Trans-SEC

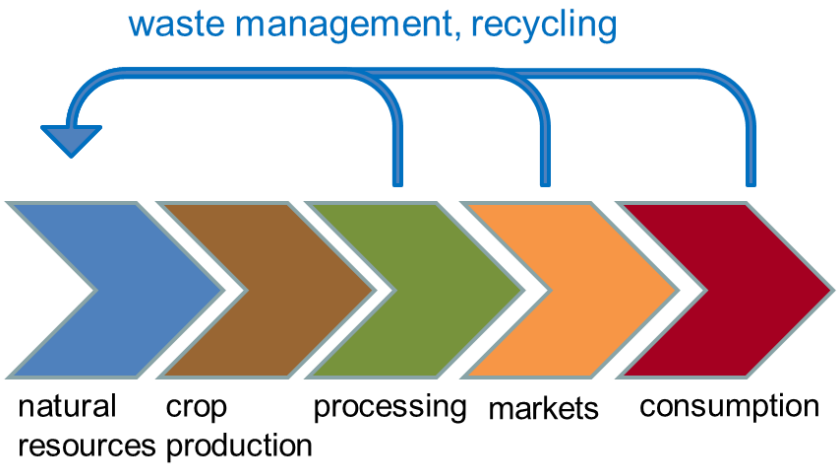
Innovating pro-poor Strategies to safeguard Food Security using Technology and Knowledge Transfer

Scientific status and achievements

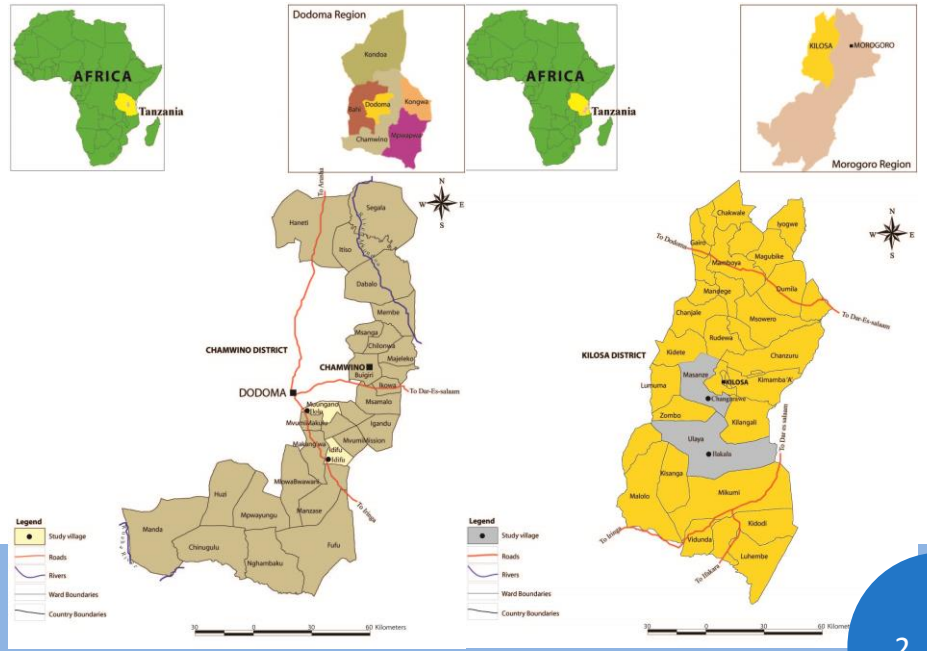
Frieder Graef (ZALF)

Trans-SEC at a glance

- Various research activities across smallholders' Food Value Chains (FVC).

