Introduction to Humboldt Centre for Rural Development

Planning Workshop CRAIIP
„Climate Resilient Agriculture Investigation and Innovation Project“
24 - 25 November 2016
Jakarta
Structure

- Humboldt, the Faculty and our Centre
- Approach and Activities
- Innovation and change
Humboldt-Universität zu Berlin

History:
- Founded in Berlin in **1810** by Wilhelm von Humboldt
- Started with 4 faculties (Law, Medicine, Philosophy and Theology), 256 students and 52 academic staff
- 29 Nobel Prize winners, e.g. Einstein, Planck, Fischer
- Admission for women since **1908**
Today:

- 9 faculties
- 32,553 students in 189 degree courses (more than 5,000 or 16% international students)
- Academic staff
  - 2,076 collaborative professors/lecturers/research assistants
  - 424 professorships
- Faculty of Life Sciences, with Albrecht Daniel Thaer-Institut of Agricultural and Horticultural Sciences with 1,913 students
• Albrecht Daniel Thaer
• 1752-1828
• Known as first polyscientist in Germany!
• Founded an agricultural teaching and research station
• **One innovation:** Crop rotation trials with huge yield increases
Department of Crop and Animal Sciences

Divisions:
- Animal Husbandry and Technology
- Agronomy and Crop Science
- Biometry and Experimentation
- Biosystems Engineering
- Breeding Biology and Molecular Genetics
- Didactic and Research Group Horticultural Plant-Systems
- Plant Nutrition and Fertilization
- Phytopharmacology
- Systematic Zoology
- Soil and Site Sciences
- Urban Ecophysiology of Plants

Junior professor
- Aquaculture

Common Appointments (S-Professors)
- Biology and Ecology of Fishes (IGB)
- Nutrition-Physiology of Crops (IGZ)
- Landscape Biogeochemistry (ZALF)
- Strategies for Using Biosites (ATB)
- Integrative Fishery Management (IGB)

Apl. Professors
- Agricultural Meteorology
- Biology of Reproduction (IZW)

Department of Agricultural Economics

Divisions:
- Agricultural Policy Analyses
- Farm Management Group
- Gender and Globalization
- International Agricultural Trade and Development
- Horticultural Economics
- Resource Economics

Junior Professors
- Quantitative Agricultural Economics
- Subject Related Didactics Agricultural and Horticultural Sciences

S-Professors:
- Economics and Politics of Rural Areas
- Sustainable Land Use and Climate Change

Temporary Professor:
- Economics of Agricultural Cooperatives
- Environment Governance

Working Group:
- Agricultural Extension and Communication
SLE – Seminar für Ländliche Entwicklung
Centre for Rural Development

Four major working areas

- **SLE STUDIES** – One year postgraduate studies with 20 students
- **SLE RESEARCH** – Practice-oriented research
- **SLE CONSULTANCY** – Export of SLE expertise
- **SLE TRAINING** – High level training courses for International Development Cooperation approx. 230 international trainees p.a.
SLE STUDIES

Overseas consultancy assignment

- Students design, plan and conduct a 3 months-consultancy in Africa, Asia or Latin America
- In groups, under supervision and support of a team-leader
- Report published in SLE Publication Series

2016 in:
Peru, Ethiopia and Kenia (2)
Examples of ongoing practice-oriented research projects

- **HORTINLEA**
  - Improved Nutrition and Livelihood in East Africa
  - 2 SLE Sub-Projects: Climate change and ecological sustainability, Transferring research results into policies and practice

- **GlobE – Securing the Global Food Supply**
  - SLE Project: Modelling Structural Change in Africa socially, ecologically and sustainably

- **Trans – SEC**
  - Innovating pro-poor Strategies to safeguard Food Security

- **UFISAMO**
  - Urban Farming in South Africa and Mosambik
Our long-term research partnerships (2016)

Africa
- Egerton University, **Kenya**. Climate change adaptation
- Jomo Kenyatta University of Agriculture and Technology, **Kenya**: extension and knowledge systems
- Garissa University, **Kenya** (planned): Climate-resilient pastoralism
- Khartoom National University, **Sudan** (on-going): climate adaptation
- Institute Polytechnique Rurale (IPR) in **Mali**
- Universität Eduardo Mondlane (UEM) in Maputo, **Mosambik**: Management, qualitative methods, Urban farming
- University of the Western Cape (UWC), **South Africa**: urban farming

Latin America
- Rural National University Rio de Janeiro (UFRRJ), **Brazil**: management, research methods
- Universidad Autónoma de Manizales (UAM), **Colombia**: management, research methods

Asia
- UNPAD, UNHAS (planning stage) 😊
We follow the 3M-Approach, especially for complex issues

- Multi-level
- Multi-stakeholder
- Multi-dimensional and Inter-transdisciplinary
<table>
<thead>
<tr>
<th>Actors</th>
<th>State</th>
<th>Non-state/Civil society</th>
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<tbody>
<tr>
<td><strong>Level</strong></td>
<td><strong>Government</strong></td>
<td><strong>Education and research</strong></td>
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<tr>
<td><strong>International</strong></td>
<td>Interstate Treaties on water use</td>
<td>Advocacy at COP</td>
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<tr>
<td><strong>National</strong></td>
<td>Sustainable water management and forestry policies and legislation Property rights</td>
<td>Climate Impact and vulnerability Assessments Enforcement of rights-based approaches</td>
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<td><strong>Regional (county, province/district)</strong></td>
<td>Agricultural Weather Forecasting River dams and dikes</td>
<td>CCA curriculum for university in drylands</td>
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<td><strong>Municipality</strong></td>
<td>Sewage system Water restoration</td>
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<td><strong>Community/Village</strong></td>
<td>Water supply</td>
<td>Promotion of Farmer organisations Promotion of water saving technologies</td>
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<td><strong>Individual/enterprise</strong></td>
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Table 2: Examples of adaptation options in the multi-level and multi-dimensional approach

Soft/hard adaptation implemented by various stakeholder groups; responsibilities can vary between actors and levels depending on context.
Practical example: Underground low tech low cost micro-irrigation in Kenya

Picture source: Lucas Zahl and CSHEP
Farmer perception of rainfall patterns

Responses of surveyed households (n = 610)

- More rain and longer rainy season
- Less rain and shorter rainy season
- More unpredictable and extreme rainfall
- No change in rainfall

Source: Data from HORTINLEA panel survey 2014
Author: SLE 2016, M.Enzner

Source: Stöber, Chepkoech et al. (2017)
Humid AEZ: Kakamega: Increased rainfall or increased variability of rainfall?

Source: KMO Rainfall and Temperature Statistics, Graph Gwen Schneider
Participatory Technology Development as CRAIIP approach?

Picture source: agridea
Challenge: Congruence of targets problem solving research

Science

Research goals

Development goals

Rural area

Results

Activities

Transdisciplinarity

Interdisciplinarity

Source: Aenis 2005
Policies call for Paradigm shift in agricultural research and development

„The most dominant model ToT (Transfer of technology) has not been the most effective in meeting a broader range of development goals that address the multiple functions and roles of farm enterprises and diverse Agroecosystems.“ Global Report 2009, Chapter 2, p.59
   International Assessment of Agricultural Knowledge, Science and Technology for Development, IAASTD

from a “green revolution” to an “ecological intensification approach” by focusing on more support for small-scale farmers. summary
   Trade and Environment Review 2013
   UNCTAD

   International Panel of experts on sustainable food systems IPES Food
Thank you
Danke
Terimah Kasi

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