



**ASSESSMENT OF AGRICULTURAL INFORMATION NEEDS IN
AFRICAN, CARIBBEAN & PACIFIC (ACP) STATES**

Eastern Africa

Country Study: Tanzania

Final Report

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Ministry of Agriculture, Food Security and Cooperatives

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List of Acronyms

AAS	Association for Asian Studies
ACB	Akiba Commercial Bank
ACE	Agricultural Commodity Exchange
ACMAD	African Centre of Meteorological Application for Development
ACP	African Caribbean and Pacific (countries)
ACP-EC	African Caribbean and Pacific-European Commission
ACT	Agricultural Council of Tanzania
ACT	Anglican Church of Tanzania
ADP	Agricultural Development Programme
ADRA	Adventist Development and Relief Agency International
AFREDA	Action for Relief and Development Assistance
AFSAT	Air Force Satellite
AGOA	African Growth and Opportunity Act
AGORA	Access to Global Online Research in Agriculture
AGRA	Alliance for Green Revolution in Africa
AGRIFOR	Agriculture, Food and Forestry (consult)
AICAD	African Institute for Capacity Development
AICT	African Inland Church of Tanzania
AKAM	Aga Khan Agency for Microfinance
AKF	Aga Khan Foundation
AMSDP	Agricultural Marketing Systems Development Programme
ANNEA	AIDS NGOs Network in East Africa
APA-TZ	Austro Project Association Tanzania
ARI	Agricultural Research Institutes
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
ASDP	Agricultural Sector Development Programme
ASDS	Agricultural Sector Development Strategy
AS-F	Farmers Associations
ASLM	Agricultural Sector Lead Ministries
ASSP	Agricultural Sector Support Project
ATV	Agape Television
AU	African Union
AVRDC	Asian Vegetable Research Development Centre
BAKWATA	Baraza Kuu la Waislamu Tanzania (National Muslim Council)
BBC	British Broadcasting Cooperation
BISA	Bara Institute of Sustainable Agriculture
BOL	Benson Online Limited
BRAC	Buhemba Rural Agricultural Centre
CAMARTEC	Centre for Agricultural Mechanization and Rural Technology
CHEMA	Community Habitat Environmental Management Programme
CIAT	International Centre for Tropical Agriculture
CIDA	Cultural Industries Development Agency
CIFOR	Centre for International Forestry Research
CIMMYT	Centro Internacional de Mejoramiento de Maiz y Trigo (International Maize and Wheat Improvement Centre)
CIVICUS	Cooperation between universities, industries, state administration and NGOs
CNFA	Citizen Network for Foreign Affairs
CNN	Cable News Network
COMESA	Common Market for East and Southern Africa
COSTECH	Commission for Science and Technology Tanzania
CTA	Technical Centre for Agricultural and Rural Cooperation

DAAD	Deutscher Akademischer Austausch Dienst (German Academic Exchange Service)
DAIPESA	Development Alternatives Inc. – Private Enterprises Support Activities
DANIDA	Danish International Development Agency
DED -TZ	German Development Service
DFID	Department for International Development
DKA	Diabetic Ketoacidosis
DLRTE	Department of Livestock Research, Training and Extension
DORA	Distribution of Reference Books on Agriculture
DRT	Department of Research and Training
DTV	Dar Es Salaam Television
EAC	East African Co-operation
EAFF	Eastern African Farmers Federation
EASSy	Eastern Africa Submarine Cable System
EATV	East Africa Television
EBT	Exim Bank Tanzania
EDU	Education
EED	Evangelischer Entwicklungsdienst
ELCT	Evangelical Lutheran Church in Tanzania
ENVIHURO	Environmental and Human Rights Organisation
ENVIROCARE	Environmental Human Rights Care and Gender Organization,
EPA	Economic Partnership Agreements
ESAFF	Eastern and Southern African Farmers Forum
ESRF	Economic and Social Research Foundation
EU	European Union
FADECO	Family Alliance for Development and Co-operative
FAIDA-MALI	Finance and Advice in Development Assistance and Marketing Linkage
FANRPAN	Food and Agriculture, Natural Resources, Policy Analysis of South Africa
FAO	Food and Agriculture Organization
FARM-Africa	Food and Agricultural Research Management Africa
FCBU-TZ	Farmers' Community Based Unit Tanzania
FCS	Foundation of Civil Society
FERT	French farmers Organization
FEWSN	Famine Early Warning System Network
FINCA	Foundation for International Community Assistance
FINNIDA	Finnish International Development Agency
FIPS	Farm Inputs Promotion
FIRI	Fisheries Research Institute (Uganda)
ForDIA	Concern for Development Initiatives in Africa
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GIS	Geographical Information System
GMO	Genetic Modified Organisms
GTS	Global Telecommunication System
GTZ	German Agency for Technical Cooperation
IAEA	International Association for Educational Assessment
IARC	International Agricultural Research Centres
ICAD	International Conference on Agriculture and Development
ICC	International Chamber of Commerce
ICE	Institute for Continuing Education
ICPAC	IGAD Climate Prediction and Applications Centre
ICRAF	World Agroforestry Centre
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IDU	Information and Documentation Unit
IFAD	International Fund for Agricultural Development

IFPRI	International Food Policy Research Institute
IGAD	Inter-Governmental Authority on Development
IIED	International Institute for Environment and Development
IITA	International Institute of Tropical Agriculture
ILRAD	International Laboratory for Research on Animal Diseases
ILRI	International Livestock Research Institute
IMF	International Monetary Fund
INADES	Institut African pour le Developpment Economique et Social
INASP	International Network for the Availability of Scientific Publications
INBAR	International Network for Bamboo and Rattan
INFORM	Information for Research Managers database
IRA	Institute of Resource Assessment
IRD	Institute of Rural Development Planning
IRRI	International Rice Research Institute
ISNAR	International Service for National Agricultural Research
ISP	Internet Service Provider
ITA	Information Trading Agreements
ITV	Independent Television
IUCN	International Union for Conservation of Nature and Natural Resources
IUFRO	International Union of Forest Research Organizations Conference
JICA	Japan International Cooperation Agency
KATC	Kilimanjaro Agricultural Training Centre
KATI	Kizimbani Agricultural Training Institute
KEFRI	Kenya Forestry Research Institute
KEMFRI	Kenya Marine Fisheries Research Institute
KIT	Royal Tropical Institute (Netherlands)
KNCU	Kilimanjaro Native Cooperative Union
KOICA	Korea International Cooperation Agency
KUEW	Kamisheni ya Utafiti na Elimu kwa Wakulima (or Commission of Research and Extension services)
LEISA	Sustainable Agriculture Information
LEWSN	Livestock Early Warning System Network
LGA	Local Government Authority
LGRP	Local Government Reform Programmes
LRC	Livestock Research centres
MAFC	Ministry of Agriculture, Food Security and Cooperatives
MANREC	Ministry of Agriculture, Natural Resources, Environment and Cooperatives
MCST	Ministry of Communication, Science and Technology
MET	Meteorology
MIC	Millicom International Cellular (T) Limited
MIFIPRO	Mixed Farming Improvement Programme
MKUKUTA	Mkakati wa Kukuza Uchumi na Kuondoa Umaskini Tanzania (National Strategy for Growth and Reduction of Poverty)
MLDF	Ministry of Livestock Development and Fisheries
MoL	Ministry of Labour and Youth Development
MSTCDC	Mellemfolkeligt Samvirke – Training Centre for Development Cooperation
MTEF	Medium-Term Expenditure Frameworks
MTIM	Ministry of Trade, Industry and Marketing
MUCCoBS	Moshi University College of Co-operative and Business Studies
MUHAS	Muhimbili University of Health Sciences
MVIWATA	Mtandao wa Vikundi vya Wakulima Tanzania (National Network of Small-scale Farmers Groups in Tanzania)
MWC	Ministry of Community Development, Women Affairs and Children
NAEP	National Agricultural Extension Project
NALERP	National Agricultural and Livestock Rehabilitation Project

NARS	National Agricultural Research Systems
NBS	National Bureau of Statistics
NEMC	National Environment Management Council
NEP	National Environmental Policy
NH	National Herbarium
NIGP	National Income Generation Programme
NORAD	Norwegian Agency for Development Cooperation
NORAGRIC	Department of International Environment and Development Studies (Norwegian University of Life Sciences)
NOVIB	Novib is the Dutch affiliate of the international Oxfam organization
NPGR	National Plant Genetic Resource Centre
NRM	Natural Research Management
NSGRP	National Strategy for Growth and Reduction of Poverty
NUFFIC	Netherlands organization for international cooperation in higher education
NWP	National Water Policy
OXFAM	Oxford Committee for Famine Relief
P&CS	Planning and Corporate Services
PADEP	Participatory Agricultural Development and Empowerment Project
PELUM	Participatory Ecological Land Use Management
PEMC	Pesticides Environment Management Centre
PMO-RALG	Prime Minister's Office Regional Administration and Local Government
PROLINNOVA	PROMoting Local INNOVation
PRSP	Poverty Reduction Strategy Paper
PSI	Population Services International
PSRP	Public Sector Reform Program
QAS	Question & Answer Service
RAIN	Regional Agricultural Information Network
RDS	Rural Development Strategy
RELMA	Regional Land Management Unit
REPOA	Research on Poverty Alleviation
RFA	Radio Free Africa
RIC	Rural Information Centre
RIUP	Research Into Use Programme
RMDP	Rural Markets Development Project
SACCAR	Southern African Centre for Cooperation in Agricultural and Natural Resources Research and Training
SACCOS	Savings and Credit Co-operative Societies
SADC	Southern African Development Community
SAIPRO	Same Agricultural Improvement Trust Fund
SAREC	Senior Advantage Real Estate Council
SARI	Selian Agricultural Research Institute
SDC	Sustainable Development Commission
SDI	Selective Dissemination of Information
SIDA	Swedish International Development Cooperation Agency
SIDO	Small Industries Development Organisation
SIDP	Sustainable Industrial Development Policy
SME	Small and Medium Enterprises
SMEP	Small and Medium Enterprises Policy
SNAL	Sokoine National Agricultural Library
SRI	Sugar Research Institute
SSB	Said Salim Bakhresa
SUA	Sokoine University of Agriculture
SUATV	Sokoine University of Agriculture Television
SUZA	State University of Zanzibar
TACAIDS	Tanzania Commission for AIDS

TACRI	Tanzania Coffee Research Institute
TAFIRI	Tanzania Fishery Research Institute
TAFOPA	Tanzania Food Processors Association of Women Entrepreneurs
TAFORI	Tanzania Forest Research Institute
TAHEA	Tanzania Home Economics Association
TAMISEMI	Tawala za Mikoa na Serikali za Mitaa (Regional Administration and Local Government)
TANCERT	Tanzania Organic Certification Association
TANGO	Tanzania Association of Non-governmental Organizations
TARD	Tanzania Agricultural Research Database
TARP	Tanzania Agricultural Research Project
TAWIRI	Tanzania Wildlife Research Institute
TAWLAE	Tanzania Association of Women Leaders in Agriculture and Environment
TBC	Tanzania Broadcasting Cooperation
TBS	Tanzania Bureau of Standard
TCC	Tanzania Communications Commission
TCCIA	Tanzania Chamber of Commerce, Industry and Agriculture
TCDC	Technical Cooperation among Developing Countries
TCRA	Tanzania Communication Regulatory Agency
TCRS	Tanzania Christian Relief Services
TCU	Tanzania Certification Unit
TCU	Tanzania Commission for Universities
TDV	Tanzania Development Vision
TEEAL	Essential Electronic Agricultural Library
TFDA	Tanzania Food and Drugs Authority
TGT	Tanzania Gatsby Trust
TIC	Tanzania Investment Centre
TIP	Tanzania Irrigation and Environment Development Organization
TIRDO	Tanzania Industrial Research and Development Organization
TMA	Tanzania Meteorological Agency
TOAM	Tanzania Organic Agriculture Movement
TORITA	Tobacco Research Institute of Tanzania
TPRI	Tropical Pesticide Research Institute
TRIT	Tea Research Institute of Tanzania
TSN	Tanzania Standard Newspapers Ltd
TTCL	Tanzania Telecommunication Limited
TTSA	Tanzania Tree Seed Agency
UCC	University Computing Centre
UDSM	University of Dar es salaam
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations Children's Fund
URT	United Republic of Tanzania
USAID	United States Agency for International Development
VAT	Value Added Tax
VECO	Vredeseilanden Country Office
VLIR	Vlaamse Interuniversitaire Raad
VPO	Vice President's Office
VSAT	Very Small Aperture Terminal
WMO	World Meteorological Organization
WTO	World Trade Organisation
WVI	World Vision of Tanzania
YEFOFO	Youth Employment and Food Production Foundation

YWCA	Young Women's Christian Association
ZAC	Zanzibar AIDS Commission
ZAFFIDE	Zanzibar Farmers and Fishermen Development
ZANGOC	Zanzibar NGOs Cluster
ZAPHA	Zanzibar Association of People with HIV/AIDS
ZMWASO	Zanzibar Muslim Women Aid Support Organization
ZRELO	Zonal Research Extension Liaison Officer

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<http://www.bot-tz.org/archives/financialmarkets/exchangerates/>

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EXECUTIVE SUMMARY

Introduction

The Technical Centre for Agricultural and Rural Cooperation (CTA) was established in 1983 under the Lomé Convention between the African, Caribbean and Pacific (ACP) Group of States and the European Union (EU) Member States. Since 2000, it has operated within the framework of the ACP-EC Cotonou Agreement.

CTA's tasks are to develop and provide services that improve access to information for agricultural and rural development, and to strengthen the capacity of ACP countries to produce, acquire, exchange and utilise information in this area. CTA's programmes are organised around three principal activities: providing an increasing range and quantity of information products and services and enhancing awareness of relevant information sources; supporting the integrated use of appropriate communication channels and intensifying contacts and information exchange (particularly intra-ACP); and developing ACP capacity to generate and manage agricultural information and to formulate information and communication management (ICM) strategies, including those relevant to science and technology. These activities take account of methodological developments in cross-cutting issues [gender, youth, information & communication technologies (ICTs), and social capital], findings from impact assessments and evaluations of ongoing programmes as well as priority information themes for ACP agriculture.

Objective of the study

The overall objective of the study is to improve collaboration strategies with ACP agricultural organisations and relevance of CTA's support to African ACP countries.

Methodology

The study began by a briefing meeting held in Uganda in April 2008. Thereafter we conducted desk review to obtain data and information about the country's policy, agricultural information and communication status and institutions involved. The product of the desk review is attached as a country profile (Annex 2). Furthermore, a standard semi structured questionnaire was used to conduct interviews. Twenty six (26) institutions out of 30 (about 87%) of institutions selected were visited. In total 42 people were involved in discussions and interviews in the visited institutions.

Expected results

The expected results of the study are as follow:

- status of infrastructure, information services and ICM capacity of institutions involved in agriculture and rural development described and analysed;
- information and capacity building needs in the area of ICM identified for key institutions and potential CTA partners involved in agriculture and rural development;
- baseline data on the status of ICM and ICT in agriculture and rural development compiled for monitoring purposes and improved outreach

The study is expected to provide updated country profiles on the status agricultural information services, the status of ICM/T in the country, which will allow CTA to make informed decisions on the type and mode of intervention as well as partner selection.

Conclusions

Information needs

Many interviewed institutions have varied information needs related to broad rural development issues. Information needed on farm problems and non-farming livelihood was given high priority by most institutions dealing with agricultural and rural development because it facilitates the decision-making process and the packaging of advisory services.

Technical information given high priority includes post harvest technology, equipment sourcing and availability, grading systems, patents and crop varieties. In addition, information to address new and emerging challenges on issues like bio-fuels, climate change and value addition towards commercialisation of small holder agriculture was also demanded.

Economic information needed included social development issues, gender, socio-cultural aspects, credit and micro-credit, market data, inputs and outputs market information also featured in information needs by institutions. Other needed information was on government and international regulations especially those affecting non-traditional export crops such as horticulture, livestock and fishing.

Information on broad rural development that is not met includes farm problems, social development issues, non-farm livelihoods and gender issues due to the limited use of participatory tools. In addition, new and emerging challenges on climate change and food security raise new information needs for scientists and researchers. New technologies are needed to address issues on bio-fuels, climate change and value addition. Other specific information needed but currently unmet include the identification of markets for inputs and outputs, commodity profile, credit and micro-credit, crop and livestock insurance, entrepreneurship and agricultural commodity exchange. Such information needs require concerted efforts by the institutions themselves with support from regional and international organisations such as CTA.

At the institutional level, information on communication strategy development and knowledge management are posing new demands. The required information on agriculture and rural development may be available within and outside the countries but may not be accessible to people who need it due to limited communication and knowledge sharing. Current efforts by many organisations to use ICTs may facilitate knowledge sharing and joint learning among institutions within the country and regionally.

Journals were the most difficult formats to access as most of them need to be subscribed at a fee. Publications especially from research institutions and statistical data are presented in formats and languages that are not easily understood by key stakeholders. This information needs to be repackaged into formats and languages that can be easily understood by beneficiaries. New information formats like cartographic maps and pictorial presentations are also needed.

Many institutions rely on internal and external sources of information based on personal contact with colleagues within and outside organisations, discussions with peer groups, personal collection and libraries. Strengthening knowledge management and sharing through networking with institutions at a national, regional and international level would enhance the sharing of information to meet their information needs. Furthermore organisations need to regularly identify, monitor and evaluate information needs of their target audience. In addition, there is a need to link with beneficiaries through interpersonal contacts like meetings, training and advisory services since these are the most effective ways of interacting with target audiences.

Capacity building needs

Many organisations have limited capacity to make effective use of the available resources such as ICT. Lack of skilled ICM/ICT staff was rated high in order of priority. In addition, low capacity to analyse, translate and package research outputs into languages and formats suitable for clients was indicated to be an important constraint in ICM by most institutions. The shortage of extension workers was also felt to be a constraint in agricultural and rural development information dissemination.

The potential of ICTs has not been adequately exploited by many institutions to support communication and knowledge management due to poor connection of Internet, among

others. Organizations like Foundation for Civil Society (FCS) require capacity building to their clients to actively use ICT in grant applications, grant status check, blogging and discussions.

Interviewed institutions such as Ministry of Agriculture, Food Security and Cooperatives (MAFC), Ministry of Livestock and Fisheries (MLDF) and Commission for Research and Farmers Education (or *Kamisheni ya Utafiti na Elimu kwa wakulima* – KUEW) indicated a need for training in the application of communication technologies to extension services especially in linking ICT to agriculture and rural development. One specific area mentioned was capacity building on linking the use of mobile phones to radio and television (TV) programmes to improve interaction with listeners. There is also need to improve skills to link ICT to ICM and knowledge management within organisations so as to improve collection and sharing of information.

Improving the capacity of institutions for developing communication and knowledge management strategy to enhance knowledge sharing and learning is needed. This should be backed up with support in terms of resource mobilisation to implement the communication and knowledge management strategy. Apex organisations like Farmers Network of Tanzania (or *Mtandao wa Vikundi vya Wakulima Tanzania* – MVIWATA), FCS and Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA) could leverage resources of their members to effectively organise for capacity development on ICM in its member organisations.

Furthermore, there is the potential need to develop capacity for repackaging of information into formats and language that is useful and easily accessible to stakeholders' especially farmers. Improving the capacity of institutions to translate information into local languages like Kiswahili would enhance access of available information to majority of small holder farmers who are illiterate.

Capacity building to improve skills on technical and economic information such as IPM, post-harvest technologies, value addition, market data and information, patent, editing of reports and participatory methodologies is required by most institutions. CTA could link with local and regional organisations to facilitate availability of the most needed skills.

Overview of CTA's Products and Services

CTA's products and services are available in a few institutions that have been dealing with information dissemination like national libraries. The linkage between these libraries and other institutions is currently weak and thus limits the use of the most needed information. Useful products like the Rural Radio Packs are not known by potential users. These packs could help to improve preparation of radio programmes. CTA should strive to identify and establish new partners. It was strongly felt that the relationship between CTA and institutions should be at institutional level rather than individuals so that it does not suffer when there is change or movement of staff.

Promotion and utilisation of CTA products and services was felt to be limited. Due to the wide definition of agriculture, CTA is requested not to limit its partners to agriculture but have a broad view on rural development. This should encompass all programmes and institutions dealing with rural development and cross-sectoral issues like youth development, HIV/AIDS and other sectors with potential for non-farm livelihood opportunities like fisheries. New and emerging challenges on climate change and variability, GMO and bio-fuels are not given adequate attention to timely inform the communities on the appropriate technologies available for coping with these demands, and the comparative advantages of such changes.

Potential partners and beneficiaries

Currently, there are few active CTA partners in Tanzania such as Sokoine University of Agriculture (SUA) and Department for Research and Training (DRT) in the MAFC. Other institutions have limited access to CTA's products and services (mainly *Spore* magazine) such as Moshi University College of Cooperatives and Business Studies (MUCCoBS), MVIWATA, Participatory Ecological Land Use Management (PELUM), Commission for

Science and Technology (COSTECH), Tropical Pesticide Research Institute (TPRI), Tanzania Association of Non-governmental Organizations (TANGO) and Tanzania Forest Research Institute (TAFORI). However, many institutions have potentials and felt the advantage of linking with CTA to access the most needed information to reach more beneficiaries. These include MLDF, KUEW, Institute of Rural Development Planning (IRDP), Tanzania Meteorological Agency (TMA), Agricultural Council of Tanzania (ACT), TCCIA, Tanzania Fishery Research Institute (TAFIRI), Finance and Advice in Development Assistance and Marketing Linkage (FAIDA-MALI), Same Agricultural Improvement Trust Fund (SAIPRO), Mixed Farming Improvement Programme (MIFIPRO), Tanzania Irrigation and Environment Development Organization (TIP), Tanzania Food Processors Association of Women Entrepreneurs (TAFOPA), Zanzibar Farmers and Fishermen Development (ZAFFIDE), KEUW, Tanzania Standard Newspapers (TSN), TCCIA, FCS and Air Force Satellite (AFSAT).

Partnership at institutional level is limited to government institutions. At the Non-governmental Organisations (NGO) and private sector levels, the partnership is currently with individuals, in which case when they move out access is cut off.

Recommendations

Information needs

It is recommended that CTA should take deliberate efforts to link organisations with information sources that could meet their needs on broad rural development, technical and economic issues from the local, regional and international level. CTA should assist organisations to access and address new and emerging challenges in farming and non-farming livelihoods opportunities.

There is also a need for CTA and its partners to package information on emerging issues including market information and value addition, climate change, GMOs, bio-fuels and cross-cutting issues related to youth development and HIV/AIDS in formats that could be easily available and disseminated widely using a variety of communication channels.

CTA should publicise its products and services to more key stakeholders in the country. In promoting its products and services, CTA should seek to link with other organisations involved in information products and services provision like FAO, UNCTAD, IIED and World Bank so that they harmonise and provide for specific information needs.

Capacity building needs

Basic training in computer skills and training in website maintenance, database development and management, and use of useful software in organising and managing information and dissemination can be provided by institutions locally. CTA should therefore assist these institutions to meet specialised skills in ICM and knowledge management. Organised training in specific areas include: (i) Developing communication and knowledge management strategies designing; (ii) market information systems management; (iii) Developing online library catalogue; (iv) Designing alternative extension communication technologies using mobile phones, radio and web-based facilities; (v) Developing Question and Answer Service (QAS) in the extension and advisory services; (vi) Preparation and production of interactive radio and video programmes for targeted audiences and (vii) Translating research findings into formats that are user friendly.

There is a great need to improve capacity for use of ICT in accessing existing knowledge and information within and outside organisations. CTA should assist institutions like SUA (which owns a TV station) and MVIWATA, PELUM, ACT, TANGO, COSTECH and TCCIA (which have networks of members) to utilise available capacity to disseminate information to reach wider audiences. CTA should strive to timely communicate such information to partners as they are available using its networks.

CTA should also facilitate local institutions like SUA and MUCCoBS to prepare training and workshops to cater for information needs on bio-fuels, climate change, value addition and market data and information.

CTA's Products and Services

CTA in collaboration with its partners should promote its products and services beyond the governmental institutions to involve other key partners in the public and private sectors. The strategy could be in terms of complementing efforts and making use of available resources in the private sector to reach the beneficiaries at the grass roots level.

CTA's products and services should address information needs on emerging challenges that are on high demand like climate change, market information, entrepreneurship and cross-cutting issues. Collaboration with national institutions with the capacity to develop such products could enhance their production and distribution.

Potential Strategic Partner institutions

CTA should strengthen existing collaboration with MAFC (DRT) and SUA; and other institutions that are currently receiving products like MUCCoBS, TAFORI, PELUM, MVIWATA, TANGO and TPRI. CTA should foster new partnerships with strategic partners involved agriculture and rural development including MLDF, TAFIRI, FAIDA-MALI, ACT, SAIPRO, MIFIPRO, TIP, IRDP, TAFOPA, TMA, ZAFFIDE, KEUW, TSN, TCCIA and FCS. This would enable CTA to reach wider audiences in many rural areas.

1. INTRODUCTION

1. The Technical Centre for Agricultural and Rural Cooperation (CTA) was established in 1983 under the Lomé Convention between the ACP (African, Caribbean and Pacific) Group of States and the European Union Member States. Since 2000, it has operated within the framework of the ACP-EC Cotonou Agreement.
2. CTA's tasks are to develop and provide services that improve access to information for agricultural and rural development, and to strengthen the capacity of ACP countries to produce, acquire, exchange and utilise information in this area. CTA's programmes are organised around three principal activities: providing an increasing range and quantity of information products and services and enhancing awareness of relevant information sources; supporting the integrated use of appropriate communication channels and intensifying contacts and information exchange (particularly intra-ACP); and developing ACP capacity to generate and manage agricultural information and to formulate information and communication management (ICM) strategies, including those relevant to science and technology. These activities take account of methodological developments in cross-cutting issues (gender, youth, information & communication technologies – ICTs, and social capital), findings from impact assessments and evaluations of ongoing programmes as well as priority information themes for ACP agriculture.
3. CTA's activities are currently distributed among three operational programme areas/departments: (i) Information Products and Services; (ii) Communication Channels and Services; and (iii) Information and Communication Management Skills and Systems. These operational departments are supported by Planning Corporate Services (P&CS) which is charged with the methodological underpinning of their work and monitoring the ACP environment in order to identify emerging issues and trends and make proposals for their translation into programmes and activities. This current exercise, therefore, falls within the mandate of P&CS.
4. The study began by a briefing meeting held in Uganda in April 2008. The study involved desk review to obtain data and information about the country's policy, agricultural information and communication status and institutions dealing with ICM (Annex 2). A list of institutions was drawn and out of which 30 were selected for detailed study. Twenty six (26) institutions were interviewed including farmers' associations/networks, government and private institutions, universities, NGOs and media. A standard semi structured questionnaire was used to conduct face to face interviews. In each of the organisations one or more people were involved including directors of departments dealing with research, information, documentation and communication, ICT specialists, and Coordinators. More than 42 people were involved (Annex 4). The list of the organisations involved, types and their roles is summarised in Table 1.