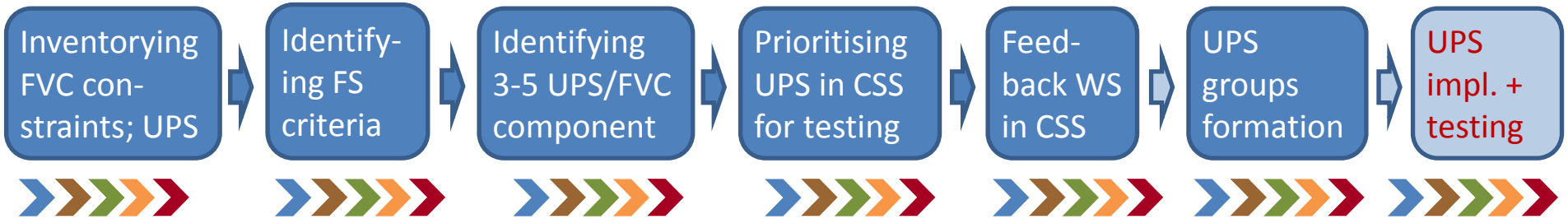


- Two regions and 4 case study sites represent a wide gradient between climate and socio-economic conditions.



Trans-SEC at a glance

- Stakeholder participation for demand driven approach, Dissemination, and capacity building.



- Scenario and modeling framework, which allows assessing macro-/regional conditions, risk analysis and proofing for future conditions.

Research framework of Trans-SEC

Out- and up-scaling

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

Modelling

- Scenario framework
- Future simulation
- Climate proofing

Participatory testing of UPS

- Implementation
- Monitoring
- Evaluation

Stakeholders along FVC

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

UPS impact assessments

- Household survey 900 HH in 4 CSS, 2 control villages
- ScalA-FS
- FoPIA

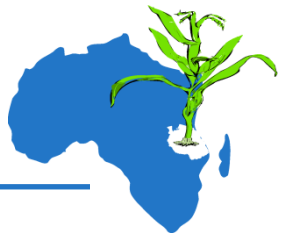
Inventory of UPS

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

UPS selection

- Typologizing the FVC and their components in the CSS
- Participatory selection & UPS prioritizing

Trans-SEC FVC stakeholders



1 "Primary users" at grassroot level

- Farmers (and pastoralists)
- Processors, millers, stockiest
- Traders, middlemen, transporters
- Consumers

Activities:
Mapping
HH-survey, interviews, FGD, WS, testing UPS, assessing UPS impact

2 Interested organisations, institutions (key informants)

- policy makers, extension officers, service providers
- NGOs, churches, …

Trans-SEC stakeholder involvement

Project activities	Stakeholder categories Grassroot level stakeh. "GLS" Key informants "KI"	Type of stakeholder involvements
Mapping stakeholders across FVC	GLS KI	interviews, FGD, workshops
Inventorying FVC constraints & UPS	GLS KI	HH-survey, interviews, FGD
Identifying food security criteria	GLS KI	interviews, FGD
Identifying 3-5 UPS/FVC component	GLS	interviews, FGD
Prioritising UPS in CSS for testing	GLS	FGD
UPS groups formation	GLS	FGD, workshops
UPS implementation, testing, adaptation	GLS (KI)	FGD, trainings, testing UPS
UPS monitoring & impact assessment	GLS KI	interviews, FGD, workshops, testing & assessing UPS
UPS dissemination	GLS KI	FGD, workshops, trainings

Selection of Upgrading Strategies

UPS	Ilakala	Changarawe	Ilolo	Idifu
1 Rainwater harvesting, Fertiliser micro-dosing & Optimised weeding	✓ (tied ridges)	✓ (tied ridges)	✓ (infiltration pits)	✓ (infiltration pits)
2 Byproducts for bioenergy	✓			
3 Improved processing	✓ (maize sheller)	✓ (maize sheller)	✓ (millet threshing)	✓ (millet threshing)
4 Improved wood supply			✓	
5 Improved stoves	✓ (training)	✓	✓ (training)	✓
6 New product development			✓ (sunflower oil pressing)	✓ (sunflower oil pressing)
7 Optimised market oriented storage	✓	✓ (training)	✓ (training)	✓ (training)
8 Poultry-crop integration		✓		
9 Market access system (m-IMAS)	✓	✓		
10 HH nutrition education & Kitchen garden training	✓	✓	✓	✓

