Introduction to Humboldt Centre for Rural Development

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

Dr. Silke Stöber
Seminar für Ländliche Entwicklung – SLE
Humboldt Universität zu Berlin

Structure

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

Wilhelm von Humboldt statue in Berlin

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**

Humboldt-Universität zu Berlin



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

Headship

Office

Teaching and Research Stations
Molecular Biology Center
Common Laboratory of Analyses

IT Station

Center for Rural Development (SLE)

Institute of Agricultural and Urban Ecological Projects (IASP)

Institute for Co-operatives

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
- Phytomedicine
- 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 Bioresources (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 und 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)

SLE RESEARCH

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 Secu
- **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) ☺

SLE – Seminar für Ländliche Entwicklung
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We follow the 3M-Approach, especially for complex issues

- **Multi-level**
- **Multi-stakeholder**
- **Multi-dimensional and Inter-transdisciplinary**

Actors→	State		Non-state/Civil society	
Level↓	Government	Education and research	Non-profit	Business, farmers
International	*Interstate Treaties on water use*		*Advocacy at COP*	
National	*Sustainable water management and forestry policies and legislation* *Property rights*	*Climate Impact and vulnerability Assessments*	*Enforcement of rights-based approaches*	*Weather Insurance system*
Regional (county, province/district)	Agricultural Weather Forecasting **River dams and dikes**	*CCA curriculum for university in drylands*		
Municipality	**Sewage system** **Water restoration**			*Market and trader networks*
Community/Village	**Water supply**	*Promotion of Farmer organisations*	*Promotion of water saving technologies*	*Self-help groups*
Individual/ enterprise				**Rainwater harvesting tanks**

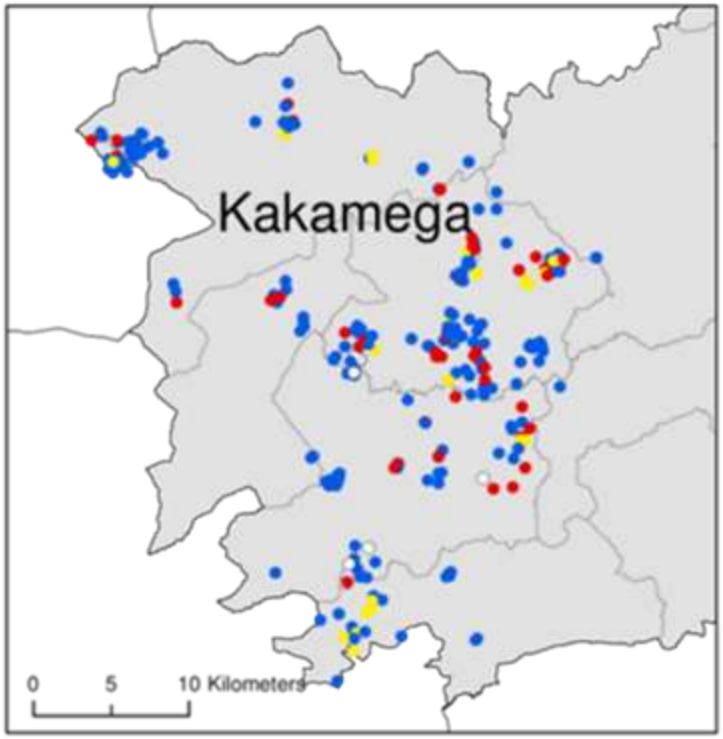
Table 2 Examples of adaptation options in the multi-level and multi-dimensional approach

Soft/hard adaptation implemented by various stakeholder groups; responsibilities can vary between actors and levels depen