Table 1: List of institutions visited and the number of people interviewed

Name of institution	Acronym	Type	Location	No. of people interviewed
1. Tanzania Chamber of Commerce, Industry and Agriculture	TCCIA	CCI	DSM	1
2. Sokoine University of Agriculture	SUA	EDU	MORO	6
3. Moshi University College of Cooperative and Business Studies	MUCCoBS	EDU	Moshi	1
4. Kizimbani Agricultural Training Institute	KATI	EDU	Zanzibar	1
5. The Institute of Rural Development Planning	IRDP	EDU	Dodoma	2

Name of institution	Acronym	Type	Location	No. of people interviewed
6. Ministry of Agriculture, Food Security & Coops: Dept of Research & Training, & Dept. of Extension Services	MAFC	GOV	DSM	3
7. Ministry of Livestock Development and Fisheries: Dept of Research & Training, & Dept of Extension	MLDF	GOV	DSM	4
8. Zanzibar Ministry of Agriculture, Natural Resources, Livestock and Environment,	KUEW	GOV	Zanzibar	2
9. Finance and Advice in Development Assistance in Small Enterprise Promotion	FAIDA-MALI	NGO	Arusha	1
10. Participatory Ecological Land Use Management	PELUM	NGO	Dodoma	1
11. Foundation for Civil Society	FCS	NGO	DSM	1
12. Tanzania Association of Non-Governmental Organisations	TANGO	NGO	DSM	2
13. Tanzania Food Processors Association of Women Entrepreneurs	TAFOPA	NGO	DSM	1
14. Mtandao wa Vikundi vya Wakulima Tanzania	MVIWATA	AS-F	MORO	1
15. Zanzibar Farmers and Fishermen Development	ZAFFIDE	NGO	Zanzibar	3
16. Same Agricultural Improvement Trust Fund	SAIPRO	NGO	Same	1
17. Tanzania Irrigation and Environment Development Organization	TIP	NGO	Moshi	1
18. MIFIPRO TRUST FUND	MIFIPRO	NGO	Mwanga	1
19. Tanzania Standard Newspapers	TSN	OT-MEDIA	DSM	1
20. AFSAT Communications Tanzania Limited	AFSAT	PRV	DSM	1
21. Agricultural Council of Tanzania	ACT	PRV	DSM	2
22. Tanzania Pesticide Research Institute	TPRI	SE	Arusha	1
23. Tanzania Commission for Science and Technology	COSTECH	SE	DSM	1
24. Tanzania Fisheries Research Institute	TAFIRI	SE	DSM	1
25. Tanzania Meteorological Agency	TMA	SE	DSM	1
26. Tanzania Forest Research Institute	TAFORI	SE	MORO	1

2. COUNTRY PROFILE

5. The United Republic of Tanzania (URT) is located in the Eastern Africa region between longitudes 29 and 41 degrees east and latitude 1 and 12 degrees south. The country lies south of the equator between the great lakes Victoria, Tanganyika and Nyasa on one hand and Indian Ocean on the other. It has frontiers with Kenya and Uganda in the north, Rwanda, Burundi and Democratic Republic of Congo in the west and Zambia, Malawi, and Mozambique in the south. It has a total land area of approximately 945,000 sq. km. including about 60,000 sq. km. of inland water. Out of 945,000 sq. km. over 100,000 sq. km. are devoted to reserves and national parks.
6. Administratively, the country is divided into 21 regions in the Tanzania mainland and 5 regions in the Zanzibar Islands. According to the 2002 census, the population of Tanzania was 34.4 million with an annual growth rate of 2.9 percent. It was, however, estimated that by 2006 the population of Tanzania was about 38.67 million (Table 1, Annex 2). The literacy rate is on average 71%; being slightly higher for male at 74.7% than female at 64.3%, (URT, 2007b). There are about 120 ethnic groups but the national language is Kiswahili and English is widely spoken.
7. Geographically, the country has a vast central plateau sloping down towards the Indian Ocean. Except for a narrow belt along the 900 km of the coastline, most of the land lies above 200m altitude, and much of the country is above 1,000 m above sea level. In the north, Mt. Kilimanjaro rises over 5,895 m above mean sea level. A distinctive feature of Tanzania is a rift valley which runs through from south towards Kenya onwards. Woodland, bushland and grassland are the predominant types of vegetation.
8. Tanzania experiences a variety of climatic conditions ranging from humid coastal, to moist tropical forest in the highlands. Average temperatures range between 17°C and 27°C, depending on location, with the hottest period in November and February (25°C - 31°C) and the coldest period between May and August (15 °C - 20 °C). The mean annual rainfall ranges from less than 400 mm to over 2,500 mm per annum with the country experiencing both uni-modal and bimodal rainfall regime. The uni-modal rainfall regime is predominant in southern, south-western, central and western areas of the country with the rains falling mostly between mid November and early May. The bimodal rainfall regime is characterised by the long rainy season (*masika*) occurring between March and May and the short rainy season (*vuli*) that occurs between October and December and is predominant in the northern coast, north-eastern highlands, Lake Victoria basin and the islands of Unguja and Pemba (URT, 2007b).
9. The national economy is largely agricultural which contributes 26.5% of the GDP (URT, 2008a). The agricultural sector consists of crop, livestock production, forestry and fisheries. Other sectors of the national economy are financial and business services contributing 14%, wholesale and retail trade, hotels and restaurants 11%; public administration and other services 9%; manufacturing 6%; construction 6%; mining and quarrying 3%; and electricity and water 2% (URT, 2006). The performance of agriculture is therefore a major factor in determining livelihood fortunes. There has been gradual fundamental transformation since the mid 1980s, which redefined the role of the government from production to, among others, provision of enabling environment for private sector participation in the agricultural production, processing and marketing of inputs and outputs.

2.1 Agriculture, Fisheries, Forestry and Livestock

10. Currently, Tanzania is implementing the Agricultural Sector Development Programme (ASDP) which provides the Government with a sector-wide framework for overseeing the institutional, expenditure and investment development of the agricultural sector. The ASDP is implemented by the five Agricultural Sector Lead Ministries (ASLMs), namely the Ministry of Agriculture, Food Security and Cooperatives (MAFC); the Ministry of Livestock Development and Fisheries (MLDF); the Ministry of Trade, Industry and Marketing (MTIM), Ministry of Water and Irrigation (MWI) and the Prime Minister's Office - Regional Administration and Local Government (PMO-RALG). The other stakeholders include Development Partners, Financial Institutions, Private Sector, Pastoralists, Farmers, Academia and NGOs. Following the principle of decentralization, implementation of development activities including agriculture, livestock, fisheries and forestry is vested with Regional Administration and Local Government Authorities with central ministries being mainly involved in policy and planning, research and training, and legal and regulatory functions.

2.1.1 Agriculture

11. Agriculture in Tanzania is predominantly subsistence. The sector is dominated mainly by small farmers and employs about 80% of the population (URT, 2006). About 44 million ha is arable, but the cultivated land is only about 11.9 million ha (URT, 2006). Land ownership is mostly by customary law and on average land area per small holder household is 2.0 ha (URT, 2006). Only about 1.5 million ha is under large and medium scale farming. Large-scale farming, which is about 2%, is limited to small number of estates owned by government institutions, private companies and few individuals; while, medium-scale farmers are about 5% and small scale farmers are about 93% (URT, 2006). There is also high potential for irrigation in Tanzania, whereby about 29.4 million ha are suitable for irrigation but only about 289,245 ha are under irrigation (URT, 2008b).
12. The smallholder's agriculture is at subsistence level producing for domestic use and surplus for sale. Subsistence farming is a low input – low output production system with limited use of fertilizers, improved seeds and inadequate knowledge of modern farming technologies. Maize is the main staple food and is widely grown in Tanzania. Other important food crops are cassava, paddy, bananas, sweet potatoes, beans, millet and wheat. Traditional cash crops include sugar, tea, coffee, cashew nuts, tobacco, cotton, sisal and cloves. Other crops include fruit tree, horticultural crops and spices, which is mainly grown in Unguja and Pemba Islands and coastal regions.
13. The value of total exports of crops in 2006 was Tsh. 402,287 million (equiv. to 215 million Euros). In terms of total tonnage, cashew nuts was highest, recording 66,000 tons, followed by cotton about 55,000 tons. Export of crops showed a decreasing trend for almost all the crops, except cashew nuts and tea (Table 15 Annex 2) due to unfavourable weather conditions that adversely affected production levels for most of the agricultural produce
14. Agriculture Sector Lead ministries, MAFC, MTIM, MLDF, MWI and PMO-RALG are responsible for formulation and implementation of agricultural policy, regulatory framework and legislations. The National Agricultural Research systems (NARS) and Sokoine University of Agriculture (SUA) are involved in developing knowledge and technologies. The Local Government Authorities (LGAs) under the PMO-RALG provide the extension services and monitoring and evaluation of the Agricultural Sector Development Programme (ASDP) in collaboration with Non-Governmental Organisations (NGO) and Private Service providers.

2.1.2 Fisheries

15. Tanzania has abundant freshwater lakes (6 percent of the total mainland area) with substantial fish resources. Tanzania owns about 50 percent of Lake Victoria, 45 percent of Lake Tanganyika, 20 percent of Lake Nyasa and several minor lakes, dams, reservoirs, swamps, rivers and small ponds suitable for aquaculture. Freshwater fisheries account for more than 80 percent of the landed catch. In addition it has an 800-kilometre coastline with a narrow continental shelf (SADC Report, 2008).
16. The Fisheries department is under the Ministry of Livestock Development and Fisheries is the overseer of policy issues, regulations and legislations, and control the quality of fish products exported and sold domestically (URT, 2007a). Other important institutions include Tanzania Fisheries Research Institute (TAFIRI), which continued to develop and provide information and technologies on improved fishery management. There are also a number of private stakeholders including fishers, processors and traders.
17. It is estimated that there are about 150,000 fishermen and more than 1,500,000 people engaged in allied industries that include fish transporters, processors, traders, net makers and boat builders (SADC Report, 2008). The major fish species caught are sardines, Nile perch, haplochromis, catfish and tilapia. Traditional fishing methods are still used on the inland lakes, although modern fishing techniques are also employed in the coastal waters. There are significant opportunities for investors to establish fish processing plants, crustacean fisheries, and deep-sea fishing (SADC Report, 2008).
18. Generally, production of fish and fish products in 2006 decreased from 375,535 tons in 2005 to 341,109 tons in 2006 (Table 12 Annex 2). A summary of fish export products for the periods 2002 – 2006 is given in Table 13 (Annex 2). In 2006, the total export value of fish and fish products was Tshs 156,160,190,326.60 (equiv. to 83,475,536 Euros) (URT, 2007a). The contribution of fishing activities to GDP in 2006 was 1.6 percent (URT, 2007a).

2.1.3 Forestry

19. About 38.8 million ha is under forestry and bushes. The country is implementing the National Forestry and Beekeeping programme, where by community participation in tree planting, forestry conservation and beekeeping is promoted. The economic survey shows that a total of 141,267,000 trees were planted in 2005 in all regions compared to 133,271,038 trees in 2004 (URT, 2007a).
20. Products from forests include tree logs, timber (rough sawn), ebony timber, floor boards, wood carvings/sculptures, rail gauges, sandalwood, furniture, tannin, mimosa bark, terminalia bark, tree seeds, bees wax, honey, tree's glue and poles. Table 14 (Annex 2) shows export of forestry and bee keeping products with an increasing trend. In 2005/06 the value of export was Tshs 1,449,130 million (equiv. to 774,633.4 Euros) (URT, 2007a). The contribution of forestry and hunting economic activities to GDP in 2006 was 2.2% (URT, 2007a).
21. The Ministry of Natural Resources and Tourism provides policy guidance, regulations and legislations and knowledge and technologies for better performance of the sub-sector. There are also a number of public and private sector institutions supporting forestry development. These include Tanzania Forestry Research Institute (TAFORI), the Faculty of Forestry at the SUA, Local government authorities (LGAs) at district level, development projects, NGOs and private institutions. These institutions are involved in implementation of national programmes for tree planting, harvesting, trading and utilisation of forestry products.

2.1.4 Livestock

22. Tanzania has about 26 million ha that are suitable for livestock grazing, but only 370,381 ha have improved pasture which is mainly under large farms. Livestock keepers depend to a large extent on grazing in bush lands. Tanzania is estimated to have approximately 18.5 million cattle, 13.5 million goats, 3.5 million sheep, 47 million poultry and 880,000 pigs (URT, 2007a). The regions with highest percentage of households with cattle are Arusha, Kilimanjaro, Manyara, Shinyanga, Mwanza, Tabora, Mbeya, Rukwa, Iringa and Morogoro. Pigs are kept by a higher percent of female headed households in Peri-urban areas of Dar-es-salaam, and in Pwani, Morogoro, Arusha, Tanga and Kilimanjaro (URT, 2006). Livestock products include meat, milk, eggs, and hides and skins. Livestock production is low due to limited use of improved technologies and poor extension and veterinary services.
23. Generally, the growth rate for livestock and livestock products are low. Production in the Livestock sub-sector in 2006 was affected by drought which caused acute shortage of pastures and animal feeds (Table 11, Annex 2). In 2006, total production for meat was 388,294 tons; milk 1,412,786 litres; eggs 2,145,000, and leather 3,442,231 pieces, mostly consumed locally (URT, 2007a). The contribution of livestock sub-sector to GDP in 2006 was 2.8% (URT, 2007a).
24. The Ministry of Livestock Development and Fisheries is responsible for policy guidance, providing regulatory framework and legislation for the industry. The new National Livestock Policy was launched in 2007. Department of Livestock Research and Training with a network of institutions spread in the country are responsible for provision and dissemination of livestock technology and information and capacity development. A number of private sector institutions provide advisory services and inputs and outputs trading.

2.2 Brief Description of the Status of ICT Infrastructure and Recent Developments in the Sector

25. The National Information and Communications and Technologies (ICT) Policy was promulgated in 2003. Section 2.1.9 in Annex 2 provides a list of legislations that have direct or indirect relevance to agriculture and ICM in Tanzania (Tanzania Parliament, 2008). The national ICT policy regulations and legislations have influenced the information and communication management in agricultural and rural development. However, most of the interviewees have not seen the ICT policy or legislations. There were mixed feelings of the impact of ICT policy, where some felt that despite tax removal the cost of acquisition and use of ICT is high.
26. **Telecommunication** use in the country has been growing rapidly in recent years. The number of telephone subscribers has been increasing especially in the mobile telephone sector compared to the fixed lines. By 31st March 2008, there were about 9,523,392 voice telephone subscribers. The mobile telecommunication leads the market by having more subscriptions (97%) as compared to fixed line services (3%) (Table 29 Annex 2).
27. **Computers and Internet:** The number of PCs owned was 0.75 per 100 persons in 2005 compared to 0.36 per 100 persons in 2001 (TCRA, 2006). By March 2008 there were 45 Internet service providers and 9 companies to provide data communication services including Internet bandwidth (TCRA, 2008). However, Tanzania lacks cheap and high-capacity connections to the global Internet, despite an increasing demand for Internet access (TCRA, 2008).
28. **Print media:** In Tanzania, the print media is the largest advertising medium. Over 350 publications have been registered, which include newspapers, magazines, periodicals and newsletters (TCRA, 2008). Ninety per cent of the circulation is in urban centres,

serving less than 17 per cent of the population. None of them has specific agricultural news.

29. **Radio and Television:** Recent data show that there are about 47 radio stations in Tanzania, including community radio stations in different regional towns (TCRA, 2008). TBC Taifa, the government owned, has continued to be the major source of agricultural information to most rural farmers with radios working in close collaboration with the sector ministries (Table 25 and 26 in Annex 2). The number of television stations in the country has been growing year after year and currently there are 29 television stations (Table 27, Annex 2). However, only about 6% of households owned a TV set in 2006 (TCRA, 2007) due to low electricity coverage where only 11% of households have electricity. This has affected penetration of television especially in rural areas (TCRA, 2007).

3. STATUS OF INFORMATION AND COMMUNICATION FOR AGRICULTURE AND RURAL DEVELOPMENT

3.1 Institutional and Regulatory Policy Framework

30. There is some evidence of the implementation of the National ICT policy in visited ministries and organisations. However, there is no specific sectoral policy for agricultural information and communication and none of the institutions interviewed had a specific policy/strategy on ICT, ICM or knowledge management despite the substantial investment in ICTs. All institutions mentioned some investment in computers and printing machines; servers [e.g. Commission for Science and Technology Tanzania (COSTECH), Foundation for Civil Society (FCS), Air Force Satellite (AFSAT) and Sokoine University of Agriculture (SUA)]; cameras and editing equipment [Tanzania Standard Newspapers Ltd (TSN), Commission of Research and Extension services (or *Kamisheni ya Utafiti na Elimu kwa Wakulima* - KUEW), Ministry of Agriculture, Food Security and Cooperatives (MAFC), Ministry of Livestock Development and Fisheries (MLDF), Commission for Science and Technology Tanzania (COSTECH), Tanzania Meteorological Agency (TMA, and Sokoine University of Agriculture (SUA)]. For example, SUA owns a TV station.
31. The removal of Value Added Taxes (VAT) on ICT equipment has generally lowered prices. This is an encouragement even to individuals to have personal ICT tools. Tanzania Communication Regulatory Agency (TCRA) as a regulator is making efforts to remove chaos in ICT initiatives. For example, there are organisations that own high capacity transmitters are operating within the frequency window which is free and not restricted sometimes creating chaos. This is a disadvantage to small non-profit making organisations like community radios which serve the rural population.

3.2 Operational Aspects

3.2.1 Description of agricultural information and services

32. ASLMs have a mandate for conducting research and developing technologies, knowledge and information for dissemination to the public. The structure of information and communication management in agricultural sector requires an understanding of the national agricultural research system (NARS). Institutions in the NARS can be classified into three main categories.
33. **Public sector institutions falling under the ASLMs:** these include the Department of Agricultural Research and Training (DRT) and Tropical Pesticide Research Institute (TPRI) in the Ministry of Agriculture, Food Security and Cooperatives (MAFC); Department of Livestock Research, Training and Extension (DLRTE) and Tanzania Fisheries Research Institute (TAFIRI) in the Ministry of Livestock Development and Fisheries (MLDF); and Department of Marketing in the Ministry of Trade, Industry and Marketing (MTIM). These institutions operate a network of zonal institutes that are more or less shared between DRT and DLRTE. Priority setting, planning and implementation have been decentralized and the zones are empowered to raise funding and operate with a semi-autonomy from the centre. The Prime Minister's Office Regional Administration and Local Government (PMO-RALG) is responsible for coordinating all extension services at regional to village level. In Zanzibar Islands, there is a separate Ministry dealing with Agriculture, Natural Resources, Environment and Cooperatives (MANREC) and the Commission of Research and Extension services (KUEW) is responsible for agricultural research, information and communication.

34. **Public sector bodies falling outside the Agricultural Sector Lead Ministries:** these include academic institutions, mainly the Sokoine University of Agriculture (SUA), the University of Dar es Salaam (UDSM) and the University of Mzumbe under the Ministry of Education; and the Tanzania Forest Research Institute (TAFORI) under the Ministry of Natural Resources and Tourism. However, only SUA has been mainstreamed into the activities of the DRD and DLRTE. This has fostered a much stronger research and development collaboration between SUA, DRD and DLRTE scientists.
35. **Private sector research organizations:** over the past ten years, significant efforts have been made to privatize research for the traditional major cash crops. Most funding in this case comes from statutory crop levies. Private sector research institutes are Tanzania Coffee Research Institute (TACRI), Tea Research Institute of Tanzania (TRIT) and Tobacco Research Institute of Tanzania (TORITA). This is a positive development that needs to be considered in other sub-sectors. There are also several NGOs that are involved in small research projects at district level, with interactions with researchers in the zones. For example PELUM and INADES Tanzania are working with farmer innovators in semi arid areas of Dodoma; and Agricultural Development Programs (ADP) Mbozi and ADP Isangati are conducting research on maize and coffee in the Southern Highlands in collaboration with the Uyole Agricultural Research Institute (ARI). However, the NARS institutions have not really been formally organized into a cohesive body. Each institution operates independently.

3.2.2 Information sources

36. Institutions use various sources of agricultural information and rural development as shown in Table 2. Information sources can be from internal and external sources; in either in printed formats, electronic, audio-visual or interpersonal contacts. Internal sources of information, such as internal review meetings and sharing with colleagues, are the most common as shown by 62% of the respondents in institutions interviewed. About 50% use meetings with beneficiaries to get information especially on problems and feedback about technologies delivered. Forty percent (40%) of the interviewed institutions have and use libraries and internal reports are also common.
37. Institutions also receive information from other organisations. More than 66% indicated that they collaborate with Universities such as SUA, UDSM and Mzumbe University. The SUA hosts the National Agricultural Library (SNAL) that specialises in agricultural sciences. Government ministries, that is, MAFC, MLDF, MITM, and MANREC (in Zanzibar) are also a source of information on policy issues, regulations, standards and guidelines as indicated by 62% of the respondents.
38. Regional and international agricultural research institutes and networks such as Association for Strengthening Agricultural Research in East and Central Africa (ASARECA), International Livestock Research Institute (ILRI), World Agroforestry Centre (commonly known as ICRAF), IGAD Climate Prediction and Application Centre (ICPAC), Southern African Development Community (SADC) and others were mentioned to be useful sources of information by almost 58% of the respondents. Professional associations and personal contacts were also mentioned as important sources of information.

Table 2: Internal and external information sources used by the institutions visited

Information Sources	Institutions	Count (n=26)	%
Internal			
Internal review meetings, colleagues	MAFC, SUA, MLDF, TAFORI, TAFIRI, FAIDA-MALI, FCS, SAIPRO, TAFOPA, TANGO, TMA, COSTECH, MIFIPRO, PELUM, TSN, MUCCoBS,	16	62

Information Sources	Institutions	Count (n=26)	%
Meeting with beneficiaries	MAFC, SUA, MLDF, KUEW, ZAFFIDE, TCCIA, FCS, SAIPRO, TMA, COSTECH, PELUM, TSN, MUCCoBS,	13	50
Library	SUA, MUCCoBS, MAFC, TAFIRI, FCS, IRDP, TMA, COSTECH, AFSAT, TSN	10	40
Reports	MLDF, MAFC, SUA, SAIPRO, TAFOPA, TMA, COSTECH, MUCCoBS,	8	31
Information and documentation centres	MAFC, KATI, IRDP, COSTECH, SUA, TSN	6	23
Database	SUA, TAFIRI, TMA, COSTECH, PELUM	5	19
External			
Organisations:			
Universities: SUA, UDSM, Ardh, Mzumbe,	TAFORI, KUEW, KATI, TAFIRI, FAIDA-MALI, FCS, IRDP, MVIWATA, SAIPRO, TAFOPA, TANGO, TIP, TMA, TPRI, COSTECH, MIFIPRO, MUCCoBS,	17	66
Ministries: MAFC, MLDF, MITM, MANREC	KUEW, ZAFFIDE, FAIDA-MALI, FCS, IRDP, MVIWATA, SAIPRO, TAFOPA, TANGO, TIP, TMA, TPRI, COSTECH, TSN, MUCCoBS,	16	62
Regional & international Universities, research institutes, networks & Organisations: ASARECA, ILRI, ICRAF, ICPAC, EAC, SADC, FAO, UNDP, World Bank	MAFC, MLDF, TAFORI, KUEW, ZAFFIDE, KATI, TAFIRI, TCCIA, FAIDA-MALI, IRDP, TIP, TMA, TPRI, COSTECH, MUCCoBS,	15	58
Professional associations	SUA, FAIDA-MALI, IRDP, SAIPRO, TMA, MUCCoBS,	6	23
Personal contacts	KATI, TAFIRI, TIP, TPRI, COSTECH	4	15
NGOs	TAFORI, KUEW, TCCIA, MAFC, ZAFFIDE, SUA	3	12
Embassies	MAFC, ZAFFIDE, SUA	3	12
District offices	ZAFFIDE, FAIDA-MALI, TIP, SAIPRO, TMA,	2	8
Print:			
Personal collection (books, reports)	TAFIRI, FCS, IRDP, TPRI, MVIWATA, SAIPRO, TAFOPA, TANGO, TIP, MIFIPRO, MUCCoBS,	11	44
Research papers	SUA, TAFORI, ZAFFIDE, FCS, MVIWATA, SAIPRO, TAFOPA, TIP, TPRI, MUCCoBS,	10	40
Scientific journals	SUA, TAFORI, TAFIRI, MUCCoBS, IRDP, TMA, MUCCoBS,	7	28
Newsletters	TAFORI, TCCIA, MVIWATA, SAIPRO, AFSAT, PELUM	6	23
Posters, booklets, flyers	TAFORI, FAIDA-MALI, IRDP, SAIPRO, TAFOPA, TANGO,	6	23
Electronic:			
Internet/websites	ZAFFIDE, SUA, KATI, TAFIRI, FAIDA-MALI, FCS, IRDP, MVIWATA, SAIPRO, TAFOPA, TIP, TMA, TPRI, ACT, COSTECH, SUA, TANGO, AFSAT, MIFIPRO, PELUM, TSN, MUCCoBS,	22	88
TV	SAIPRO, TAFOPA, TANGO, MIFIPRO	4	16
Radio	TAFORI, SAIPRO, TAFOPA, TANGO,	4	16
CDROM	SUA, COSTECH,	2	8
Satellite pictures	TMA,	1	4
Others:			
Trade fairs/exhibitions	TAFORI, ZAFFIDE, FAIDA-MALI, IRDP, MVIWATA, SAIPRO, TAFOPA, TANGO, TPRI, COSTECH, MUCCoBS	11	44

Information Sources	Institutions	Count (n=26)	%
Agricultural shows	MAFC, MLDF, TAFORI, KUEW, ZAFFIDE, MVIWATA, SAIPRO, TPRI, MUCCoBS,	9	35
Workshops, seminars, courses.	IRDP, MAFC, MLDF, SAIPRO, TANGO, TPRI, TPRI, COSTECH, MUCCoBS,	9	35
Agribusiness consultants	FAIDA-MALI, TCCIA, ACT, SAIPRO,	4	15
Agro dealers: input/outputs	SAIPRO, TPRI,	2	8
Mobile phones	MIFIPRO	1	4

Source: Field notes

39. Printed materials like books, research papers, reports, posters, flyers, books and newsletters such as *Ukulima wa Kisasa* produced by MAFC and other institutions, were also mentioned to be useful sources.
40. Almost all institutions have access to the Internet and browse information from websites. However, the common problem is the connection speed to Internet. The problem is serious for institutions that are outside cities. This necessitated some departments and/or projects, for example at SUA, to connect with own VSAT dishes, but the cost is said to be high.
41. Other sources used by respondents include trade fairs and exhibitions, agricultural shows and sharing with colleagues. Some institutions such as FAIDA-MALI, SAIPRO, TPRI, ACT and TCCIA are promoting the value chain approach and linking farmers to input and outputs markets. These indicated that input dealers and marketing institutions are important sources of information. Furthermore, in some institutions (23%) journals are available electronically, for example through CDROM and AGORA was indicated to be useful source but sometimes not easily accessible.

