



Trans-SEC



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

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Stefan Sieber, Frieder Graef

Leibniz Centre for Agricultural Landscape Research (ZALF)
Eberswalder Straße 84 - 15374 Müncheberg - Germany

Email: stefan.sieber@zalf.de - graef@zalf.de

**Innovating Strategies to safeguard Food
Security using Technology and Knowledge Transfer:
A people-centred Approach (Trans-SEC)**

Trans-SEC at a glance

ZALF T/F Email Web	Coordinator: Leibniz-Centre for Agricultural Landscape Research Eberswalder Str. 84; D-15374 Müncheberg, Germany +49 (0) 33432 82125 or 162, +49 (0) 33432 82480 Management: Dr. Stefan Sieber, stefan.sieber@zalf.de, Scientific coordinator: Dr. Frieder Graef, graef@zalf.de http://www.trans-sec.org	
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ZALF	Partners: Leibniz-Centre for Agricultural Landscape Research	Contact: Dr. Stefan Sieber, stefan.sieber@zalf.de , Dr. Frieder Graef, graef@zalf.de
UHOH	University of Hohenheim	Prof. Dr. Folkard Asch, fa@uni-hohenheim.de
IUW	Leibniz University Hannover	Prof. Dr. Ulrike Grote, grote@iuw.uni-hannover.de
HU	Humboldt-University Berlin	Prof. Dr. Wolfgang Bokelmann, w.bokelmann@agrار.hu-berlin.de
DIE	German Development Institute	Dr. Michael Brüntrup, michael.bruentrup@die-gdi.de
PIK	Potsdam Institute for Climate Impact Research	Dr. Christoph Müller, cmueller@pik-potsdam.de
DITSL	German Institute for Tropical and Subtropical Agriculture	PD Dr. Brigitte Kaufmann, b.kaufmann@ditssl.org

IFPRI	Partners: International Food Policy Research Institute (USA)	Contact: Dr. Ephraim Nkonya, e.nkonya@cgiar.org
ICRAF	The International Centre for Research in Agroforestry (Kenya)	Dr. Anthony Kimaro, a.kimaro@cgiar.org
SUA	Sokoine University of Agriculture (Tanzania)	Dr. Khamaldin Mutabazi, khamaldin@yahoo.com
ARI	Agricultural Research Institutes (Tanzania)	Bashir Makoko, brmakoko@yahoo.com Elirehema Swai, eyswai@yahoo.com
TFC	Tanzania Federation of Cooperatives (Tanzania)	Janet Bitegeko, jbitegeko@hotmail.com
ACT	Agricultural Council of Tanzania (Tanzania)	Gloria Mazoko, mazokogloria@yahoo.com
MVI-WATA	Mtandao wa Vikundi Vya Wakulima (National Network of Small-Scale Farmers' Groups (Tanzania)	Nickson Elly, nikisoelly@yahoo.com

Consortium:

The Trans-SEC consortium consists of 60 researchers from Germany, Tanzania, Kenya and USA from research institutes, NGOs, Ministries and local government organizations as well as approx. 40 external stakeholders from policy, media and NGOs.



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1 Introduction

This leaflet describes the objectives and methods of the research project “Innovating Strategies to safeguard Food Security using Technology and Knowledge Transfer: A people-centred Approach” (Trans-SEC). It is financed by the Federal Ministry of Education and Research (BMBF), supervised by the Project Management Jülich (PTJ) and coordinated by the Leibniz-Centre for Agricultural Landscape Research (ZALF e.V.).

Trans-SEC is supported by the funding initiative “Securing the Global Food Supply – GlobeE” and embedded in the framework program “National Research Strategy BioEconomy 2030”.

The project period is planned for 3+2 years and a total budget of 7,5 Mio Euro is available. Seven German research Institutes, two research centres from Kenya and USA as well as five Tanzanian institutes are involved in Trans-SEC.

Approximately 60 scientists and non-governmental professionals will contribute to innovate strategies to safeguard food security through the use of technology and knowledge transfer. Trans-SEC has the following unique characteristics:

- An integrated holistic food value chain (FVC) approach involving different sectors.
- Use of existing local and regional knowledge on site conditions, for instance on resource conservation, food production, processing and markets/society. (“Not to re-invent the wheel”).
- The level of participation is extraordinarily high, since all relevant keystakeholders along the food value chains are involved. (“South-South and North-South learning is critical for success”).
- Trans-SEC applies action research, which allows for subsequent effective implementation. (“Testing the implementation capability is the key for success in practice”).
- We ensure future implementation by integrating impact assessments and political, cultural, societal, environmental, economic risk factors in markets and food value chains; in particular, reasons for success and lessons learnt from failure (“Liebig’s law of minimum constraints”).
- Three world-wide well-known models (PIK: SWIM, LPJmL; IFPRI: IMPACT) will be used to analyse Tanzanian hot spots for present and potential

food insecurity.