Practical example: Underground low tech low cost micro-irrigation in Kenya

Picture source: Lucas Zahl and CSHEP

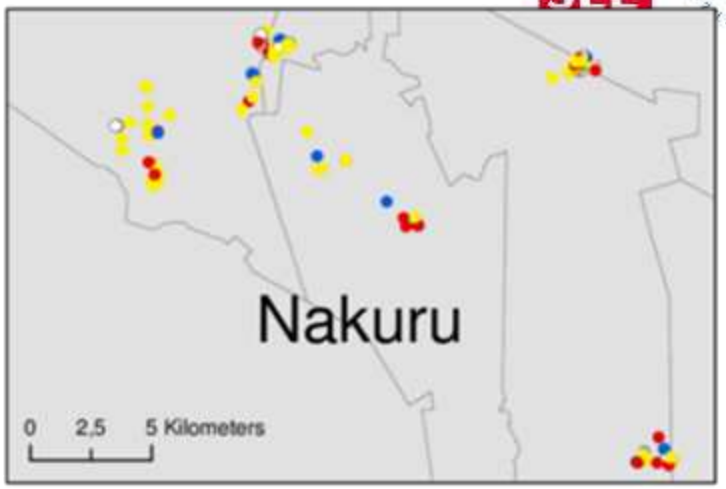
Farmer perception of rainfall patterns

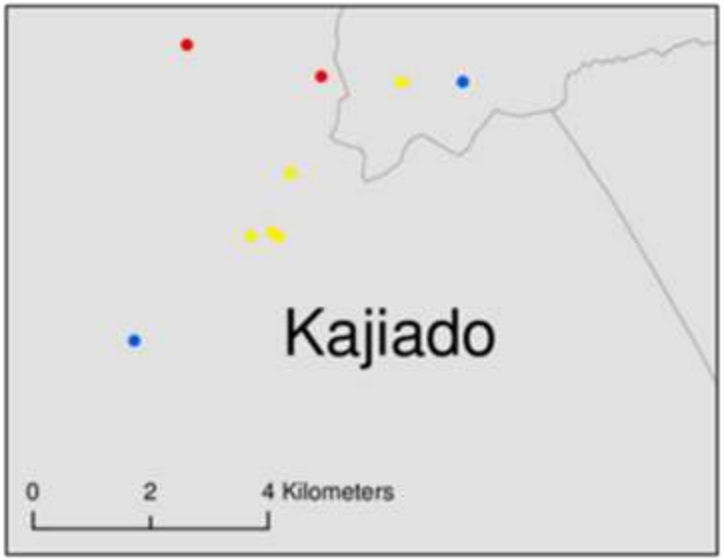


Responses of surveyed households (n = 610)

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

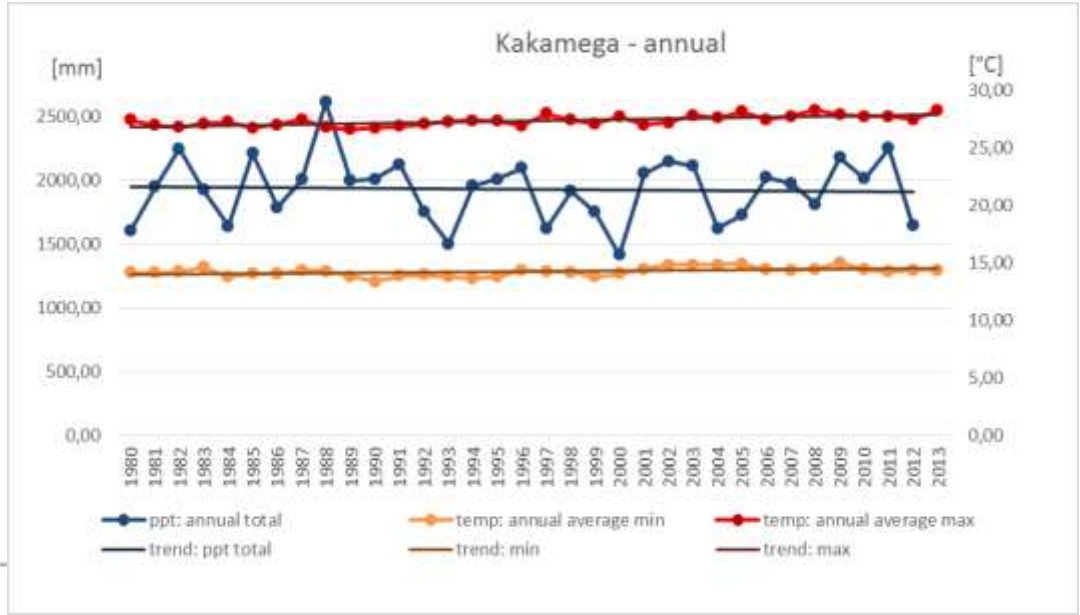
Source: Data from HORTINLEA panel survey 2014
Author: SLE 2016, M.Enzner