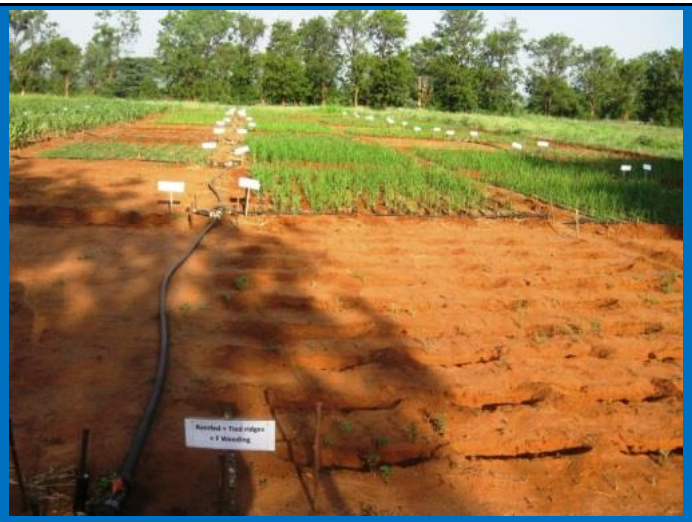
Focal crops and FVC defined for testing

- Maize, sesame in Ilakala & Changarawe
- Millet, sunflower in Ilolo & Idifu
- other intercropped commodities
  - Maize (intercropped with pigeon pea),
  - Sesame (stand alone)
  - Millet, sunflower (both intercropped with groundnuts)
- other crops are also part of “processing, markets, consumption”

Trans-SEC upgrading strategies

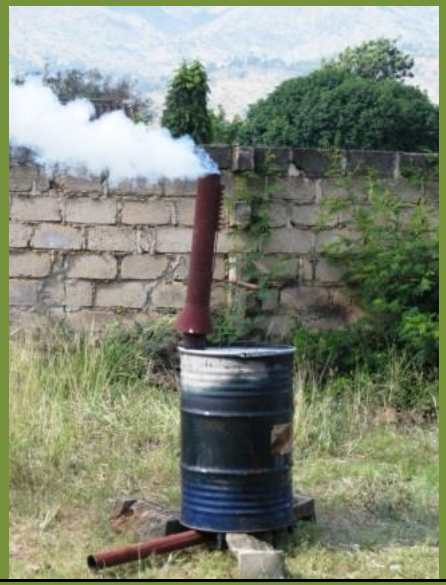
Natural Resource Management/ Crop Production

1 Rainwater harvesting (RWH); fertiliser micro-dosing; optimised weeding:.



Post-harvest processing & biomass/energy supply

2 Byproducts for bioenergy: low-cost pyroliser producing charcoal and used for cooking



3 Improved processing devices: mobile maize shelling machines and millet shelling machines

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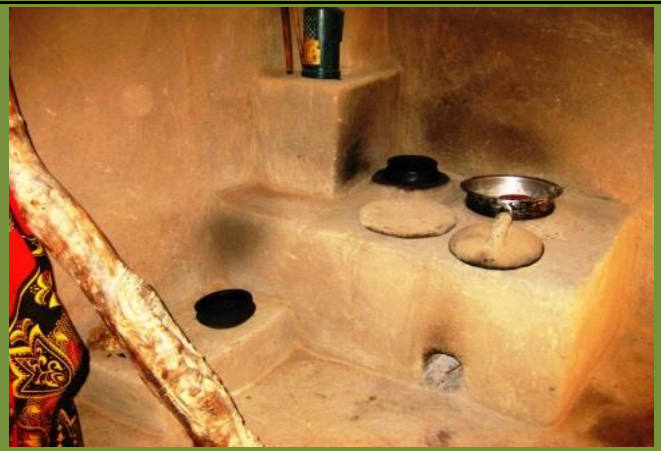
4 Improved wood supply: tree planting in various niches

5 Improved stoves: small scale loam stoves reducing energy consumption



Trans-SEC upgrading strategies

Markets and income generation

6 New product development: horizontal and vertical coordination of sunflower oil production, sunflower oil press

7 Optimised market oriented grain storage: using low cost IRRI airtight superbags

8 Poultry-crop integration: poultry keeping hutch, disease management, utilization of crop by-products in raising poultry, utilization of poultry manure