- Dissemination strategies and up-scaling practices cover large parts of Tanzania and guarantee high spatial impact (“Use efficiency potentials for maximum outreach”).

2 Background

The most significant global drivers affecting farming systems are climate change (Müller et al. 2011; Strengers et al. 2010), the global energy demand (Von Braun 2007a), population growth, changing trade patterns and economic systems through trade liberalisation and globalisation (Von Braun 2007b; Lotze-Campen et al. 2010), as well as the state of health of the population (10-20% AIDS rate in East Africa). Cause-effect-chains, in which food security is involved (droughts-diseases-health-human capital), are also drivers over large regions (Ziervogel and Ericksen 2010). Most of these drivers lead to a productivity decline of food crop land available per human. They also often result in a degraded natural resource base and declining soil fertility (Graef et al. 2000).

Food supply systems of Tanzania are increasingly connected to other biomass production systems such as feed, biofuel and construction wood (Mnenwa and Maliti 2010).

These Tanzanian production systems are based on complex and multiple interactions and interrelations among a wide range of different biotic and abiotic resources as well as socio-economic and cultural parameters (USAID 2008). Measures to stabilize and develop the food supply are particularly important in Tanzanian regions where the food situation is already insecure, such as in Eastern Tanzania (Mnenwa and Maliti 2010).

If the Tanzanian food and biomass production systems work sustainably, they are beneficial (Below et al. 2012; United Nations 2007). However, if the food and energy value chains are developed improperly, the effects may include increased food prices and reduced supply (Foley et al. 2011), displacement of vulnerable people from productive land, and various negative environmental impacts (Thornton et al. 2006).

The vision of Trans-SEC - A success story of the Trans-SEC impacts on Tanzanian food production in 2018:

People in Tanzania are significantly more food-secure and farmers are well prepared to cope with future environmental changes, even though these still remain uncertain; Trans-SEC has added value to 4000 households in four villages of the regions Dodoma and Morogoro. Specifically the linking of upgrading strategies along food value chains brought added value for the involved stakeholders. Food production systems are prepared to supply sufficient food and income to feed a growing population with growing per-capita demands. Capacity building on exemplary good practices stabilizes livelihoods for stakeholders such as farmers, pastoralists, processors, traders, scientists, policy makers and public administration of the food value chain. A multidisciplinary, continuing German-Tanzanian food security research, development and implementation network is established through bilateral agreements, unifying organisations, academic societies and public authorities.

Practical methods for transdisciplinary in-depth analyses of Tanzanian food systems have been assembled and applied in Tanzanian food production systems. This provides new options to smallholders and organisations such as NGOs and extension services.

The Trans-SEC network continuously produces outreach within Tanzania by collaborating with educational and scientific associations as well as public research organizations in the respective disciplines.

Hence, developing pathways for securing food and biomass value chains in Tanzania provide potential intervention points (Gomez et al. 2011). Income alternatives to stabilize livelihoods, either through market access or using potentialities to increase the quality of life, should be considered under the precondition that food security will not be negatively affected. These development pathways comprise (1) raising agricultural productivity and sustainability of natural biotic and abiotic resources (Foley et al. 2011; Graef et al. 2002; Herrmann and Panomtaranichagul 2007), (2) enhancing integrated food and biomass supply systems (BioÖkonomierat 2011), (3) enhanced processing of food and end products (Leuenberger & Wohlgemuth

2006), and (4) economic and institutional mechanisms such as investment incentives, insurances, trade securities and policies (Arieff 2009; Godfray et al. 2010, Ziervogel and Ericksen 2010). Another development pathway is (5) creating off-farm employment opportunities, thus reducing population pressure on the land; this approach implies developing rural activities around agriculture, investing in rural infrastructure and strengthening rural institutions (Hounkonnou et al. 2012). Finally, migration (6) is another pathway and an option for some regions; it is similarly directed at reducing pressure on land. Migration, however, often is a limited option because the absorptive capacity of other areas may be rapidly exhausted.

To cope with the changing conditions in Tanzania, profound knowledge of the local and regional environmental and socio-economic systems is required for decision making. For instance, on long-term conservation of natural resources (König et al. 2012), on adequate technologies and strategies to ensure food security (Graef and Haigis 2001; Waha et al. 2011; Ziervogel and Ericksen 2010), and on how to maximize profit by producing feedstock for external markets (USAID 2008).

Trade-off food system analysis of the limited resources and human factors testing region-explicit system approaches are therefore one requirement for mid- and long-term improvement of the livelihoods of food-insecure Tanzanians. Here, a vital element is the participatory involvement of existing local knowledge on good practices in a people-centred approach with both local population and institutions (König et al. 2012; Reidsma et al. 2011; Ziervogel and Ericksen 2010).

