



Achieving Food Security in SSA through Food Value Chains

Annual Meeting

21th - 24th of September 2015



Federal Ministry
of Food
and Agriculture



Federal Ministry
of Education
and Research



Federal Ministry
for Economic Cooperation
and Development





Regional focus of the six „GlobE“ projects



Name	Countries	Focus
Trans-SEC	Tanzania	Entire FVC
Urban Food+	Burkina Faso, Ghana, Mali, Cameroon	Urban agriculture
Wetlands	Kenya, Uganda, Rwanda, Tanzania	Wetlands
Hortinlea	Kenya, Tanzania, Ethiopia	Vegetables
Biomass Web	Ghana, Nigeria, Ethiopia	Biomass
Reload	Ethiopia, Uganda, Kenya	Post-harvest losses

SCALE-N

Scaling-Up Nutrition: Implementing Potentials of nutrition-sensitive and diversified agriculture to increase food security



Federal Ministry
of Food
and Agriculture





Trans-SEC

Innovating pro-poor Strategies to safeguard Food Security using Technology and Knowledge Transfer

Innovating Strategies to safeguard Food Security using Technology and Knowledge Transfer: A people-centred Approach

8 M Euro, total Budget

5 Years, total period





Trans-SEC

Innovating pro-poor Strategies to safeguard Food Security using Technology and Knowledge Transfer

Definition Food Security

- Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (FAO),
- Access, Availability, Utilization, Stability

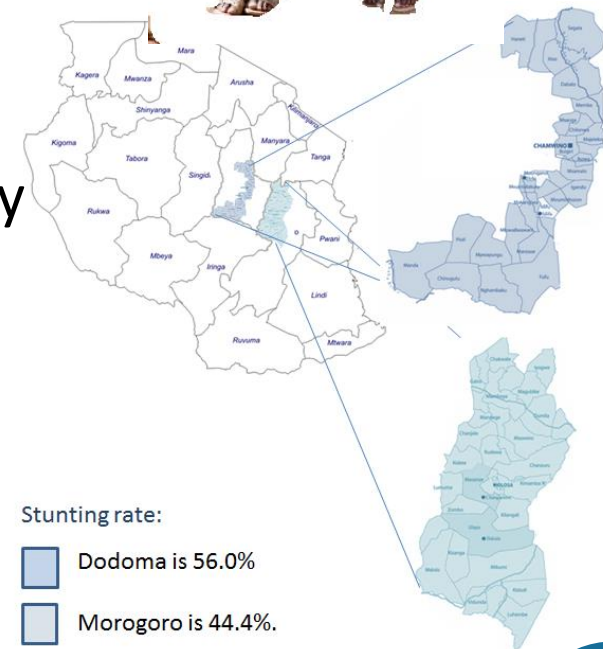


Undernourishment, Malnutrition

- Stunting, 1000 days windows of opportunity for reversible effects

Sustainable project implementation

- Sustaining project success incl. up- and outscaling





Objectives

- Improving the **food situation** for the most-vulnerable rural poor
- **Identifying** and **testing** successful upgrading strategies along FVC to site-specific, sustainable settings
- **Implementation** and **dissemination** for national outreach, policy, extension, research



Six rules for our action research

	Characteristic	Specification
1	Using existing local knowledge	Not to reinvent the wheel
3	Incentive structure fosters scaling up/out of success	Micro-credit innovation funds & round table of up-scaling
4	Research as guiding role	Tools minimize the risk, Support of decision processes Translation of findings
2	Holistic, system analysis focuses on gaps, bottlenecks for success	Empiric evidence on requirement criteria (Scala)
5	Participation leads to local ownership and thus adoption	Cost-efficient in the long term
6	Conflict Prevention and Management System	Training, supervision intercultural sensitization