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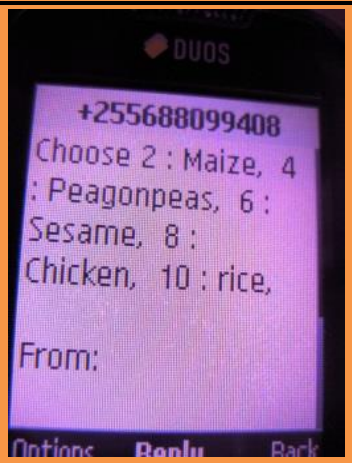
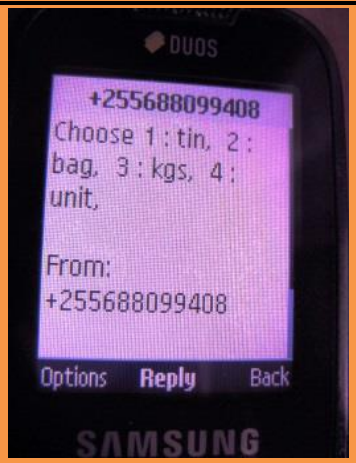
9 Market information access system (m-IMAS): mobile phone based online market for farmers marketing their produce at better prices and for buyers.



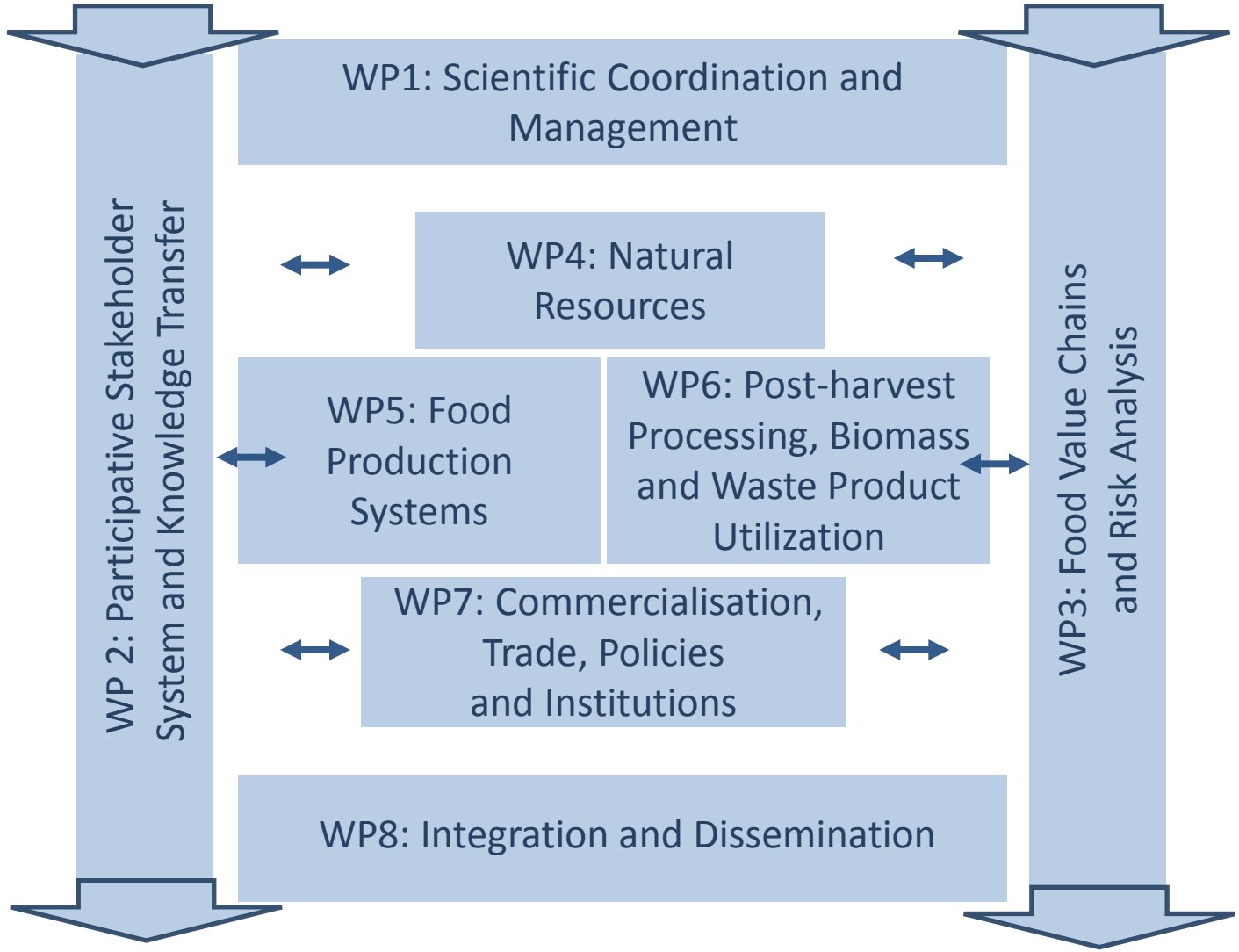


Consumption

10 Household nutrition education: increase awareness of nutrient-rich including indigenous foods,
Kitchen garden training: cultivating indigenous fruits and vegetables at the homestead for dietary diversification

UPS	Ilakala	Changaraw e	Ilolo	Idifu	UPS responsible	Local responsible for monitoring
1 Rainwater harvesting & Fertiliser micro-dosing & Optimised weeding	✓	✓	✓	✓	Jörn Germer, Folkard Asch Frederick Kahimba, Ludger Herrmann E. Swai, Bashir M. +	Paul (Kilosa) Emanuel (Dodoma) Nuru Mgale (Dod.)
2 Byproducts for bioenergy (pyroliser for charcoal making)	✓				Valerian Silayo, Simon Munder, Sebastian Romuli	Obedi (Kilosa)
3 Improved processing	✓ **maize sheller**	✓ **maize sheller**	✓ **millet thresher**	✓ **millet thresher**	Valerian Silayo, Charles, Mwinuka, Claude, +	Bashir (Kilosa) Devotah (Dodoma) Felista (Dodoma)
4 Improved wood supply			✓		Götz Uckert Anthony Kimaro	Majige (Dodoma)
5 Improved stoves	✓	✓	✓	✓	Götz Uckert, Ogossi, +	Obedi (Kilosa) Majige (Dodoma)