3.2.3 Information products and services

42. Information products and services provided by different institutions visited are summarised in Table 3.

Table 3: Information products and services provided by institutions through various communication channels and media

Products and services	Institutions providing	Count (n=26)
Print materials		
• Leaflets	MAFC, MLDF, TAFORI, KUEW, KATI, TCCIA, FAIDA-MALI, MVIWATA, SAIPRO, TIP, TPRI, COSTECH, SUA, MIFIPRO, PELUM, MUCCoBS	16
• Newsletters	MAFC, TCCIA, FAIDA-MALI, IRDP, MVIWATA, TANGO, TIP, ACT, COSTECH, SUA, MUCCoBS	11
• Posters	MAFC, MLDF, TAFORI, TCCIA, FAIDA-MALI, TIP, PELUM,	7
• Booklets	MAFC, MLDF, TAFORI, TCCIA, FAIDA-MALI, SUA, PELUM,	7
• Progress reports	TAFIRI, FAIDA-MALI, SAIPRO, TIP, MIFIPRO, PELUM,	6
• Calendars	MAFC, MLDF, TCCIA, TIP, SUA, PELUM,	6
• Proceedings	MLDF, TAFORI, TCCIA, COSTECH, SUA	5
• Research papers	FCS, TMA, COSTECH, SUA, MUCCoBS	5
• Brochures	TCCIA, TPRI, MUCCoBS	3
• Manuals	TANGO, PELUM,	2
• Bulletins	TMA,	1
• Journal	SUA, COSTECH	1
• Magazines	TSN	1
Electronic		
• Database	FCS, IRDP, TANGO, TIP, TMA, ACT, COSTECH, SUA, AFSAT, PELUM, MUCCoBS	9

Products and services	Institutions providing	Count (n=26)
• Websites	MAFC, MLDF, TAFORI, TCCIA, FCS, TIP, TMA, TPRI, ACT, COSTECH, SUA, AFSAT, PELUM, TSN, MUCCoBS	8
• TV programmes	MAFC, MLDF, KUEW, TMA, COSTECH, SUA	6
• Video episodes	MAFC, MLDF, KUEW, MVIWATA, SUA, PELUM,	6
• Radio programmes	MAFC, MLDF, KUEW, TMA,	4
Others		
• Meeting with beneficiaries	MAFC, MLDF, TAFORI, KUEW, TAFIRI, TCCIA, FAIDA-MALI, MVIWATA, SAIPRO, TMA, COSTECH, SUA, MIFIPRO, PELUM, MUCCoBS	15
• Seminars/workshops	ZAFFIDE, TCCIA, FAIDA-MALI, MVIWATA, SAIPRO, TMA, COSTECH, SUA, MIFIPRO, PELUM, MUCCoBS	12
• Training materials	MAFC, MLDF, KUEW, KATI, TCCIA, FAIDA-MALI, SAIPRO, COSTECH, SUA, MIFIPRO, PELUM, MUCCoBS	12
• Agricultural shows/exhibitions	MAFC, TCCIA, FAIDA-MALI, MVIWATA, SAIPRO, TMA, TPRI, COSTECH, SUA, MIFIPRO, PELUM, MUCCoBS	12
• Exchange visits	TCCIA, FAIDA-MALI, MVIWATA, SAIPRO, TAFOPA, TANGO, SUA, MIFIPRO, PELUM,	9
• Dialogues	KUEW, TCCIA, FAIDA-MALI, MVIWATA, TANGO, ACT, COSTECH, SUA, PELUM,	9
• Advisory/extension services	MAFC, MLDF, KUEW, ZAFFIDE, SAIPRO, MIFIPRO	6
• Campaigns	MLDF, MVIWATA, SAIPRO, TANGO, ACT,	5
• Library services	SUA, MUCCoBS, MAFC, IRDP, COSTECH, AFSAT	5
• Press conferences	TMA	2

Source: Field notes

43. The most commonly printed materials are leaflets as indicated by 16 institutes and newsletters (11 institutes). Other printed products are booklets, brochures, posters, calendars and reports. Most research and academic institutions publish their research findings in journals mostly international. However, some scientists interviewed e.g. at TAFIRI, TAFORI, SUA, MAFC and MLDF observed that access to such information by peers in the country in most cases is limited because of high subscription fees to international journals.
44. ICTs are commonly used to communicate with stakeholders are websites, radio, TV and videos. Institutions that have established websites include MAFC, MLDF, TAFORI, TCCIA, FCS, TIP, TMA, TPRI, ACT, COSTECH, SUA, AFSAT, PELUM, TSN, MUCCoBS, TANGO and FAIDA-MALI. During the interviews it was noted that website management especially updating is a problem. This is partly caused by limited expertise and high cost of hiring qualified people from the market. Institutions like MAFC, COSTECH and TANGO have also established databases where information from their own activities and that of partners is kept for referencing.
45. Interactive methods like advisory services provided by extension staff at local level, meeting with beneficiaries, training and seminars/workshops are very common in most institutions and during such events there is sharing and exchange of knowledge and information.
46. Furthermore, NGOs like PELUM, TANGO, MVIWATA and FCS have increasingly used dialogue and campaigns to disseminate information and lobbying for policy interventions and governance. Agricultural shows and exhibitions are also used to create awareness of available knowledge and information. MAFC in collaboration with its stakeholders is organising agricultural shows known as Nanenane annually in all seven research zones.

3.2.4 Information and communication management capacity

47. Staff capacity and the budget allocated for ICT, ICM and knowledge management varied as well as efforts to manage information and communication at various levels (Table 4). This depended on resources allocated for ICM/ICT and emphasis given by a particular institution. In cases where ICM/ICT was an important component there was a section or unit dealing with information, documentation and communications as indicated at SUA, COSTECH, MAFC, TAFORI, TCCIA, TAFIRI, IRDP, MVIWATA, TANGO, TIP, TPRI, TSN, MUCCoBS, AFSAT, PELUM and ACT. In other institutions, staff used ICT but there was limited expertise and qualifications varied with regard to computer literacy in use of Windows applications and the Internet. In other institutions, like MLDF, they felt the importance of establishing an information and documentation unit but the process has not yet started.

Table 4: Summary of the ICM/ICT capacity of institutions

Institution	ICT staff present	ICM staff present	Qualifications	Access to ICT	Estimated Budget Tshs (Euros)
MAFC	Available	Limited	Varied	Internet, Website	236 m (eq.126,153 €)
MLDF	Limited	Limited	Varied	Internet, Website	273 m (eq.146,000 €)
TAFORI	Available	Limited	Varied	Internet, Website	45 m (eq.24,295 €)
KEUW MANREC	Limited	Limited	Varied	Limited access	60 m (eq. 32,073 €)
ZAFFIDE	None	1	Secretary	Limited access	Not available
KATI	Limited	Limited	varied	none	5 m (eq. 2,700 €)
TAFIRI	None	4	Secretary & Librarians	Limited access	5 m (eq. 2700 €)
TCCIA	Available	Limited	IT expert (1)	Internet, Website	40 m (eq. 21,382 €)
FAIDA-MALI	Limited	Limited	Varied	Internet, Website	75 m (eq. 40,000 €)
TAFORI	Available	Available	Varied	Internet, Website	45 m (eq. 24,295 €)
FCS	Available	Available	IT experts (1)	Internet, Website	90 m (eq. 48,109 €)
IRDP	Available	Available	IT and ICM experts	Internet, Website	52 m (eq. 27,796 €)
MVIWATA	Available	Available	Journalist	Internet	50 m (eq. 26,727 €)
SAIPRO	None	None	NA	Internet	12 m (eq, 6,400 €)
TAFOPA	None	None	NA	None	NA
TANGO	Available	Available	IT expert	Internet, Website	NA
TIP	Available	Available	IT expert (1)	Internet, Website	65,475,550 (eq. 35,000 €)
TMA	Available	Available	IT & GIS experts	Internet, Website	Not provided
TPRI	Available	Available	IT expert (1)	Internet, Website	796 m (eq.425,644 €)
ACT	Available	Available	IT expert	Internet, Website	15 m (eq. 8,018 €)
COSTECH	Available	Available	IT specialists	Internet, Website, ISP	400 m (eq. 213,820 €)
SUA	Available	Available	ICT & ICM specialists	Internet, Website, VSAT	150 m (eq. 80,182 €)

Institution	ICT staff present	ICM staff present	Qualifications	Access to ICT	Estimated Budget Tshs (Euros)
AFSAT	Available	Available	ICT specialists	Internet, Website, ISP	Not indicated
MIFIPRO	None	None	NA	NA	NA
PELUM	Available	Available	ICT expert	Internet, Website	60 m (eq. 32,073 €)
TSN	Available	Available	ICT expert, Journalists	Internet, Website	Not provided
MUCCoBS	Available	Available	ICT experts & Librarians	Internet, Website	42 m (eq. 22,451 €)

Source: Field notes

48. Use of computers and other ICTs is common. Almost all institutions visited even in the most remote area, like MIFIPRO, had at least one computer. This indicates high awareness on the use of ICT. The capacity for ICM/ICT varied with institutions, with those located in cities doing much better in terms of skills to manage information and communication. Most institutions are connected with W/LAN or have access to Internet services, indicating the potential for networking. Some of the institutions (SUA, MUCCoBS, AFSAT, TSN and COSTECH) had sections dealing with computer service provision and libraries that are well equipped with experts in ICT and ICM. There is limited knowledge sharing among staff in the organisations using the intranet. For example, at COSTECH, it was indicated that scientists rarely used the intranet despite its potential and availability.
49. Almost all institutions had a budget for ICM and ICT. The study found, however, that institutions have varying capacity for production of communication materials like reports, newsletters, flyers and posters. The problem raised in some of the institutions especially government institutions and NGOs is high cost of production for mass distribution due to limited budget allocations. Limited use of communication channels denied farmers in the rural area to access the available information.

3.3 Interventions Supporting Information and Communication for Agriculture and Rural Development

50. ASDP implemented by ASLMs, is designed to support efforts to improve telecommunication infrastructure, for the purpose of making sure that producers, especially in the rural areas, benefit from opportunities availed by telecommunication (URT, 2003a). In the design it is indicated that Ward Resource Centres (or information centres) will be established in the whole country to improve access to information by the local communities. The establishment of these centres although started in 2007/08, most are not yet operational therefore it is too early to assess its effectiveness in information dissemination to farmers in rural areas.
51. Academic institutions like SUA, IRDP and MUCCoBS have established collaboration and joint projects with regional and international networks and universities which are enhancing information sharing and exchange like CTA and AGORA. Similarly, NGOs and private institutions like ACT, TCCIA, PELUM, FCS, TANGO, TIP, and others have working relationships with international organisations which improved access to information by these institutions.
52. There are efforts by COSTECH and other development partners to improve communication links in the rural areas through establishment of telecentres. The telecentres established include FADECO in Karagwe district, Multipurpose Telecentre in Sengerema, Kasulu Internet Centre, Ngara Lukole Multipurpose Community Telecentre Network, Dakawa and Lugoba village telecentres. The main limitation faced by

institutions in accessing information through Internet was the speed of connecting to websites. The government in collaboration with its development partners has initiated a number of interventions to address the problem.

53. At COSTECH, for example, staff interviewed indicated that a joint project supported by the World Bank is on-going and it is expected to improve the capacity of their connections. At SUA installation of VSAT equipment is expected to improve the situations. Other institutions, although they wished to improve access to information, technical in-terms of the choice of technology and financial resources are a limiting factor.
54. The Ministry of Communication, Science and Technology (MCST) has a plan to network all institutions of higher learning both public and private. When successful, there will be central bandwidth management and central ISP. If the intervention materialises, it will revolutionise ICT in these institutions.
55. The Eastern Africa Submarine Cable System (EASSy), a multinational scheme when completed, is envisaged to further lower the unit price of the Internet, apart from a drastic improvement of the Internet connection speed.

3.3.1 ICT in agriculture and rural development

56. Currently, the country is experiencing rapid progress in its telecommunication capacity, as a result of the installation of a digital telephone network, mobile telephone facilities and the availability of e-mail and Internet services in most of the urban areas. Telecommunication eases information flow and is critical for facilitating timely availability of information for decision making on issues such as availability of inputs and markets. Equally important, is timely availability of information to facilitate pre-emptive management of outbreak of pests and diseases of plants and animals. There are also opportunities to use such technologies for training and advisory purposes, for example through rural telecommunication centres (Kapange, 2003).
57. Mwakalinga and Krist (2006) identified numerous opportunities for ICT application in agriculture, environment and rural development in general. Some of the projects mentioned include environmental monitoring in the National Park in Arusha using SMS implemented by Last Mile Initiatives (of USAID). Famine Early Warning System Network (FEWSNet) is one of the applications of ICT to forecast food supply. Similarly, a system for Livestock (LEWSNet) is used to collect information on rangeland, soil moisture and livestock market information. ICT can also help Tanzania's exports acceptability in international markets to facilitate traceability and certification that is becoming a prerequisite under international trade like the Euro GAP (Mwakalinga and Krist, 2006).
58. In 2003, the Ministry of Agriculture, Food Security and Cooperatives reviewed its status in the use of ICT (URT, 2003a). In the Medium Term Plan NARS indicated adoption of ICT in the following main areas

Information and Communication Technologies in NARS:

59. ICT is adopted in:
 - Firstly, the use of databases and modelling techniques in order to improve the analysis and interpretation of research data as well as increasing the accessibility and usability of these data and information.
 - Secondly, the increased use of the Internet to access global knowledge and information. Currently, all research institutions in the seven zones are connected with Internet services.
 - Thirdly, adaptation and promotion of tools for information-based agriculture.

Networking

60. There are also some important networks, which contribute to, and benefit from, Tanzanian agricultural research, including ASARECA and CGIARs like CIMMYT and ICRISAT. There is also networking between research institutions, NGOs, extension services, and private seed companies.

Databases and Modelling

61. Most research datasets are kept in raw format (e.g. field notes, record sheets, box files, and un-indexed computer files and diskettes) and are often incomplete. Therefore, there is a limited accessibility of the datasets to users other than those collecting the information. Databases e.g. INFORM and modelling techniques are used to enhance and increase the value and re-usability of the data, information and knowledge generated over many years of NARS research but more significantly to create an efficient mechanism for handling data for future research. Eventually, the databases will be combined with adapted models to form the basis for information-based decision-support systems for sustainable information-based agricultural development and commercialization in Tanzania.

Information-based Agriculture

62. Advances in ICTs are also changing the way agriculture operations are planned, implemented and managed. Precision agriculture using global positioning systems (GPS) and geographical information systems (GIS) are increasingly making it possible to micro-manage small components of the agricultural system. It is now possible, easy and relatively cheap to precisely apply inputs to match biophysical conditions found in each piece of land. Tools for information-based agriculture started with development of GIS capacities in the NARS (DRD-HQ, SUA and ARI- Mlingano) and other institutions such as Institute of Resource Assessment (IRA) in University of Dar-es-Salaam (UDSM).

Accessing the Global Knowledge Base

63. Training of researchers in the NARS is on-going to facilitate access to and effective use of the global information and knowledge systems. Internet connectivity has been improved at all zonal research centres to enable scientists to collaborate with other scientist within and outside the country. The ultimate aim is to ensure that the advantages of ICT are fully exploited to increase the productivity of NARS.
64. Implementation of these plans is on-going, and most researchers received basic training on ICT and all Agricultural Research Centres have been connected with Internet. Establishment of the database lagged behind due to limited financial resources and expertise. Department for Research and Training (DRT) has also established a link on the Ministry's website that enables users to access information from research. The main limitation is updating of information in the website. Despite these successes, the agricultural sector ministries have not yet developed a comprehensive communication and knowledge management strategy that would link efforts in development of ICT infrastructure in rural areas and availability of scientific information in formats that are suitable for mass distribution. The main limitation is the low capacity of the sector Ministries in ICM and knowledge management. There is need for the agricultural sector ministry to spearhead this initiative in collaboration with the private sector to develop capacity of stakeholder in use of ICT in ICM so as to speed and improve access to information by smallholder particularly young farmers

4. INSTITUTIONAL NEEDS ANALYSIS

4.1 Information Needs

65. Institutions visited indicated different information needs in order to execute their programmes. Institutions conducting research aimed at generating technologies that are relevant to farmer in rural development such as MAFC, MLDF, TAFORI, FCS, IRDP, TPRI, COSTECH and SUA require information about farmers' problems. Likewise institutions in direct contact with farmers like SAIPRO, MIFIPRO, TIP, MVIWATA, ZAFFIDE and FAIDA-MALI indicated that they also need to understand farmers' problems so that they target their messages to address challenges facing farmers.
66. For scientists dealing with socio economic aspects using livelihoods-based approaches needed to have an understanding of non-farm sources of livelihoods, social development issues like influence of culture in agricultural and rural development as well as inputs and outputs market information.
67. There is demand for information on government and international regulations especially those affecting non-traditional export crops from the horticultural industry so as to provide relevant and up-to-date information to farmers and exporters (as indicated by ACT and TCCIA). There are also needs to cater for specialised client groups like livestock keepers (MLDF), fisher folks (TAFIRI) and bio-fuels related technologies (FAIDA-MALI).
68. Higher learning institutions have varied demands due to a variety of courses offered by the institutions. For example, at SUA they indicated a need for broad agriculture and rural development. In addition, they need information about natural resource management, wildlife management, geographical information systems, animal health, market information, agribusiness, environmental sciences and other basic sciences.
69. Technical information needed by institutions include post harvest technologies and grading systems that would enable farmers to add value to their products to fetch good markets and increase shelf life (KATI, TCCIA, FAIDA-MALI, IRDP, MVIWATA, MAFC, KUEW, SAIPRO, TAFOPA and TAFIRI).
70. Furthermore, institutions indicated that there is demand for economic information related to credit and micro-credit to support farmers' efforts in increasing productivity. Information about market data and identification of markets for farmers products is also needed by institutions supporting farmers and processors groups (ACT, TCCIA, FAIDA-MALI and MAFC). Other specific information needed include crop and livestock insurance (MLDF), entrepreneurship (ACT, MAFC) and agricultural commodity exchange (ACT).
71. Generally, the study revealed that in most cases information needed by institutions is either scarce or currently is not met as indicated in Table 5, 6, and 7. Information needed by institutions to execute their programmes that are not met adequately under the category of broad rural development issues include farm problems. This was indicated as a first priority by MAFC, MLDF, TAFORI, FCS, IRDP, SAIPRO, TPRI, TIP, SUA and COSTECH (Table 5). Understanding farmers' problems would facilitate generation and packaging of information to address challenges faced by farming communities. This is not currently met due to limited use of participatory tools to capture farmers' problems. Furthermore, information on social development issues, non-farm livelihoods, gender issues, development and funding programmes were also ranked high.

Table 5: Unmet Information needs on Broad Rural development information

Type	Priority					Count (n=26)
	1	2	3	4	5	
Farm problems	MAFC, MLDF, TAFORI, FCS, IRDP, SAIPRO, TIP, TPRI, COSTECH, SUA			ZAFFIDE, MVIWATA, ACT	KATI,	12
Non-farm livelihoods	SUA	TAFORI, FCS, IRDP, COSTECH			KATI,	5
Social development issues	KUEW, TAFIRI, FAIDA-MALI, TANGO, SUA	MAFC, MLDF, SAIPRO, TIP,	TAFORI, FCS, IRDP, COSTECH, SUA		MVIWATA,	13
Gender issues		KUEW, TAFIRI, FAIDA-MALI, TANGO, TPRI, SUA	MAFC, MLDF, SAIPRO, TAFOPA, TIP,	TAFORI, FCS, IRDP, COSTECH	KATI,	14
Government and International regulations	KATI, ACT,	SUA	KUEW,	MLDF, SAIPRO, TIP,	TAFORI, FCS, IRDP, COSTECH, ACT	6
Conferences and meetings	ZAFFIDE, TMA,	SUA	KUEW, TANGO, TPRI,	MAFC, MLDF, COSTECH	TAFORI, KATI, TAFIRI, IRDP,	10
Trade fairs	MVIWATA, TAFOPA,	ACT	KATI,	TAFIRI, SAIPRO, TIP,	MAFC, TAFORI, FCS, IRDP,	7
Development and funding programmes	TAFOPA,	ZAFFIDE, KATI, TMA,	FAIDA-MALI, MVIWATA, TANGO, TPRI,	TAFIRI, SUA, MLDF,	TAFORI, TIP, FCS, IRDP, SAIPRO, COSTECH	16
Available agricultural/ livestock/ development networks	MVIWATA,	ACT, ZAFFIDE, KATI,	MAFC, FAIDA-MALI,	KUEW, TPRI, SUA	MLDF, TAFORI, FCS, SAIPRO, COSTECH	10
Others: fish farming			TAFIRI,			1
Jatropha farming					FAIDA-MALI,	1

Source: This study. [Key: 1 = High priority and 5 = Lowest priority]

72. A number of technical information needs that are needed to effectively provide services to clients but currently unmet in order of priority include post harvest technology for value addition, type of equipment sourcing and availability, grading systems, patents and crop varieties (Table 6). From the discussions it was indicated that there is limited marketing research in organisations that have mandate for agricultural research. Other unmet information needs are: integrated pest management in crops and livestock, packaging, industry profiles, transportation and waste water utilisation. There is also demand for specific information on fish farming (including varieties and management practices like disease and pest management and pond construction for small scale farming (TAFIRI), value addition for products produced by farmers (ACT) and improved livestock breeds (MLDF). TMA also indicated a need for climate data management in digital format and new software for data analysis and management.

Table 6: Technical information needs by institutions interviewed

Type	Priority					Count (n=26)
	1	2	3	4	5	
Post-harvest technology	KATI, TCCIA, FAIDA-MALI, IRDP, MVIWATA,	MAFC, KUEW, SAIPRO, TAFOPA,	TAFIRI,			11
Grading systems	SAIPRO, TAFOPA,		KUEW, MVIWATA,	MLDF, TAFIRI,	MAFC	7
Equipment sourcing/availability		ZAFFIDE,	FAIDA-MALI,	KUEW, IRDP, TAFOPA,	MLDF, KATI, TAFIRI,	8
Patents	TAFORI, ZAFFIDE, FCS,		ACT		TAFOPA,	5
Crop varieties	MAFC, FAIDA-MALI,	KATI, IRDP, MVIWATA,	SAIPRO,			6
Packaging			IRDP, TAFOPA,	MAFC, SAIPRO,		4
Integrated pest management	KUEW,		MAFC, KATI,			3
Industrial profiles			ZAFFIDE,	KATI,	FAIDA-MALI,	3
Transportation (sea, land, air)		ACT		IRDP,	SAIPRO,	3
Waste utilisation				FAIDA-MALI, MLDF,	IRDP,	3
Others: - Non-traditional crops e.g. Jatropha					FAIDA-MALI	1
- Integrated livestock disease management,		,MLDF				1
- Value addition (processing, hygiene)	ACT		MLDF			2
- Fish farming (fish varieties, management and pond construction)	TAFIRI,					1
- Livestock Breeds	MLDF,					1
- Climate data management in digital format	TMA					1
- New software for data management		TMA				1

Source: This study. [Key: 1 = High priority and 5 = Lowest priority]

73. Economic information needs were identified by institutions visited, although priorities differed depending on the activities and demands of clients served. The information needed was towards improving performance in providing advisory services to their clients. Analysis shows that economic information needs that is on high priority is credit and micro-credit as indicated by TAFORI, FAIDA-MALI, FCS, IRDP, MVIWATA, SAIPRO, TAFOPA and TIP. Market information and identification of markets for both input and outputs were also ranked as first and second priority by institutions like ZAFFIDE, KATI, TPRI, ACT, and MLDF, TAFORI, KUEW, TAFIRI, FAIDA-MALI, FCS, IRDP, MVIWATA, SAIPRO, TAFOPA, TIP, COSTECH. Information on commodity profiles was ranked high by TCCIA and ACT because of the nature of clients they serve. The specific information

needs that are currently unmet include crop and livestock insurance (MLDF), entrepreneurship (ACT, MAFC) and agricultural commodity exchange (ACT).

Table 7: Unmet economic information needs by institutions interviewed

Type of information	Priority					Count (n=26)
	1	2	3	4	5	
Credit and micro-credit	TAFORI, FAIDA-MALI, FCS, IRDP, MVIWATA, SAIPRO, TAFOPA, TIP,	KATI,	MAFC, KUEW, COSTECH,	MLDF,		13
Market data and information	ZAFFIDE, KATI, TPRI, ACT,	MLDF, TAFORI, KUEW, TAFIRI, FAIDA-MALI, FCS, IRDP, MVIWATA, SAIPRO, TAFOPA, TIP, COSTECH,		MAFC		13
Identification of markets (input, outputs)	MAFC, KUEW, TAFIRI, COSTECH,	ZAFFIDE, TCCIA	TAFORI, FAIDA-MALI, FCS, IRDP, SAIPRO, TAFOPA, TIP,	KATI, ACT,	MLDF	16
Commodity profiles	TCCIA, ACT	MAFC, TPRI,	ZAFFIDE, MVIWATA,	KUEW, FCS, IRDP, COSTECH	MLDF	11
Crop insurance systems			KATI, TPRI,	TAFORI, FAIDA-MALI, IRDP,	MAFC	6
Others: - entrepreneurship				ACT,	MAFC	2
- Livestock insurance systems	MLDF,					1
- Agricultural Commodity Exchange issues	ACT,		MLDF,			2

Source: This study. [Key: 1 = High priority and 5 = Lowest priority]

74. Some of the information formats that are difficult to obtain or access are summarised in Table 8. Journals were the most difficult to access as most have high subscription fees. There were also observations that publications especially from research institutions are presented in formats and languages that could not be easily understood by the majority of the clients like farmers, political leaders and other stakeholders. This information needs to be repackaged into formats and languages that can be easily understood by beneficiaries.

Table 8: Information formats that are difficult to obtain/access

Format	Institutions	No. (n=26)
Journal articles	MAFC, MLDF, TAFORI, KUEW, ZAFFIDE, TAFIRI, FAIDA-MALI, FCS, IRDP, MVIWATA, SAIPRO, TANGO, TIP, TMA, TPRI, ACT, COSTECH, SUA, AFSAT, MUCCoBS	20
Material suitable for mass distribution	MAFC, MLDF, KUEW, KATI, TAFIRI, FAIDA-MALI, IRDP, MVIWATA, SAIPRO, TANGO, TIP, TPRI, COSTECH, SUA, AFSAT, MIFIPRO, MUCCoBS	17
Material in appropriate	MAFC, KUEW, KATI, TAFIRI, FAIDA-MALI, MVIWATA,	15

Format	Institutions	No. (n=26)
languages	SAIPRO, TANGO, TIP, TPRI, COSTECH, SUA, AFSAT, MIFIPRO, MUCCoBS	
Statistical data	MAFC, MLDF, KUEW, ZAFFIDE, FCS, IRDP, SAIPRO, TIP, TMA, COSTECH, SUA, AFSAT, MUCCoBS	13
Abstracts	MAFC, MLDF, KUEW, IRDP, MVIWATA, SAIPRO, TIP, COSTECH, SUA, AFSAT, MUCCoBS	11
Briefings/ summaries	MAFC, TCCIA, FAIDA-MALI, TPRI, ACT, SUA, AFSAT, MIFIPRO, MUCCoBS	9
Standards	MAFC, FAIDA-MALI, FCS, SAIPRO, TIP, TPRI, SUA, AFSAT, MUCCoBS	9
Patents	MAFC, ZAFFIDE, FAIDA-MALI, SAIPRO, TIP, TPRI, SUA, AFSAT, MUCCoBS	9
Others: Visual & pictorial posters	MLDF, SAIPRO, MIFIPRO,	3
Cartographic information, e.g. maps	IRDP, SAIPRO, TIP,	3

Source: This study.

75. Statistical data are also mentioned to be difficult to obtain and in most cases if not synthesised may have little meaning to users who are not conversant with the statistical language. This calls for an ICM specialist who can simplify information from statistical data into meaningful information to support decision making at all levels.
76. There were also specific formats mentioned as difficult to acquire by respondents such as IRDP, SAIPRO and TIP. These include cartographic maps that are rarely available to inform decision making. For example, soil suitability maps are needed to inform appropriate selection and use of fertilisers in different agro-ecological zones. It was argued that sometimes when maps are available, they are not in form that can lead to more specific recommendations on, e.g., the appropriate use of fertilisers.

4.2 Capacity-building Needs

77. Most organisations visited are practicing ICM and knowledge sharing through weekly meetings, workshops and seminars. This was evidenced by presence of libraries (Table 9) and small reading/seminar rooms in most of the institutes. Use of ICT was also common in most institutions even where there are electricity problems like MIFIPRO. Another strong element of ICT/ICM in these institutions is the fact that most institutions have assigned staff responsible for ICT and/or ICM, although they varied in capacity to manage the facilities. There is also increased access to Internet leading to increased access to online journals and other publications. This has led to decreased in use of library materials like books as reported by SUA and TAFIRI staff. Other strengths shown by institutions are summarized in Table 9.

Table 9: Strengths shown by institutions visited

Strengths:	Institutions:
Presence of database	IRDP, COSTECH
Develop and print materials for farmers	MVIWATA, TIP, COSTECH
Presence of libraries	TMA, SUA, MUCCoBS, IRDP, TAFORI, TAFIRI, COSTECH IRDP, AFSAT, KATI
Outreach to large audiences	MAFC, MLDF, SUA, MUCCoBS, IRDP, MVIWATA, KUEW, COSTECH
Access and linked to networks dealing with agricultural and rural development information	MAFC, MLDF, SUA, MUCCoBS, IRDP, PELUM, TCCIA, FCS, TMA, TAFORI, TAFIRI, COSTECH
Provide training to students, farmers and other key stakeholders	SUA, IRDP, MUCCoBS, MAFC, MLDF, KUEW, KATI, COSTECH
Provide Internet services to other institutions	AFSAT, COSTECH

Advocacy and lobbying skills	PELUM
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Source: This study

4.2.1 Constraints

78. Constraints or weakness related to quantity and quality of human, technical and financial resources as mentioned by institutions are summarised in Table 10.