At the same time, it needs to be combined with the major national Tanzanian politic programmes on food security – the Agricultural Sector Development Strategy (ASDS), the Agricultural Sector Development Programme (ASDP), the overall National Strategy for Growth and Reduction of Poverty (NSGRP) – and with international African political and/or development programmes such as the New Partnership for Africa’s Development (NEPAD). Hence, new approaches and solutions in conducting research are required along with innovative collaboration with administration, institutions, stakeholders and other carriers of knowledge (Hounkonnou et al. 2012; Tanzanian Ministry of Agriculture, Food and Cooperatives). A crucial element is a comprehensive, multidimensional view involving different research sectors (Gomez et al. 2011; Graef et al. 2000).

3 The GlobE program

The GlobE program pursues the following four central aims, a) participatory design of German-African research networks which focus on the food system; b) identifying and solving central problems related to the overarching food system in Africa, involving researchers and institutions of the target region through collaborative research projects; c) developing regionally adapted research solutions based on a solid situation analysis of the target region in question; and d) supporting and further developing research capacities in Germany and in the African partner countries.

4 The project Trans-SEC

Objective

The primary objective of the collaborative research project Trans-SEC is to improve the food situation for the most-vulnerable rural poor population in Tanzania. The project is designed to identify successful food securing upgrading strategies and/or innovations along local and regional food value chains, test and adjust them to site-specific, sustainable settings and tailor these concepts to be disseminated for national outreach. After the project lifetime, the results can be implemented at different levels of policy, extension and research.

Case studies

The regions of Morogoro and Dodoma each with two case study village sites (Figure 1) will first undergo an in-depth analysis of the environmental and socio-economic conditions surrounding national food systems for identifying food securing good practices. The food systems in the predominantly semi-humid (600-800 mm) Morogoro region with flat plains, highlands and dry alluvial valleys are more diverse and primarily based on maize, sorghum, legumes, rice and horticulture, partly with livestock. In the semi-arid (350-500 mm) Dodoma region with flat plains and only small hills, the food system is primarily based on sorghum and millet with a deep attachment to livestock. The Dodoma region is particularly sensitive to food insecurity, while Morogoro has both food-insecure and food-secure areas.

Table 1: Addressed themes of Trans-SEC

Topic	Addressed issues of the call			Additional issues
	High emphasis	Considered with medium emphasis	Considered, but lower emphasis	
Natural resources	soil, water	material flows and nutrient cycles		
Production	food production, food quality	human nutrition	health	markets
Value chain	post-harvest processing	reduction of food value chain losses		waste management
Region and gender	site- and region-specific solutions	gender-specific structures		participation, societal differences, policies, institutions
Plants			plants / plant breeding	
Biomass/energy		biomass / bioenergy		waste management
Livestock		animals in food system		waste management

Analytical framework

Trans-SEC applies an integrated, multi-disciplinary approach, which involves the following steps and components in an iterative and partly recurrent procedure as illustrated in Figure 2:

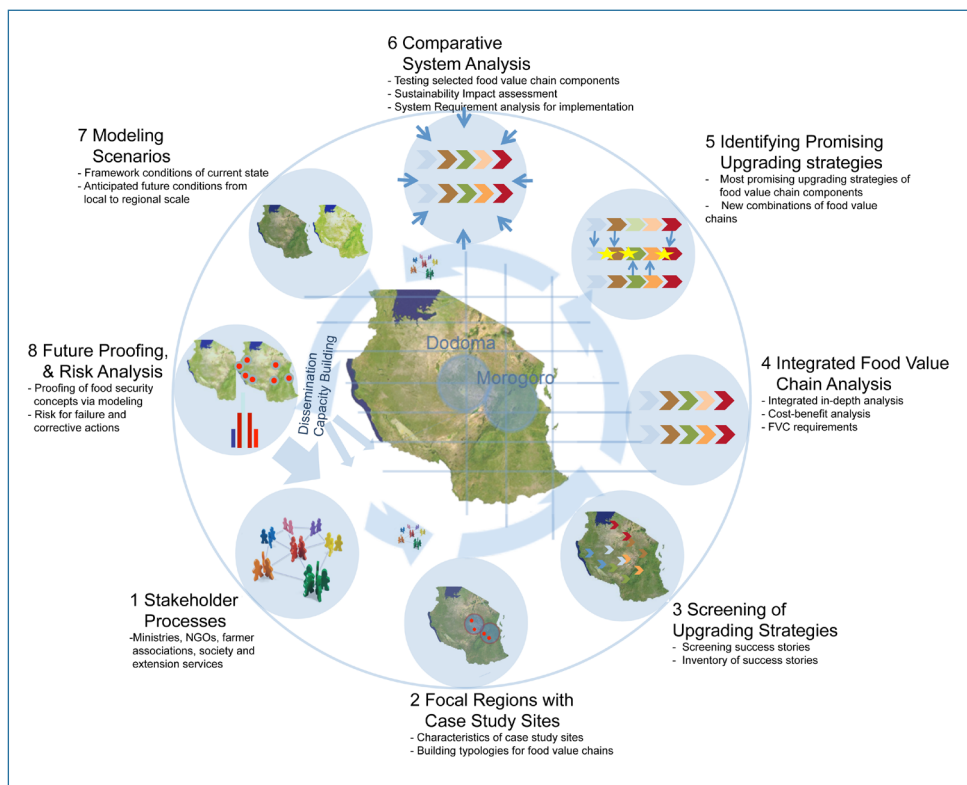


Figure 2: Analytical steps and components of Trans-SEC

(1) A stakeholder involvement process will be set up from the beginning as an integral part of most analytical steps; (2) case study sites (CSS) within the focal regions Morogoro and Dodoma will be selected, set up and typologies of food value chains developed; (3) success stories of secure food production and/or good practice along the food value chains will be screened and inventoried; (4) an integrated in-depth analyses of food value chain components, their costs, benefits and impacts will be carried out; (5) a few of the most promising good practices with regard to positive impacts and implementation will be collectively discussed and identified for subsequent in-depth testing; (6) an in-depth participative field testing and/or analysis of selected, most promising technologies will be conducted for all food value chain components and requirements for implementation identified; (7) transferability and implementation capability will be assessed for different scenarios and for future condition simulations (model analysis); (8) a meta-model analysis including risk analysis and final proofing will identify

hot spots of most sensitive, fragile regions and the potentials for alleviating food insecurity. Hence, the Trans-SEC main focus will be on local and regional food security, but the research design implies a national outreach for Tanzania as a whole.

The research activities will be embedded into local and regional strategies to assess potential impacts and trade-offs and to be able to up-scale lessons learnt in a generic manner to regions with specific bio-physical, socio-cultural and economic conditions.

Spatio-temporal research design

The Trans-SEC food value chain analytical framework will be embedded in a spatio-temporal research design. Each case study site (CSS) consists of at least one local market place and the surrounding 2-3 villages and has partial access to markets for cash crops (Figure 1). As described in the previous chapter the two CSSs within the target regions are selected to differ with regard to climate and market access. Other minor important factors that may differ are population density, land availability, soil types, infrastructure, facilities, and capital access. This creates a design with sufficiently comparable and at the same time diverse environmental and socio-economic conditions for investigating food securing upgrading strategies (=good practices, success stories) along food value chains (FVC). It will also enable testing their transfer to a large range of other Tanzanian regions with comparable environments for maximum outreach.

For each CSS an inventory (data base) of the present state will be established for each of the five main FVC components (natural resources, food production, processing, markets, consumption), providing most of the variability of FVCs.

→ Promising food securing upgrading strategies will be screened and identified among each FVC component in the target regions, the CSS, and beyond. In a participative process involving most Trans-SEC partners and the CSS stakeholders, only one promising food securing upgrading strategy per FVC component will be identified according to expected impact on food security as defined by Trans-SEC partners and stakeholders and identified through requirement analyses. This procedure, driven by iterative focus

groups and alternative methods (e.g. Delphi method, workshops, etc.) as indicated in Figure 3, takes place in and across all four CSSs, leading to a maximum possible and manageable number of five most promising upgrading strategies per CSS.

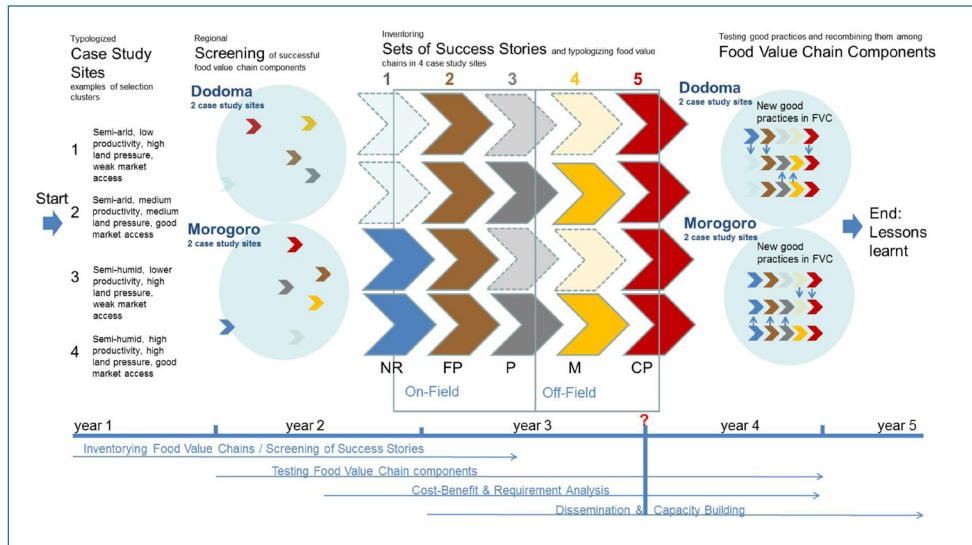


Figure 3: Food value chain spatio-temporal research design and chronology (NR – natural resources, FP – food production, P – processing, M – markets and institutions, CP – consumption; more description given in text)