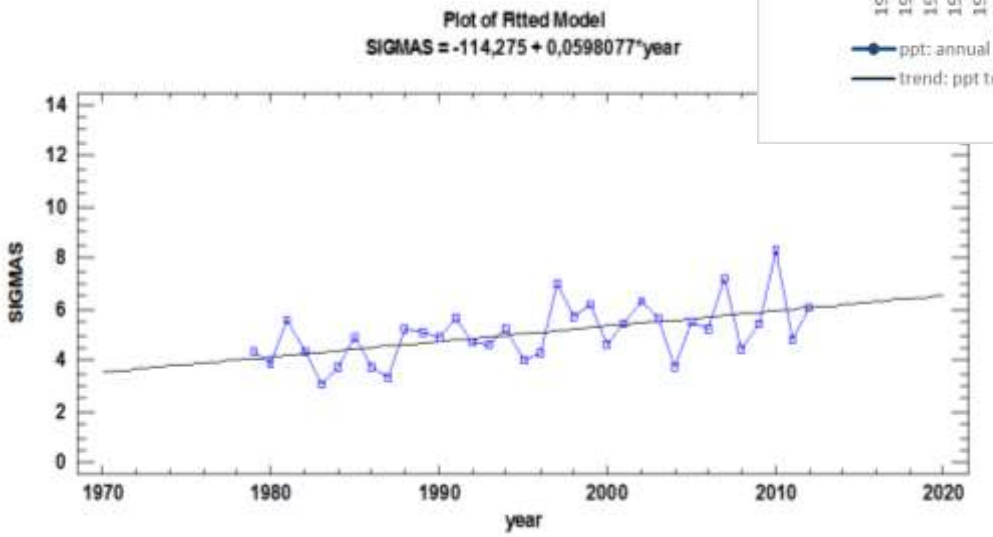




Source: Stöber, Chepkoech et al. (2017)

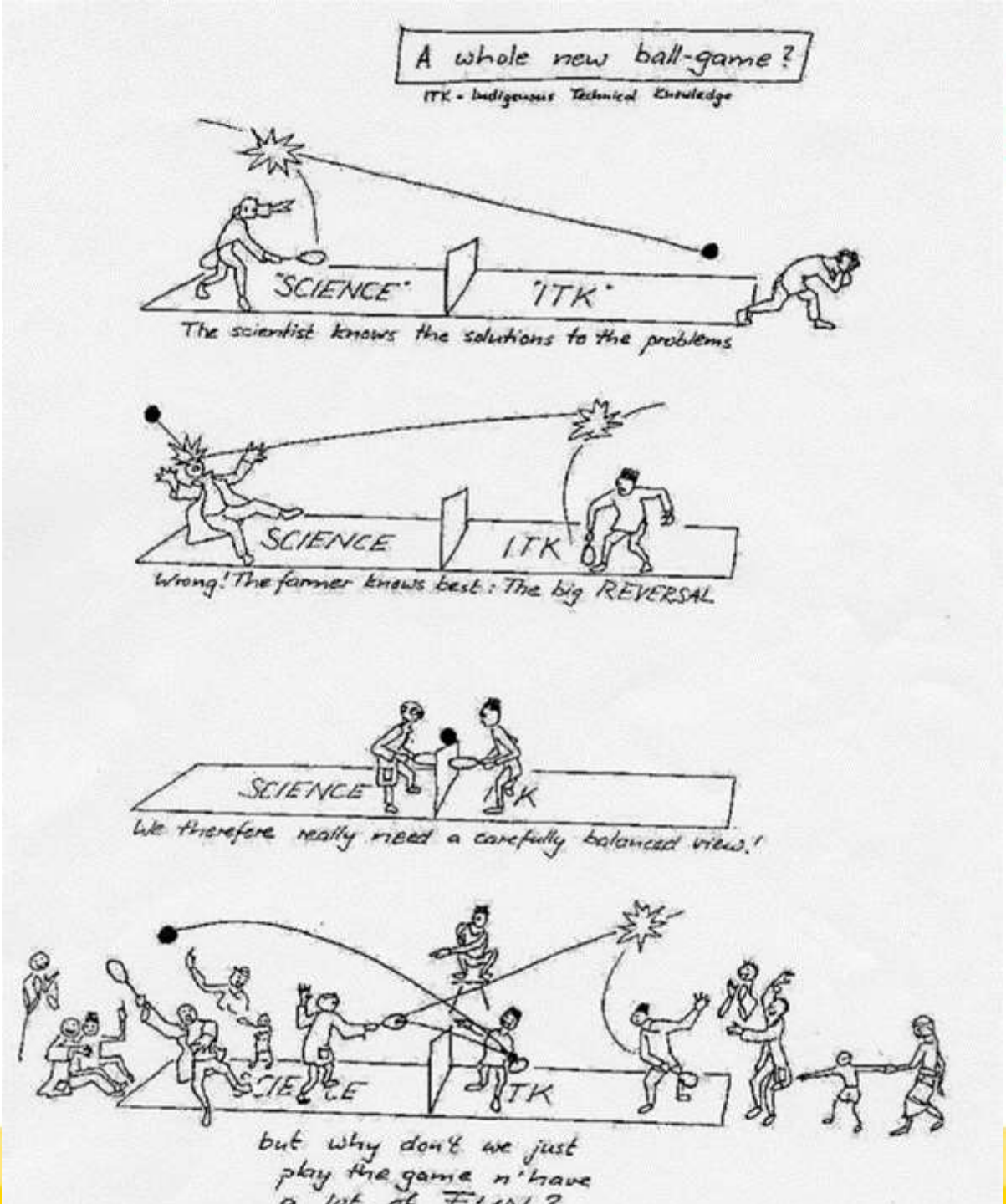
Humid AEZ: Kakamega: Increased rainfall or increased variability of rainfall?