Table 10: ICM/ICT constraints faced by interviewed institutions

Constraints	Faced by in order of priority			Count (n=26)
	1	2	3	
Human resources				
• Lack of skilled ICM and/or ICT staff	MAFC, MLDF, KUEW TAFORI, MVIWATA, TAFOPA, MIFIPRO, TAFIRI, TCCIA, TIP	ZAFFIDE, ACT, IRDP, SAIPRO, TPRI, TANGO, PELUM	FAIDA-MALI, FCS	16
• Low capacity to analyse, translate and package research outputs into languages and formats suitable for clients	MAFC, MLDF, TMA, FAIDA-MALI, TSN	SAIPRO, SUA	KATI,	8
• Insufficient extension staff	MLDF			1
• Lack of skills to digitize available information	MAFC,			1
Technical resources				
• Limited equipments computers, printers, and other ICTs	ZAFFIDE, TAFOPA, MIFIPRO, ACT, TPRI	MUCCoBS, SUA, KATI, MLDF, SAIPRO, TANGO	MAFC, TIP, SUA, MVIWATA	15
• Lack of relevant software to document, store and distribute information	MAFC, MLDF, IRDP, TMA, TPRI, SUA, FAIDA-MALI	MUCCoBS, TAFOPA, KATI	ACT	11
• Unreliable Internet connectivity	IRDP, PELUM, KATI, TMA	TAFIRI, TAFOPA		6
• Infrastructure (limited bandwidth)	SUA, MUCCoBS	COSTECH		3
• Lack of capacity to capture available knowledge (including indigenous)	IRDP, FCS	MLDF		3
• Lack of Internet connection	MIFIPRO, TMA			2
• Limited energy source	MIFIPRO			1
Financial resources				
• Insufficient budget to sustain ICM and ICT activities	MAFC, MLDF, COSTECH, TCCIA, SAIPRO, TAFOPA, TANGO, TMA, TPRI	TAFORI, TAFIRI, ZAFFIDE, KUEW, PELUM, SUA,	FAIDA-MALI	15
• Limited financial resources to collect and disseminate information in suitable formats	MAFC, MLDF	TAFOPA, TIP	TCCIA, TANGO	6
• Limited funds to employ well trained ICM and ICT staff	TAFORI, TAFOPA	TMA,	TPRI, PELUM	5
• Lack of funds to support capacity building	TPRI, FCS	PELUM, MVIWATA	TANGO	5
• Lack of funds to publish and disseminate information	IRDP, MUCCoBS	MVIWATA		3
Others				
• Lack of 'political' will and funds to support ICM/ICT and knowledge sharing	MLDF, TAFIRI	TANGO	MVIWATA	4
• Lack of local scientific journal	TAFIRI, MLDF			2
• Lack of communication strategy	MLDF, MAFC			2

Source: This study. [Key: 1 = High priority and 3 = Lowest priority]

79. The lack of skilled ICM and/or ICT staff was felt to be the main constraint by 16 institutions and was rated high in order of priority by MAFC, MLDF, KUEW TAFORI, MVIWATA, TAFOPA, MIFIPRO, TAFIRI, TCCIA and TIP. In addition, low capacity to analyse, translate and package research outputs into languages and formats suitable for clients was indicated to be an important constraint in ICM in most institutions.
80. A shortage of extension workers was also mentioned as a limiting factor in the dissemination of knowledge and information by the sector ministries, i.e. MAFC and MLDF. Moreover, extension workers are not well equipped to provide such support to farmers. As a result farmers are denied access to market information and fall into the hands of individuals who take advantage of the situation to give farmers low farm gate prices. Knowledge on value addition is also lacking.
81. In most organisations, the staff had some knowledge on the use of computers. However, the full potential of ICTs has not been exploited adequately to support communication and knowledge management. For example, despite the fact that all organisations, except MIFIPRO, have L/WAN or can access the Internet, knowledge sharing is limited. The common complaint was the speed of Internet connection.
82. Insufficient computers and accessories were mentioned to be a constraint in ICM and knowledge management. The problem is felt more in small organisations such as NGOs like ZAFFIDE and MIFIPRO. This is due to limited budget to support ICT/ICM activities.
83. Most institutions indicated that ICM/ICT is also constrained by limited financial resources allocated for acquiring equipment as well as for capacity building. There are also limited financial resources to collect and disseminate information in suitable formats.
84. Lack of communication and knowledge management strategies and lack of will to support ICM was also mentioned (MLDF). Although not mentioned in other institutions, almost all organisations did not have a communication strategy and knowledge management strategy which might be the main cause for other constraints.
85. Institutions that are rural based and in direct contact with farmers like MIFIPRO and SAIPRO experience constraints in accessing information due to energy problems. The cost of maintaining generators is escalating with the oil crisis, while the cost of installation of solar power is also high. In this case availability of ready printed materials in local languages to such institutions would be more appropriate for dissemination. Currently, availability of this type of communication materials is limited.

4.2.2 Training needs

86. Training needs that were given high priority by most institutions include application of communication technologies in extension services especially in use of mobile phones to disseminate information (Table 11). Few institutions like MLDF and FAIDA-MALI indicated that they use cell phones to disseminate information on market prices to farmers and other service providers. At TMA they indicated that they also collect rainfall data through a pre-paid service from farmers and weather stations using cell-phones. With the fast growth of telecommunications technologies in Tanzania this shows a high potential for improving information and knowledge sharing using ICTs.

Table 11: Training needs that are unmet in order of priority

Area of training	Priority					Count (n=26)
	1	2	3	4	5	
Application of communication technologies in extension services esp. in use of ICT (mobile phone, TV & radio)	MAFC, KATI, TAFIRI, TAFORI, FAIDA-MALI, FCS, TIP, SAIPRO,	KUEW, MLDF, TPRI, ACT, COSTECH,	ZAFFIDE			15
Management of information within the organisation using ICT	ZAFFIDE, MVIWATA, TANGO, ACT	TAFIRI, TAFORI, FAIDA-MALI, FCS, SAIPRO, TIP,	KATI, TPRI,			12
Editing of reports		MAFC, ZAFFIDE, TANGO,	MLDF, SAIPRO, TIP, ACT	KATI,		8
Participative methodologies	KUEW, MLDF, TPRI, COSTECH,	KATI, MVIWATA,	MAFC, TAFIRI, TAFORI, FAIDA-MALI, FCS, TANGO	SAIPRO, TIP,		14
Other: - Communication strategy development				MAFC, MLDF, ACT		3
- Participatory methodologies in dealing with fisher folks				TAFIRI		1
- Food processing technologies	TAFOPA,				MAFC, TAFIRI,	3
- Processing and analysis of real time and non-real time climate data	TMA					1

Source: This study. [Key: 1 = High priority and 5 = Lowest priority]

87. Another area that was ranked high is need for developing capacity on participative methodologies (KUEW, MLDF, TPRI, COSTECH, KATI, MVIWATA, MAFC, TAFIRI, TAFORI, FAIDA-MALI, FCS and TANGO). Other capacity building needs mentioned include knowledge to develop communication strategy for their institutions (MAFC, MLDF and ACT).

88. The current focus on climate change is also putting new demands on meteorological (MET) Services like TMA to provide processed and analysed data on real time and non-real time. In addition, specific needs for training in food processing to add value and increase the shelf life of farmers' produce and entrepreneurship skills were expressed by TAFOPA. TAFOPA is uniting food processors and have a role to improve skills of their members.

89. The need to develop communication and knowledge management strategy was also expressed at various institutions including MAFC, MLDF and ACT as there are limited skills in this area. With a communication and knowledge management strategy, institutions could strategically identify key stakeholders and their information needs, as well as communication products and appropriate channels for dissemination. This could in-turn help to estimate and mobilise required resources to meet communication goal. Another challenging area was the lack of a monitoring and evaluation framework for assessing the performance of products and services delivered to clients. Communication

strategy will also help to develop a framework for tracking the usefulness of the products and services.

4.3 Feedback on CTA's Products and Services

90. Few institutions acknowledged receiving CTA's products and services as indicated in Table 12.

Table 12: CTA's products and services received by institutions in Tanzania

CTA products	Institutions	No. (n=26)
<i>Spore</i> Magazine	MAFC, SUA, TAFORI, ZAFFIDE, MVIWATA, SAIPRO, TANGO, PELUM, TIP, TPRI, MUCCoBS, KUEW	12
Books	MAFC, SUA, TAFORI, SAIPRO, MUCCoBS	5
CDROM	MAFC, SUA, TAFORI, MUCCoBS	3
Training and seminars	MAFC, SUA, MVIWATA	3
QAS	MAFC, SUA, MUCCoBS	3

Source: This study.

91. Twelve institutions (MAFC, SUA, TAFORI, ZAFFIDE, MVIWATA, SAIPRO, TANGO, PELUM, TIP, TPRI, MUCCoBS, and KUEW) indicated that they have been receiving CTA's products and services. The most common product was the *Spore* magazine. Some have also received books; and MAFC, SUA and TAFORI have received CDROMs. Staff members of MAFC (DRT), SUA and MVIWATA have also participated in training and seminars organised by CTA. MAFC, SUA and MUCCoBS were also involved in QAS. Recipients of CTAs products and services acknowledged that they were very useful as they provided agricultural information from research, journals and other sources available elsewhere.
92. In some institutions such as MAFC, TPRI, KEUW, SAIPRO, ZAFFIDE and TAFORI, it was reported that the flow of CTA products in recent years has been irregular. For example, change of staff at the information and documentation centre in the DRT-MAFC office has affected the flow of products and services from CTA. In other institutions such as ZAFFIDE, MVIWATA, SAIPRO, TIP, TANGO and KUEW, it was indicated that they have been receiving products through individuals working with the institutions.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

5.1.1 Information needs

93. Many interviewed institutions have varied information needs related to broad rural development issues. Information needed on farm problems and non-farming livelihood was given high priority by most institutions dealing with agricultural and rural development because it facilitates the decision-making process and the packaging of advisory services. Technical information given high priority includes post harvest technology, equipment sourcing and availability, grading systems, patents and crop varieties. In addition, information to address new and emerging challenges on issues like bio-fuels, climate change and value addition towards commercialisation of small holder agriculture was also demanded.
94. Economic information needed included social development issues, gender, socio-cultural aspects, credit and micro-credit, market data, inputs and outputs market information also featured in information needs by institutions. Other needed information was on government and international regulations especially those affecting non-traditional export crops such as horticulture, livestock and fishing.
95. Information on broad rural development that is not met includes farm problems, social development issues, non-farm livelihoods and gender issues due to the limited use of participatory tools. In addition, new and emerging challenges on climate change and food security raise new information needs for scientists and researchers. New technologies are needed to address issues on bio-fuels, climate change and value addition. Other specific information needed but currently unmet include the identification of markets for inputs and outputs, commodity profile, credit and micro-credit, crop and livestock insurance, entrepreneurship and agricultural commodity exchange. Such information needs require concerted efforts by the institutions themselves with support from regional and international organisations such as CTA.
96. At the institutional level, information on communication strategy development and knowledge management are posing new demands. The required information on agriculture and rural development may be available within and outside the countries but may not be accessible to people who need it due to limited communication and knowledge sharing. Current efforts by many organisations to use ICTs may facilitate knowledge sharing and joint learning among institutions within the country and regionally.
97. Journals were the most difficult formats to access as most of them need to be subscribed at a fee. Publications especially from research institutions and statistical data are presented in formats and languages that are not easily understood by key stakeholders. This information needs to be repackaged into formats and languages that can be easily understood by beneficiaries. New information formats like cartographic maps and pictorial presentations are also needed.
98. Many institutions rely on internal and external sources of information based on personal contact with colleagues within and outside organisations, discussions with peer groups, personal collection and libraries. Strengthening knowledge management and sharing through networking with institutions at a national, regional and international level would enhance the sharing of information to meet their information needs. Furthermore organisations need to regularly identify, monitor and evaluate information needs of their target audience. In addition, there is a need to link with beneficiaries through

interpersonal contacts like meetings, training and advisory services since these are the most effective ways of interacting with target audiences.

5.1.2 Capacity building needs

99. Many organisations have limited capacity to make effective use of the available resources such as ICT. Lack of skilled ICM/ICT staff was rated high in order of priority. In addition, low capacity to analyse, translate and package research outputs into languages and formats suitable for clients was indicated to be an important constraint in ICM by most institutions. The shortage of extension workers was also felt to be a constraint in agricultural and rural development information dissemination.
100. The potential of ICTs has not been adequately exploited by many institutions to support communication and knowledge management due to poor connection of Internet, among others. Organizations like FCS require capacity building to their clients to actively use ICT in grant applications, grant status check, blogging and discussions.
101. Interviewed institutions such as MAFC, MLDF and KUEW indicated a need for training in the application of communication technologies to extension services especially in linking ICT to agriculture and rural development. One specific area mentioned was capacity building on linking the use of mobile phones to radio and television programmes to improve interaction with listeners. There is also need to improve skills to link ICT to ICM and knowledge management within organisations so as to improve collection and sharing of information.
102. Improving the capacity of institutions for developing communication and knowledge management strategy to enhance knowledge sharing and learning is needed. This should be backed up with support in terms of resource mobilisation to implement the communication and knowledge management strategy. Apex organisations MVIWATA, FCS and TCCIA could leverage resources of their members to effectively organise for capacity development on ICM in its member organisations.
103. Furthermore, there is the potential need to develop capacity for repackaging of information into formats and language that is useful and easily accessible to stakeholders' especially farmers. Improving the capacity of institutions to translate information into local languages like Kiswahili would enhance access of available information to majority of small holder farmers who are illiterate.
104. Capacity building to improve skills on technical and economic information such as IPM, post- harvest technologies, value addition, market data and information, patent, editing of reports and participatory methodologies is required by most institutions. CTA could link with local and regional organisations to facilitate availability of the most needed skills.

5.1.3 Overview of CTA's Products and Services

105. CTA's products and services are available in a few institutions that have been dealing with information dissemination like national libraries. The linkage between these libraries and other institutions is currently weak and thus limits the use of the most needed information. Useful products like the Rural Radio Packs are not known by potential users. These packs could help to improve preparation of radio programmes. CTA should strive to identify and establish new partners. It was strongly felt that the relationship between CTA and institutions should be at institutional level rather than individuals so that it does not suffer when there is change or movement of staff.

106. Promotion and utilisation of CTA products and services was felt to be limited. Due to the wide definition of agriculture, CTA is requested not to limit its partners to agriculture but have a broad view on rural development. This should encompass all programmes and institutions dealing with rural development and cross-sectoral issues like youth development, HIV/AIDS and other sectors with potential for non-farm livelihood opportunities like fisheries. New and emerging challenges on climate change and variability, GMO and bio-fuels are not given adequate attention to timely inform the communities on the appropriate technologies available for coping with these demands, and the comparative advantages of such changes.

5.1.4 Potential partners and beneficiaries

107. Currently, there are few active CTA partners in Tanzania such as Sokoine University of Agriculture (SUA) and Department for Research and Training (DRT) in the MAFC. Other institutions have limited access to CTA's products and services (mainly *Spore* magazine) such as Moshi University College of Cooperatives and Business Studies (MUCCoBS), MVIWATA, Participatory Ecological Land Use Management (PELUM), Commission for Science and Technology (COSTECH), Tropical Pesticide Research Institute (TPRI), Tanzania Association of Non-governmental Organizations (TANGO) and Tanzania Forest Research Institute (TAFORI). However, many institutions have potentials and felt the advantage of linking with CTA to access the most needed information to reach more beneficiaries. These include MLDF, KUEW, Institute of Rural Development Planning (IRDP), Tanzania Meteorological Agency (TMA), Agricultural Council of Tanzania (ACT), TCCIA, Tanzania Fishery Research Institute (TAFIRI), Finance and Advice in Development Assistance and Marketing Linkage (FAIDA-MALI), Same Agricultural Improvement Trust Fund (SAIPRO), Mixed Farming Improvement Programme (MIFIPRO), Tanzania Irrigation and Environment Development Organization (TIP), Tanzania Food Processors Association of Women Entrepreneurs (TAFOPA), Zanzibar Farmers and Fishermen Development (ZAFFIDE), KEUW, Tanzania Standard Newspapers (TSN), TCCIA, FCS and Air Force Satellite (AFSAT).
108. Partnership at institutional level is limited to government institutions. At the Non-governmental Organisations (NGO) and private sector levels, the partnership is currently with individuals, in which case when they move out access is cut off.

5.2 Recommendations

5.2.1 Information needs

109. It is recommended that CTA should take deliberate efforts to link organisations with information sources that could meet their needs on broad rural development, technical and economic issues from the local, regional and international level. CTA should assist organisations to access and address new and emerging challenges in farming and non-farming livelihoods opportunities.
110. There is also a need for CTA and its partners to package information on emerging issues including market information and value addition, climate change, GMOs, bio-fuels and cross-cutting issues related to youth development and HIV/AIDS in formats that could be easily available and disseminated widely using a variety of communication channels.
111. CTA should publicise its products and services to more key stakeholders in the country. In promoting its products and services, CTA should seek to link with other organisations involved in information products and services provision like FAO, UNCTAD, IIED and World Bank so that they harmonise and provide for specific information needs.

5.2.2 Capacity Building needs

112. Basic training in computer skills and training in website maintenance, database development and management, and use of useful software in organising and managing information and dissemination can be provided by institutions locally. CTA should therefore assist these institutions to meet specialised skills in ICM and knowledge management. Organised training in specific areas include: (i) Developing communication and knowledge management strategies designing; (ii) market information systems management; (iii) Developing online library catalogue; (iv) Designing alternative extension communication technologies using mobile phones, radio and web-based facilities; (v) Developing Question and Answer Service (QAS) in the extension and advisory services; (vi) Preparation and production of interactive radio and video programmes for targeted audiences and (vii) Translating research findings into formats that are user friendly.
113. There is a great need to improve capacity for use of ICT in accessing existing knowledge and information within and outside organisations. CTA should assist institutions like SUA (which owns a TV station) and MVIWATA, PELUM, ACT, TANGO, COSTECH and TCCIA (which have networks of members) to utilise available capacity to disseminate information to reach wider audiences. CTA should strive to timely communicate such information to partners as they are available using its networks.
114. CTA should also facilitate local institutions like SUA and MUCCoBS to prepare training and workshops to cater for information needs on bio-fuels, climate change, value addition and market data and information.

5.2.3 CTA's Products and Services

115. CTA in collaboration with its partners should promote its products and services beyond the governmental institutions to involve other key partners in the public and private sectors. The strategy could be in terms of complementing efforts and making use of available resources in the private sector to reach the beneficiaries at the grass roots level.
116. CTA's products and services should address information needs on emerging challenges that are on high demand like climate change, market information, entrepreneurship and cross-cutting issues. Collaboration with national institutions with the capacity to develop such products could enhance their production and distribution.

5.2.4 Potential Strategic Partner institutions

117. CTA should strengthen existing collaboration with MAFC (DRT) and SUA; and other institutions that are currently receiving products like MUCCoBS, TAFORI, PELUM, MVIWATA, TANGO and TPRI. CTA should foster new partnerships with strategic partners involved agriculture and rural development including MLDF, TAFIRI, FAIDA-MALI, ACT, SAIPRO, MIFIPRO, TIP, IRDP, TAFOPA, TMA, ZAFFIDE, KEUW, TSN, TCCIA and FCS. This would enable CTA to reach wider audiences in many rural areas.

6. PROPOSED CTA INTERVENTIONS, STRATEGY AND ACTION PLAN

118. Based on the above discussions and the conclusions and recommendations, three main interventions areas for CTA are proposed. The intervention strategies are as follows:

- i. Promote CTA products and services to more institutions in Tanzania including public and private service providers and NGOs.
- ii. Develop institutional capacity for collecting, storage and dissemination of agricultural and rural development information including CTA products and services.
- iii. Establish stronger links among institutions in agricultural and rural development information and communication management through networking.

119. **Intervention strategy 1:** To promote CTA products and services to more institutions in Tanzania through potential partner institutions including public and private service providers and NGOs.

Rationale: As indicated in the findings, very few institutions are aware of the products and services provided by CTA. This study has identified some potential institutions like MAFC, MTIM, MLDF and MWI and academic institutions like SUA, MUCCoBS and IRDP that are instrumental in agricultural and rural development. Furthermore, apex organisations and NGOs like MVIWATA, PELUM, ZAFFIDE have been identified and have shown interest to collaborate with CTA in dissemination of products. This is an opportunity to engage them in long term collaboration.

120. **Intervention strategy 2:** To develop institutional capacity for collecting, storage and dissemination of CTA products and services in collaboration with national institutions like SUA and other academic institutions.

Rationale: The study has shown that most institutions have some capacity for ICM/ICT in-terms of staff development, equipment and connections with Internet. CTA could capitalise and facilitate further development to make these institutions a strong hub for ICM by developing skills and provide technical support for them to develop communication strategies. In the process they would identify the information needs of their clients and inform CTA on the same to guide on the type of information products and services needed. The current institutional needs may not necessarily reflect the needs of their beneficiaries. A more systematic audit is required.

121. **Intervention strategy 3:** Establish stronger links among institutions in agricultural and rural development information and communication management through networking.

Rationale: Most institutions are involved in generating, collecting and utilising information on agriculture and rural development. However, these efforts are scattered and there is limited sharing of available information. Through networking institutions will have an opportunity to minimise duplication of efforts in storing and disseminating and would enhance sharing of information.

An action plan for implementation of the intervention strategies is provided in Table 13 indicating objectives, expected results, activities, responsible agencies and the time frame. The agencies proposed to implement include the Ministry of Agriculture, Food Security and Cooperatives, Commission for Research and Farmers Education (KUEW) in Zanzibar and Sokoine University of Agriculture because they are well placed at the national level and have long experience in collaborating with CTA. However, other key institutions like COSTECH and others that have the technical expertise will be identified to support the initiative.

Table 13: Proposed interventions and action plan

Intervention strategy 1: Promote CTA products and services through potential partner institutions in Tanzania including public and private service providers and NGOs				
Objective	Expected results	Activities	Responsible agencies	Time frame
Use selected potential partner institutions to promote CTA products and services	Number of partners receiving and actively promoting CTA products increased	<ul style="list-style-type: none"> Identify partner institutions involved in agricultural and rural information with a potential for promoting CTA products and services 	CTA, MAFC, SUA	Jan-March 2009
		<ul style="list-style-type: none"> Organise a workshop with potential partners to create awareness on available CTA products and services 	CTA, MAFC, SUA	April 2009
		<ul style="list-style-type: none"> Prepare and distribute a summary of CTA products and other link organisations to these potential partners. 	CTA, MAFC, SUA	May 2009
		<ul style="list-style-type: none"> Develop a memorandum of understanding and terms of reference with partners institutions 	CTA, MAFC, SUA	May 2009
		<ul style="list-style-type: none"> Facilitate selected institutions to utilise and promote CTA products and services using local language accessible to small farmers 	CTA, MAFC, SUA	May 2009 – April 2010
		<ul style="list-style-type: none"> Conduct regular reflective review/planning meeting with partner institutions. 	CTA, MAFC, SUA	June 2010
Improve access to agricultural and rural development information by selected potential institutions	Access to agricultural and rural development information improved.	<ul style="list-style-type: none"> Conduct a detailed assessment of gaps in selected institutions to access and promote different information formats 	CTA, MAFC, SUA	Feb-April 2009
		<ul style="list-style-type: none"> Develop mechanism for accessing and promoting CTA products and services with selected partner institutions 	CTA, MAFC, SUA	April 2009
		<ul style="list-style-type: none"> Develop skills on effective use of ICT in accessing and packaging information for sharing CTA products and services 	CTA, SUA	May 2009
		<ul style="list-style-type: none"> Develop action plan for implementation 	CTA, SUA	May 2009
		<ul style="list-style-type: none"> Organize regular consultation meetings/platforms in order to reflect on the evaluation (process and outcomes) 	CTA, SUA	May 2009 – June 2010

Intervention strategy 2: Develop institutional capacity for collecting, storage and dissemination of agricultural and rural development information				
Objective	Expected results	Activities	Responsible agencies	Time frame
Improve ICT/ICM skills of partner institutions in collecting, storage and communicating agricultural and rural development information	Information and communication capacity of at least 3 strategic partner institutions enhanced	<ul style="list-style-type: none">Develop training manuals for librarians, researchers, trainers and extension service providers to develop their skills in ICT/ICM	CTA, SUA, COSTECH	May 2009
		<ul style="list-style-type: none">Conduct on the job training skills in use of ICT for collecting, packaging and dissemination of agricultural information and technologies.	CTA, SUA, COSTECH	June – August 2009
		<ul style="list-style-type: none">Review and include ICT/ICM related aspects in curricula of academic institutions in order to develop the capacity of future scientist.	CTA, SUA, COSTECH	August – December 2009
Develop skills of partners institutions in designing communication and knowledge management strategies	Capacity of at least 3 strategic partner institutions in Information, communication, knowledge sharing and joint learning improved	<ul style="list-style-type: none">Develop skills for designing communication and knowledge management strategy	CTA, MAFC, SUA	April 2009
		<ul style="list-style-type: none">Develop communication and knowledge management strategies in the 3 partner institutions	CTA, MAFC, MLDF SUA	May – Aug 2009
		<ul style="list-style-type: none">Facilitate the process for implementation of communication and knowledge management strategies to enhance promotion of information	CTA, MAFC, SUA	September 2009 – June 2010
Intervention strategy 3: Establish stronger links among institutions in agricultural and rural development information and communication management through networking.				
Objective	Expected results	Activities	Responsible agencies	Time frame
Establish a network of partners in agricultural and rural development information communication and knowledge management	A network of partner institutions in agricultural and rural information established	<ul style="list-style-type: none">Conduct workshop to create awareness among organisations involved in agricultural and rural development information management	CTA, SUA, MAFC	April 2009
		<ul style="list-style-type: none">Facilitate institutions to form a network to facilitate communication and knowledge sharing of agricultural and rural development information	CTA, SUA, MAFC	May – July 2009
		<ul style="list-style-type: none">Initiate collaborative activities with CTA to enhance access and distribution of agricultural and rural information using multi-media (such as Radio, Cell-phones and MP3) mix.	CTA, SUA, MAFC	July 2009 – June 2010

ANNEXES

ANNEX 1 TERMS OF REFERENCE

<p style="text-align: center;">ASSESSMENT OF AGRICULTURAL INFORMATION NEEDS FOR CTA'S PRODUCTS AND SERVICES IN ACP AFRICAN STATES – Eastern Africa</p>

1. Introduction

The Technical Centre for Agricultural and Rural Cooperation (CTA) was established in 1983 under the Lomé Convention between the ACP (African, Caribbean and Pacific) Group of States and the European Union Member States. Since 2000, it has operated within the framework of the ACP-EC Cotonou Agreement.

CTA's tasks are to develop and provide services that improve access to information for agricultural and rural development, and to strengthen the capacity of ACP countries to produce, acquire, exchange and utilise information in this area. CTA's programmes are organised around three principal activities: providing an increasing range and quantity of information products and services and enhancing awareness of relevant information sources; supporting the integrated use of appropriate communication channels and intensifying contacts and information exchange (particularly intra-ACP); and developing ACP capacity to generate and manage agricultural information and to formulate information and communication management (ICM) strategies, including those relevant to science and technology. These activities take account of methodological developments in cross-cutting issues (gender, youth, information & communication technologies – ICTs, and social capital), findings from impact assessments and evaluations of ongoing programmes as well as priority information themes for ACP agriculture.

CTA's activities are currently distributed among three operational programme areas / departments:

- Information Products and Services;
- Communication Channels and Services;
- Information and Communication Management Skills and Systems.

These operational departments are supported by Planning Corporate Services (P&CS) which is charged with the methodological underpinning of their work and monitoring the ACP environment in order to identify emerging issues and trends and make proposals for their translation into programmes and activities. This current exercise, therefore, falls within the mandate of P&CS.

2. Background

Since 2003, CTA has been systematically conducting needs assessment studies across the Pacific, Caribbean and Africa regions – the regions it has been mandated to serve. These studies have been in direct response to calls for CTA, in various evaluations of its products, services and programmes, to be more strategic in its choice regarding the setting of its own agenda and reacting to demand. In putting together its Strategic Plan and Framework for Action 2001 – 2005, CTA took a pragmatic view and opted to develop a strategy combining the benefits of both approaches, whereby the need to address the expressed demands of its stakeholders and the potential long-term advantages of developing programmes that address future needs were combined.

The Centre's new strategic plan covering the 2007 – 2010 period places emphasis on: improving CTA's efficiency and increasing the Centre's outreach by addressing the major bottleneck of difficult or insufficient access to information in ACP countries; (ii) honing CTA's profile and further defining the niche where the Centre has a comparative advantage. Consequently, reaching more beneficiaries and further strengthening CTA's partnership networks is key as well as the thrust to make ICTs and ICM strategies more widely available.

3. Main issues

CTA works primarily through intermediary public and private partners (research centres, extension services, libraries, NGOs, farmers' organisations, regional organisations and networks, ...) to promote agriculture and rural development. Under the new strategic plan, the organisations targeted will be extended to include print media, editors, radio, TV and journalist networks in order to further maximise outreach. Through these

partnerships, CTA hopes to increase the number of ACP organisations capable of accessing and combining modern and conventional ICTs, generating and managing information and developing their own ICM strategies. The identification of appropriate partners is therefore of primordial importance, whilst bearing in mind issues such as geographical coverage, decentralisation, regionalisation, thematic orientation and transparent and objective criteria and procedures for partner selection.