Objective of Trans-SEC



waste management, nutrient cycling

Natural Resources

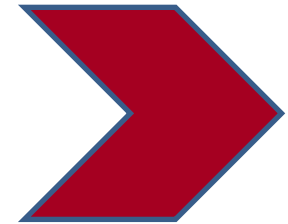
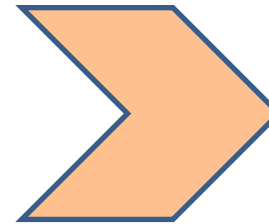
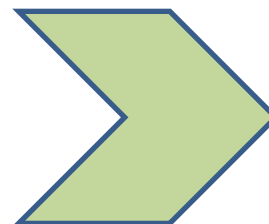
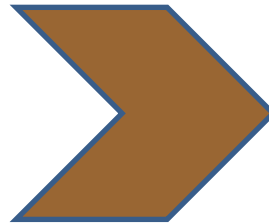
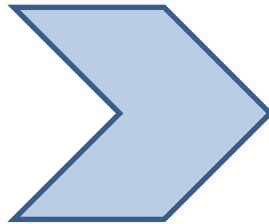
Crop Production

Processing

Markets

Consumption

FVC



How manage resources sustainably?

How produce crops more efficiently?

How add value though processing?

How add value / income through markets?

How improve consumption patterns / diets?

UPS

e.g.:

water harvesting, erosion prevention

inter-cropping, fertiliser

less energy, efficient PH processing and storage

certification, better market integration

nutrition education



Trans-SEC: 15 partners



	ZALF	Coordinator: Leibniz-Centre for Agricultural Landscape Research	Management: Dr. Stefan Sieber, stefan.sieber@zalf.de Scientific Coordination: Dr. Frieder Graef, graef@zalf.de		PIK	Potsdam Institute for Climate Impact Research Dr. Christoph Müller, cmueller@pik-potsdam.de
	PTJ BMBF BMZ	Funding Organization: Project Management Jülich (PTJ) on behalf of the Federal Ministry of Education and Research (BMBF) Federal Ministry for Economic Cooperation and Development (BMZ)			DITSL	German Institute for Tropical and Subtropical Agriculture Dr. Brigitte Kaufmann, b.kaufmann@ditssl.org
					IFPRI	International Food Policy Research Institute (USA) Dr. Ephraim Nkonya, e.nkonya@cgiar.org
	UHOH	University of Hohenheim	Prof. Dr. Folkard Asch, fa@uni-hohenheim.de		ICRAF	The International Centre for Research in Agroforestry (Kenya) Anthony Kimaro, a.kimaro@cgiar.org
					SUA	Sokoine University of Agriculture (Tanzania) Dr. Khamaldin Mutabazi, khamaldin@yahoo.com
	IUW	Leibniz University Hannover	Prof. Dr. Ulrike Grote, grote@iuw.uni-hannover.de		ARI	Agricultural Research Institutes (Tanzania) Bashir Makoko, brmakoko@yahoo.com Elirehema Swai, eyswai@yahoo.com
	HU	Humboldt-University Berlin	Prof. Dr. Wolfgang Bokelmann, w.bokelmann@agrar.hu-berlin.de		TFC	Tanzania Federation of Cooperatives (Tanzania) Janet Bitegeko, jbitegeko@hotmail.com
	DIE	German Development Institute	Dr. Michael Brünrup, michael.bruentrup@die-gdi.de		ACT	Agricultural Council of Tanzania (Tanzania) Gloria Mazoko, mazokogloria@yahoo.com
					MVIWATA	Network of Small-Scale Farmers' Groups (Tanzania) Nickson Elly, nikisoelly@yahoo.com