6 New product development			✓ **sunflower. oil pressing**	✓ **sunflower oil pressing**	Charles, Mwinuka, Claude, Khamaldin Valerian Silayo, +	Devotah (Dodoma) Felista (Dodoma)
7 Optimised market oriented storage	✓	✓	✓	✓	Charles, Valerian, Khamaldin, Mwinuka, Claude, +	Rashidi (Kilosa) Devotah (Dodoma)
8 Poultry-crop integration		✓			Said Mbaga, Charles, Mwinuka, Claude, +	Phlorentin (Kilosa)
9 Market access system (m-IMAS)	✓	✓			Khamaldin, Claude, +	Bashir (Kilosa)
10 HH nutrition education & Kitchen garden training	✓	✓	✓	✓	Hadijah, Christine Lambert, Joyce Kinabo, +	Rashidi (Kilosa) Nuru Mgale (Dod.)

Work Package structure



Research methodologies

Focus groups and/or stakeholder workshops:

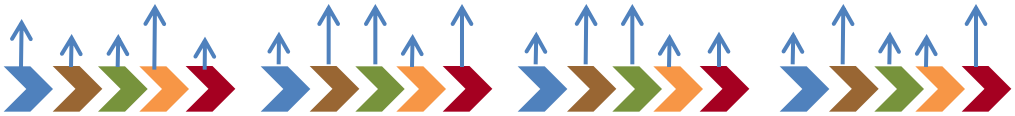
a) Local village workshops

b) Regional/national workshops

One big central HH survey, few specific HH surveys, and interviews

Research methodologies

UPS field testing and specific monitoring (PhDs, …)



Gender and/or socio-cultural issues, modeling, WebGIS development, impact assessments, …

Recent achievements

- Implementation of all UPS ongoing
- Participatory business plans for UPS requiring higher investments (SUA)
  → Innovation funds for 4 UPS (MVIWATA, ACT, TFC)
- ScalA-FS ex-ante impact assessment completed

