary approach was taken. Focusing on West Africa, students of Masters, PhD and Postdoc-level originating and studying in Senegal, Nigeria, Burkina Faso, Mauritania and Ghana attended the school. A minor part came from Ethiopia or studied in Germany. In accordance with ANSOLE’s goal of exchange between experts, also the speakers came from various countries both in Africa and Europe. In total, 61 registered participants attended the school, of who 18 were speakers and 43 students.

Programme of School 1 in Ouagadougou

The school started with the opening by the main organizers and Prof. Alfa Oumar Dissa, the Burkinabé Minister of Energy who honored the school with his presence and time.

During the first 4 days, the majority of 19 lectures addressed the topic of sustainable and renewable energies from different perspectives including a wide range of aspects. Real introductory lectures such as a lecture explaining the important thermodynamic background and the terms *energy* and *efficiency* as well as overview lectures on *energy demand development in Africa* and on the recent

developments in cost and sustainability of different energy technologies were given (ansole.org/se4aschools). Students furthermore learnt about practical appliances and socio-economic considerations that need to be taken into account for implementation on community level.

Besides these interactive lectures given by speakers from both African and European institutions, the school offered further opportunities for the students to be involved in the teaching process and actively cope with the topic of sustainable energetics using different approaches.



Research on biomass as an energy resource presented by a PhD-candidate at the 2ie-Insitute.

A group work was carried out to develop a project plan targeting the problems and needs in Burkina Faso, which had been mentioned by the Minister Prof. Dissa in advance. Furthermore, participants gathered under Dr. Emelda Samba Ngufor from Cameroon to develop a performance in the field of “Theatre for Development” to connect energy and culture by offering an easier understanding of complex topics to local communities. Meanwhile, other students worked on an energy scenario for Senegal in 2050 under the guidance of Prof. Dieter Meissner who is based in Estonia.

Hosted by the 2ie, an excursion to the research facilities and laboratories of the institute were done on the last day of the school. Participants were introduced to the researchers’ work in the field of solar energy but also biomass usage for

energy. Posters showing the participants' research activities were displayed during the whole week. In presentations of 2-3 minutes the participants had the chance of introducing other scientists and a jury of four lecturers to his or her work. The three most convincing posters were awarded on the last evening during the conference dinner. The conference dinner also offered the opportunity to show the results of the theatre project and the development of an energy scenario, and to close a successful school where young scientists could be linked among each other and to established scientist, institutions and networks.

Outcomes and achievements: Besides a high gain in knowledge, the summer school in Ouagadougou provided a platform for networking between researchers and students in Western Africa and Europe.

Both the programme but also the leisure time and breaks offered possibilities of exchange between participants among each other and lecturers.

The development of international joint research projects was further encouraged by interactive lectures given by Prof. Emanuela Colombo from Politecnico di Milano, who has gathered long term experience in EU-funded projects and therefore talked about how to apply and manage projects funded by international funding institutions. Participants will also gain from the experience of Prof. Angeles Lopez Agüera, co-applicant of these schools, who is presently involved in multiple sustainable communities development projects in Latin America. (ansole.org/se4aschools)



Knowledge exchange during the break: Mr Aboubacar Gomna (2iE) explaining the functionality of a solar cooker

As a result, the first steps towards possible cooperations between Angeles Lopes Agüera from the USC (Universidad de Santiago de Compostella) and institutions of participants in both Senegal and also Ethiopia were taken among others.

School 1 of "SE4A" further managed to successfully link science and politics. Hence, the Burkinabé Minister of Energetics Professor Dissa assured to stay in close contact with ANSOLE e.V.. Furthermore, Prof. Daniel A.M. Egbe was invited to a reception held at the Embassy of the Federal Republic of Germany in Ouagadougou, where he introduced both ANSOLE e.V., its partners and the summer school to the German Minister of Economic Cooperation and Development Gerd Müller.

Outlook: From 31st of July to 4th August 2017, School 2 of "Sustainable Energetics for Africa (SE4A)" is going to be carried out at the PKFokam Institute of Excellence in Yaounde Cameroon. Focus will be put on the energy situation in North and Central Africa.