Network platform: Model Region



New projects in Trans-SEC case studies

	Trans-sec	Trans-sec – ZALF is a major flagship of the Trans-sec initiative.	Dr. Stefan Sieber Leibniz-Centre for Agricultural Landscape Research e.V. Eberswalder Straße 84 15374 Müncheberg
		the Trans-SEC case studies and up-scales the nutrition UPS	Constance Reif Leibniz-Centre for Agricultural Landscape Research e.V.
	New Project: EU Commission IPTS	Trans-SEC - ZALF is for the country Tanzania official partner of the IPTS EU-Commission Project "Technical and scientific Support to agriculture and Food and Nutrition Security sectors" financed by DEVCO-JRC. This project aims at 1. improving information systems, 2. Policy & economic analysis for decision-making processes and 3. scientific advice.	Contact person is Dr. Sergio Gomez Y Paloma at IPTS, European Commission, Joint Research Centre, Institute for Prospective Technological Studies. C/ Inca Garcilaso, s/n 41092 Seville, SPAIN; Tel.: ☎ +34 954 48 8318 Fax: +34 954 48 8300.
	Institute of Rural Development Planning (IRDP)	IRDP is the main Institute for Rural Development in Tanzania and was the lead partner in implementing Chololo	IRDP P.O.Box 138 Dodoma, TZ Phone: ☎ +255 762926426 Fax: +255 26 230 1341 Email
	New Project: Macsur I	The Knowledge Hub FACEE MACSUR brings together the excellence of research in modelling grasslands, livestock, crops, farms, and agricultural trade in order to illustrate to political	Dr. Stefan Sieber Leibniz-Centre for Agricultural Landscape Research e.V. Eberswalder Straße 84 15374 Müncheberg Germany P ☎ +493343282125
	STAR Project	Unmanned Aere	Jan Dempehof Michigan University USA