Recent achievements

- 2nd UPS groups monitoring mission by MVIWATA + ARI
  July/August

- Detailed monitoring of UPS testing (PhD, MSc)
  continues, but still to be specified

- 2nd Impact assessment mission
  22nd August – 9th Sept

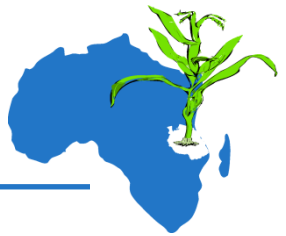
ACT – TFC - MVIWATA

- Roles and activities better defined
- All NGOs & ARI revisit stakeholder mapping

- TFC/ACT : Regional and national WS (by mid-October),
- MVIWATA/ARI: District level WS (by mid-October)

Aim: Informing on FVC UPS, "why are we here, what do we learn," find collaboration strategies such a business, roles and benefits of actors, challenges we are meeting, visions of future developments, linking

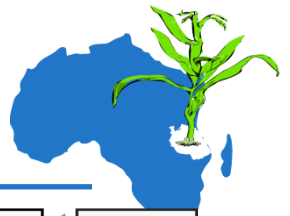
ACT

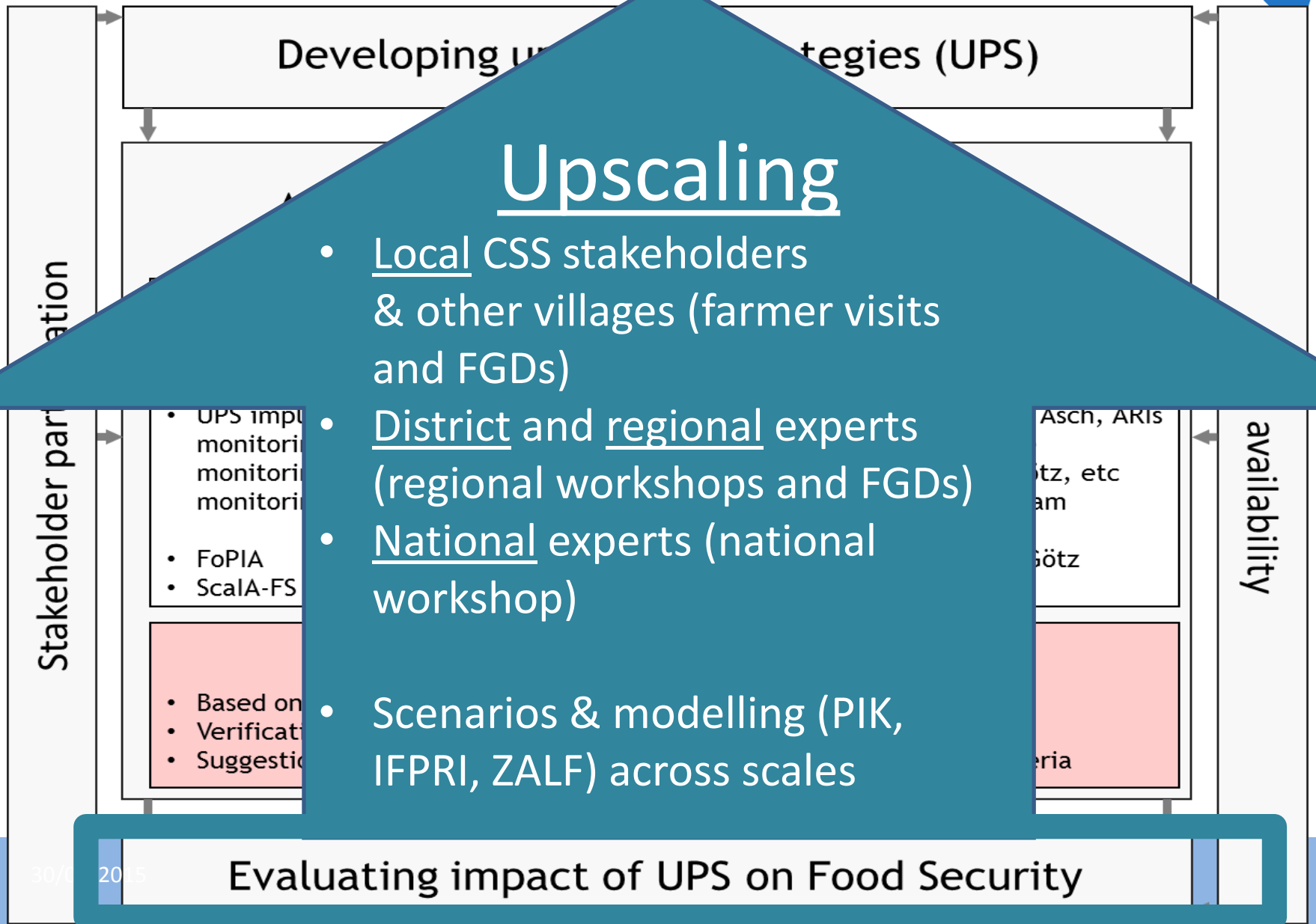


- national policy hub on FVC
  - What is the use of this extra hub: Owning the process!
  - Concept : bring together national and grassroot stakeholders (ministries, enterprises, PPP, NGOs, …);
  - feedback by Trans-SEC partners to be integrated by the AGM
  - launching is expected together with the national stakeholder meeting

- Can it be mainstreamed or institutionalised so that it will become sustainable?
  → Tanzanian-German-R&D&I network

Impact assessment framework





UPS monitoring & assessment

Planning	year 2												year 3												year 4								
Tasks	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Rainy season Morogoro																																	
Rainy season Dodoma																																	
Upgrading strategies implementation								X							X				?	?													
Household survey wave 1 and 2																									Wave2----->?								
Household survey cleaning																																	
UPS intensive monitoring by ARIs, PhDs, MSc, para-extentionists/assistants								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
UPS groups bi-monthly monitoring by ARI/MVIWATA														X			X		X		X		X			X		X		X		X	
UPS impact assessment (FoPIA)				X													X												X				
UPS impact assessment (ScalA-FS)				X																													

