Current state of Food Security – Research, Education and Outreach in Sokoine University of Agriculture

CTA/WUR Inception Workshop on "Mainstreaming Tertiary Education in ACP ARD Policy Processes: Increasing Food Supply and Reducing Hunger"

CTA Headquarters, 18 – 21 September 2012

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Sokoine University of Agriculture (SUA)



A Brief Institutional Overview



SUA Vision, Mission & Mandate

VISION: To become a centre of excellence

in agriculture and allied sciences

MISSION: Promote development through training, research, and delivery of services

MANDATE: SUA has a nationwide mandate in *Training, Research* and *Outreach*.



SUA is one of the RUFORUM member Universities and the only public institution of higher learning in Tanzania offering specialized training in Agriculture

Training

Most of the agricultural-related training programs at SUA are offered by the Faculty of Agriculture

Currently FoA consists of seven academic departments namely:

- Crop Science and Production,
- Agricultural Engineering & Landuse Planning,
- Food Science and Technology,
- Animal Science and Production,
- Soil Science,
- Agricultural Economics and Agribusiness,
- Agricultural Education and Extension

With these Departments, FoA is the largest Faculty at the University offering undergraduate and postgraduate training (MSc and PhD level).

Research and Outreach

Research objectives:

To provide leadership in basic and applied research in order to generate knowledge that responds to contemporary and emerging needs in Agriculture, natural resources and allied disciplines

- Emphasis: research linked to development with focus on environment & conservation of natural resources
- Target: Poverty reduction

Nutrition Security in Tanzania

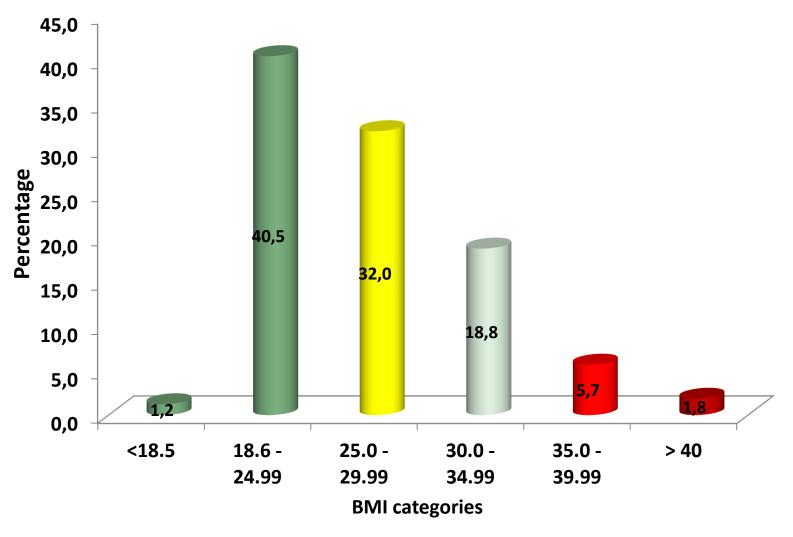
High prevalence of child under nutrition

Condition	Prevalence	Description
Stunting (%)	42	Chronic food insecurity
Underweight (%)	16	Acute food insecurity
Wasting (%)	5	Acute food insecurity
IMR (1000)	51	
U5MR (1000)	81	
CMR (1000)	53	

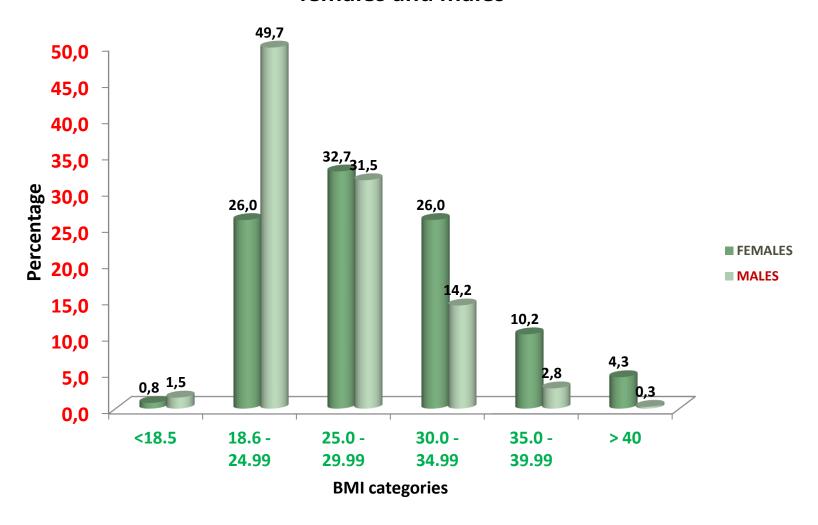
Rapid Vulnerability Assessment March 2012