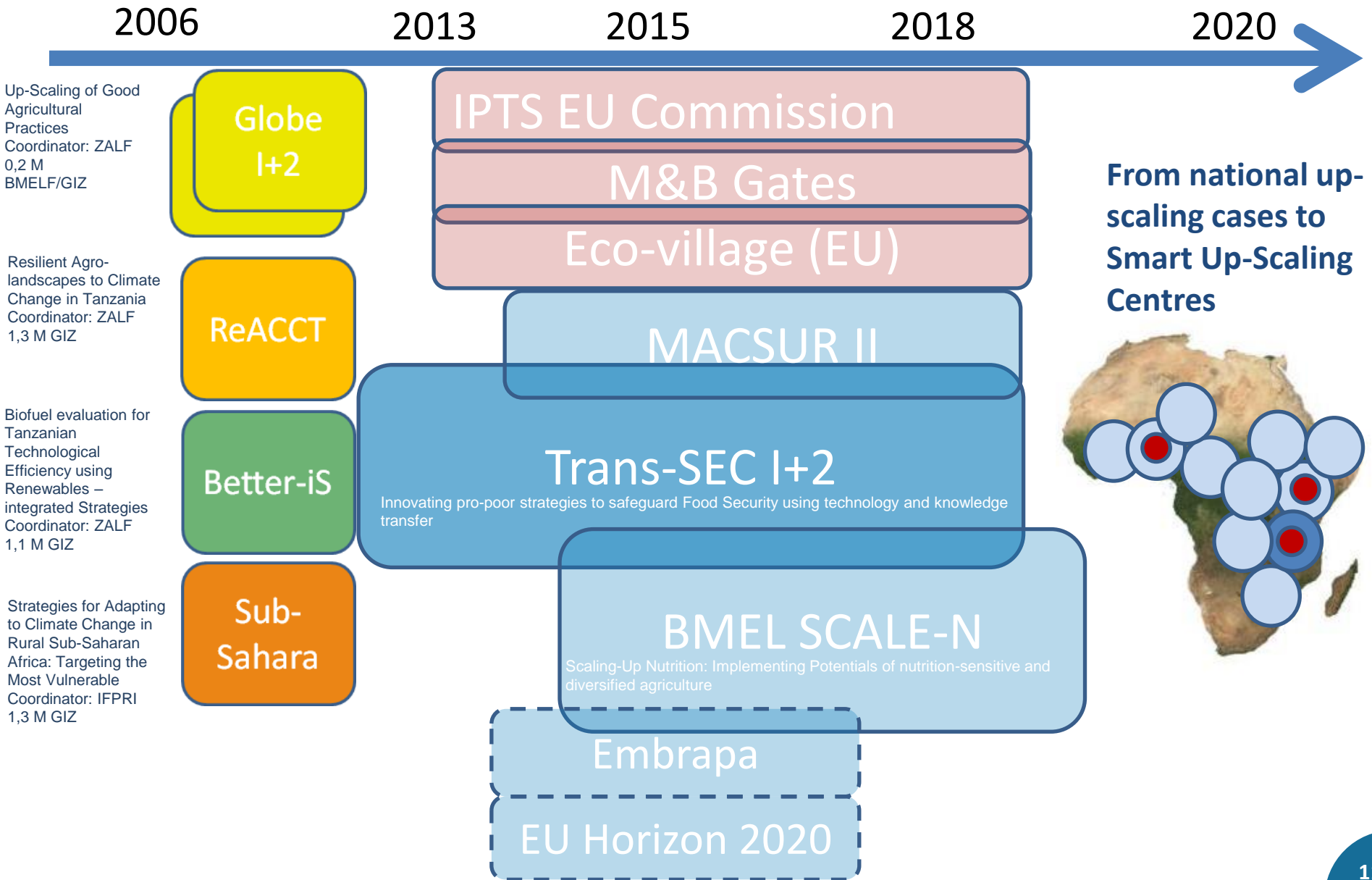
New institutes within consortium

	New Partner: Institute for Conflict Management	A Memorandum of Understanding was completed between the Institute for Conflict Management (IKM) at European University Viadrina Frankfurt (Oder) and the Leibniz-Centre for Agricultural Landscape Research (ZALF e.V.) in order to formalise bilateral cooperation, which focuses on the research on "Development and implementation of a conflict prevention and moderation system" for large international research projects.	Dr. Christian Hochmuth Managing Coordinator Institute for Conflict Management European University Viadrina Frankfurt (Oder) Große Scharrnstraße 59 15230 Frankfurt (Oder) Germany Tel: ☎ +49 (0)335-5534-5304 Fax: +49 (0)335-5534-5310 Email: ikm@europa.uni.de
	New Partner: Centre for Rural Development	The Centre for Rural development (SLE) is involved in Trans-SEC as a partner of the Humboldt University of Berlin. SLE researchers will conduct studies analysing the food security relevant innovation systems in Tanzania. Using SLE approaches and tools the researchers will conduct a baseline and an impact study at different levels before and after implementing the Trans-SEC upgrading strategies.	Dr. Susanne Neubert / Emil Gevorgyan Humboldt-Universität zu Berlin Landwirtschaftlich-Gärtnerische Fakultät Seminar für Ländliche Entwicklung (SLE) Hessische Str. 1-2 10115 Berlin Telefon : ☎ 030-2093-6900 Fax : 030-2093-6904 E-Mail: sle@agrar.hu-berlin.de http://www.sle-berlin.de/index.php/en/homen1-2/sle-start
	New Partner: Wami/Ruvu Basin Water Office	Wami/Ruvu Basin Water Office is the main stakeholder for water resources in the project region and provides information, contacts and	WAMI/RUVU Basin Water Office (WRBWO) Ms. Praxeda P. Kalugendo, Director of WRBWO Address PO Box 826 City: Morogoro Phone: ☎ +255 23 260 0019 Fax: +255 23 260 0019

= Funding involved (total 12 M Euro)



Strategy (total 12 M Euro)