Kick-off Meeting “*The Mediterranean Hot-Spot: Challenges and Responses in a Changing Environment in Giessen*”

Project responsible: Prof. Jürg Luterbacher (Institute of Geography, ZEU)

From March 7-9 the kick-off meeting of the project *The Mediterranean Hot-Spot: Challenges and Responses in a Changing Environment* took place at the Justus Liebig University in Giessen. This DAAD-funded cooperation between the Aristotle University of Thessaloniki (AUTH) and the Justus Liebig University Giessen (JLU) consists of a consortium of different institutes of both universities. Involved institutes of the AUTH:

- Department of Meteorology and Climatology
- Department of Agricultural Economics
- Department of Field Crops and Ecology
- Laboratory of Atmospheric Physics
- Involved institutes of the JLU:
- Department of Geography/ Climatology, Climate Dynamics and Climate Change
- Faculty of Agricultural Sciences, Nutritional Sciences, and Environmental Management
- Centre for international Development and Environmental Research (ZEU)
- Giessen Graduate Centre for Social Sciences, Business, Economics and Law (GSS)
- International Giessen Graduate Centre for Life Sciences (GGL)
- Centre for Foreign-Language and Vocational Field Oriented Skills (ZfbK)

The main aim of the project is to strengthen existing partnerships and initialize new cooperations between JLU and AUTH in the field of environmental and climate sciences. In this framework, also the collaboration in research and education on various scientific topics shall be fostered. In addition, the project's objective is to improve the exchange possibilities of scientific staff, students and administrative personnel.

During the kick-off meeting the project partners have already agreed on several future actions, like e.g. the establishment of new Erasmus+ agreements and staff mobilities, a joint excursion as well as the implementation of thematic research workshops at both universities. Furthermore, the design and implementation of e-courses on climate change

topics as well as the submission of proposals for joint research projects are envisaged.

Following the kick-off meeting a dissemination event took place at the main building of the university where the guests from the AUTH were welcomed by the Vice-President for Learning and Teaching of the JLU, Prof. Dr. Verena Dolle. In addition, the representatives of the international relations departments of both universities joined this event and presented their activities and possibilities for cooperation. Within the framework of the dissemination event two professors of the AUTH gave inspiring public talks on sustainable agro-food systems and unemployment perils (Prof. Konstantinos Mattas) and on weather extreme events in Greece (Prof. Theodoros Karacostas).



Project members in front of the main building of the JLU

After a successful kick-off of the project, we look forward to close and fruitful future cooperation.

More information

www.uni-giessen.de/zeu/hotspot

International DAAD Alumni Expert Seminar “Hidden Hunger”

Project responsible: Dr. Irmgard Jordan

Funded by the German Academic Exchange Service (DAAD) and in cooperation with the Centre for International Capacity Development (CICD) at University of Siegen, Institute of Nutritional Sciences of JLU and Department of Agricultural and Environmental Policy (JLU) the Center for Development and Environmental Research (ZEU) conducted the International DAAD Alumni Expert Seminar “Hidden Hunger” from 12 to 19 March 2017 in Giessen, Germany. This seminar took place in order to prepare for the “International Congress Hidden Hunger” from 20 to 22 March 2017 in Stuttgart.

25 Alumni out of 21 countries participated in the seminar, which took place in the ZEU. Main objective was to enhance competence in answering the challenges of the Nutrition – Water – Rural Development – Nexus. Existing strategies to cope with the challenges of hunger and hidden hunger in different parts of the world were compared, analyzed and further developed based on sustainable resource management.

Each alumni held a short presentation about the topic of hidden hunger in their country. To visualize the results of the seminar the alumni were divided in regional groups to design posters, which were presented on the congress.

Since the alumni came from different academic backgrounds and had different expertise, some introductory presentations – e.g. on „mechanisms of food safety and food security“ or „concepts and challenges of malnutrition“ – were held by Dr Irmgard Jordan from the working group “international nutrition” (JLU). Furthermore Dr Sandra Habicht from the working group “nutrition in prevention and therapy” (JLU) spoke about the double burden of malnutrition.

The difficulty of nutrition is an important topic of the German development cooperation. Therefore Annika Reinbott from the German Development Agency (GIZ) was invited to present the project “Affordable Nutritious Foods for Women”.

To demonstrate a German high standard agricultural production site the alumni were invited to the Hofgemeinschaft Friedelhausen, a Demeter certified organic farm with a social therapeutic community. During a guided tour the alumni could visit different areas of the farm. Afterwards they could enjoy a lunch with homemade products from the farm. Another excursion to BASF in Mannheim was made together with the University of Hohenheim.



Project Planning-Workshop “Impact of commodity flows on nutrition and public health situation in small urban centres and their catchment area (ICONS)”

Project responsible: Prof. Dr. E.-A. Nuppenau, Dr. Irmgard Jordan

The workshop was held on 17-18 May 2017 at Zeughaus, Justus Liebig University, Giessen. Its aim was to discuss and share ideas for a project proposal in response to the LEAP-Agri call.