→ In the next step these promising upgrading strategies are subject to theoretical in-depth analysis (= Level I analysis: In-depth participative analysis and ex-ante impact assessment (without trials) based on existing data, stakeholder and scientists' experience and other expert knowledge)

→ A core of only 2-3 most promising upgrading strategies will be selected for each case study site to be practically tested and/or analysed in more depth during three growing seasons (= Level II testing/analysis: The selected core 2-3 promising food securing upgrading strategies will be participatively tested with field trials in CSS (natural resources, food production, processing) or in-depth analysed on CSS- and market level (processing, markets, consumption). Impacts on food security and interrelations with other FVC components will be investigated).

→ Care will be taken that for each FVC component at least two level II testing/analyses are done throughout both target regions.

→ Options will be investigated for enhancing, adapting and/or recombining level I and II food securing upgrading strategies among single and multiple FVC components across the CSS. The findings from level I and II analysis will be continuously discussed and assessed by involved partners and stakeholders. Storylines on promising upgrading strategies and possible new combinations of FVC components will be prepared for dissemination.

→ Models simulating different environmental and socio-economic conditions will provide inputs for ex-ante impact assessments of upgrading strategies for most likely future scenarios.

→ Most successful upgrading strategies among FVC components will be disseminated via the German-Tanzanian R&D&I network and via stakeholder organizations through capacity building workshops at policy, extension and farmer school levels.

Expected Impact

Based on the applied concept, directly 4000 households of the four focused villages in the case study regions will substantially benefit from the proposed and tested up-grading strategies. These disseminated concepts will be taken-up to farmer school programmes of the farmer association MVIWATA and other involved NGOs. Trans-SEC expects a lower risk of yield losses, therefore an improved production plan for investments and through new market access, a producer price which is at least three times higher than the traditional local market price and might add up to an yearly income increase of 30 % per household, if at least 10 % of total production will be sold via markets. The livelihoods will stabilize within the next ten years, once the upgrading strategies are implemented via extension services. Beyond this direct commercial success, indirect benefits will be achieved through trickle down effects and regional spill-overs and programs of the involved Ministry of Agriculture, Food and Cooperatives and local governments.

6 Trans-SEC products

Trans-SEC over the period of five years will pursue five central objectives to effectively enhance the Tanzanian food security situation. They correspond to the following specific project outcomes:

1. Building a German-Tanzanian network for research, development and implementation (GA-RDInet): A central aim of Trans-SEC is to gain and/or make available new knowledge on upgrading strategies to improve prevailing Tanzanian food systems. This is done via an innovative system approach together with African partner institutions from science, engineering, governance and education, and it follows a participatory design from the very beginning of the project. A central aim is the development of a German-Tanzanian network for research, development and implementation (GA-RDInet) focussing on food supply systems and related sectors. The infrastructure required to sustain this research network will be established. To enliven the exchange of knowledge, communication structures will be established involving the relevant stakeholders such as scientists, farmers, traders, policy makers, and other food value chain actors. The issue of possible institutional constraints to establishing activities in this network will be an additional research action. The research capacities both in Germany and in the two Tanzanian target regions will be further developed. And within the project, new partnerships will be established to develop a high-quality and sustainable agricultural research landscape in Tanzania. Besides the exchange of scientists between Germany and Tanzania, workshops will be held with stakeholders from both regions visiting the other region and discussing solutions from their experience and perspectives.

→ Product: A sustainable multidisciplinary German-Tanzanian network (GA-RDInet) that is maintained beyond the lifetime of the project.

2. Overall in-depth food system analysis: A basic aim is to analyse the present Tanzanian food systems at different scales along major value chains. This will be done with baseline surveys and meta-analyses using existing statistical and geographical data. A hot-spot analysis of the most vulnerable regional food-systems will be conducted using models combining the knowledge of regional experts (models: SWIM ; LPJmL (PIK), IMPACT (IFPRI)). This will help identify the factors adversely affecting food security in the Tanzanian target regions and the selected case study sites. This joint analysis, requiring the full spectrum of the aforementioned GA-RDInet, will take into account regional and national research, development and politic strategies, and will provide toolboxes for regional and national research institutions and administration. This is designed to ensure continued analysis and evaluation in the future.

→ Products: (i) Agronomic and food security risk atlas at multiple spatial and temporal scales and various disciplines based on holistic situation analyses for efficient decision-making [Food Security Information System]; (ii) toolbox for assessing potentials to enhance the regional food security.