Steps of Trans-SEC

Improvement of **food situation** for the most-vulnerable rural poor

4 Villages



1000 HH



1000 HH



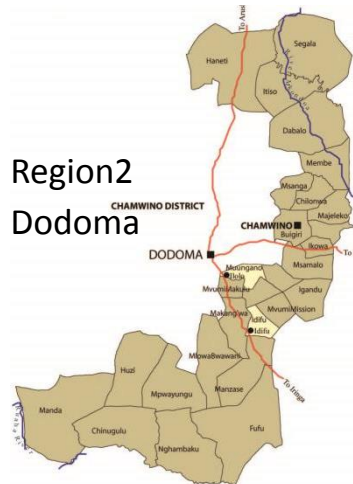
1000 HH



1000 HH



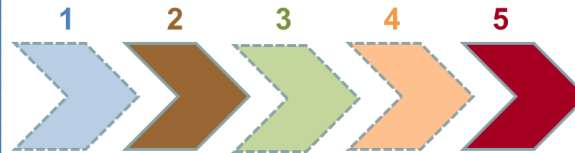
Region1
Morogoro



Region2
Dodoma

Identification/Testing of successful upgrading strategies along FVC to site-specific, sustainable setting

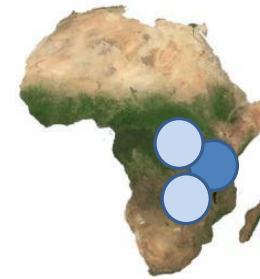
Inventing Sets of Success Stories and typologizing food value chains in 4 case study sites



Sub-humid region:
Maize, Sesame, pigeon pea
Ilakala/Changarawe
Semi-arid region:
Millet, Sunflower, groundnut
Ilolo & Idifu

Dissemination/Implementation for national outreach, policy, extension, research

National Up-scaling Centre



Research
Policy
Extension
Region

Up-Scaling Centre-Network

Future



Cross-country
Approach



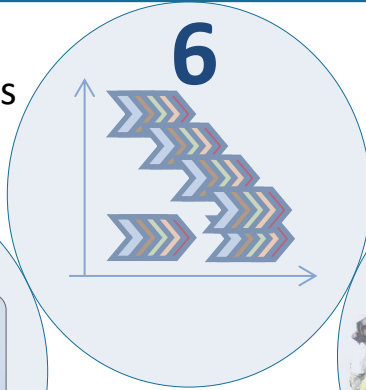
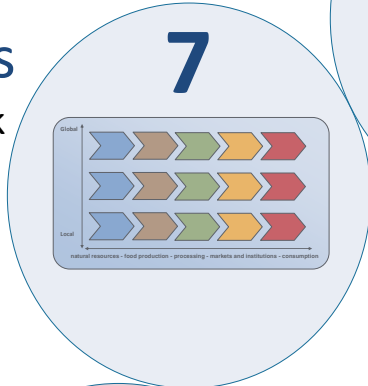
Procedure of Trans-SEC

Out and up-scaling

- Local, regional, national Policies
- Farmer field groups & schools

Model Systems

- Scenario framework
- Future simulation
- Climate proofing

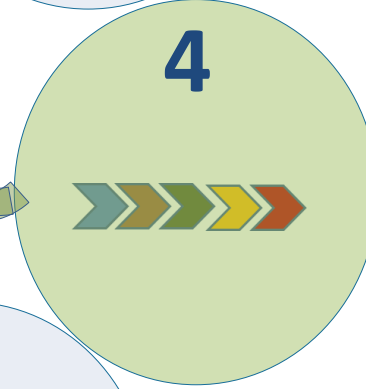


Participatory Testing of UPS

- Implementation
- Monitoring
- Evaluation

Stakeholders along FVC

- Mixed groups
- Local ownership
- Mapping
- Gender
- Pro-poor



UPS Impact Assessment

- Household survey 900 HH in 4 CSS, 2 control villages
- Participatory ex-ante IA

UPS Selection

- Typologizing the FVC and their components in the CSS
- Participatory selection & UPS prioritizing based on inventory and within given capacities

Inventory UPS

- 52 ups at national level
- food security-relevant
- Defining major constrains



Selection of Inventory 52 UPS



Natural Resources

1. Rainwater harvesting (tie-ridges, infiltration pits)
2. Fertiliser micro-dosing ("deep fertiliser placement")
3. Optimised weeding