4. Overall Objective

Collaboration strategies with ACP agricultural organisations and relevance of CTA's support to African ACP countries improved.

5. Scope of the study

The study will focus on:

- providing an overview of main agricultural services and actors existing in the country (information supply side) in terms of their strengths, weaknesses and opportunities for collaboration with CTA;
- identifying agricultural information and ICM capacity building needs of key actors / key strategic partners for CTA products and services;
- identifying potential strategic partners for CTA activities and services (paying special attention to e.g. print media, editors, radio, TV and journalist networks);
- developing some baseline data on the status of ICM and ICTs in the country to facilitate subsequent monitoring and updating activities.

The study should assist CTA to improve and better target interventions and activities aimed at potential partners and beneficiaries (including women, youth, private sector and civil society organisations) to have a more informed picture of their needs and aid in the elaboration of a strategy and framework of action. The study should also highlight where there are specific needs for CTA's products and services thereby enabling improvement in the delivery of the same.

6. Expected results

The expected results of the study are as follow:

- status of infrastructure, information services and ICM capacity of institutions involved in agriculture and rural development described and analysed;
- information and capacity building needs in the area of ICM identified for key institutions and potential CTA partners involved in agriculture and rural development;
- baseline data on the status of ICM and ICT in agriculture and rural development compiled for monitoring purposes and improved outreach.

The study should therefore also provide updated country profiles on the status agricultural information services, the status of ICM/T in the country, which will allow CTA to make informed decisions re type and mode of intervention as well as partner selection. This will be summarised in one (1) main report per country not exceeding 30 pages excluding annexes (cf. section 8 below).

7. Methodology

The consultant will use a combination of qualitative and quantitative rapid appraisal methods including:

- the desk review of available literature and information sources including the findings of programme evaluations;
- the conduct of face-to-face interviews with relevant stakeholders / concerned parties;
- the limited use of questionnaires.

The rapid appraisal approach will allow a general overview of the key issues and company / organisational profiles on a per country basis and may give rise to more in-depth studies as and when needed in the future.

8. Reporting

The country reports will not exceed 30 pages (excluding annexes) and is broken down as follows:

Main report

Acknowledgements

List of Acronyms

Executive summary

1. Introduction

2. Country profile

2.1 Brief description of agriculture and recent developments in the sector:

- 2.1.1 Agriculture
- 2.1.2 Fisheries
- 2.1.3 Forestry
- 2.1.4 Pastoralism / Livestock (where applicable)

2.2 Brief description of the status of ICT infrastructure and recent developments in the sector

3. Status of information and communication for agriculture and rural development

3.1 Institutional, regulatory and policy framework

Status of national and/or other sectoral policies on information and communication for agriculture and rural development; definition of main strategic focus and principal characteristics; opportunities and threats posed by the political, institutional and regulatory environment

3.2 Operational aspects

- 3.2.1 Description of agricultural information and services (main actors in the area of information and communication for agriculture and rural development)
- 3.2.2 Information products and services provided
- 3.2.3 Information and communication management capacity

3.3 Interventions supporting information and communication for agriculture and rural development

Examine the main interventions undertaken, planned or foreseen by the State, donor agencies, private sector (e.g. telecommunications sector) to respond to identified needs paying particular attention to the priorities and means mobilised. Lessons learnt should also be addressed in this section

3.4. Needs analysis (Main bottlenecks and shortcomings)

- 3.4.1 Information needs
- 3.4.2 Capacity building needs (IC policies & strategies, sensitisation, networking, skills, training, media, ICT, equipment)

4. Conclusions and recommendations

4.1 Conclusions

- 4.1.1 Information Needs
- 4.1.2 Capacity Building Needs
- 4.1.3 Potential Strategic Partners

4.2 Recommendations

- 4.2.1 Capacity Building Needs
- 4.2.2 Information Needs
- 4.2.3. Potential Strategic Partner Institutions

5. Proposed CTA Intervention Strategy and Action Plan

From the above analysis, establish a link between the needs which are not currently met or for which complementary actions are needed and CTA's supply (products and services). This should lead to an overall and coherent strategy for CTA and an action plan in priorities are identified and an implementation schedule defined.

Annexes

1. Terms of reference

2. Country profile

2.1 General agricultural profile (from available documentation)

- 2.1.1 Size of agricultural population (male / female / youth)
- 2.1.2 Farmed land, forests, fishing areas
- 2.1.3 Agricultural systems
- 2.1.4 Agriculture in the economy (percentage GDP)
- 2.1.5 Main agricultural produce and secondary products
- 2.1.6 Main export markets
- 2.1.7 Trade agreements that include agriculture
- 2.1.8 Sectoral policy related to agriculture, fisheries and forests

2.2 Socio-economic profile (from available documentation)

- 2.2.1 Total active population, demographic breakdown
- 2.2.2 Literacy level and languages
- 2.2.3 Access to services (health, schools, electricity)
- 2.2.4 Rural urban drift

2.3 Media and telecommunications (update / check)

- 2.3.1 Newspapers, periodicals, magazines, radio stations, television channels,
- 2.3.2 Telecommunication services (fixed, mobile, etc.)

2.3.3 Computers and Internet access

3. Profile of institutions

3.1 *List of all main institutions involved in agriculture and rural development activities, including private sector and civil society organisations, with name, contact details, type and role of institution*

3.2 *Select list of key institutions involved in agriculture and rural development, with extensive data and information on the institution, the problems faced and why it is considered a key actor*

4. List of institutions / persons interviewed (to include full contact details)

5. Bibliography

9. Timing

The draft final report is to be submitted within three months after contract signature by CTA; the final report is due two weeks after receipt of comments from CTA.

10. Expertise needed

The **national consultant** should have a university degree or equivalent by experience. In addition, he/she should have at least 10 years experience in field of agriculture, rural development or social / economic sciences. He/she must have in-depth knowledge of the agricultural sector in his/her country and be able to identify key players and institutions / organisations active in this area. Some knowledge of information sciences would be an added advantage. The ability to communicate and write clearly in English is essential, while knowledge of at least one of the local languages for communication / interview purposes is an added advantage.

In addition to the skills above, the **regional coordinator** is expected to be fluent in English, have some knowledge of the 9 countries forming the object of this study, have demonstrated experience in coordinating studies with several consultants and in producing synthesis reports.

The overall coordination of the exercise will be carried out by Ms Christine Webster, Deputy Head, Planning and Corporate Services CTA.

11. Implementation schedule (CTA)

- Preparation/Finalisation of ToR; Identification/ short-listing of (potential) consultants; Call for offers: October 2007 – January 2008;
- Selection of consultants & contractual arrangements: February – March 2008
- Briefing: April 2008
- Start date of contract: March/April 2008
- Contract implementation period: March – November 2008
- End date of contract: November 2008.

12. Key documents to be made available to consultants

Documents include:

- Cotonou Framework Agreement
- Executive Summaries of previous evaluation reports including ITAD, OPM, etc.
- CTA's Strategic Plan (2007-2010)
- Annual Reports
- Examples of reports of previous needs assessment studies
- Documents on products & services provided by CTA

13. Definition of roles and responsibilities

Regional Coordinator

- Respect the timeframe regarding submission of reports and deadlines
- Help identify/vet country consultants
- Attend pre-briefing and briefing meetings
- Review the terms of reference
- Finalise questionnaires¹ and methodological approach after due consultation with CTA Team
- Finalise the briefing notes and guidelines² for local consultants to ensure accurate and consistent application of the agreed methodology in data collection
- Answer queries (technical & otherwise) of local consultants
- During the studies, monitor and provide technical assistance/information to the local consultants

¹ The documents used in previous needs assessment studies are available and will need some slight modifications.

² See footnote above.

- Review preliminary country reports and findings and send comments back to local consultants
- Send edited draft final country reports to CTA for feedback
- Coordinate and ensure consistency of country reports
- Prepare the overall report taking into account the findings and recommendations of all the country reports (table of contents to be agreed).

Local Consultants

- Respect the timeframe regarding submission of reports and deadlines
- Attend briefing meeting
- Familiarise themselves with background documents received from CTA; including the Terms of Reference
- Undertake desk study and prepare country profile, list of institutions involved in agriculture as well as preliminary list of select institutions.
- Undertake field visits in the country specified in the contract
- Conduct interviews and gather information in the country specified in the contract
- Draft preliminary country reports and send to Regional Coordinator for initial comments
- Based on comments received from Regional Coordinator, revise country reports and send draft final report to CTA within the specified timeframe
- Finalise country reports based on comments and observations received from CTA and send final report back to CTA

Role of CTA

- Draw up initial Terms of Reference and prepare relevant background documents
- Appoint the Regional Coordinator and the ACP Local Consultants
- Prepare and attend briefing meeting of consultants
- Invite the Regional Coordinator and Local Consultants for Briefing Meeting
- Provide input to the Regional Coordinator with regard to fine-tuning terms of reference, questionnaires, interview guide and reporting guidelines for the consultants
- Provide relevant background documents to the Local Consultants & Regional Coordinator
- Elaborate budget and discuss contractual obligations with the Team of consultants & Regional Coordinator
- Liaise with Regional Coordinator throughout the study
- Pay invoices for services rendered in a timely manner on condition that all payment conditions are fulfilled
- Overall responsibility for the supervision and implementation of the studies
- Bear the agreed costs of expenditure in respect of the study (economy class return tickets, hotel accommodation and subsistence allowances during briefing meeting, or during agreed and specified field visits)
- Provide feedback and comments on draft country reports to the Local Consultants
- Give feedback to the Regional Coordinator on the Overview Report.

ANNEX 2 COUNTRY PROFILE – TANZANIA

2.1. General agricultural profile

2.1.1 Size of agricultural population

The last population census was conducted in August 2002. According to the 2002 census, the population of Tanzania was 34.4 millions with an annual growth rate of 2.9 percent. It is estimated that by 2006 the population of Tanzania is about 38.67 million (Table 1).

Table 1: Total population of Tanzania by gender by region

Area	2002 Census Data			2006 - Estimated
	Male	Female	Total	Total
United Republic	16,829,861	17,613,742	34,443,603	38,670,000
Tanzania Mainland	16,349,015	17,112,834	33,461,849	37,526,000
Tanzania Zanzibar	480,846	500,908	981,754	1,144,000

Source: URT (2006)

The population of Tanzania by region is shown in Table 2 below. Out of the total population the number of agriculture household members was 24,743,990 by 2002 (Table 3a&b). The high percentage of females in the age group of 20 to 39 years in agricultural household is an indication of out migration of male youth to urban areas.

Table 2: Population by region

Area	2002 Census Data			2006 - Estimated
	Male	Female	Total	Total
Mwanza	1,452,150	1,477,494	2,929,644	3,169,000
Shinyanga	1,363,816	1,432,814	2,796,630	3,278,000
Dar-es-Salaam	1,254,853	1,232,435	2,487,288	2,802,000
Mbeya	986,167	1,077,161	2,063,328	2,346,000
Kagera	996,335	1,031,822	2,028,157	2,210,000
Morogoro	873,245	880,117	1,753,362	1,929,000
Tabora	841,769	868,696	1,710,465	2,004,000
Dodoma	818,782	873,243	1,692,025	1,897,000
Kigoma	804,634	869,413	1,674,047	1,971,000
Tanga	793,159	843,121	1,636,280	1,753,000
Iringa	705,743	785,149	1,490,892	1,618,000
Kilimanjaro	664,853	711,849	1,376,702	1,503,000
Mara	649,707	713,690	1,363,397	1,572,000
Arusha	634,942	653,146	1,288,088	1,475,000
Rukwa	555,966	580,388	1,136,354	1,302,000
Mtwara	531,722	592,759	1,124,481	1,220,000
Ruvuma	543,396	570,319	1,113,715	1,235,000
Singida	528,447	558,301	1,086,748	1,223,000
Manyara	532,665	504,940	1,037,605	1,198,000
Coast	437,650	447,367	885,017	969,000
Lindi	379,014	408,610	787,624	852,000
Unguja Town & West	190,366	199,708	390,074	461,000
Pemba North	90,517	94,809	185,326	216,000
Pemba South	85,414	90,057	175,471	207,000
Unguja North	66,882	69,757	136,639	155,000
Unguja South & Central	47,667	46,577	94,244	103,000

Source: URT, (2006)

Table 3: Number of agriculture household members by sex and age group, and by region for the 2002/03 agriculture year (%) - Mainland

3a. Number of agriculture household members by sex and age group for the 2002/03 agriculture year (row %)

Age Group	Male		Female		Total Number
	Number	%	Number	%	
>5	1,679,205	50	1,708,855	50	3,388,060
5 – 9	1,981,990	51	1,930,551	49	3,912,540
10 - 14	1,854,460	51	1,764,597	49	3,619,056
15 - 19	1,374,601	52	1,261,168	48	2,635,770
20 - 24	929,854	46	1,096,170	54	2,026,025
25 - 29	811,896	45	999,055	55	1,810,951
30 - 34	713,465	48	788,224	52	1,501,689
35 - 39	593,201	48	642,897	52	1,236,097
40 - 44	524,138	50	515,194	50	1,039,332
45 - 49	390,680	49	405,182	51	795,862
50 - 54	350,104	49	361,461	51	711,564
55 - 59	258,072	53	230,310	47	488,382
60 - 64	247,285	51	234,200	49	481,485
65 - 69	198,130	53	178,989	47	377,119
70 - 74	172,763	54	145,311	46	318,074
75 - 79	103,195	59	72,663	41	175,858
80 - 84	68,714	56	54,810	44	123,524
85+	52,435	51	50,167	49	102,601
Total	12,304,187	50	12,439,803	50	24,743,990

3b. Number of agriculture household members by sex and region for the 2002/03 agriculture year (row %)

Region	Male		Female		Total Number
	Number	%	Number	%	
Dodoma	735,628	49	769,017	51	1,504,645
Arusha	417,841	50	416,760	50	834,601
Kilimanjaro	545,216	49	569,990	51	1,115,206
Tanga	633,967	49	662,064	51	1,296,031
Morogoro	614,454	50	621,124	50	1,235,577
Pwani	354,379	50	358,616	50	712,995
Daressalaam	50,030	51	49,000	49	99,030
Lindi	308,426	48	337,974	52	646,400
Mtwara	448,169	48	480,353	52	928,521
Ruvuma	438,796	49	452,866	51	891,662
Iringa	588,637	48	646,485	52	1,235,122
Mbeya	780,102	48	828,679	52	1,608,781
Singida	463,874	50	472,918	50	936,792
Tabora	732,811	52	687,489	48	1,420,300
Rukwa	476,244	51	466,024	49	942,269
Kigoma	528,004	49	548,654	51	1,076,658
Shinyanga	1,240,182	51	1,186,224	49	2,426,406
Kagera	866,030	50	873,788	50	1,739,818
Mwanza	1,082,746	51	1,051,636	49	2,134,382
Mara	548,314	50	549,427	50	1,097,742
Manyara	450,336	52	410,714	48	861,049
Total	12,304,187	50	12,439,803	50	24,743,990

Source: URT (2006)

The number of people that are actively involved in agriculture is about 11,033,215 which is about 75% of the total people employed in all sectors (Table 4). More people are involved in agriculture compared to livestock keeping and fishing. It is also indicated that there are about 768,568 children below 15 years involved in agriculture.

Table 4: Total persons by age and main occupation

AGE	Population Tanzania	Occupation sectors all	% Occupation all sector	Occupation in Agriculture				% Occupation in Agriculture
				Farmers	Livestock	Fisherman	Total	
TOTAL	34,443,603	14,701,799	43	10,567,659	314,691	150,865	11,033,215	75
>15	9,573,705	1,053,904	23	674,029	88,464	6,075	768,568	73
15-19	3,595,735	1,612,513	45	1,204,947	45,675	16,461	1,267,083	79
20-24	3,148,513	2,184,090	69	1,565,789	36,343	25,575	1,627,707	75
25-29	2,801,965	2,171,705	78	1,483,018	31,920	27,477	1,542,415	71
30-34	2,229,046	1,804,821	81	1,230,763	26,027	22,346	1,279,136	71
35-39	1,669,873	1,392,842	83	962,425	22,659	16,699	1,001,783	72
40-44	1,348,508	1,133,432	84	790,056	15,657	12,703	818,416	72
45-49	984,823	835,545	85	597,126	13,525	7,906	618,557	74
50-54	883,820	760,474	86	577,936	10,364	5,990	594,290	78
55-59	590,667	499,042	84	400,821	6,605	3,364	410,790	82
60-64	604,956	468,096	77	396,072	6,371	2,639	405,082	87
65-69	439,671	322,574	73	279,107	4,193	1,662	284,962	88
70-74	377,852	234,909	62	205,506	3,388	1,082	209,976	89
75-79	221,354	123,543	56	108,711	1,739	546	110,996	90
80+	308,208	104,307	34	91,353	1,761	341	93,455	90

Source: URT (2006)

2.1.2 Farmed land, forests, fishing areas

Tanzania has a land area of 94.5 million ha as shown in Table 5 (URT, 2003a). Out of this about 44 million ha is arable, whereby cultivated land of about 11.9 million ha is under smallholder farming and about 1.5 million ha is under large and medium scale farming. The national average land area per households is 2.0 ha. It is reported in 2002 census that the land area under small holder has not changed significantly over the last ten years. There is high potential for irrigation in Tanzania, which is highly underutilised whereby only 2.7% was reported to be irrigated in season 2002/03. Land area suitable for livestock grazing is about 26 million ha and large land area is still covered by forestry and bushes.

Table 5: Land use in Tanzania

Land use	Hectares (millions)
Total land area	94.5
Arable land	44.0
Cultivated land under small holder	11.9
Cultivated land under large and medium scale farming	1.5
Land suitable for irrigation	29.4
Forestry and bushes	38.8
Land suitable for pasture grazing	26.0
Tsetse infested areas	24.0

Source: URT (2006)

Despite its relatively low population coupled with its large land resources, Tanzania has problems with access to suitable land in many areas. In 2002, 46% of households were reported having insufficient land. Land utilised for agriculture related activities vary by region. Large differences in land area utilised per household exist between regions, with Shinyanga utilising more than 3 ha per household and thus indicating larger land area under crop cultivation (Table 6). In Ruvuma, Tabora, Dodoma and Manyara utilised land is between 2.0 to 3.0 ha per household, and even less land utilised per household in the other regions.

Land ownership is predominantly by customary law and there is no difference at national level between male headed and female headed households with the exception of purchased land. There is a higher percentage of male headed households buying land compared to female headed households.

It is estimated that 6 percent of the total mainland area in Tanzania comprises freshwater lakes with substantial fish resources. These include Lake Victoria in which the country owns about 50 percent of lake. In addition, Tanzania owns 45 percent of Lake Tanganyika, 20 percent of Lake Nyasa. There are also several minor lakes, dams, reservoirs, swamps, rivers and small ponds suitable for aquaculture. The major fish species caught are sardines, Nile perch, haplochromis, catfish and tilapia. Freshwater fisheries account for more than 80 percent of the landed catch.

In addition, the country has an 800-kilometre coastline with a narrow continental shelf. An estimated 150,000 people are employed as full-time fishermen, while another 1,500,000 are engaged in part-time fishing and fisheries-related activities, such as fish processing, marketing, distribution, net-making, marine engine repair, boat-building and other activities. Traditional methods are still used on the inland lakes, but modern fishing techniques are also employed in the coastal waters. There are significant opportunities for investors to establish fish processing plants, crustacean fisheries, and deep-sea fishing (SADC, 2008).

As a whole, fishing of prawns, Nile perch and its products are the major exchange earners in this sub-sector. The potential availability of fish is estimated at 750,000 tons, while 350,000 tons are estimated to be fished per annum, most of it from lakes and rivers (300000 tons) and 50,000 tons from the sea. The economic survey (URT, 2007) shows that in 2006, the fisheries sub-sector earned Tshs 9.852 billion (equivalent to Euros 5,266 million).

The sector is facing a number of constraints including illegal fishing. In order to enhance implementation of the fishery policy, the Fishery Act No. 6 of 1970 was amended in 2003 and Act No. 22 was passed. The aim was to ensure that fishing communities adhere to current fishing regulations and procedures (URT, 2007). Likewise, the fisheries regulations around Lake Victoria were harmonised with those in Kenya and Uganda to enable the three countries to deal with illegal fishing.

2.1.3 Agricultural systems

Tanzania is a vast country with heterogeneous agro-ecology as well as diverse farming systems. The agricultural sector constitutes of crop, livestock production, forestry and fisheries. The sector is dominated mainly by small holder farmers and provides sources of livelihood for about 80% of the population, with most of the households involved in production of food and cash crops (URT, 2006). Large-scale farming is limited to small number of estates owned by government institutions, private companies and few individuals which is about 2%, while, medium scale farmers are about 5% and small scale farmers are about 93% (URT, 2006). Medium scale farmers, like large-scale farmers, practice modern agriculture, which includes irrigation, use of modern farm machinery and agricultural inputs. Production levels are relatively higher than at the smallholder farmers. Smallholders' agriculture is at a subsistence level producing for domestic use and surplus for sale. It is a low input – low output production system with limited use of fertilizers, improved seeds and inadequate knowledge of modern farming technologies.

2.1.3.1 Crops grown

There is a wide variety of crops grown in the country (over 95 types); however, smallholder crop production is very much dominated by maize. Other important food crops are cassava, bananas, paddy, beans and groundnuts. Similarly, farmers grow cash crops including tea, coffee, cotton, tobacco, and cloves mainly grown in the Zanzibar and Pemba islands. Other crops include fruit tree and spices. For most regions trees are not widely planted by smallholder households under mixed farms, however, tree farming is especially important in Iringa, Mbeya, Kagera and Ruvuma (URT, 2007a).

2.1.3.2 Livestock

In 2006, Tanzania is estimated to have approximately 18.5 million cattle, 13.5 million goats, 3.5 million sheep, 30 million chicken and 880,000 pigs. Livestock products include meat, milk, eggs, hides and skins (URT, 2007a). About 26 million ha are suitable for pastures, but only 370,381 ha are under improved pasture, with the majority being under large farms. Livestock keepers and headers depend to a large extent grazing in bush lands. Production is low due to limited use of improved technologies and poor extension and veterinary services (URT, 2007a).

Table 6: Land use by region

Regions	Area under crop cultivation	Area under Pasture	Area under Fallow	Area under Natural Bush	Area under Planted Trees	Area Rented to Others	Area Unusable	Area of Uncultivated Usable Land	Total number of households
Dodoma	734,609	7,801	39,437	6,902	4,431	5,533	10,443	46,108	855,264
Arusha	176,561	42,566	12,351	1,194	3,261	1,969	3,028	16,931	257,860
Kilimanjaro	203,963	18,080	27,873	357	9,859	4,807	2,888	8,499	276,325
Tanga	401,057	1,852	43,926	2,771	3,959	4,236	9,597	57,053	524,451
Morogoro	440,917	2,868	12,208	4,299	2,891	11,497	9,659	83,452	567,792
Pwani	243,045	5,932	14,787	5,319	722	1,818	7,702	33,671	312,996
Dar es Salaam	30,175	1,059	1,391	123	330	392	533	2,550	36,551
Lindi	272,817	79	18,095	3,293	57	1,783	7,602	35,758	339,484
Mtwara	415,891	1,027	11,536	6,356	403	2,280	4,543	34,159	476,196
Ruvuma	477,448	9,228	71,887	79,522	10,991	10,766	24,297	115,091	799,230
Iringa	430,061	13,005	29,220	25,366	40,484	12,913	29,318	111,464	691,830
Mbeya	553,141	6,372	32,723	11,629	13,078	8,915	9,854	36,515	672,227
Singida	337,259	18,758	37,900	14,301	1,209	5,344	11,246	37,134	463,150
Tabora	570,343	33,264	62,016	63,072	3,237	10,553	33,763	122,977	899,225
Rukwa	328,813	8,441	55,734	17,243	6,038	10,572	12,739	134,711	574,291
Kigoma	260,669	569	24,995	643	2,744	2,076	1,738	80,144	373,578
Shinyanga	1,047,607	121,381	105,297	34,118	3,454	21,284	26,429	108,572	1,468,142
Kagera	414,810	15,791	38,150	7,718	11,883	5,213	13,775	51,046	558,385
Mwanza	643,849	19,382	7,068	5,720	14,216	15,640	19,235	139,476	864,585
Mara	312,511	12,382	20,348	4,720	7,956	7,836	11,967	109,823	487,543
Manyara	292,439	30,547	13,919	3,762	2,977	7,475	7,485	28,815	387,420
Total	8,587,985	370,381	680,859	298,427	144,180	152,902	257,842	1,393,949	11,886,524
%	72	3.1	5.7	2.5	1.2	1.3	2.2	11.7	100

Source: URT (2006).

2.1.3.3 Climate

Tanzania experiences a variety of climatic conditions ranging from humid coastal to alpine deserts to crowning the high peaks of Kilimanjaro and Meru mountains to highland mountainous forest and moist tropical forest. The coastal area and all of the islands in the Indian Ocean experience a tropical climate, and most of the country is sub-tropical except for the areas at higher altitudes. Average temperatures range between 17°C and 27°C, depending on location. The hottest period spreads between November and February (25°C - 31°C), while the coldest period occurs between May and August (15 °C - 20 °C). However, in the mountainous areas and Plateau, the temperature occasionally drops below 15°C at night during the months of June and July. In the Southern highlands temperature can even reach as low as 0°C - 6°C. Temperature variations have significant impact on the agro-ecological zones and the adaptation strategies in the agriculture sector (URT, 2007b).

Rainfall in about 75% of the country is erratic and only 21% of the country can expect an annual rainfall of more than 750 mm with a 90% probability. As a result, crop and livestock production under such conditions remains dependant on the adequacy, reliability and timeliness of rainfall. The mean annual rainfall varies considerably, ranging from less than 400 mm to over 2,500 mm per annum. The climate is characterised by two rainfall regime, namely, unimodal and bimodal rainfall regime. The seasonal rains for unimodal regime occur between November/December and April over the southern, south-western, central and western areas of the country. The bimodal rainfall regime has two rainy seasons, the long rainy season (*masika*) experienced between March and May and the short rainy season (*vuli*) occurring between October and December over the northern coast, north-eastern highlands, Lake Victoria basin and the islands of Unguja and Pemba (URT, 2007b).

2.1.3.4 Agro-ecological zones

Based on altitude, rainfall pattern, dependable growing seasons and average water holding capacity of the soils and physiographic features, Tanzania has 7 main agro-ecological zones (Table 7). These are Coastal, Eastern plateau and mountain blocks, Southern highlands, Northern rift valley and volcanic high lands, Central plateau, Rukwa-Ruaha rift zone and inland sedimentary plateau, Ufipa plateau and western highlands. On the basis of agricultural potential, it is estimated that more than 50% of the land in Tanzania is semi arid or arid due to three main factors: (i) low amount of rainfall, (ii) high evapo-transpiration rates, and (iii) erratic temporal and spatial distribution of rainfall (Hatibu *et al.*, 1999).

Table 7: Agro-Ecological Zones of Tanzania

S/N	Zone	Altitude m/sea level	Rainfall pattern	Dependable growing season (mon)	Physiographic
1	Coastal	< 100 to 500	Bimodal and unimodal	3 to 10	Combination of coastal lowlands, uplands, undulating and rolling plains
2	Eastern plateau and mountain blocks	200 to 2,000	Predominantly unimodal	From < 2 to 7	Many physiographic types, ranging from flat areas, undulating and rolling plains, hilly mountain, plateau to mountain blocks
3	Southern highlands	1200 to 2700	Unimodal	5 to 10	Composed of flat to undulating rolling plains and plateau, hilly areas and mountains
4	Northern rift valley and volcanic high lands	900 to 2,500	Unimodal	< 2 to 9.5	Ranges from flat to undulating plains, hilly plateau to volcanic mountains
5	Central plateau	800 to 1,800	Unimodal	2 to 6	Composed of flat plains, undulating plains, plateau and some hills
6	Rukwa-Ruaha rift zone	800 to 1,400	Unimodal	3 to 9	Composed of flat terrain, rocky terrain and complex terrain
7	Inland sedimentary plateau, Ufipa plateau and western highlands	200 to 2,300	Unimodal	3 to 9	Composed of undulating plateau, strongly dissected hills, dissected hilly plateau and undulating rolling plains.