LEAP-Agri is a partnership between 30 partners including 24 funding organisations from nine African countries, nine European countries and an international organization (i.e. CIHEAM-Bari based in Italy). This partnership operates under the EU Framework Programme for Research and Innovation Horizon 2020, and its EU-Africa High Level Policy Dialogue on science, technology and innovation, which includes the implementation of the jointly funded EU-Africa Research and Innovation Partnership focusing on food and nutrition security and sustainable agriculture (endorsed by the EU-Africa Summit 2014).

<http://www.leap-agri.com/>

The participants of the two-day workshop comprised experts from the fields of agriculture economics and nutrition from Belgium, South Africa, Uganda and Germany. The project idea that was discussed is an analysis of the “Impact of commodity flows on nutrition and public health situation in small urban centres and their catchment area (ICONS)”

The first day started with a brief round of introduction of the attending experts followed by overviews about the proposed study areas i.e Vaalharts Region, South Africa and Kapchorwa District, Uganda. The discussions of the day mainly focused on defining the statement of the problem, beneficiaries and target group. The proposed research strategy is a better exchange of food for a sustainable food environment that supports the establishment of sustainable diets for nutrition security.

On the second day the participants focused on establishing joint work packages and defining the specific activities within the different work packages for both project areas. The work packages were later assigned to propose implementing bodies taking into consideration the expertise and location of the responsible institution. The final discussion was about the proposed budget for the project; different sections of the budget for every partner and next steps.

The workshop was considered very valuable as an interdisciplinary working environment was established which was filled with in-depth discussions of the different concepts and terms relevant to the call. The participants were left confident about the outcome of the meeting in terms of progress of developing the proposal. The ZEU team with the support of the partners will further elaborate the proposal which needs to be submitted latest on 15. June 2017.

New Project “Representative market survey on the use of iodized salt in processed foods”

While about 84% of German private households use iodized salt, no reliable data exist on the use of iodized salt in processed foods in Germany. In order to elaborate reliable data on the share of processed foods which are produced with iodized salt, a representative market survey was carried out for those food groups that are essential for the human provision of iodine. As a result of the studied secondary data it could be seen that three product categories play a crucial role for the provision of iodine, due to their salt content and the consumed quantities by consumers.

In order to gain a representative market survey, the data collection took place in four different German cities, namely Stuttgart, Düsseldorf, Hannover and Dresden. It was performed by 11 students that were trained on both: the subject itself and the handling with tablet and the freeware OpenDataKit for the data collection. Together they examined a full census of the three essential product categories and collected 30.000 products.

Furthermore a representative questioning of producers and retailers of bulk goods takes place, to allow broader conclusions on the prevalence of iodized salt in processed foods in Germany. The preparation of the database with MS-Office/ Excel and the statistical analysis with the software SPSS are currently in process. The objective of the project is to determine more precisely whether the provision of iodized salt to consumers due to its use in the household and in processed foods is sufficient and appropriate.

Linking Agriculture and Nutrition for a healthy Diet

healthyLAND.info

- Implementing nutrition education program in Kapchorwa, Uganda → on family nutrition and child feeding practices
- Implementing an agriculture innovation in Kapchorwa, Uganda
- Final data collection in Kapchorwa, Uganda (Endline)
- Data collection in Malawi → 24h-recalls (3rd round, to capture different seasons of the year)

Scenario development for sustainable land use in the Greater Caucasus, Georgia (AMIES II)

amies-net.org

- Annual Meeting of the Reinhold-Tüxen-Gesellschaft talk together with Prof. Otte, 10-12 March 2017, Hannover, Topic: Biomass modelling of subalpine grasslands in the Greater Caucasus, Georgia, by means of remote sensing.
- Working on: Mapping plant functional groups (legume, herb, grass content),
- In pretogether with Wiebke Hansen: Analyzing *Betula litwinowii* shrub encroachment and reforestation in the Kazbegi region, Greater Caucasus Georgia
- Planned publication: Joint article of the different project units of the AMIES II project; topic: scenario development. Contribution of project unit D1 (Food provision and need for agricultural products) to the article.

Climate and land use change impact on hydrological fluxes and soil erosion in the South-West Mau, Kenya

Weeser, B., Jacobs, S., Rufino, M.C., Breuer, L. 2017: Using a crowdsourced approach for monitoring water level in a remote Kenyan catchment, EGU General Assembly Conference, Vienna, Poster.

Weeser, B., Jacobs, S., Stenfert-Kroese, J., Rufino, M.C., Breuer, L.: Paper in preparation, working title: Using a crowdsource approach and low-tech equipment for monitoring water level in the Sondu river basin, Kenya

Publications

MAGIERA, A., FEILHAUER, H., WALDHARDT, R., WIESMAIR, M. & OTTE, A. 2017: Modelling biomass of mountainous grasslands by including a species composition map. *Ecological Indicators* 78: 8-18.