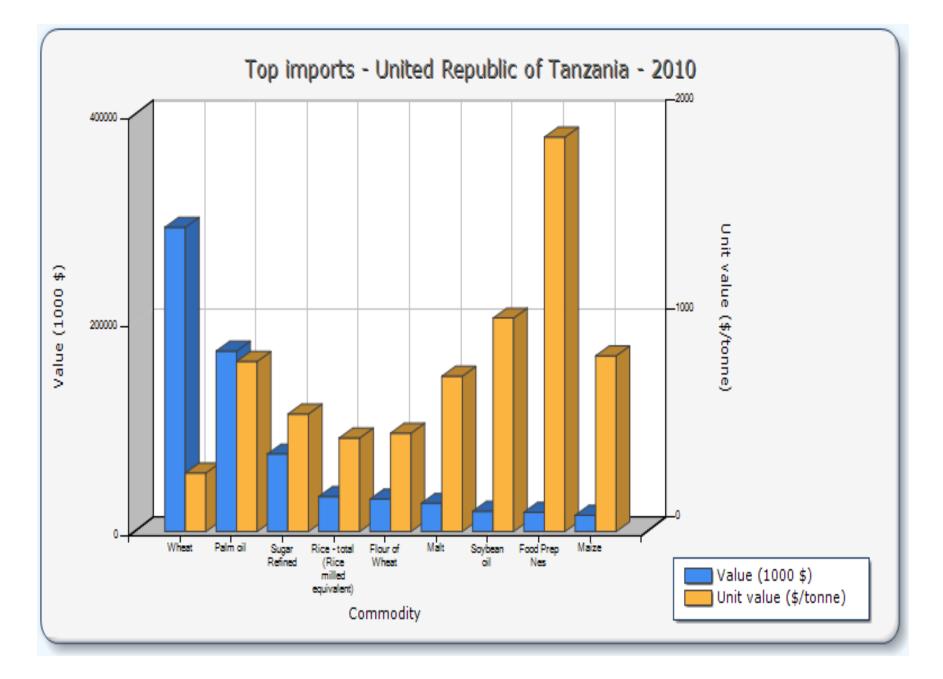
- RVA was carried out in 12/26 regions of Tanzania, involved 31 districts and covered 11,186,335 people
- 11% of these were experiencing acute food insecurity
- Needed food aid to the tune of 29,554 tons
- In addition, the affected households will need seeds for the next season (2012/13) otherwise a vicious cycle will persist.

Prevalence of overweight and obesity



Prevalence of overweight and obesity among adult females and males





Programmes

- International initiatives:
 - CAADP
 - TAFSIP
 - Global Alliance for improved nutrition (GAIN)
 - Feed the future (FtF)
 - New Alliance for food security and nutrition (NAFSN) (2012)

THE COMPREHEMSIVE AFRICA AGRICULTURE DEVELOPMENT PROGRAMME - CAADP



THE UNITED REPUBLIC OF TANZANIA









CAADP

- GOAL: To attain an annual growth rate of 6% in Agriculture for Africa
- AIM: to stimulate an agricultural-led development that eliminates hunger and reduces food insecurity
- Specifically:
 - Attain food security and nutrition
 - Improve agricultural productivity to attain a 6% annual growth rate
 - Develop regional agricultural markets
 - Integrate farmers and pastoralists into the market economy
 - Achieve a more equitable distribution of wealth

Key Issues

Pillar III

- The linkages between poverty, hunger, and malnutrition
- Identifying potential opportunities for diversification of livelihoods—particularly in support of adding value to agricultural production (through local processing, handling, transport, etc.) will both build resiliency and contribute to rural growth.
- Improve outcomes through pro-active attempts to link interventions to increase access to agricultural inputs, credit, training, and other interventions capable of providing opportunities for the poor to accumulate, diversify, and invest in assets.
- To increase resilience at all levels by decreasing food insecurity and linking vulnerable people into opportunities for agricultural growth

Tanzania Agriculture and Food Security Investment Plan (TAFSIP) 2011/2021

 Goal: The Goal of the TAFSIP is to "contribute to the national economic growth, household income and exports in line with national and sectoral development aspirations".

 Aim "To rationalise allocation of resources to achieve six per cent agricultural GDP growth, consistent with national objectives to reduce rural poverty and improve household food and nutrition security".