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UPS monitoring framework and indicators

& ARIs: bimonthly monitoring missions

UPS groups specific monitoring indicators

1. Group organisation and management
2. Gender consideration
3. UPS implementation status
4. UPS technical and socio-economic monitoring indicators

UPS monitoring framework and indicators

ARIs & PhDs & MSc & field assistants

- weekly monitoring visits by ARIs in each CSS
- monthly intensive 6 day monitoring missions in both CSS (3 days per CSS)

HH specific & detailed UPS monitoring indicators

1.General
2. technical indicators
3. socio-economic indicators

Scientific papers published in Trans-SEC

- Graef, F., Sieber, S., et al., 2014. Framework f… ory food security research in traditional food value chains, Global Food Security 02/2014: … Elsevier.
- Graef F, Schneider I, Fasse A et al (2015) As… rading strategies to improve regional food security in Tanzania: Natural resource managem… d crop production. Outlook on Agriculture 44, No 3, 159-167.

More targeted and coordinated approach towards paper outcome

- **Inform other colleagues about publication plans or data available**
- **Plan and write together!**
- **Scientific coordination to link between partners (now, and later-on with targeted short discussions)**

Status of Deliverables

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Trans-SEC evaluation report

- BMBF·funding·initiative¶
- GlobE·–·Global·food·security¶
- ¶
- Status·report·interim·evaluation¶

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1.→General·information¶

Acronym:¤	Trans-SEC¤
Project·identification·number:¤	Contract·number:·031A249A¤
German·coordinator:¤	ZALF·(Dr.·Stefan·Sieber,·Dr.·Frieder·Graef)¤
African·coordinator:¤	Sokoine·University·(Dr.·Khamaldin·D.·Mutabazi,·Prof.·Dr.·Siza·Tumbo)¤
Period·of·report:¤	May·2013·-·September·2015¤

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Some activities & challenges to discuss

1) UPS & UPS groups monitorings

2) UPS implementation: finalise - next weeks & months

Accumulated delay of 3-4 months

Are we able to perform all activities as we intend to??