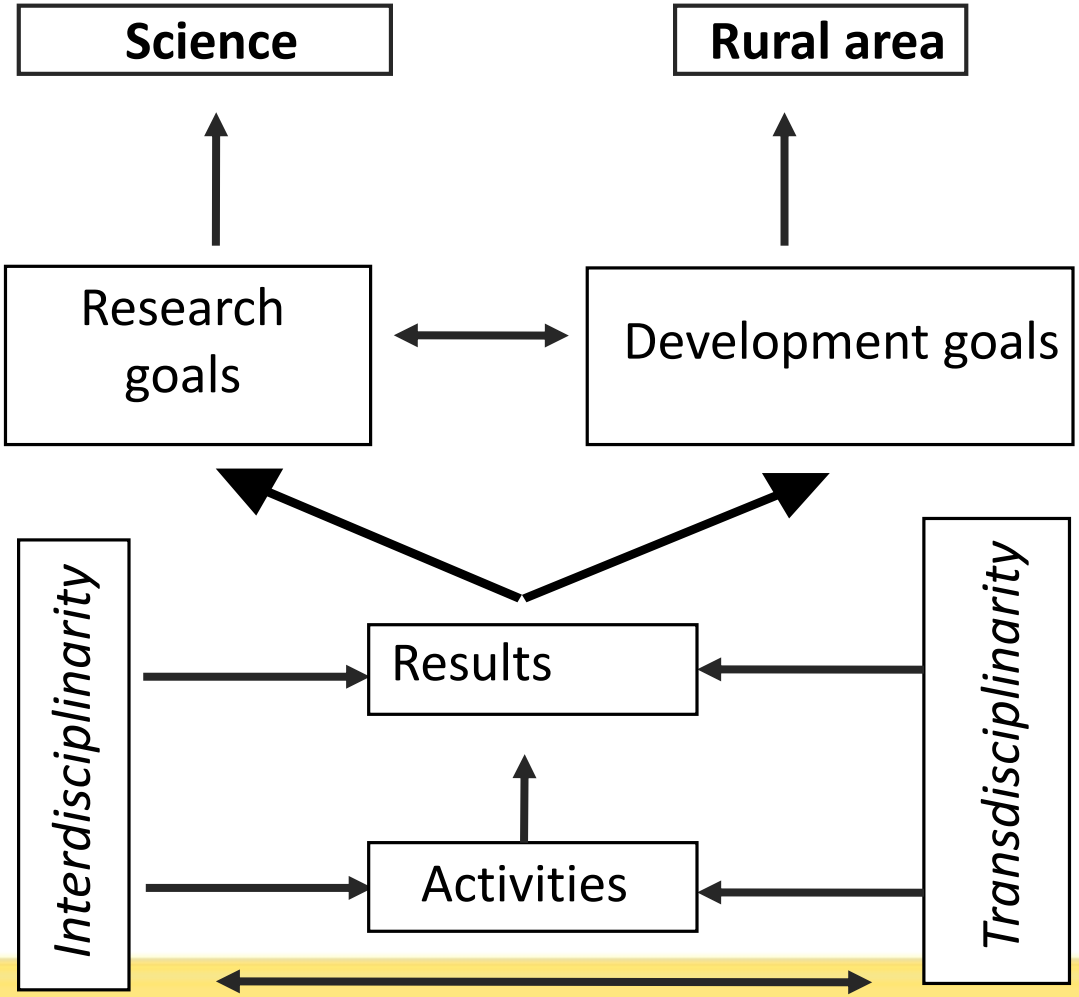
Source: KMO Rainfall and Temperature Statistics, Graph Gwen Schneider

Participatory Technology Development as CRAIIP approach ?!



Picture source: agridea

Challenge:
Congruence of targets problem solving research



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

„From uniformity to diversity: a paradigm shift from industrial agriculture to diversified agro-ecological systems. " IPES Food Report 2016

International Panel of experts on sustainable food systems IPES Food

Thank you
Danke
Terimah Kasi

Contact:
Dr. Silke Stöber
silke.stoeber@agrar.hu-berlin.de