Food and Nutrition Security

Objective:

Universal household and national food and nutrition security

Key Outcomes:

Increased calorie production per rural household (maize, root crops etc);

- Increased stability of household food stocks;
- Control of extreme fluctuations in food prices;
- Diversification of farming systems and diets;
- Reduction of child and maternal malnutrition and the reduction of micronutrient deficiencies;
- Better preparation and effective response to natural and manmade disasters.

Related initiatives

National Nutrition Strategy; ASDP Food Security Component; Zanzibar Food and Nutrition Programme; DRM Policy; AFSP; Feed the Future; Irrigation MP (ZNZ); National Rice Strategy; National Input Supply Strategy; Southern Highlands Food Systems Programme etc.

9/20/2012

National Nutrition Strategy

The goal of the Strategy is to attain adequate nutritional status for all Tanzanians, which is an essential requirement for a healthy productive and reproductive nation. This can be achieved through programs and partnerships that deliver evidence-based and cost-effective interventions to improve nutrition.

Scope

- It provides a framework for sustainable improvements in nutrition based on scientific evidence and input obtained from the community to the national levels.
- Principles and emphasis:
 - Community participation
 - Integrated delivery
 - Universal coverage
 - Appropriate technology
 - Working in partnership
 - Inter-sectoral collaboration

NNS priority areas

- Infant and young child feeding
- Vitamin and mineral deficiencies
- Maternal and child malnutrition
- Nutrition and HIV and AIDS
- Children, women and households in difficult circumstances
- Diet-related non-communicable diseases
- Household food security
- Nutrition surveillance, surveys and information management

University Participation

- University serves in various committees at national level on matters related to food and nutrition security:
 - High level committee on Nutrition Prime Ministers Office
 - Multi-sectoral Technical Committee on Nutrition
 - Infant and Young Child Nutrition
 - Tanzania Food and Drug Authority as well as Bureau of Standards Technical committees on Food and nutrition

Training

Core for human nutrition students and elective for all other degree programmes since 2000

Course	Title	Lecture	Seminars	Practical	Credit
HN 208	Food and Nutrition Security	20	20	0	1.0
HN 614	Food and Nutrition security	15	30	0	1.0
HN 615	Nutrition and Food Security Programmes and Interventions	30	30	30	2.0
HE 310	Food and Nutrition Security	20	20	0	1.0

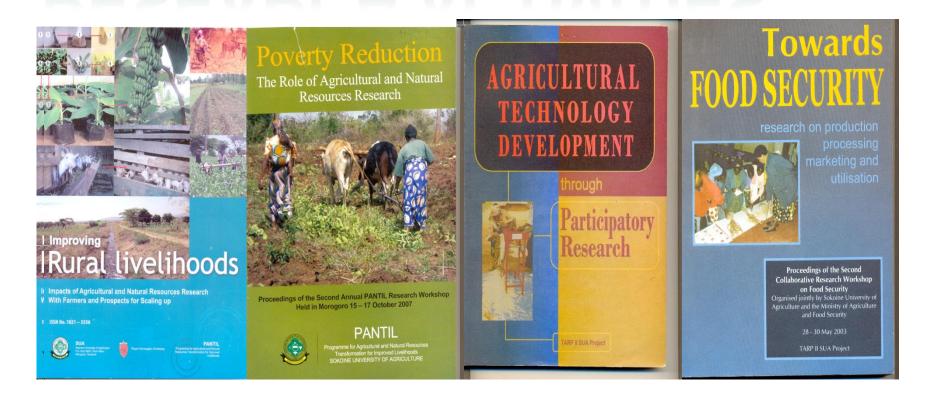
Learning outcomes — B.Sc.

- Describe food and nutrition security frameworks
- Explain different indicators used to monitor food and nutrition security at different levels
- Design and implement interventions for improving food and nutrition security
- Discuss the National Food Policy and Tanzania Food and Nutrition policy

Learning outcomes – M.Sc.

- Describe food and nutrition security frameworks
- Explain different indicators used to monitor food and nutrition security at various levels
- Appraise various indicators for assessing food and nutrition security.
- Analyse food security policy and other food and nutrition security initiatives.