Some activities & challenges to discuss

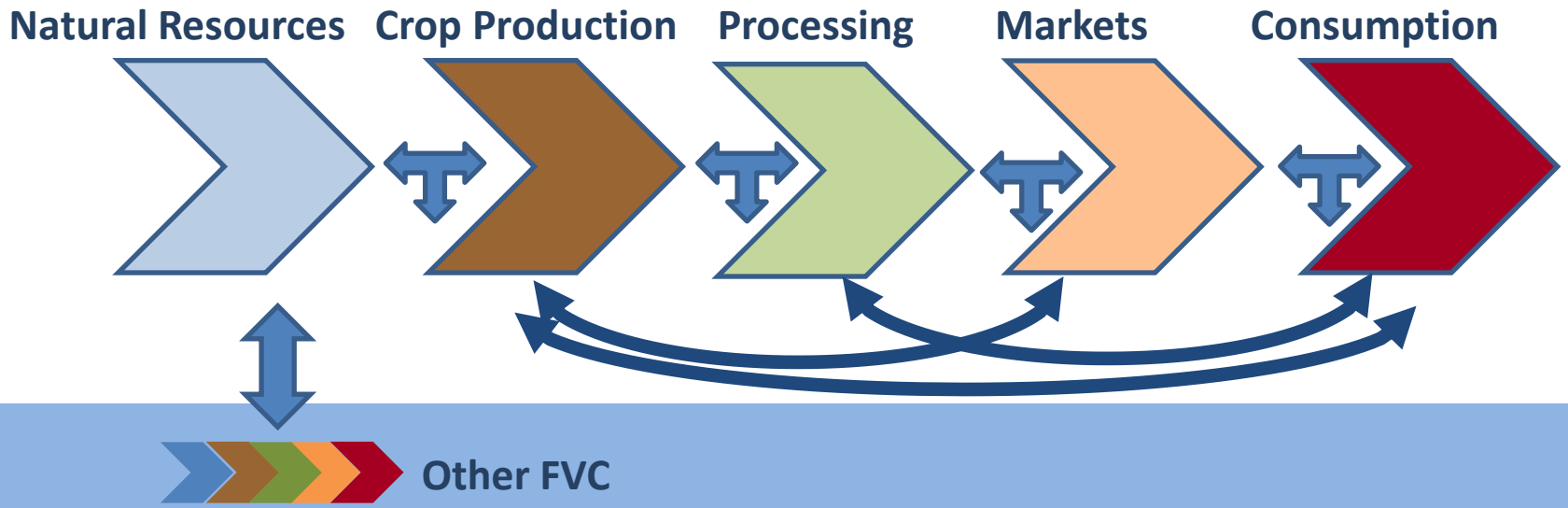
sunflower production

pressing

regional/local market

nutrition training

3) Interrelations of FVC components and FV webs



Some activities & challenges to discuss

4) Communication

- **…between partner institutions**
- **…between persons**
- **…communication structures**
- **..communication technology**
- **…CPM**

Some activities & challenges to discuss

5) Policy briefs

Principle: presenting result findings & recommendations and requesting policy or implementation changes, indicating weaknesses of existing national policies

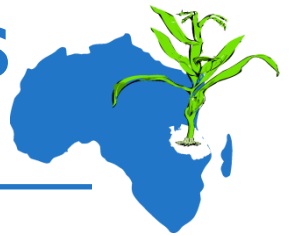
Possible Policy briefs to be checked for:

a) TADB integration with FVC (WP7 makes first draft, then finalised together with ACT)
b) Policy brief kitchen gardens ?
c) Policy brief improved storage?
d) improved stoves ?
e) participatory farmers integration with access to credits, loans, capacity building,…?

Asante sana
Thank You

Please give all PDFs and PPTs of AM to me

14:00-16:00 Short presentation of UPS status, 10 min each



1. UPS design,
2. implementation approach,
3. Implementation status,
4. UPS monitoring indicators,
5. Monitoring

1 Rainwater harvesting & Fertiliser micro-dosing & Optimised weeding → Jörn Germer Kahimba,
2 Byproducts for bioenergy (pyroliser for charcoal making) → Valerian Silayo, Yust Munder,
3 Improved processing (maize sheller millet thresher) →Valerian Silayo, Charles, Mwi
4 Improved wood supply →Götz Uckert Anthony Kimaro
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