3. Identification of upgrading strategies: The basic spatial design encompasses two Tanzanian target regions, each with two different case study sites. They are considered representative for most agronomic environments of Tanzania, thus enabling the evaluation, up-scaling and transferability of promising upgrading strategies (= success stories, good practice) to other Tanzanian regions in a system approach and helping assess their implementation potential. Analysis of ex-ante impacts and factors limiting the overall food system will play a major role for implementation success. Trans-SEC will focus on changes in food production and on testing promising upgrading strategies by integrating existing traditional knowledge on good practices (e.g. agro-forestry integration; low-input soil and water conservation in subsistence farming).

→ Product: Participatory multi-scale synthesis framework to identify and prioritize upgrading strategies [Innovation Framework for Food Systems IFS]

4. Testing the food value chain approach: A meta-analysis will be carried out on the Trans-SEC research approach with regard to feasibility, plausibility and reliability of results. This will involve testing the generic nature of food securing upgrading strategies identified and specific Trans-SEC products developed and tackle questions of up-scaling and dissemination to demonstrate the implementation capability. This will be done in a demand-driven participative approach including self-evaluation of stakeholders. A major aim is the applicability of the upgrading strategies and/or innovations among the food value chain components. Each food value chain analysed will be synthesised to an integrated food system approach that comprises information on drivers and factors influencing food security and uses existing or new upgrading strategies. These will be tested for feasibility using action research, applying them in practice and their impacts assessed. Results will be disseminated among stakeholders and involved ministries and other institutions for implementation beyond project lifetime (e.g. via farmer schools).

→ Product: Report on feasibility and impact assessment of upgrading strategies.

5. Assessing explanatory power and transferability: Upgrading strategies identified and/or adopted by involved actors must be adapted to local site conditions and the socio-cultural setting. This requires a system analysis on existing upgrading strategies and a requirement analysis of adoption pathways. This stakeholder-driven approach follows principles of action research using impact assessments on FVC components identified by the stakeholders in the target regions. Local and regional institutions in science and administration with detailed insight into the food systems as well as governing bodies from the ministry level down to smallholders will be involved to ensure an efficient up-scaling and dissemination of findings on successful upgrading strategies and/or innovations (smallholders, SUA, ARI, TFC, ACT, MVIWATA, ministries).

→ Product: Decision-Support-System (DSS) for good practice transfer and dissemination.

7 Coordination

ZALF as coordinating institution has managed over ten projects in the region of Sub-Saharan Africa. The experience gained creates unique selling points on knowledge and experience (1) to create and maintain a sustainable network within the entire Tanzanian research landscape, (2) to efficiently manage large consortia and perpetuate communication flows, (3) to generate an intrinsic work atmosphere, (4) to accomplish operational feasibility of solving unforeseen problems by conflict management among the different cultural mentalities, (5) to ensure output-oriented research findings using a combination of central and subordinate organisation development, (6) to apply new innovative management, coordination and supervision/mediation tools to ensure success. Due to our comprehensive experience Trans-SEC will provide an “ideal model” in continuously enhancing food security research with highest possible efficiency/effectiveness to meet the Trans-SEC aims and impacts promised, (7) to apply exceptional means for dissemination and marketing (German TV DW, film documentary, video interview clips) beyond the traditional ones.

The management team will establish tools and structures that ensure:

- Short-, mid- and long-term financial, administrative and scientific man-

agement: the daily management clarifies questions and guides partners. The mid-term perspective ensures milestone achievements and safeguards timely delivery of results and/or products. The long-term perspective defines the strategic goals.

- Efficient information flow and systems (e.g. central knowledge area on webpage): Two-way communication processes with input/output flows and tailor-made communication channels will be established.
- Systematic responsibility assignments of processes and outputs as well as transparent measures of incentives, rewards and sanctions.
- Continuous evaluation of the efficiency of work and communication processes by meta-analyses applying both internal analysis and external services through experts. Coaching will be available if necessary.
- Risk control by iterative, obligatory checklist surveys assessing the probability of on-time deliveries, which are binding: Critical pathways identified will be monitored and documented through in-depth interviews.
- Innovative methods for conflict prevention and conflict management to ensure good human relations, high-quality communication and thus enable low transaction costs, in particular with regard to, inter-cultural conflicts that, in our international project experience, can disturb the cooperation: Supervision for coordinators and regional subordinate leaders will take place on an annual basis. Teambuilding-workshops and training for inter-cultural sensitization will take place at the beginning of the project. A conflict management system will be established to enable conflict resolution. In both cases, anonymous phone consultation (hot-line) and open conflict mediation on request by workshops in a face-to-face setting are envisaged. The lessons learnt will be disseminated among partners and awarding authorities.
- Dissemination of outreach strategies to tailor knowledge generated to target groups, institutions and the wider public: Reporting and marketing of Trans-SEC in the research landscape by policy briefs to Tanzanian institutions such as involved farmers schools, capacity-building centres, ministries.
- Safeguard the sustainable durability of the network, financing and scientific expertise during and beyond project lifetime: Trans-SEC will apply a two-fold strategy by a) extracting research components to apply supple-

mentary funds in smaller entities (topping-up) and b) developing an overall long-term funding strategy for the entire Trans-SEC network.