RESEARCH ACTIVITIES









Food Security and Household Income for Small-holder Farmers in Tanzania

Applied Research with Emphasis on Women

Project Document

of the Government of Tanzania under the Tanzania Agricultural Research Project Phase 2 (TARP II)

> 22 June 2000 Final Version





Ministry of Agriculture and Cooperatives

Food Security and Household Income for Small-holder Farmers in Tanzania

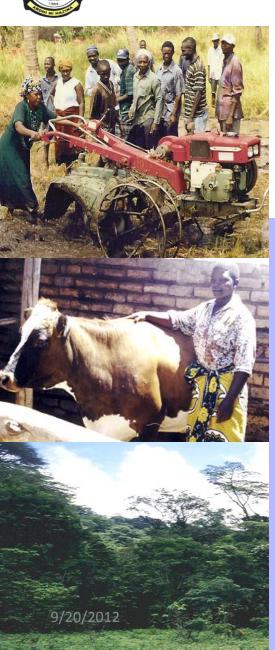
Goal: Improved food security and household income of smallholder farmers with emphasis on women in the Eastern and Southern Highlands Zones of Tanzania

Purpose: Gender-sensitive and appropriate on-farm technologies for improving food security and household income developed and in use by smallholder farmers in the Eastern and Southern Highlands Zones

Outputs

- Client-Oriented and demand driven on-farm/onstation research in production, processing, and marketing
- Strengthened Farmer-Research-Extension linkages
- trained MAC staff to improve research performance
- Proposal for sustainable research funding mechanism developed
- Assessed Impact of agricultural research on food security
- GRAPHIC PRESENTATION OF GOAL OUTPUTS.docx





PANTIL

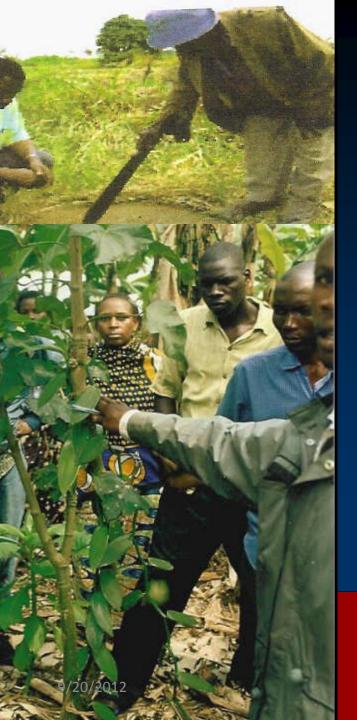
Programme for

AGRICULTURAL and
NATURAL RESOURCES
TRANSFORMATION
for Improved Livelihoods

PANTIL PROGRAMME

- Goal: Contribution by SUA to attain increased economic growth, reduced poverty and improved social well being in Tanzania through transformation of the agricultural and natural resources sectors.
- Purpose: Target beneficiaries, including small and medium scale producers, the rural poor, women and SUA graduates have better access to agricultural and natural resources knowledge and technologies for increasing income and other benefits.

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PANTIL

Research and Farmer Empowerment

Sokoine University of Agriculture

CTA workshop





Sub-components

- Demand-driven research to improve agriculture and natural resources
- Farmer empowerment activities to enhance continued technology development and uptake
- Research impact assessment

PANTIL

Demand-driven Research

Improving productivity & natural resources conservation

Broadening genetic base, increasing supply of planning, onfarm processing and marketing of vanilla

Draught animal power

Rain water & irrigation technology

Water productivity in smallholder irrigation schemes Plant nutrient, management and crop protection

Maize productivity in semi-arid *Striga* infested soils Nutrition interventions for improved health and productivity

Processing,

marketing &

nutrition

Improvement of cassava production, processing, utilisation and marketing Animal Health and Production

Integrated dairy production system for improving livelihoods of small-scale

Enhancing Livelihoods of dairy goat keepers

dairy farmers

Innovative technologies

Institutional development

Banana multiplication and cultural practices

Farmer pastoralists conflict resolution

Commercial utilisation of innovative technologies

OTHER RESEARCH ACTIVITIES

Development of dietary guidelines

- Development of nutrition interventions for improved health and productivity
- Food Security, adequate care and environmental quality: development of eco-nutrition guidelines for community action in the context of climate change
- Enhancing child nutrition and livelihood of rural households in Malawi and Tanzania through post harvest value chain technology improvement in groundnuts
- Dietary strategies to improve feeding practices, dietary adequacy and growth of infants and young children in rural Tanzania.
- RTF extruded cereal –bean-soybean composite supplementary food for rehabilitation of undernourished children and nutrition support for HIV/AIDS infected children.

OUTREACH ACTIVITIES

- Educational and information leaflets 24
- Monographs 23
- Other Extension/Educational Materials: (Prepared and Distributed by Research Projects) – 7
- TV and radio programmes 10
- Participation in Agriculture show on 8 August of each year.

Newsletter of the project

Food Security and Household Income for Smallholder Farmers in Tanzania - Applied Research with Emphasis on