Crop Production

1. Crop byproducts for bioenergy
2. Improved processing (trainings, business models for purchasing machines)
3. Improved on-farm wood supply (tree planting/integration)
4. Improved cooking stoves

Processing Waste Management Bioenergy

1. New product development (horizontal and vertical coordination, high value crops, surplus cereals, and livestock products)
2. Optimised crop storage (profitable, market oriented, reducing PH losses)
3. Poultry-crop integration (for enhanced rural income and food security)
4. Market access system (m-IMAS, mobile based)

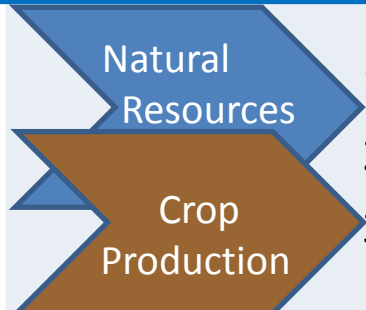
Markets Income Generation

Consumption

1. Household nutrition education
2. Kitchen gardens (indigenous fruits and vegetables for dietary diversification)



Selection of Upgrading Strategies



1. Rainwater harvesting (tie-ridges, infiltration pits)
2. Fertiliser micro-dosing ("deep fertiliser placement")
3. Optimised weeding

on station ->
Sunflowers, rice,
millet, Sorghum, maize

mother plot ->
all

on farm baby plot
all

Features:

1st year baby plots

- Idifu 73 households
- Iloilo 53 households
- Changarawe 43 HH
- Ilakala 52

-> lower doses than recommend
(monetary amount equal to 2-4 chicken/ha)

Sub-humid region:
Maize, Sesame, pigeon pea Ilakala/Changarawe
Semi-arid region:
Millet, Sunflower, groundnut
Iloilo & Idifu





Selection of Upgrading Strategies

Processing
Waste
Management
Bioenergy

1. Crop byproducts for bioenergy
2. Improved processing (trainings, business models for purchasing machines)
3. Improved on-farm wood supply (tree planting/integration)
4. Improved cooking stoves



Features:

Pyroliser (Maize cob charcoal production)

Maize shelling

Crude oil pressing sunflower oil

500 stoves per village Low costs (2-3 Euro/stove)

Training for trainers

Nurseries (2000 trees, 4 species)

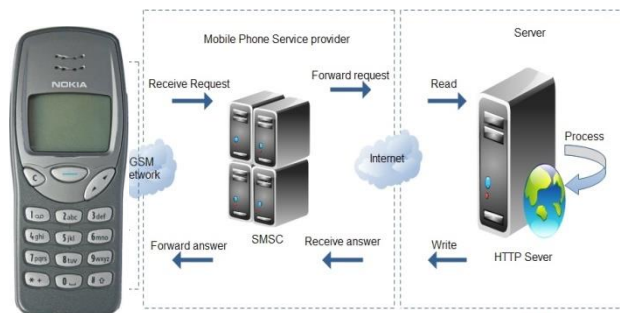




Selection of Upgrading Strategies

Markets
Income
Generation

1. New product development (horizontal and vertical coordination, high value crops, surplus cereals, and livestock products)
2. Optimised crop storage (profitable, market oriented, reducing PH losses)
3. Poultry-crop integration (for enhanced rural income and food security)
4. Market access system (m-IMAS, mobile based)



Features:

- Sunflower crude oil selling on local, regional markets -> Two entire villages (1000 HH each)
- Market-oriented storage through IRRi super bag 2 Euro + „vihenge“ traditional storage (loam container) -> In all villages (30 1st y and 250 HH per village)
- Poultry breeding incl. a demonstration site for out-scaling
- Starting with 27 farmers
- Server-based mobile market system for all mobile users.