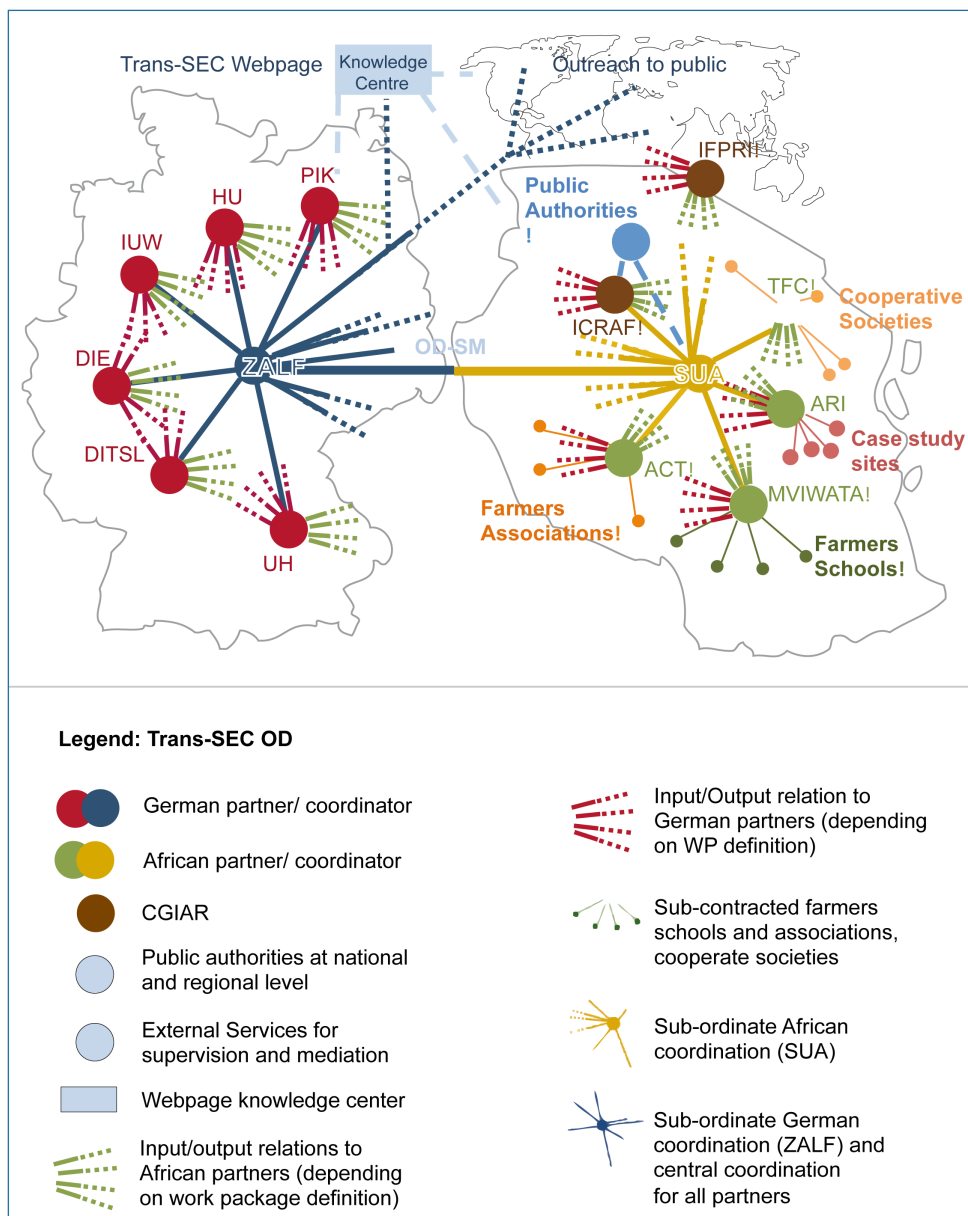


Figure 4: Mapping of the Trans-SEC Organisation Development

Trans-SEC developed a system of intra- and inter-organisational development (OD) among hierarchies, regions and all stakeholders. It aims to combine core information input/output flows amongst partners by a) a central coordination (ZALF) and b) a Tanzanian sub-coordination (SUA) for operational management and synthesis (Dietrich 2007). Standard information on administrative and risk management tasks such as checklist surveys will be managed using a “knowledge centre” on the internal webpage area. ZALF and SUA each coordinate their national partner cluster. SUA and ICRAF involve stakeholders at regional and national level of public authorities and ministries. The three NGOs TFC, MVIWATA and ACT will disseminate Trans-SEC results to farmer associations and schools as well as cooperative societies. The WP leaders are responsible for on-time delivery of results. The two CGIARs operate on specific research tasks and will support the tasks with their excellent infrastructure. External advisory board experts will analyse and support the Trans-SEC organisation and coordination. Progress and process control through supervision will ensure continuous improvement and maximise effectiveness and communication. Annual meetings and reporting to PTJ/BMBF/BMZ will be major means to ensure transparency and traceability of the project progress. They also provide a platform for commonly agreed goal settings, enhancements as well as communication of changes of processes and objectives.