Source: AGRIFOR Consult (2006).

2.1.4 Agriculture in the economy

The agricultural sector is the leading sector of the economy of Tanzania and accounts for over half of the GDP and export earnings. Over 80% of the population live in rural areas and their livelihood depends on agriculture (URT 2001a). The performance of agriculture is therefore a major factor in determining livelihood fortunes. In 2006 the agricultural sector contributed 44.7% to the economy with crop sub-sector contributing 33.4%, livestock 5.7%, fishing 3% and forestry and hunting 2.7% (Table 8). The Government continued to implement National Forestry and bee keeping programme, where by community participation in forestry conservation and beekeeping is promoted. In 2005, a total of 141,267,000 trees were planted in all regions compared to 133,271,038 trees in 2004 (URT 2007a). The sector grew by 4.0% compared to 6.7 in 2005 (Table 9). The decrease in the growth rate in the agricultural sector was caused by drought which hit many parts of the country during 2005/06 rain season which affected production of various food and cash crops. Crops which recorded significant decline included bananas, cassava and paddy.

Table 8: Sectoral contribution to overall GDP (%) (At constant 1992 prices) 2002-2006

Economic activity	2002	2003	2004	2005	2006
Agriculture	47.5	46.7	46.3	45.6	44.7
- Crops	35.5	34.8	34.6	34.1	33.4
- Livestock	6.1	6.1	6.0	5.8	5.7
- Forestry and Hunting	2.9	2.9	2.8	2.7	2.7
- Fishing	3.0	3.0	3.0	3.0	3.0

Source: URT (2007a)

Table 9: Percentage growth rates of GDP by economic activities 2002-2006

Economic activity	2002	2003	2004	2005	2006
Agriculture	5.8	4.1	6.4	6.7	4.0
- Crops	6.3	3.6	6.9	7.4	3.4
- Livestock	3.5	5.0	4.8	3.6	5.5
- Forestry and Hunting	3.0	4.2	3.8	4.9	5.7
- Fishing	6.5	6.4	6.7	7.3	5.0

Source: URT (2007a)

Since mid 1980s, the Tanzanian economy has undergone gradual fundamental transformation that has redefined the role of the government and the private sector. The government has assumed a new mission which, among others, includes the provision of an enabling environment for private sector participation in the agricultural production, processing and marketing of inputs and outputs. The monopoly held by co-operative unions and marketing boards over handling and marketing of agricultural inputs and farm produce has been eliminated. The marketing of agricultural products and inputs was liberalized gradually to create a better environment for the private sector participation in the procurement and distribution of agricultural inputs like mineral fertilizer, including processing and marketing of agricultural products.

2.1.5 Main agricultural produce and secondary products

Maize is the main staple food and widely grown in Tanzania. Other important food crops are cassava, paddy, bananas, sweet potatoes, beans, millet and wheat. The economic survey (URT 2007a) in 2006 indicates that production of food crops continued to decline due to various reasons including drought. However, production of cash crops especially sugar, tea, coffee and sisal increased in 2006, while the production of cotton, pyrethrum, cashew nuts and tobacco decreased compared to 2005 (Table 10).

The livestock sub-sector was equally affected by drought in 2006 which caused an acute shortage of pastures and animal feeds as indicated in Table 11. Generally, the growth rate for livestock and livestock products was low. On the other hand the production of fish and fish products in 2006 decreased from 375,535 tons in 2005 to 341,109 tons in 2006 (Table 12). The Government continued to control the quality of fish products which are exported and those sold domestically, thus increasing the value of fish exports. A summary of fish export products for the periods 2002 – 2006 is given in Table 13.

Table 10: Crop production trends for 2002 – 2006 (tons '000)

Crop	2002	2003	2004	2005	2006
Food crops					
Maize	3,480	3,129	4,286	3,131	3,423
Paddy	1,069	921	1,030	1,077	805
Wheat	67	72	66	44	109
Millet	757	986	937	721	941
Cassava	2,058	2,656	2,470	2,851	2,052
Beans	574	517	603	650	1,049
Bananas	2,067	2,501	2,576	2,007	1,169
Sweet potatoes	1,527	1,650	1,245	1,300	1,396
Cash crops					
Cotton	149,000	188,000	344,207	378,000	130,565
Tobacco	59,000	20,000	51,972	56,500	50,617
Sugar	190,000	248,000	223,889	263,317	290,863
Tea	25,000	30,000	30,249	30,000	31,348
Pyrethrum	2,000	1,000	897	2,500	2,046
Coffee	67,000	53,000	51,970	34,334	45,534
Sisal	24,000	24,000	26,800	27,794	30,847
Cashew nuts	78,000	92,000	100,000	90,385	88,213

Source: URT (2007a).

Table 11: Production of livestock products from 2002 – 2006

Product	Unit	2002	2003	2004	2005	2006	% Change
Meat:							
Beef	Tons	182,000	182,500	184,000	204,520	210,370	2.86
Lamb	Tons	74,000	74,500	75,800	78,093	78,579	0.62
Pork	Tons	21,000	23,000	26,000	27,000	29,925	10.83
Chicken	Tons	55,000	61,500	63,000	68,896	69,420	0.76
Meat total	Tons	332,000	341,500	348,000	378,509	388,294	2.58
Milk:							
Traditional cattle	Litres ('000)	578,000	620,700	813,700	920,000	941,815	2.37
Dairy cattle	Litres ('000)	322,500	359,800	366,300	466,400	470,971	0.9
Total	Litres ('000)	900,000	980,500	1,180,000	1,386,400	1,412,786	1.9
Eggs							
Poultry	Number ('000)	650,000	790,000	910,000	1,800,000	2,145,000	19.16
Leather:							
Cattle	Number	1,400,000	1,400,000	1,600,000	1,500,000	1,363,721	-9.08
Goats	Number	700,000	800,000	1,200,000	1,500,000	1,216,740	-18.88
Sheep	Number	350,000	460,000	650,000	700,000	861,770	23.11
Total	Number	2,450,000	2,660,000	3,450,000	3,700,000	3,442,231	-6.96

Source: URT (2007a).

Table 12: Production in fisheries 2002-2006

Year	No. of Artisanal Fishermen	Number of boats			Fish catch Qty (Tons)		
		Fresh waters	Sea waters	Total	Fresh waters	Sea waters	Total
2002	119,856	31,849	4,727	36,576	273,856	49,675	323,531
2003	119,856	31,849	4,927	36,776	301,855	49,270	351,125
2004	115,001	32,172	4,947	37,119	312,040	50,470	362,510
2005	115,001	32,172	4,947	37,119	320,566	54,969	375,535
2006	156,544	44,362	7,190	51,552	292,519	48,591	341,109

Source: URT (2007a).

Table 13: Summary of fish export products 2002 – 2006

Year	Quantity (Kgs)	Values	
		Tshs	Euro equiv. (€)
2002	24,888,811.00	72,028,087,135.20	51,448,634
2003	31,560,981.40	103,854,517,039.80	74,181,798
2004	30,312,898.30	82,356,866,789.00	58,826,333
2005	53,675,473.70	148,785,948,008.60	106,275,677
2006	39,472,977.70	156,160,190,326.60	111,542,993

Source: URT (2007a).

Table 14 shows exports of forestry and bee keeping products with an increasing trend. However, during 2006, a total of 5,117.063 cubic metres of logs were harvested, compared to 5,867.48 in 2005. The decline is caused by government interventions to stop temporarily the trade of exporting logs, sandal wood, charcoal and sleepers, following non-adherence to the law governing the trade of forestry products.

Table 15 shows export of crops with a decreasing trend for almost all the crops, except cashew nuts and tea which witnessed a slight increase in exports. This decline was due to unfavourable weather conditions that adversely affected production levels for most of the agricultural produce. However, the adverse impact on exports earnings was mitigated by the increase in exports prices for some traditional crops in the world market.

Table 14: Gross value of exports of forestry and bee keeping products 2000/01 and 2005/06

Products	Unit	2000/01			2005/06		
		Volume/Weight	Value in Tshs ('000)	Value in Euro (€) ('000)	Volume/Weight	Value in Tshs ('000)	Value in Euro (€) ('000)
Tree logs	m ³	1724.4	453,400	323,857	5,117.0	14,591,371.5	10,970.9
Timber (rough sawn)	m ³	511	15,500	11,071	24859.3	87,764,678.0	65,988.4
Ebony timber	m ³	62.8	294,300	210,214	2269.2	3,053,035.5	2,295.5
Floor boards	m ³	157.2	114,100	81,500	107.7	498,253.5	374.6
Wood carvings/sculptures	m ³	83746	163,500	116,786	45296.9	35,861,628.0	26,963.6
Rail gauges	m ³	-	-	-	19.9	107,304.0	80.7
Sandals tree	Tonnes	69.5	18,600	13,286	398,555.5	3,959,991.0	2,977.4
Furniture	Pieces	30	-	0	6504.0	5,381,111.0	4,045.9
Tannin	Tonnes	0	-	0	0	-	-
Mimosa bark	Tonnes	0	-	0	304.0	1,449,130.0	1,089.5
Terminalia bark	Bags	0	-	0	0	-	-
Tree seeds	Kg	43	4,800	3,429	1150.0	-	-
Bees wax	Tonnes	431	1,044,600	746,143	330.6	-	-
Honey	Tonnes	12	5,500,000	3,929	315.8	-	-
Tree's glue	Kg	0	0	0	0	-	-
Poles	Pieces	0	0	0	85,000.0	-	-
Total						1,449,130	114,786.8

Note: “-“ means data is not available; “0” means zero

Source: URT (2007a)

Table 15: Volume and value of crop exports

Commodity	Quantity		Change (%)	Value (T.shs million)	Value in € equiv.	Value (T.shs million)	Value in € equiv.	% Contribution of exports
	2005	2006	2005/06	2005		2006		
Coffee	46,100	31,500	-31.7	83,577	108,650,100	92,794	120,632,200	3.5
Cotton	112,900	55,000	-51.3	127,178	165,331,400	56,780	73,814,000	3.2
Sisal	9,300	8,000	-14	8,178	10,631,400	9296	12,084,800	0.4
Tea	21,800	22,400	2.8	28,837	37,488,100	41682	54,186,600	1.8
Tobacco	31,100	25,000	-19.5	91,394	118,812,200	129,108	167,840,400	3.8
Cashew nuts	62,000	66,000	6.5	54,244	70,517,200	62,663	81,461,900	2.3
Cloves	3,000	2,400	-20	9,632	12,521,600	9,964	12,953,200	0.5

Source: URT (2007a)

2.1.6 Main export markets

Tanzania exports its products to other African countries, Europe, America, Asia particularly China, Japan, and India, Middle East, the United Arab Emirates as well as regional economic groups such as European Union (EU), the East African Community and the Southern Africa Development Community (SADC). In 2006, the value of goods exported to the EU increased to US\$ 755.7 million, from US\$ 619.6 million in 2005. That increase was attributed to exports of minerals, mostly to Switzerland which imported US\$ 363.4 million worth of minerals, equivalent to 21.1% of exports (URT, 2007a).

In general, in 2006 the value of merchandise exports to foreign markets increased by 2.8 percent, to USD 1,723.0 million, from USD 1,675.8 million in 2005. The increase was mainly attributed to non-traditional exports, especially gold and manufactured goods, which contributed 84.5 percent of the total exports, while traditional exports contributed 15.5 percent. In 2006, the value of traditional exports declined by 24.7 percent to USD 267.1 million from USD 354.5 million in 2005. This decline was due to unfavourable weather conditions that adversely affected production levels for most of the agricultural produce. The value of non-traditional exports increased by 10.1 percent to USD 1,455.9 million, from USD 1,321.8 million in 2005, equivalent to an increase of 10.1 percent. (Table 16) (URT, 2007a)

2.1.7 Trade agreements that include agriculture

Tanzania is a member of the African Union (AU), regional cooperation in East African Community and Southern Africa Development Community. In 2005, the East African Community Customs Union Protocol was operationalised. The protocol is implemented for a transition period of five years and includes the removal of tariffs on cross border trade among partner states. Tanzania also continues to enjoy the benefit of the SADC protocol on Trade through tariff reduction and regional development programmes (URT, 2007a).

The country is also a member of the Technical Cooperation among Developing Countries (TCDC) which provides opportunities availed to the government of China under the exchange programme financed by UNDP. It is also benefiting from World Trade Organisation in which trade liberalisation through tariff reduction is the primary instrument for expanding its participation in world trade.

The African Growth and Opportunity Act (AGOA) is a programme approved by the American Congress in 2000 to grant sub-Saharan African countries an opportunity to access the US market on duty and quota free basis. The initiative avails Tanzania with an opportunity to sell goods in USA market at zero tariffs. However, the country is yet to benefit effectively from this arrangement (URT, 2007a).

Table 16: Value (fob), volumes and prices of Tanzania's major exports

	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^r	2006 ^p	2005-2006 (%Change)
Traditional Exports:							
Coffee							
Value (US\$ mill.)	57.15	35.2	50	49.8	74.3	61.4	-17.4
Volume ('000 tons)	48.4	36.4	46.2	38.6	46.1	31.5	-34.7
Price (US\$ per ton)	1179.1	968.4	1,081	1,289.6	1,613.6	1,953.1	21.0
Cotton							
Value (US\$ mill.)	33.7	28.6	46.5	74.6	111.5	55.8	-50.0
Volume ('000 tons)	36.8	33.3	46.9	77.6	112.9	55.0	-51.3
Price US\$ per ton	915.3	859.4	992	961.1	987.9	1,014.2	2.7
Sisal.							
Value (US\$ mill.)	6.7	6.6	7.3	7.2	7.3	6.1	-16.4
Volume ('000 tons)	13.9	12.7	13.9	12	9.3	8.0	-14.0
Price (US\$ per ton)	482.0	516.4	523.5	602.8	781.7	766.7	-1.9
Tea							
Value (US\$ mill.)	29.0	29.6	24.8	30.1	25.6	31.0	21.1
Volume ('000 tons)	23.0	24.3	21.2	24.3	21.8	22.4	2.8
Price (US\$ per ton)	1,264.04	1,217.8	1,170.3	1,237.3	1,178.0	1,384.9	17.6
Tobacco							
Value (US\$ mill.)	35.7	55.5	39.9	57.6	80.8	65.2	-19.3
Volume ('000 tons)	18.7	24.3	18.3	27.2	31.1	25.0	-19.6
Price (US\$ per ton)	1906.0	2188.6	2,177.0	2,119.4	2593.1	2,611.4	0.7
Cashew nuts							
Value (US\$ mill.)	56.6	46.6	41.8	68.1	46.6	39.4	-15.5
Volume ('000 tons)	95.04	79	65.1	83.6	62	66.3	6.9
Price US\$ per ton)	595.4	589.7	641.6	814.2	751.1	594.4	20.9
Cloves							
Value (US\$ mill.)	12.3	4	10.3	10.3	8.5	8.2	-3.5
Volume '000 tons	2.5	1	5.6	4.3	3.0	2.4	-20.0
Price (US\$ per ton)	5,026.8	4,164.4	1,845.2	2,367.3	2,863.5	3,346.2	16.9
Sub-Total Value (Traditional)	231.1	206.1	220.5	297.8	354.5	267.1	-24.7
Non-Traditional Exports: (US\$ mill)							
Minerals	302.2	383.8	552.2	680.2	711.3	823.9	15.8
Gold	254.1	341.1	502.8	629.4	655.5	773.2	18.0
Diamond	27.1	22.0	28.6	26.0	24.4	22.4	-8.2
Other Minerals	21.1	20.7	20.7	24.8	31.4	28.3	-9.9
Manufactured Goods	56.2	65.9	83.8	110.1	156.1	195.8	25.4
Fish and Fish Products	96.78	116.8	136.2	125.7	147.5	138.6	-6.0
Horticultural Products	11.0	10.9	13.7	14.3	18.3	15.4	-15.8
Re- export	74.9	77.0	86.9	137.0	127.1	128.3	0.9
Other Exports	79.2	119.2	122.9	108.1	161.5	154.0	-4.6
Sub-Total Non-traditional	620.2	773.5	995.7	1,175.3	1,321.8	1,455.9	10.1
GRAND TOTAL	851.3	979.6	1,216.1	1,473.1	1,676.3	1,723.0	2.8

(Note: 1 USD = 1136 TZS as averaged in 2007)

Source: Bank of Tanzania as cited by URT (2007a) Economic Survey.

2.1.8 Sectoral policies related to agriculture, fisheries and forests

2.1.8.1 Background

The review of the evolution of agricultural sector (URT, 2003a) indicates that the evolution of agricultural policy in Tanzania has been strongly influenced by the changing macro-economic policies. The post-independence period (1961-1967) was marked by an emphasis on improved peasant farming through extension services and the provision of credit and marketing structures. By the mid-eighties, the Government had adopted structural adjustment programmes that started to move production, processing and marketing functions away from the public sector and towards the private sector. This process is still underway. The Government now retains responsibility for policy, the regulatory framework and the maintenance of law and order. Inevitably, there has been a need to redefine sectoral policies to support this macro-economic reform agenda. Simultaneously, a new approach to rural development, which focuses on decentralisation and empowering local communities and Local Government Authorities (LGAs), has been developed. This will enable LGAs to become more responsible for, and more responsive to, local development problems and opportunities.

2.1.8.2 Policy environment

Apart from the policies and strategies of the ASLMs, the overall policy framework is influenced by several other national and sectoral policies such as the Land Policy, the Local Government Reform Programmes (LGRP), the Public Sector Reform Program (PSRP), the National Environmental Policy (NEP), and the National Water Policy (NWP), all with different demands and support for the agricultural sector. The Sustainable Industrial Development Policy (SIDP) and the Small and Medium Enterprises Policy (SMEP) are critical to the enhancement of the drive towards commercialization of the sector and improvement of incomes – due to the central role the industry sector can play in the post-harvest systems, and the manufacture of agricultural inputs (URT, 2003a).

Furthermore, the reform programs relating to monetary policies, fiscal policies (public expenditure, taxes, and subsidies) and trade policies (liberalization of markets, privatization and divestiture of state enterprises) have created a commercially oriented macro-economic environment. Marketing inputs and outputs has been largely liberalized and private traders and farmer organizations are increasingly providing services to farmers. The private sector is expanding rapidly in response to the favourable economic and policy environment. The liberalization of markets, decontrol of foreign exchange markets, and removal of trade restrictions and monopoly marketing has had profound influences on the sector. Price relationships have changed which influences the relevance and ‘fit’ of many existing technology recommendations; these needs to be updated and modified to meet continually changing circumstances (URT, 2003a).

2.1.8.3 New macro-economic policies

The Tanzania Development Vision (TDV) 2025 provides guidance on national long-term strategic goals for social and economic development and highlights the change in approach and mindset needed to get there. It envisages raising the standards of human development of Tanzanians to those of a medium income developing country by 2025. This will be achieved through increased productivity and competitiveness, increased export earnings and investment in human capital. The Poverty Reduction Strategy Paper (PRSP), which was approved in 2000, gives high priority to agriculture and rural development, and targets poverty reduction as the central goal of national development. Subsequently, the Rural Development Strategy (RDS) and the Agricultural Sector Development Strategy (ASDS), both completed in 2001, have redefined the Government’s approach in these areas.

The Medium-Term Expenditure Frameworks (MTEF) for each ministry and the Public Expenditure Review (PER) are essential in translating Government’s vision into action

through the allocation of resources to priority sectors. Therefore, the Agricultural Sector Development Programme (ASDP) is structured along the lines of the MTEF. The aim of the MTEF is to allocate resources to achieve sustained economic growth, at an annual rate of about 6 to 8 percent, as the basis for poverty reduction.

2.1.8.4 Leading agricultural sector policies and strategies

There has been considerable recent evolution in public policy relating to the agricultural sector. Some of the most important are summarised below:

The Agricultural and Livestock Policy of 1997 (URT, 1997a) proposed the liberalisation of agricultural markets and removal of state monopolies in the export and import of agricultural goods and produce; stressed government responsibility for industry regulation through commodity boards; and emphasised on food security at the national and household levels.

The Cooperative Development Policy (URT, 1997b) takes account of prevailing economic, political and social changes in order to address challenges of liberalisation and globalisation. It provides a framework for the restructured cooperatives to operate on the basis of independent, voluntary and economically viable principles. It encourages cooperatives to be member-controlled private organizations, which respect the principles of good management.

The Local Government Reform Programme (LGRP) of 1998 aims to improve the delivery of quality services to the public. The main strategy is decentralisation, which is being implemented through the LGRP (URT, 2000a). The reform programme will include the devolution of roles and authority by the Central Government by transferring political, financial and development planning authority to Local Government Authority (LGAs). The LGAs will be responsible for facilitation of the participation of the population in planning and executing their development programmes and fostering partnerships with civic groups. The role of the Central Government will be confined to facilitation and supporting LGAs in service delivery, policy formulation, development and management of local regulatory framework, monitoring and quality assurance; and financial and performance audit.

The Land Policy (URT, 1995) has provided the basis for the Land and Village Land Acts of 1999. This provides the framework for stronger local control of land resources, especially by villagers, and establishes the basis of a more effective land market. Progress with improved land tenure is crucial to the agricultural sector, though there remains a great deal to be done to clarify the application of the legislation in the field. The Acts are still inadequately understood, especially in rural areas. Support for progress in this area is a major cross-cutting theme for ASDP.

The National Water Policy (URT, 2002a) governs the present water resources management system and promotes sustainable use of water as a basic natural resource for socio – economic development. The policy is fundamental for various social – economic development activities such as irrigated agriculture, livestock keeping, industrial production, mineral processing, hydropower production, navigation and recreation and tourism.

The National Forestry Policy (URT, 2002b) emphasizes reserve demarcation and participatory forest management.

The Rural Development Strategy (URT, 2001a) focuses on stimulating economic growth and reducing poverty in the rural areas. There are four categories of strategic intervention: promoting widely shared growth, increasing opportunities and access to services, reducing risk and vulnerability, and good governance.

The Agricultural Sector Development Strategy (ASDS) (URT, 2001b) builds on the Agricultural and Livestock, and Cooperative Development Policies. ASDS is important because:

- it targets improvements in farm incomes, upon which the majority of the rural population depend; this is the principal way to achieve rural poverty reduction;
- it emphasises availability and access to food, and thus advances food security; and
- it provides a comprehensive, sector-wide programme for agricultural development, which is key to national economic development.

The ASDS provides a coordinated response to current macroeconomic and structural reforms, which address poverty reduction and improved public sector performance. It provides an instrument for guiding public and private investment towards agreed sector objectives and priorities. It transfers responsibility for formulating, implementing and monitoring agricultural development activities to LGA and communities. Finally, it augments the reform agenda by promoting a participatory approach to the sector management.

The ASDS is critical to rural poverty reduction. Recent studies indicate that approximately 50 percent of Tanzanians can be defined as poor, with a per capita income of less than one US Dollar per day. Over 80 percent of the population live in rural areas with agriculture as the mainstay of their livelihoods. This indicates that improvement in farm incomes of the majority of the rural population is a precondition for reduction of rural poverty in Tanzania. The strategy recognises that subsistence dominated farming must gradually be transformed into profitable agricultural production. Consequently, the primary objective is to create an environment that favours the growth of farm incomes, which reduces rural poverty and which attracts private investment. This can be done without jeopardising traditional safety mechanisms contained in subsistence farming systems.

The Small and Medium Enterprise Policy (URT, 2002c), aims to promote income-generating activities and support diversification of private sector activities. In the context of the agricultural sector, this includes the development of commercial opportunities in marketing and processing agricultural produce. It gives particular attention to rural industrialisation, which would stimulate local marketing and processing, and realize value-added close to the source of production.

The Ministry of Labour and Youth Development (MoL) is in charge of implementing the National Employment Policy (URT, 1999). This policy revisits the state of wage employment in Government, parastatals, and the private sector and self -employment in agriculture and the informal sector. The National Employment Promotion Service Act was passed by Parliament in 03/1999. Special attention was given to the employment implications of micro and small enterprise development.

In 1991, the Government initiated financial sector reforms in order to create an effective and efficient financial system. Rural and Micro-finance Policy set up rules to address the financial needs of emerging entrepreneurs particularly the low-income segment of the society thereby contributing to economic growth and to reducing poverty. Microfinance appears in various policy and strategy documents by Government ministries as an element in their programs.

The National Income Generation Programme (NIGP) was organised as a trust fund, under the aegis of the Planning Commission. It supports income generating and capacity building projects in agriculture and rural development, infrastructure, micro-enterprises and informal sector activities. NIGP is also working with private banks on a Mutual Credit Guarantee scheme. This initiative has important linkages to SME Policy.

The policies and programmes of the Ministry of Community Development, Women Affairs and Children (MWC) have also great repercussions and impact on Agricultural and Livestock Policy, especially with regard to design and implementation of technical and business extension services to women entrepreneurs and management of targeted education and training programmes.

2.1.8.5 National ICT policy

In Tanzania, a National ICT policy has been formulated, with sector-level ICT strategies and the development of appropriate legal and regulatory regimes meeting the requirements of international agreements such as WTO's GATS on services and Information Trading Agreements (ITA) on electronic commerce (URT, 2003b). The National ICT Vision is for *"Tanzania to become a hub of ICT infrastructure and ICT solutions that enhance sustainable socio-economic development and accelerated poverty reduction both nationally and globally."* (URT, 2003b, pg. 2) The overall mission of this Policy is: *"To enhance nation-wide economic growth and social progress by encouraging beneficial ICT activities in all sectors through providing a conducive framework for investments in capacity building and in promoting multi-layered co-operation and knowledge sharing locally as well as globally"* (URT, 2003b pg.2).

The policy objectives are based on Tanzania Vision 2025 and have five main attributes. These are: (i) high quality livelihood; (ii) peace, stability and unity; (iii) good governance; (iv) a well educated and learning society; and (v) a strong and competitive economy capable of producing sustainable growth and shared benefits. The National ICT Policy has also articulated ten main focus areas in harnessing ICT in Tanzania which include: strategic ICT leadership; ICT infrastructure; ICT Industry; Human Capital; Legal and Regulatory Framework; Productive Sectors; Service Sectors; Public Service; Local Content; and Universal Access. The National ICT policy was promulgated in 2003 onwards; however, most of the respondents have not seen the policy.

2.1.9 Institutional, regulatory and policy framework for Information and communication

The following is the list of legislations which are directly or indirectly relevant to agriculture and information and communication management in Tanzania (Tanzania Parliament website, 2008).

The Universal Communications Service Access Act, 2006 – (Act No.11/06): An Act to establish the Universal Communications Service Access Fund for enabling accessibility and participation by communication operators in the provision of communication services with a view to promoting social, education and economic development of the rural and urban under-served areas; to provide for availability of communication services by establishing a legal framework for universal service providers to meet the communication needs of consumers and to provide for related matters.

The Tanzania Communications Regulatory Authority Act, 2003: An Act to establish the Tanzania Communications Regulatory Authority for the purpose of regulation of telecommunications, broadcasting, postal services; to provide for allocation and management of radio spectrum, covering electronic technologies and other Information and Communication Technologies (ICT) applications and to provide for its operation in place of former authorities and for related matters.

The Tanzania Communication (Amendment) Act, 2001 - (Act No.15): An Act to amend the Tanzania Communications Act, 1993.

The Tanzania Posts and Telecommunications (Vesting of Assets and Liabilities) Act, 1993 - (Act No. 21/93): An Act to vest the assets and liabilities of Tanzania Posts and

Telecommunications Corporation into new designated entities and to provide for other related transitional matters.

The Tanzania Telecommunications Company Incorporation Act, 1993 - (Act No. 20/93):

An Act to facilitate the future incorporation of the Tanzania Telecommunications Company Limited, the vesting of assets and liabilities of the Tanzania Posts and Telecommunications Corporation pertaining to telecommunications services, the issuance of shares to the public, and to provide for other relevant matters.

The Tanzania Communications Act, 1993 - (Act No. 18/93): An Act to establish the Tanzania Communications Commission to be responsible for the regulation of postal telecommunications services in the United Republic of Tanzania and to provide for the designated of public postal and telecommunications licences and to provide for all matters pertaining thereto.

The Broadcasting Services Act, 1993 - (Act No. 6/93): An Act to make provision for the management and regulation of broadcasting and for other matters related to it.