Selection of Upgrading Strategies



Consumption

1. Household nutrition education
2. Kitchen gardens (indigenous fruits and vegetables for dietary diversification)



Features:

- Kitchen garden education (30 HH per village per year with subsequent outscaling activities)
- Pocket garden
- In each sub-village 1 demonstration plot
- Implementation during dry season
- Continuous education over year



Sunflower Case: Entire FVC



5 Innovation funds
incl. micro credits

6 Cooperative (TFC)

On station on farm pressing regional, local market training

mother and baby plots



1



2



crude oil

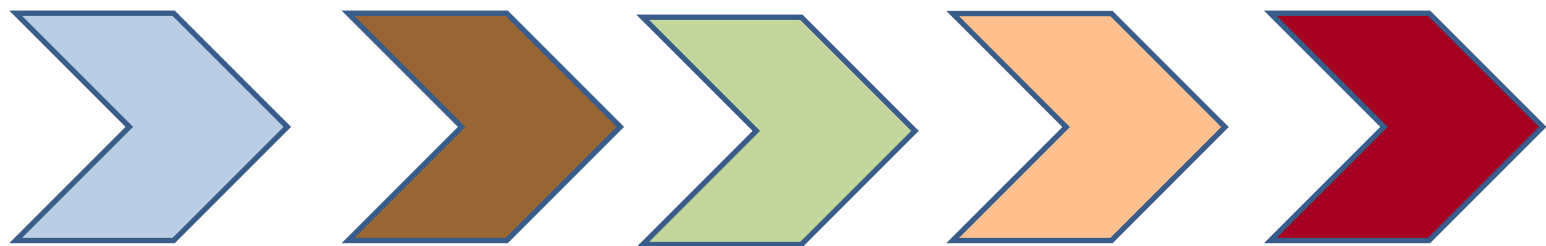
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4

Natural Resources Crop Production Processing Markets Consumption

FVC





Processes

1. Tropentag 2015
2. Evaluation End of September + budget use incl. no cost extension
 - Evaluation report written / very last amendments possible
3. 1st Summer School on Food Security
 - Participative methods for implementation
4. Special Issue
 - 38 papers allocated / 6 are already submitted
5. Annual Meeting (agenda)
 - Special program
6. PhD Exchange program



Trans-SEC

Innovating pro-poor Strategies to safeguard Food Security using Technology and Knowledge Transfer

Programme

Trans-SEC Annual Meeting 2015

Innovating pro-poor Strategies to safeguard Food Security using Technology and Knowledge Transfer



September 21st -24th 2015
ZALF, Müncheberg



16th to 25th Sept

Overview

- 16th-18th September Tropentag conference www.tropentag.de
- 18th September During Tropentag conference: CPM workshop (separate invitation and separate organization) Please contact michelle@zalf.de in case of questions
- 19th September 9:45 Sightseeing in Berlin (Parliament, sightseeing with bus and afternoon/evening meal) Meeting point at hotel [Zarenhof Berlin-Mitte](#) (Main entrance), [Eichendorffstraße 4](#), 10115 Berlin
Please contact kstahl@zalf.de in case of questions
- 20th September 11:00 Boat tour on the river Spree in Berlin (on own cost in case of interest) Please contact kstahl@zalf.de in case of questions
20:00 Welcome reception at Hotel "[Vier Jahreszeiten](#)", [Buckow](#)
- 20th September: Transport 14:00 from Berlin to [Buckow](#) Meeting point: Hotel [Zarenhof Berlin-Mitte](#) (Main entrance) [Eichendorffstraße 4](#), 10115 Berlin
- 21st-24th September: Trans-SEC Annual Meeting at ZALF (this agenda)
- 24-25th [September](#): Food Security Summer School at ZALF for Trans-SEC PhDs (separate invitation)