A Project Steering Committee (PSC) will be established that includes the leaders (and potential co-leaders) of all WPs to ensure representation, in-depth scientific knowledge and managing details/background within the whole project. The PSC will be the leading group and the decision-making body of the project. It will work closely with the ZALF coordinators on all strategic decisions regarding the work. The PSC will meet at 12-month intervals during the five years of the project.

Quality control

Trans-SEC will provide the following quality control instruments: (1) high applicability through a people-centred approach in demand-pull design. Stakeholders have strong decision rights on topic selection and prioritising goals. The stakeholder representatives of TFC, MVIWATA, ACT and the agriculture ministry build a stakeholder advisory board (SAB); (2) the applied

OD evaluated by external experts will continuously improve all processes and related instruments to streamline the communication and coordination towards efficiency (e.g. low transaction costs) and effectiveness; (3) the applicability of upgrading strategies and/or innovations will be proved by at least one comprehensive good practice approach using action research; (4) a project advisory board (PAB) that will consist of two experts will advise the coordinators and partners. They will be present at the annual meetings and will meet the coordinators for a counselling interview; (5) sample templates (incl. instructions on formatting) provide a Trans-SEC design for corporate identity, and each delivery will be peer-reviewed by other partners and the coordinators before launching on the webpage; (6) scientific publication management of the processing and review (internal and/or external) of different kinds of publications to ensure a high scientific quality of the Trans-SEC publications; (6) feedback from PTJ/BMBF/BMZ will be requested on the progress and results documented; (7) in the event of quality failure the coordinators may ask for postponement to a given point in time.

In order to ensure the project outcome, Trans-SEC will establish four instruments to minimise and manage risks: (1) A risk diagnosis will comprise a critical path analysis including a control mechanism of delivery. This risk control will be achieved by iterative (every six months), obligatory electronic checklist-surveys designed to indicate the probability of on-time deliveries on the webpage. Critical pathways identified will be followed up by in-depth interviews and documented on the webpage. (2) A consortium agreement will enable secure management of the project, and clear rules will be drawn up on responsibility for processes and outputs. This will be accompanied by transparent measures of incentives, rewards and also strategies for dealing with non-delivery partners and partner withdrawal to facilitate and ensure on-time deliveries. (3) Based on the new German mediation law, evident empiric efficiency losses due to conflicts averaged about 50 % (KPMG 2009). ZALF has experienced clashes of different intercultural perceptions and mentalities, leading to efficiency losses. Therefore, processes and communication will be regularly reflected using supervision and tailor-made mediation by external services. To handle potential prob-

lems, innovative instruments such as (1) supervision of processes (conflict prevention) and (2) shuttle, anonymous and open mediation within workshops (conflict resolution) will be applied.

Furthermore, each partner will have the possibility to report any foreseen risk. A mitigation plan will be set up describing this particular risk and what, when, by who and how something will be done to avoid it or minimize its consequences. Risk management of Trans-SEC further includes that delivery quality is ensured by partners with key responsibilities (WP leaders). Regular assessment and monitoring of progress will be made by the coordinators via monthly contacts with WP leaders. This should allow any problems to be identified at an early stage. This will be supplemented by in-between project meetings in the form of telephone or internet conferences if the need arises. Project meetings of all partners, the PSC, the PAB and the SAB will take place periodically every 12 months.

Impressions of the Trans-SEC project



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Glossary

Case study site (CSS): Village with local market place and surrounding 2-3 villages

Impact assessment: A set of logical steps which helps assess the potential economic, social and environmental impact of specific inputs, options, and changes. It provides evidence to involved stakeholders on their advantages and disadvantages.

Food security: Defined according to WHO as existing “when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life”. This includes both physical and economic access to food that meets people’s dietary needs as well as their food preferences.

Food value chain (FVC): Defined as consisting of the following main components: natural resources for food production, primary production, food processing, marketing, consumption.

Implementation feasibility: The ability of research components to be successfully implemented for sustainable use by small-scale farmers.
Most vulnerable rural poor: Smallholders (small-scale farmers) who do not exceed levels of self-sufficiency.

Upgrading strategy : This term is used for a food securing success story and/or good practice example.

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Dr. Stefan Sieber, Dr. Frieder Graef
Leibniz-Centre for Agricultural Landscape Research ZALF e.V.
Eberswalder Straße 84
15374 Müncheberg
Germany

Order contact:

Dr. Stefan Sieber
stefan.sieber@zalf.de
P +493343282125
M+491705597037 or 1634181282
F +493343282480 or 3343282308

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