The Video Business Regulation Act, 1988 - (Act No. 10/88): An Act to regulate the video business and to provide for connected matters.

The Deep Sea Fishing Authority (Amendment Act, 2007(Act No.17/07): An Act to amend the Deep Sea Fishing Authority Act.

The Fisheries Act, 2003 (Act No. 22/2003): An Act to repeal and replace the Fisheries Act, 1970, to make provision for sustainable development, protection, conservation, aquaculture development, regulation and control of fish, fish products, aquatic flora and its products, and for related matters.

The Meat Industry Act, 2006 – (Act No.10/06): An Act to make provisions for the restructuring of the Meat Industry, to establish a proper basis for its efficient management, to ensure provision of high quality meat products and for matters related therewith.

The Dairy Industry Act, 2004- (Act No. 8/04): An Act to provide for the production, regulation and promotion of the dairy industry; establishment of the Tanzania Dairy Industry Board and repeal of the Dairy Industry Act, 1965 and for other related matters

The Animal Diseases Act, 2003 (Act No. 17/2003): An Act to make provisions for control and prevention of animal diseases for monitoring production of animal products, for disposal of animal carcasses and for other related matters.

The Veterinary Act, 2003 (Act No. 16/2003): An Act to provide for the registration of veterinarians, enrolment or enlistment of Paraprofessional and Paraprofessional Assistants, and for the establishment of the Veterinary Council and for other matters incidental and connected thereto.

The Export Processing Zones (Amendments) Act, 2006 (Act No. 3/06): An Act to amend the Export Processing Zones Act, to make provisions for the establishment of the Export Processing Zones Authority, Composition of the Export Processing Zones Council and related matters.

The Rural Energy Act, 2005 - (Act No. 8/2005): An Act to establish the Rural Energy Board, Fund and Agency to be responsible for promotion of improved access to modern energy services in the rural areas of Mainland Tanzania and through a Fund within the

Agency Board to provide for grants and subsidies to developers of rural energy projects and for related and consequential matters.

The Environmental Management Act, 2004 - (Act No. 20/04): An Act to provide for legal and institutional framework for sustainable management of environment; to outline principles for management, impact and risk assessments, prevention and control of pollution, waste management, environmental quality standards, public participation, compliance and enforcement; to provide basis for implementation of international instruments on environment; to provide for implementation of the National Environment Policy; to repeal the National Environment Management Act, 1983 and provide for continued existence of the National Environment Management Council; to provide for establishment of the National Environmental Trust Fund to provide for other related matters

The Tobacco Products (Regulation) Act, 2003: An Act to regulate the manufacture, labelling, sale, use, promotion of tobacco products, smoking in specified areas and matters connected thereto.

The Tobacco Industry Act, 2001 - (Act No. 24): An Act to establish the Tanzania Tobacco Board to repeal the Tanzania Tobacco Act 1984, and to provide for the regulation, improvement and development of the Tobacco industry and matters related thereto.

The Coffee Industry Act, 2001 - (Act No. 23): An Act to make better provisions for the regulation, improvement and development of the Coffee Industry, to re-establish the Tanzania Coffee Board, to repeal the Tanzania Coffee Board Act of 1984 and to provide for related matters.

The Tanzania Food, Drugs and Cosmetics Act, 2003: An Act to provide for the efficient and comprehensive regulation and control of food, drugs, medical devices, cosmetics, herbal drugs and poisons and to repeal the Food (Control of Quality) Act, 1978, the Pharmaceuticals and Poisons Act.

The Seeds Act, 2003 (Act No. 18/2003): An Act to make provisions for the control and regulation of the standards of agricultural seeds and for matters incidental to and therewith.

The Protection of New Plant Varieties (Plant Breeders' Rights) Act, 2002 - (Act No. 22): An Act to provide for the establishment of a registry of plant breeders' rights; promotion of plant breeding and facilitation of agricultural advancements through the grant and regulation of plant breeders' rights and for matters connected therewith.

The Beekeeping Act, 2002 - (Act No. 15): An Act to make provisions for the orderly conduct of beekeeping, for the improvement of the products of beekeeping and for the prevention and eradication of diseases and pests amongst bees.

The Forest Act, 2002 (Act No. 14): An Act to provide for the Management of forests, to repeal certain laws relating to forests and for related matters.

The Sugar Industry Act, 2001 - (Act No. 26): An Act to make provisions for the establishment of Sugar Board of Tanzania and the National Sugar Institute, to provide for the improvement, development, regulation of the Sugar Industry and matters related thereto.

The Cotton Industry Act, 2001 - (Act No.2): An Act to enact the Cotton Industry Act, to establish the Tanzania Cotton Board, to make better provisions for the regulation, improvement and development of the cotton industry and for related matters.

The Village Land Act, 1999: An Act to provide for the management and administration of land in villages, and for related matters.

The Land Act, 1999: An Act to provide for the basic law in relation to land other than the village land, the management of land, settlement of disputes and related matters.

The Plant Protection (Act No. 13-1997) Act, 1997: An Act to make provisions for consolidation of the Plant Protection Act, to prevent the introduction and spread of harmful organisms, to ensure sustainable plant and environmental protection, to control the importation and use of plant protection substances, to regulate export and imports of plants and plant products and ensure the fulfilment of international commitments, to entrust all plant protection regulatory functions to the Government, and for matters incidental thereto or connected therewith.

The Sisal Industry Act, 1997: An Act to repeal and replace the Sisal Industry Act, 1973, to provide for an orderly development of the Sisal Industry, and establishment of the Tanzania Sisal Board.

The Pyrethrum Act, 1997: An Act to repeal the Pyrethrum Ordinance and enact the Pyrethrum Act to provide for regulation improvement and development of the Pyrethrum Industry.

The Cooperative and Rural Development (Repeal and Transitional Provision) (Act No. 5-1996) Act, 1996: An Act to repeal the Cooperative and Rural Development Bank Act and to provide for the transitional period.

The Crop Boards (Miscellaneous Amendments) Act, 1993 - (Act No. 11/93): An Act to amend certain Written Laws pertaining to Crop Marketing Boards.

The Food Security Act, 1991 - (Act No. 10/91): An Act to establish a Food Security Department for overseeing the strategic grain reserve and to provide for to other matters connected with or incidental to the establishment and management of the reserve.

The Co-operative Societies (Amendment) Act, 1990 - (Act No. 19/90): An Act to amend the Co-operative Societies Act, 1982.

The Tanganyika Coffee Curing Company (Restoration and re-grant of Shares) Act, 1988 - (Act No. 12/88): An Act to restore the Kilimanjaro Native Cooperative Union (KNCU) ownership of shares in the Tanganyika Coffee Curing Company Limited and to repeal the Acquisition Act.

2.2. Socio-economic profile

2.2.1 Total active population

The population statistics of Tanzania by gender, and by province are provided in Annex 2.1.1 and the population characteristics and housing status as per census of 2002 are presented in Table 1. Despite the small number of people in Zanzibar there is no difference in other population characteristics shown in Table 17. However, the child mortality rate is lower in Zanzibar (141 children per 1,000 live births) compared to 154 children per 1,000 live births on the mainland Tanzania. Similarly, child orphan hood is lower in Zanzibar compared to mainland Tanzania.

Table 17: Population characteristics and Housing as per census of 2002

Character	Tanzania	Mainland	Zanzibar
Total population (in million)	34.4	33.5	1.0
Population <15 years (percent)	44.2	44.2	44.3
Life expectancy at birth	51	51	57
Households without toilets (percent)	9.2	8.6	34.4
Child mortality rate (per 1000 live birth)	153	154	141
Infant Mortality rate (per 1000 live birth)	95	95	89
Total fertility rate	6.3	6.3	6.2
Annual growth rate	2.9	2.9	3.1
Literacy rate	71	70	73
Child orphan hood	1.1	1.1	0.4
Persons with disability	2.0	2.0	1.4
Floor materials	73	74	46

Source: URT (2003a).

On mainland Tanzania, 65% of active members in male-headed households and 59% of the active female-headed households work full time on farm. About 55% ranked annual crop farming as their most important source of livelihoods (Table 18). Off-farm activities were ranked high, and remittance is also an important source of livelihood, and is especially high among female headed households. Dependency ratio ranged from 0.82 to 1.34 with Dodoma and Arusha regions recording high dependency ratio. All regions have more dependency in female-headed household (Fhhs) compared to male-headed households (Mhhs) with Fhhs having 0.14 more dependants than in Mhhs.

Table 18: Number of agricultural households by main source of livelihoods and region during 2002/03 agriculture year

Main source of income	Number of households	%
Sales of Food Crops	1,814,417	37.8
Sales of Cash Crops	826,898	17.2
Other Casual Cash Earnings	729,146	15.2
Petty Business Income	449,181	9.3
Sale of Livestock	251,934	5.2
Wages & Salaries in Cash	177,504	3.7
Cash Remittance	176,547	3.7
Sale of Forest Products	165,768	3.4
Fishing	108,878	2.3
Sale of Livestock Products	51,046	1.1
Other	47,839	1.0
not applicable	6,158	0.1
Total	4,805,315	100.0

Source: URT (2006).

2.2.2 Literacy level and languages

The literacy level is on average 71% (as indicated in Table 17), but slightly higher for male at 74.7% than female at 64.3%, (URT, 2007a). In Tanzania, there are about 120 ethnic groups but the national language is Kiswahili and English is widely spoken.

2.2.3 Access to services (health, schools, electricity and water)

The proportion of population with sustainable access to an improved water source in total is 46.6, but higher in urban areas (78.3) while in rural is 36.8 (URT, 2006). Time spent to walk to the water source is still high with 35% of agricultural households walking for more than an hour to fetch water (Table 19). This contributes to poor attendance and performance of girls in school.

Table 19: Time spent to and from main water source by 2002/03 agricultural season

Time spent	Season	% of households in Tanzania
Less than 10	Wet season	6
	Dry season	4
10 - 19 Minutes	Wet season	22
	Dry season	18
20 - 29 Minutes	Wet season	12
	Dry season	10
30 - 39 Minutes	Wet season	25
	Dry season	21
40 - 49 Minutes	Wet season	6
	Dry season	6
50 - 59 Minutes	Wet season	6
	Dry season	5
Above one Hour	Wet season	22
	Dry season	35

Source: URT (2006)

The economic survey report shows that the number of health facilities including hospitals, dispensaries and health centres increased by 1.8 percent from 5,284 to 5,379 which are owned by the government, religious organisations and NGOs (URT, 2007a). Health status is still poor like in many developing countries. Indicators (URT, 2007a) show that maternal mortality ratio declined to 578 per 100,000 live births. The percentage of population between the ages of 15-24 years with comprehensive correct knowledge on HIV/AIDS is 40.3 for male and 45.2 for female. In addition, the proportion of population in malaria risk areas using effective malaria prevention and treatment is 16.0 for prevention, 58.2 for treatment and prompt treatment is 51.0.

In education, the government has embarked on a programme to ensure that all children are enrolled in primary education. Indicators (URT, 2007a) show that the net enrolment ratio in primary education is 70.9 for males and 75.4 for females. The numbers have increased as a result of the campaign to send all children to school.

Most of the rural houses are roofed with grass, leaves or mud. Kilimanjaro region has the highest percentage of households using modern roofing materials, while Lindi region has the lowest percent (Table 20). Firewood remains to be the major source of cooking energy in the country with 96.1 percent of the country population using it, followed by charcoal used by 2.6% of the population (Table 21). The country has low electricity penetration, with only 11% of households having electricity (TCRA, 2005).

Table 20: Number of agricultural households by type of roof construction materials during 2002 agricultural year

Type of housing materials	Number of households	% of households
Grass / Leaves	2,244,588	46.9
Iron Sheets	1,774,756	37.1
Grass & Mud	692,969	14.5
Tiles	37,105	0.8
Asbestos	18,700	0.4
Concrete	10,909	0.2
Other	10,400	0.2
Total	4,789,427	100.0

Source: URT (2006)

Table 21: Number of households by main source of energy in 2002/03 year

Source of energy	No. of Households	%
Firewood	4,617,063	96.1
Charcoal	125,547	2.6
Crop Residues	24,674	0.5
Paraffin/ Kerosene	9,656	0.2
Mains Electricity	9,126	0.2
Bottled Gas	6,607	0.1
Solar	5,737	0.1
Livestock Dung	5,340	0.1
Gas (Biogas)	1,400	0.0
Other	165	0.0
Total	4,805,315	100.0

Source: URT (2006).

2.2.4 Rural – urban Drift

According to the National Census 2002, it is observed that only 23 percent of the total population in mainland Tanzania and 40 percent of total population in Zanzibar live in urban areas, the rest of the population live in rural areas (URT 2003a). The proportion of urban population varies from one region to another. Looking at the Tanzania mainland regions, Dar es Salaam Region has the highest proportion (94%), followed by Arusha Region (31%). It is also observed that there has been a moderate increase in the size of the urban population between 1988 (18 percent) and 2002 (23 percent) due to rural-urban migration with more youth migrating into urban areas to seek for better livelihoods opportunities but the exact record of people migrating from rural areas was not available. The urban population for Tanzania mainland has increased from 18 percent in 1988 to 23 percent in 2002. For Tanzania Zanzibar urban population has increased from 32 percent in 1988 to 40 percent in 2002 (URT, 2003a).

2.3. Media and telecommunications

2.3.1. Newspapers, periodicals, magazines, radio stations, television channels,

2.3.1.1. Print media - newspapers, magazines, periodicals and journals

The print media in Tanzania cater for variety of tastes and interests. Many of these sprung up since the establishment of multi-party politics in 1992. Most of the publications did not exist five years before. Newspaper registrar has registered over 350 publications, which includes magazines, periodicals and newsletters. Tanzania's mass media are heavily urban-based. Although about 70 % of the population lives in rural areas, both electronic and print

media focus on the country's economic and political centre, Dar es Salaam. In the three-million plus inhabitants metropolis, nearly 80 % of Tanzania's newspapers and periodicals appear.

Ninety per cent of the circulation is in urban centres, serving less than 17 per cent of the population. Dar es Salaam consumes 50 per cent of the distributed copies of newspapers. Yet, Tanzania is still a country with the highest media growth rate in Southern Africa. The newspapers and magazines in the country have created employment to more than 3,000 direct employees and more than 6,000 indirect employees mainly street vendors (TCRA, 2005).

Production costs are relatively high and while the entertainment and soft news publications depend on large numbers of circulation to cut down cover price, the serious papers depend on advertisement. Looking at the booming of the media industry in the past decade, one quickly notices that magazine publishing in Tanzania is minimal. This is mainly attributed to the exorbitant magazine production costs (TCRA, 2005).

The print media in Tanzania now has a mixture of private owned, which are the majority, and government owned newspapers. The newspapers are printed in either Kiswahili or English. The major media houses are IPP Media Group that owns nine titles, Business Times that owns four newspapers, Habari Corporation that owns four newspaper titles, and Mwananchi Communications that owns three newspaper titles. These are all private media houses that one could call serious newspapers. Tanzania Standard Newspapers (TSN), government owned has four newspaper titles (TCRA, 2005).

Apart from having all these daily, weekly and community newspapers, none of them has a specific agricultural or rural focus. There is no single newspaper dedicated to providing agricultural news and information. Agricultural news is from time to time reported in the newspapers as ad hoc. The income of most newspapers and periodicals derives mainly from sales to readers and advertising. In Tanzania, the print media is the largest advertising medium (TCRA, 2005).

The costs of gathering, processing, printing and distributing newspapers threaten the survival of most newspapers. And it is usually the owners (publishers) who determine the allocation of whatever returns from adverts and newspaper sales. It is for this reason that they will determine what news will sell, and it comes at no surprise that agricultural information is given a very low priority. Table 22 shows the list of newspapers which report agricultural information and rural development from time to time (TCRA, 2007).

Table 22: The list of newspapers produced and distributed in Tanzania

The African	Ownership: Habari Corporation Ltd Frequency: daily Distribution: NA Agric & Development focus: none Postal address: P. O. Box 78235, Dar-es-Salaam, Tanzania. Telephone: +255 22 2118377 E-mail: theafrican@newshabari.com Website: http://www.newshabari.com/theafrican Delivery outlets: Street vendors
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Alasiri	<p>Ownership: IPP Media Frequency: daily Distribution: Dar es Salaam Agric & Develop. Focus: none Postal address: P. O. Box 31042, Dar es Salaam, Tanzania Telephone: +255 (0)22 2700735-7, 274719 Fax: +255 22 2700146 E-mail: mhariri@nipashe.co.tz Website: http://www.ippmedia.com/Newspapers/alasiri.asp Delivery outlets: Street vendors</p>
An-Nuur	<p>Ownership: Islamic Propagation Centre, Dar es Salaam Frequency: Weekly Distribution: Islamic Propagation Centre Agric & Develop. focus: none Postal address: P.O. Box 55105, Dar es Salaam, Tanzania E-mail: webmaster@islamtz.org Website: http://www.islamtz.org Delivery outlets: Street vendors</p>
Arusha Times (Arusha)	<p>Ownership: Arusha Times Company. Frequency: Weekly Distribution: Regional Agric & Develop. focus: none Postal address: P.O. Box 212, Arusha, Tanzania Telephone/Fax: +255 (0)27 250-6438 or (0745) 554588 Email: arushatimes@habari.co.tz Website: http://www.arushatimes.co.tz</p>
Daily News	<p>Ownership: Tanzania Standard Newspapers (Government) Frequency: daily sales Distribution: National Agric & Development focus: none Postal address: P.O. Box 9033, Dar es Salaam, Tanzania Telephone: +255222110595, Fax: +255 22 2135239 or + 255222112881 E-mail: newsdesk@dailynews-tsn.com Website: http://www.dailynews-tsn.com/ Delivery outlets: Street vendors</p>
Sunday News	<p>Ownership: Tanzania Standard Newspapers (Government) Frequency: Weekly Distribution: National Agric & Development focus: none Postal address: P.O. Box 9033, Dar es Salaam, Tanzania Telephone: +255222110595, Fax: +255222135239 Or +255222112881 E-mail: newsdesk@dailynews-tsn.com Website: http://www.sundaynews-tsn.com/ Delivery outlets: Street vendors</p>
The Express	<p>Ownership: Media Holdings (T) Ltd Frequency: Every Thursday Distribution: National Agric & Development focus: none Postal address: P.O. Box 20588, Dar es Salaam, Tanzania E-mail: editor@theexpress.com Website: http://www.theexpress.com Delivery outlets: Street vendors</p>

Financial Times	Ownership: IPP Media Frequency: Weekly Distribution: National Agric & Development focus: None Postal address: P. O. Box 31042, Dar es Salaam, Tanzania Telephone: +255 (0)22 2700735-7, 274719 Fax: +255 22 2700146 E-mail: mhariri@nipashe.co.tz Website: http://www.ippmedia.com Delivery outlets: Street vendors
The Guardian	Ownership: IPP Media Frequency: Daily Distribution: National Agric & Development focus: none Postal address: P. O. Box 31042, Dar es Salaam, Tanzania Telephone: +255 (0)22 2700735-7, 274719 Fax: +255 22 2700146 E-mail: editor@guardian.co.tz Website: http://www.ippmedia.com Delivery outlets: Street vendors
Habari Leo	Ownership: Tanzania Standard Newspapers (TSN) Frequency: Daily Distribution: National Agric & Development focus: None Postal address: P.O. Box 9033, Dar es Salaam, Tanzania Telephone: +255222110595, Fax: +255222135239 Or +255222112881 E-mail: newsdesk@dailynews-tsn.com Website: http://www.dailynews-tsn.com/habarileo/index.php Delivery outlets: Street vendors
The Sunday Observer	Ownership: IPP Media Frequency: weekly Distribution: National Agric & Development focus: None Postal address: P. O. Box 31042, Dar es Salaam, Tanzania Telephone: +255 (0)22 2700735-7, 274719 Fax: +255 22 2700146 E-mail: mhariri@nipashe.co.tz Website: http://www.ippmedia.com Delivery outlets: Street vendors
Nipashe	Ownership: IPP Media Frequency: Daily Distribution: National Agric & Development focus: None Postal address: P. O. Box 31042, Dar es Salaam, Tanzania Telephone: +255 (0)22 2700735-7, 274719 Fax: +255 22 2700146 E-mail: mhariri@nipashe.co.tz Website: http://www.ippmedia.com Delivery outlets: Street vendors

This Day	Ownership: Media Solutions Ltd Frequency: Weekly Distribution: National Agric & Development focus: None Postal address: P.O. Box 31042, Dar-es-Salaam, Tanzania Telephone: +255 22 211 0478, 255 22 211 0462/3 Fax: +255 22 211 0478 Email: news@thisday.co.tz Website: http://www.thisday.co.tz Delivery outlets: Street vendors
Maisha	Ownership: Media Solutions Ltd Frequency: Weekly Distribution: National Agric & Development focus: None Postal address: P.O. Box 78235, Dar-es-Salaam, Tanzania Telephone: +255 22 2124083, 2138524 Fax: +255 22 2150987 Email: info@businessstimes.co.tz Website: http://www.bcstimes.com Delivery outlets: Street vendors
Taifa Letu	Ownership: IPP Media Frequency: Weekly Distribution: National Agric & Development focus: none Postal address: P. O. Box 31042, Dar es Salaam, Tanzania Telephone: +255 (0)22 2700735-7, 274719 Fax: +255 22 2700146 E-mail: mhariri@nipashe.co.tz Website: http://www.ippmedia.com/ipp/newspapers/index.html Delivery outlets: Street vendors
Mwananchi	Ownership: Mwananchi Communications Ltd Frequency: Daily Distribution: National Agric & Development focus: none Postal address: P. O. Box 19754, Dar es Salaam Telephone: +255 (0)222450878/(0)22 2450875-6, Fax: +255 (0)22 2450886 E-mail: mwananchipapers@mwananchi.co.tz Website: http://www.mwananchi.co.tz Delivery outlets: Street vendors
Mwananchi Jumapili	Ownership: Mwananchi Communications Ltd Frequency: Weekly Distribution: National Agric & Development focus: none Postal address: P. O. Box 19754, Dar es Salaam Telephone: +255 (0)222450878/(0)22 2450875-6, Fax: +255 (0)22 2450886 E-mail: mwananchipapers@mwananchi.co.tz Website: http://www.mwananchi.co.tz Delivery outlets: Street vendors

The Citizen	Ownership: Mwananchi Communications Ltd Frequency: Daily Distribution: National Agric & Development focus: none Postal address: P. O. Box 19754, Dar es Salaam Telephone: +255 (0)222450878/(0)22 2450875-6, Fax: +255 (0)22 2450886 E-mail: mwananchipapers@mwananchi.co.tz Website: http://www.thecitizen.co.tz Delivery outlets: Street vendors
The Sunday Citizen	Ownership: Mwananchi Communications Ltd Frequency: Weekly Distribution: National Agric & Development focus: none Postal address: P. O. Box 19754, Dar es Salaam Telephone: +255 (0)22 2450878 or 2450875-6, Fax: +255 (0)22 2450886 E-mail: mwananchipapers@mwananchi.co.tz Website: http://www.thecitizen.co.tz Delivery outlets: Street vendors
Majira	Ownership: Business Times Ltd Frequency: Daily Distribution: National Agric & Development focus: None Postal address: P.O. Box 71439 Telephone: +255 22 2124083, 2138524 Fax: +255 22 2150987 Email: btimes@businesstimes.co.tz Website: http://www.bcstimes.com Delivery outlets: Street vendors
Mtanzania	Ownership: Habari Corporation Frequency: Daily Distribution: National Agric & Development focus: None Postal address: P. O. Box 78235, Dar-es-Salaam, Tanzania. Telephone: +255 22 2118377 E-mail: mtanzania@newhabari.com Website: www.newhabari.com Delivery outlets: Street vendors
Nipashe Jumapili	Ownership: IPP Media Frequency: Weekly Distribution: National Agric & Development focus: None Postal address: P. O. Box 31042, Dar es Salaam, Tanzania Telephone: +255 (0)22 2700735-7, 274719 Fax: +255 22 2700146 E-mail: mhariri@nipashe.co.tz Website: http://www.ippmedia.com Delivery outlets: Street vendors

Uhuru	Ownership: Uhuru Publication Frequency: Daily Distribution: National Agric & Development focus: none Postal address: P. O. Box 9221, Dar es Salaam, Tanzania Telephone: +255 0741 – 243184 Fax: +255 (0)22 2185065 E-mail: uhuru@udsm.ac.tz Website: none Delivery outlets: Street vendors
Mzalendo	Ownership: Uhuru Publication Frequency: Weekly Distribution: National Agric & Development focus: none Postal address: P. O. Box 9221, Dar es Salaam, Tanzania Telephone: +255 (0)22 2182234 Fax: +255 (0)22 2185065 E-mail: uhuru@udsm.ac.tz Website: none Delivery outlets: Street vendors
RAI	Ownership: Habari Corporation Frequency: Weekly Distribution: National Agric & Development focus: None Postal address: P. O. Box 78235, Dar-es-Salaam, Tanzania Telephone: +255 22 2118377 E-mail: theafrican@newhabari.com Website: http://www.newshabari.com Delivery outlets: Street vendors
Business Times	Ownership: Business Times Ltd Frequency: Weekly Distribution: National Agric & Development focus: None Postal address: P.O. Box 71439, Dar-es-Salaam, Tanzania Telephone: +255 22 2124083, 2138524 Fax: +255 22 2150987 Email: btimes@businesstimes.co.tz Website: http://www.bcstimes.com Delivery outlets: Street vendors
Tanzania Daima	Ownership: Free Media Limited Frequency: Daily Distribution: National Agric & Development focus: none Postal address: P.O. Box 15261, Dar-es-Salaam, Tanzania Telephone: +255 22 2126233; Cell: +255 713 296570 Fax: +255 22 2126234 Email: tzdaima@freemedia.co.tz Website: http://www.freemedia.co.tz Delivery outlets: Street vendors

Msanii Africa (Lake Zone)	Ownership: Sahara Communication Limited Frequency: Weekly Distribution: Lake zone of Tanzania Agric & Development focus: None Postal address: P.O. Box 1732, Mwanza, Tanzania Telephone: +255 28 2503262 or 2560561 Fax: +255 28 2500713 or 2561890 Email: msanii africa@msanii africa.co.tz Website: http://msanii africa.co.tz Delivery outlets: Street vendors
Sunday Observer	Ownership: IPP Group Frequency: Weekly Distribution: National Agric & Development focus: None Postal address: P. O. Box 31042, Dar es Salaam, Tanzania Telephone: +255 (0)22 2700735-7, 274719 Fax: +255 22 2700146 E-mail: mhariri@nipashe.co.tz Website: http://www.ippmedia.com Delivery outlets: Street vendors
Kiongozi	Ownership: Tanzania Episcopal Conference Frequency: Monthly Distribution: National Agric & Development focus: None Postal address: P. O. Box 9400, Dar es Salaam, Tanzania Telephone: +255 (0)22 2851075-9 Fax: +255 22 851133 E-mail: tec@cats-net.com Website: none Delivery outlets: Street vendors
Mwenge	Ownership: Benedictine Fathers Frequency: Monthly Distribution: National Agric & Development focus: None Postal address: P. O. Box 9400, Dar es Salaam, Tanzania Telephone: +255 (0)22 2851075-9 Fax: +255 22 2851133 E-mail: tec@cats-net.com Website: none Delivery outlets: Street vendors

Note: information about number of copies circulated was not availed for various reasons including lack of proper recording.

Table 23 show the list of magazines, journals and newsletters with focus on agriculture and development issues that are produced and distributed in Tanzania

Table 23: Magazines, journals, and newsletters produced and distributed in Tanzania

Mkulima wa Kisasa	Ownership: Ministry of Agriculture Frequency: Quarterly Distribution: National Agric & Development focus: Publishes agricultural articles Postal address: P. O. Box 9192, Dar es Salaam, Tanzania Telephone: +255 (0)22 2862480/1 Fax: +255 (0)22 2865951 E-mail: info@kilimo.go.tz Website: http://www.agriculture.go.tz
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	Delivery outlets: Agricultural institutions, subscription
Farmers' Media	Ownership: Farmers Media Frequency: Quarterly Distribution: National Agric & Development focus: Publishes agricultural articles Website: none Delivery outlets: Street vendors
MS Tanzania Newsletter	Ownership: Danish Association for International Corporations Frequency: Two Months Distribution: National Agric & Development focus: development issues Website: http://www.ms.dk/tanzania Delivery outlets: Street vendors, subscription
Femina HIP	Ownership: PSI Frequency: Quarterly Distribution: National Agric & Development focus: youth and gender issues Website: http://www.spwtz.org Delivery outlets: Street vendors, subscription Address: NA
Tanzania Journal of Forestry and Nature Conservation	Ownership: Sokoine University of Agriculture Frequency: Quarterly Distribution: National Agric & Development focus: publishes issues related to forestry, environment and agriculture Postal address: P. O. Box 3000, Morogoro, Tanzania Telephone: +255 (0)23 2601200 Fax: +255 (0)23 2604649 E-mail: fanc@suanet.ac.tz Website: http://www.suanet.ac.tz Delivery outlets: Institutions, subscription

Source: TCRA (2007).