21st Monday

Plenary

10:00-10:15	Welcome & Organizational issues	(S. Sieber)
10:15-10:45	Welcome address: Mr. Mtambo (advisory board), ZALF director	
10:45-11:15	Overall Trans-SEC road map	(S. Sieber)
11:15-12:00	Scientific status and achievements	(F. Graef)
12:15-14:00	Lunch	
14:00-16:00	Short presentation of upgrading strategies (10 min each: 1. UPS design, 2. implementation approach, 3. Implementation status, 4. UPS monitoring indicators, 5. monitoring)	
16:00-16:30	Coffee	
16:30-19:00	Elevator Pitch: Presentation of PhD posters (5 min each, 1-2 min clarification, 1. background, 2. activities & methodology, 3. results & publications, 4. challenges, 5. next activities)	
19:00	Drinks and snacks, poster award	



22nd Tuesday

Plenary

08:30-08:40	Introduction to "Day of results"	(F. Graef)
08:40-09:00	Synthesis of Trans-SEC results	(F. Graef, K. Mutabazi)
09:00-09:20	UPS inventory	(M. Lutengano)
09:20-09:40	Survey (1 st wave)	(A. Faße)
09:40-10:00	Impact assessment results & framework	(H. König)
10:00-10:30	Coffee	
10:30-10:50	Scenario framework & modelling,	(C. Gornott)
10:50-11:10	Stakeholder analysis, WS & Gender	(M. Bashir, <u>M.Tatu</u>)
11:10-11:30	Participatory scenario-building for group selection of innovations	(P. Ngwenya)
11:30-11:50	Participatory business models	(K. Mutabazi)
11:50-12:10	Out-scaling - farmer to farmer	(MVIWATA)
12:10-12:30	regional & national up-scaling, dissemination	(ACT, TFC)
12:30-12:50	<u>WebGIS</u> and soil mapping (WP4)	(N. Reinhardt)
12:50-13:10	Nutrition HH survey	(C. Lambert, H. Mbwana)
13:00-14:30	Lunch	



22nd Tuesday

Breakout groups

	Planning the next year's activities (F. Graef)
14:30-14:40	Introduction to breakout groups (F. Graef)
14:40-16:00	Breakout groups for Task 5.2; Task 5.3; WP 6; WP 7 Structure: <ol style="list-style-type: none">1. Review of implementation stages,2. Review of UPS approach & potential adaptations3. Reviewing minimum and maximum number of repetitions4. Reviewing UPS monitoring parameters/indicators & baseline information requirements5. Planning time schedule for monitoring activities6. milestones7. publications8. roles and expectations in UPS team9. other issues
16:00-16:30	Coffee
16:30-19:00	Continued: Breakout groups for Task 5.2; WP 6; WP 7;
19:30-22:00	Dinner at ZALF



23rd Wednesday

Breakout groups

Planning the next year's activities (continued)

08:00- 08:10	Introduction to the day's tasks (F. Graef)
08:10- 10:00	Breakout groups for WP 2, WP 3, WP 4, Task 8.1
10:00-10:30	Coffee
10:30- 12:30	Breakout groups for WP 2, <u>WebGIS</u> , Task 8.2, Task 8.3
12:30-14:00	Lunch

Plenary

14:00-16:00	Presenting results of breakout groups (10 min each, following the structure indicated above; 5 min discussion)
16:00-16:30	Coffee
16:30-18:00	Presenting results of breakout groups (continued)
18.10-18:20	Advisory board feedback to Trans-SEC
19:00-20:00	General assembly (institution & WP leaders)





24 th Thursday	Plenary Breakout groups	<p>08:15-09:00 Wrapping up and closing (Frieder, Stefan) 09:00-10:30 Break out groups for a) Scenario and Impact assessment framework b) WP7 partners c) publication planning Impact Assessment d) other WPs or Tasks (optional) e) movie, or project acquisition (optional) Parallel: Scale-N kick-off meeting, (separate announcement) Parallel: PhD summer school (separate announcement)</p> <p>10:30-11:00 Coffee</p> <p>11:00-13.00 continued: breakout groups & other meetings</p> <p>Parallel: Summer School (separate announcement)</p>
25 th Friday		<p>Parallel: Summer School (separate announcement)</p>
26 th Saturday		<p>Planning on request of participants</p>



Asante Sana

Thank you

Dankeschön