2.3.1.2. *Electronic media - radio and television*

The history of radio broadcasting in Tanzania goes back to 1951 when the first radio station was established. The electronic media in Tanzania is dramatically being transformed by new technology. Public radio broadcasting is the oldest radio service in Tanzania. Radio Tanzania (RTD) the longest serving radio station has recently been transformed and called Tanzania Broadcasting Corporation (TBC), with three Radio stations. It is adapting to meet the commercial challenges of an increasingly competitive media environment. New private Radio stations have been opening up; TBC covers 85% of the country's 939701 square kilometers of geographical area.

In 1993, Parliament enacted a law allowing for private broadcasting. The law provided for a broadcasting commission that would register the broadcasters and monitor compliance to the conditions stipulated in the Act. Up until that time, broadcasting was a monopoly of the State owned Radio Tanzania Dar es Salaam. This opportunity was quickly grabbed and the first private commercial radio station, Radio One, was on the air in January 1994. To date there are twenty six private radio stations on the air, and scattered all over the country (TCRA, 2007). Many stations are broadcasting on FM, only a few have been allowed to broadcast on MW. Radio One, Radio Clouds Entertainment and Radio Free Africa are on satellite, and can be picked up anywhere in the country and beyond with the proper downlink facility.

However, there is no single radio station that is dedicated to providing agricultural or rural development information. Many of the stations have limited broadcasts that present news to

farmers. TBC Taifa, the government owned, has continued to be the major source of agricultural information to most rural farmers with radios. The extension section in the Ministry of Agriculture, Food Security and Cooperatives and the Ministry of Livestock Development and Fisheries prepare programmes on agriculture, which are then aired on the national radio. The famous programme is the *Mkulima wa Kisasa*. The times of broadcasting were on Mondays 6:15-6.30pm, Tuesdays 3:15-3.30pm; Wednesdays 6:15-6.30pm and Fridays 6:15-6.45pm.

JET has a 15-minute per week radio programme (JET na Mazingira meaning JET and environment) on environment and related issues. In addition to this they publish a newsletter (MKULIMA meaning a FARMER). Recent data show that there are about 47 radio stations in Tanzania, most of them broadcasting on FM from the Dar es Salaam and there are as well community radio stations in different regional towns. While Table 24 below depicts the trend of radio growth in the country, Table 25 gives the distribution of ownership of radio stations in Tanzania.

Table 24: Radio growth trend in Tanzania (2000-2006)

Year	Number of Radio Stations
2002	24
2003	26
2004	32
2005	41
2006	47

Source: TCRA (2007)

Table 25: Ownership of radio stations in Tanzania

TYPE	Commercial	Non-commercial	TOTAL
National Radio	3	2	5
Regional Radio	4	3	7
District Radio	17	18	35
Total	24	23	47

Source: TCRA (2007)

As shown in Table 25 above, up to December, 2006, Tanzania had about 47 radio stations many of which have been broadcasting from Dar es Salaam, and others in the regional and district centres all over the country. Table 26 show a list of some of the radio stations available in the country.

Table 26: A list of radio stations in Tanzania

Radio station	Detail information
East African Radio (87.8)	Ownership: IPP Media Reach: National Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 4374, Dar es salaam, Tanzania Telephone: +255 22 2775914 or 2775916 Fax: +255 022-2775915, 022-2119373 E-mail: ear@ippmedia.com Website: http://www.ippmedia.com

Clouds FM (88.4)	<p>Ownership: Clouds Entertainment Ltd</p> <p>Reach: National</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: none</p> <p>Postal address: P. O. Box 32513, Dar es salaam, Tanzania</p> <p>Telephone: +255 022-2123919</p> <p>Fax: +255 022-2112435</p> <p>E-mail: NA</p> <p>Website: none</p>
Kiss FM (89.0)	<p>Ownership: Sahara Communication Limited</p> <p>Reach: National</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: none</p> <p>Postal address: P. O. Box 1732, Mwanza, Tanzania</p> <p>Telephone: +255 28 2503263,</p> <p>Fax: +255 28 2500713, or 2561890</p> <p>E-mail: kissfm@kissfmtz.com</p> <p>Website: http://www.kissfmtz.com</p>
Radio One (89.5)	<p>Ownership: IPP Media</p> <p>Reach: National</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: none</p> <p>Postal address: P. O. Box 4374, Dar es salaam, Tanzania</p> <p>Telephone: +255 22 2775915, or 2775916, or 2773980</p> <p>Fax: +255 22 2779737</p> <p>E-mail: radioone@ippmedia.com</p> <p>Website: http://www.ippmedia.com</p>
Sauti ya Tanzania Zanzibar (MW)	<p>Ownership: Revolutionary Government of Zanzibar</p> <p>Reach: National</p> <p>Broadcasting duration: 18 hours/day, 7 days/week</p> <p>Agric & Development programmes: broadcasts agricultural programmes in the isles once a week.</p> <p>Postal address: P. O. Box , Zanzibar, Tanzania</p> <p>Telephone: NA</p> <p>Fax: NA</p> <p>E-mail: NA</p> <p>Website: none</p>
Magic FM (92.9)	<p>Ownership: Africa Media Group</p> <p>Reach: Regional</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: none</p> <p>Postal address: P. O. Box 8983, Dar es salaam, Tanzania</p> <p>Telephone: +255 – 022-2180406, 022-2185240</p> <p>Fax: NA</p> <p>E-mail: NA</p> <p>Website: none</p>

PRT Radio (94.6)	<p>Ownership: Government of the United Republic of Tanzania</p> <p>Reach: National</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: Broadcasts agricultural programme twice a week</p> <p>Postal address: P. O. Box 9191, Dar es salaam, Tanzania</p> <p>Telephone: +255 22 2860760 – 5</p> <p>Fax: +255 22 2865577</p> <p>E-mail: NA</p> <p>Website: none</p>
Radio Uhuru (95.2)	<p>Ownership: Uhuru Publications Limited</p> <p>Reach: National</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: none</p> <p>Postal address: P. O. Box 9221, Dar es salaam, Tanzania</p> <p>Telephone: +255 022-21182224, 022-2182234</p> <p>Fax: +255 022- 41239</p> <p>E-mail: uhuru@intafrica.com</p> <p>Website: none</p>
Radio Tumaini (96.3)	<p>Ownership: Catholic Archdiocese Dar es Salaam</p> <p>Reach: National</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: none</p> <p>Postal address: P. O. Box 9916, Dar es salaam, Tanzania</p> <p>Telephone: +255 22 2231074, +255 713 780887</p> <p>Fax: NA</p> <p>E-mail: radiotumaini@radiotumaini.tripod.com</p> <p>Website: http://www.radiotumaini.tripod.com</p>
Orkonerei Radio Service (ORS)	<p>Ownership: Pastoralists Community Groups under a Non-governmental agency</p> <p>Reach: Northern zone of Tanzania</p> <p>Broadcasting duration: 7 hours/day, 3.00pm-10pm</p> <p>Agric & Development programmes: Broadcasts agricultural/livestock programme daily.</p> <p>Postal address: P. O. Box 12785, Simanjiro, Arusha, Tanzania</p> <p>Telephone: +255 754 287636</p> <p>Fax: +255 27 2588965</p> <p>E-mail: NA</p> <p>Website: none</p>
WAPO FM (98.0)	<p>Ownership: The Word and Pentecostal Organisation</p> <p>Reach: Dar es salaam</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: none</p> <p>Postal address: P. O. Box 76837, Dar es salaam, Tanzania</p> <p>Telephone: +255 22 850221, +255 713 766014</p> <p>Fax: +255 022-2850221</p> <p>E-mail: NA</p> <p>Website: none</p>

Sibuka FM	<p>Ownership: Private ownership</p> <p>Reach: district level (Maswa district)</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: Broadcasts agricultural programme daily.</p> <p>Postal address: P. O. Box 5, Maswa, Tanzania</p> <p>Telephone: NA</p> <p>Fax: NA</p> <p>E-mail: NA</p> <p>Website: none</p>
Radio SAUT	<p>Ownership: St Augustine University of Tanzania</p> <p>Reach: Lake zone of Tanzania</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: none</p> <p>Postal address: P. O. Box 307, Mwanza, Tanzania</p> <p>Telephone: +255 28 2550272, 2552725, 2550560</p> <p>Fax: +255 28 2500575</p> <p>E-mail: sauti-nyegezi@sukumanet.com</p> <p>Website: http://www.saut.ac.tz/radio</p>
Radio Faraja	<p>Ownership: Catholic Diocese of Shinyanga</p> <p>Reach: Regional level</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: Broadcasts agricultural programme once a week.</p> <p>Postal address: P. O. Box 47, Shinyanga, Tanzania</p> <p>Telephone: +255 28 2872068, 2763033</p> <p>Fax: +255 28 2763040</p> <p>E-mail: balin@africaonline.co.tz</p> <p>Website: none</p>
Radio Free Africa (98.6)	<p>Ownership: Sahara Communication Limited</p> <p>Reach: International</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: Broadcasts agricultural/livestock programme once a week.</p> <p>Postal address: P.O. Box 1732, Mwanza, Tanzania</p> <p>Telephone: 255 28 254008/2503262/2530075</p> <p>Fax: 255 28 2500713, Mob: +255 742-782237</p> <p>E-mail: rfa@radiofreeafricatz.com</p> <p>Website: http://www.radiofreeafricatz.com</p>
Business Times Radio (100.5)	<p>Ownership: Business Times Ltd</p> <p>Reach: National</p> <p>Broadcasting duration: 24 hours/day, 7 days/week</p> <p>Agric & Development programmes: none</p> <p>Postal address: P. O. Box 71439, Dar es salaam, Tanzania</p> <p>Telephone: +255 022-2118381</p> <p>Fax: NA</p> <p>E-mail: btimesr@bcstimes.com</p> <p>Website: http://www.bcstimes.com</p>

Sky FM (101.4)	Ownership: IPP Media Ltd Reach: National Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 4374, Dar es salaam, Tanzania Telephone: +255 22 277591/2775916/2773980 Fax: +255 22 2779737 E-mail: skyfm@ippmedia.com Website: http://www.ippmedia.com
The Quran Voice Radio (102.0)	Ownership: BAKWATA Reach: Regional Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 21422, Dar es salaam, Tanzania Telephone: NA Fax: NA E-mail: NA Website: none
Choice FM (102.5)	Ownership: Clouds Entertainment Ltd Reach: Regional Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 32513, Dar es salaam, Tanzania Telephone: +255 22 2123919 Fax: +255 22-2112435 E-mail: NA Website: none
Classic FM (103.1)	Ownership: Africa Media Group Reach: Regional Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 8983, Dar es salaam, Tanzania Telephone: +255 22 218046, 2185240 Fax: NA E-mail: CTN-Simba@glocm Website: http://www.amgtz.com
Sauti ya Injili	Ownership: Tanzania Evangelical Lutheran Church Reach: Northern zone of Tanzania Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 777, Moshi, Tanzania Telephone: +255 27 252772 Fax: NA E-mail: NA Website: none
Radio Kwizera	Ownership: Jesuits Refugee Services UNHCR and Diocese of Rulenge Reach: District level (Ngara district) Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 1154, Ngara, Tanzania Telephone: +255 28 223679 Fax: +255 28-222207, 25560712 E-mail: NA Website: none

Radio Ukweli	Ownership: Catholic Diocese of Morogoro Reach: Regional Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 640, Morogoro, Tanzania Telephone: +255 022-3340, 023-4828 Fax: NA E-mail: NA Website: none
Radio Maria	Ownership: Catholic Archdiocese of Songea Reach: National Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 152, Songea, Tanzania Telephone: +255 25 2602004 Fax: +255 25 2602593 E-mail: songea-archdiocese@cats-net.com Website: none
Mlimani Radio	Ownership: University of DSM Reach: Regional level (Dar es salaam) Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none. Postal address: P.O.BOX 35091, Dar es Salaam, Tanzania. Tel (Gen): +255 (022) 2410500/9; Fax: 2410078/2410514 E-mail: info@admin.udsm.ac.tz Website: http://www.udsm.ca.tz
Radio Sengerema	Ownership: Tanzania Commission of Science and Technology Reach: District level (Sengerema-Mwanza) Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: Broadcasts agricultural programme Postal address: NA Telephone: NA Fax: NA E-mail: NA Website: none

Source: TCRA (2007); "NA" means "not available"

2.3.1.3 Television stations

On the side of the television, the first station was opened in Zanzibar in 1972; it was the first color television in Africa South of the Sahara. The mainland government television started in July, 1999 and it broadcasts nationally from its base in Dar-es-Salaam. Private Television stations started early in 1993 and have mushroomed in urban areas; they transmit local programmes and relay international broadcasts programmes from CNN, BBC World, Sky News, AlJazeera and Deutsche Welle. The stations are in Dar Es Salaam, Morogoro, Arusha, and in Mwanza and in most of the regions' capitals.

On mainland Tanzania the first television station to be on the air was a private one in 1994. Six other private stations followed before the public television (TBC1) started end of 1999, and commissioned officially March 2001. The service is part of the Tanzania Broadcasting Services established in 2002 as a public agency. Independent Television (ITV-private), owned by IPP Group; TBC1, owned by the Tanzania Broadcasting Corporation (public), Star TV, owned by the Diallo Investments; and Channel 10, owned by Africa Media Group are the leading TV stations in Tanzania broadcasted nationally with some using regional receiving centres.

There are other community TV stations and religious based stations which broadcast news of agricultural focus in the country. Community television can be set up using solar or batteries. But to qualify as a community television, programmes must be produced in the community by the community. They are all expected to be community based, managed and run by communities and other non-government organizations. Examples of these are found at Orkonerei (Maasai), Sengerema, Mwanza City and many district and municipal councils. These have proved effective in transmitting locally relevant information that affect the communities they serve (TCRA, 2005).

It is estimated that 2% of households owned a TV set in 2000/1, increasing to 6% ownership in 2003/4 (TACAIDS, 2005). Television has unique factors that have affected penetration in Tanzania. The country has low electricity penetration, with only 11% of households having electricity (TACAIDS, 2005), and the cost of purchasing a television set is high for many households. However, lack of ownership of television sets does not necessarily mean that access to television is low, since there are community halls and social places where people can access TV. A 2004 study found that 67% of the population had watched television in the past 12 months, with 34% watching at least once a week (InterMedia, 2004). The trend of growth in the number of television stations in the country has been growing year after year as can be seen in Table 27.

Table 27: Number of television stations in Tanzania

Year	Television Stations
2000	10
2005	25
2006	29

Source: TCRA (2007)

Below is a list of Television stations currently in operation, which have been licensed by TCRA to operate in the country (Table 28).

Table 28: List of television stations in Tanzania

<p>Name: Independent Television (ITV) Ownership: IPP Media Ltd Reach: International Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: Broadcasts agricultural programme once a week. Postal address: P. O. Box 4374, Dar es salaam, Tanzania Telephone: +255 2775914, 2775916, 2773980 Fax: 022 – 2775915 E-mail: itv@ippmedia.com Website: http://www.ippmedia.com</p>
<p>Name: Star TV Ownership: Sahara Communication Ltd Reach: International Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: Broadcasts agricultural programme once a week. Postal address: P. O. Box 1732, Mwanza, Tanzania Telephone: +255 028-2503262, 0282560561 Fax: +255 – 028-2500713, 028-2561890 E-mail: startv@startvtz.com Website: http://www.startvtz.com</p>
<p>Name: Channel Ten Television Ownership: Africa Media Group Reach: International Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 21122, Dar es salaam, Tanzania Telephone: +255 022 - 2116341/6 Fax: 022 - 2113112 E-mail: dtv@raha.com. Website: http://www.amgtz.com</p>
<p>Name: Tanzania Broadcasting Cooperation (TBC1) Ownership: Government of the United Republic of Tanzania Reach: International Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: Broadcasts agricultural programme twice a week. Postal address: P. O. Box 31519, Dar es salaam, Tanzania Telephone: +255 022-2700011, 2700062, 2700464 Fax: +255 - 022-2700468 E-mail: tvt-dg@africaonline.co.tz Website: http://www.tanzania.go.tz</p>
<p>Name: DSTv Ownership: Multichoice Tanzania Limited Reach: International Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 4668, Dar es salaam, Tanzania Telephone: (255-22) 2668450-2668207 Fax: (255-22) 2667327-2668327 E-mail: dstv@tanzania.multichoice.co.za Website: http://www.tanzania.multichoice.co.za</p>

<p>Name: GTV Ownership: GTV (Tanzania) Limited Reach: Regional Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 23320, Dar es salaam, Tanzania Telephone: +255 022 - 2116341/6 Fax: 022 - 2113112 E-mail: gtv@gtv.tv Website: http:// www.mg.co.za</p>
<p>Name: East Africa Television (EATV) Ownership: IPP Media Ltd Reach: International Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 4374, Dar es salaam, Tanzania Telephone: +255 2775914, 2775916, 2773980 Fax: 022 – 2775915 E-mail: eatv@ippmedia.com Website: http://www.ippmedia.com</p>
<p>Name: Agape Television (ATV) Ownership: World Agape Ministries Reach: Regional Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 70029, Dar es salaam, Tanzania Telephone: +255 022 - 2150798 Fax: 022 - 27802174 E-mail: wam@maf.org Website: http://www.agape.co.tz</p>
<p>Name: Dar es Salaam Television (DTV) Ownership: Africa Media Group Reach: Regional Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 21122, Dar es salaam, Tanzania Telephone: +255 022 - 2116341/6 Fax: 022 - 2113112 E-mail: dtv@raha.com. Website: None</p>
<p>Name: Aboud Television Ownership: Aboud Company Ltd Reach: Regional Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: Broadcasts agricultural programme occasionally Postal address: P. O. Box 127, Morogoro, Tanzania Telephone: +255 023-2603231, 023-2603529 Fax: NA E-mail: NA Website: none</p>

<p>Name: Sokoine University of Agriculture Television (SUATV) Ownership: Sokoine University of Agriculture Reach: Regional Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: Broadcasts agricultural/livestock programme daily. Postal address: P. O. Box 3000, Morogoro, Tanzania Telephone: +255 023-32603511/4, 023-2603236 Fax: 023-2604652 E-mail: suatv@suanet.ac.tz Website: http://www.suanet.ac.tz</p>
<p>Name: CTN Television Ownership: Coastal Television Network Reach: Regional Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 8983, Dar es salaam, Tanzania Telephone: +255 022-2185240 Fax: 022 - 2185354 E-mail: ctn@cats.net.com Website: None</p>
<p>Name: Pulse Television Ownership: IPP Media Ltd Reach: International Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Postal address: P. O. Box 4374, Dar es salaam, Tanzania Telephone: +255 2775914,2775916, 2773980 Fax: 022 – 2775915 E-mail: pulse@ippmedia.com Website: http://www.ippmedia.com</p>
<p>Name: Tanga City Council Ownership: Tanga City Council Reach: District Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: Broadcasts agricultural programme once a week. Website: none Address: NA</p>
<p>Name: Mbeya City Council Ownership: Mbeya City Council Reach: District Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Website: none Address: NA</p>
<p>Name: Rungwe District Council Television Ownership: Rungwe District Council Reach: District Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Website: none Address: NA</p>

Name: Sumbawanga Town Council Television Ownership: Sumbawanga Town Council Reach: District Broadcasting duration: 24 hours/day, 7 days/week Agric & Development programmes: none Website: none Address: NA
Name: Tunduru District Council Television Ownership: Tunduru District Council Reach: District Broadcasting duration: 24 hours/day Agric & Development programmes: none Website: none Address: NA
Name: Iringa Municipal Council Television Ownership: Iringa Municipal Council Reach: District Broadcasting duration: 24 hours/day Agric & Development programmes: none Website: none Address: NA
Name: Mbozi District Council Television Ownership: Mbozi District Council Reach: District Broadcasting duration: 24 hours/day Agric & Development programmes: none Website: none Address: NA
Name: Masasi District Council Television Ownership: Masasi District Council Reach: District Broadcasting duration: 24 hours/day Agric & Development programmes: none Website: none Address: NA
Name: Njombe District Council Television Ownership: Njombe District Council Reach: District Broadcasting duration: 24 hours/day Agric & Development programmes: none Website: none Address: NA
Name: Songea Town Council Television Ownership: Songea Town Council Reach: District Broadcasting duration: 24 hours/day Agric & Development programmes: none Website: none Address: NA

Name: Iramba District Council TV & Radio
 Ownership: Iramba District Council
 Reach: District
 Broadcasting duration: 24 hours/day
 Agric & Development programmes: none
 Website: none
 Address: NA

Source: TCRA (2007)

2.3.2 Telecommunication

2.3.2.1 Trends of telephone subscription

Telecommunication use in the country has been growing rapidly in recent years. The growth has especially been witnessed in the mobile telephone sector compared to the fixed lines. Data show that by 31st March 2008, there were about 9.5 millions voice telephone subscribers. This is an increase of about 47% from 2006. The mobile telecommunication leads the market by having more subscriptions (97%) as compared to fixed line services (3%). Details are in Table 29 below:

Table 29: Number of fixed lines and mobile telephone

Year	Fixed lines	Mobile	Total
1995	88,000	2,198	90,198
2005	154,420	3,389,787	3,544,207
2006	157,287	5,609,279	5,766,566
2007	163,269	8,322,857	8,486,126
2008	165,013	9,358,379	9,523,302

Source: TCRA (2008)

2.3.2.2 Growth pattern and tele-density

The Tanzanian population is growing at the rate of 3.3% annually; while the annual number of Tanzanian subscribing for Telephone lines grows at an average rate of 48% (Table 30).

Table 30: Telephone subscription trend (1995 – December, 2007)

Year	Population	Subscribers	Non subscribers
1995	29,147,703	90,198	29,057,505
2003	34,876,231	1,442,006	33,434,225
2004	36,049,581	2,090,360	33,959,221
2005	37,267,530	3,544,207	33,723,323
2006	38,523,907	5,766,566	32,757,341
2007	39,816,363	8,488,774	31,327,589

Source: TCRA (2007)

The trend of subscriptions over the period has increased at an increasing rate for all Operators except for Vodacom which has decreased from 52% (2006) to 45% (2007) and TTCL which remains the same (Table 30). However, Vodacom is still leading the market in terms of subscription share with 45% of all subscribers (52% in 2006). Celtel ranks the second with 30% (26% in 2006) followed by Tigo (14%, 13% in 2006), Zantel (8%, 6% in 2006) and TTCL (3%, the same as 2006). Up to March 2008 subscription growth for all Operators dropped except for TTCL which showed to be increasing (Table 31). Table 32 shows subscriptions growth pattern for each operator.

Table 31: Subscriptions per operators (2000 - March 2008)

Year	TTCL (Fixed)	ZANTEL	TIGO	VODACOM	CELTEL	TOTAL
2000	173,591	4,007	56,511	50,000	-	284,109
2004	148,360	85,000	303,000	1,050,000	504,000	2,090,360
2005	154,420	96,109	422,500	1,562,435	882,693	3,118,157
2006	150,897	355,993	760,874	2,975,580	1,516,832	5,766,566
2007	157,816	684,214	1,191,678	3,870,843	2,505,546	8,488,774
2008	159,077	959,209	1,446,425	4,224,493	2,589,282	9,378,486

Source: TCRA (2008)

Table 32: Growth pattern per each operator (2000-2007)

	VODACOM	TIGO	CELTEL	ZANTEL	TTCL
2000-2001	260%	58%	-	62%	2%
2001-2002	67%	80%	-	312%	-9%
2002-2003	133%	31%	166%	154%	-9%
2003-2004	50%	44%	58%	25%	1%
2004-2005	49%	39%	75%	13%	4%
2005-2006	90%	80%	72%	270%	2%
2006-2007	30%	57%	65%	92%	50%

Source: TCRA (2007)

2.3.7.3 Market Share

The market is very dynamic and there is increasing competition evidenced by new products and services. The current customer base of about 9.4 million in a population of 39 million is still low. The potential market as estimated by operators will reach 15 million by 2010 and 20 to 25 million by 2012. Currently Vodacom owns about 44.67% of the market share followed by Celtel (27.38%), Tigo (15.3%) and ZANTEL (10.14%) as seen in Table 33.

Table 33: Market share per operator

Operator	Number of subscribers	Market share (%)
VODACOM	4,224,493	44.67
CELTEL	2,589,282	27.38
MIC (T) Ltd (TIGO)	1,446,425	15.30
ZANTEL	959,209	10.14
TTCL	233,890	2.47
Benson Informatics Ltd	3,500	0.04
Total	9,456,799	100

Source: TCRA (2007)

The telecommunication has made a significant progress in reaching the rural people and the speed at which the mobile operators are expanding far interior is promising. Celtel was the first to penetrate and concentrate to the rural areas, a move which was followed by the other operators at a very high pace. Table 34 shows the telephone providers and Table 35 shows the Prepaid tariffs per Operator for using telephone at different times.

Table 34: Telephone services providers available in Tanzania

<u>Vodacom</u> Ownership: Vodacom (T) Limited Number of Subscribers: approx. 4 million Coverage: National Cost of 1 minute local call: 312 Tshs mobile to mobile Website: http://www.vodacom.co.tz	<u>CelTel</u> Ownership: CelTel (T) Limited Number of Subscribers: approx. 2.5 million Coverage: National Cost of 1 minute local call: 318 Tshs mobile to mobile Website: http://www.celTel.co.tz
<u>Tigo</u> Ownership: MIC (T) Limited Number of Subscribers: approx. 1 million Coverage: National Cost of 1 minute local call: 216 Tshs mobile to mobile Website: http://www.tigo.co.tz	<u>TTCL</u> Ownership: Tanzania Telecommunication Company Limited Number of Subscribers: approx. 300,000 Coverage: National Cost of 1 minute local call: 216 Tshs mobile to mobile Website: http://www.ttcl.co.tz
<u>Zantel</u> Ownership: Zanzibar Telecom Limited Number of Subscribers: approx. 600,000 Coverage: National Cost of 1 minute local call: 337 Tshs mobile to mobile Website: http://www.zantel.co.tz	<u>BOL</u> Ownership: Benson Online Limited Number of Subscribers: approx. 4000 Coverage: National Cost of 1 minute local call: 180 Tshs mobile to mobile Website: http://www.bol.co.tz

Source: TCRA (2007)

Table 35: Prepaid tariffs per operators as at December 2007 (Tshs Per Minute) local tariffs (VAT inclusive)

DESTINATIONS	Time	CelTel/ Zain	Tigo	TTCL Fixed	TTCL Mobile	Vodacom	Zantel	BOL
Own Mobile Network	Peak	318	216	132	216	316	237.6	60
	Off Peak	270	72	132	180	270	237.6	60
	Late Night	54	72	66	90	60	237.6	60
Other Mobile networks	Peak	408	360	276	276	408	237.6	180
	Off Peak	408	360	240	240	408	237.6	180
National Fixed Network (0 - 50km)	Peak	378	360	132	216	408	237.6	120
	Off Peak	270	360	132	180	408	237.6	120
National Fixed Network (51 - 500km)	Peak	420	360	180	216	408	237.6	180
	Off Peak	330	360	144	180	408	237.6	180
National Fixed Network > 500km	Peak	510	360	180	216	408	237.6	180
	Off Peak	420	360	144	180	408	237.6	180
SMS - National		54	45.60	-	-	54	48.	24

Source: TCRA (2008)

2.3.3 Computer and Internet use in Tanzania

Tanzania was late to meet the challenge of being a member of the global information society. The import and use of computers were controlled and restricted by detailed Government guidelines from 1974 to 1991. Since 1998, Tanzania had developed 7 ISPs and 129 host sites. By May 2000, Tanzania was in the 13th place among all African nations in its Internet connectivity ranking, with a total of 14 ISPs (Chachage *et al.*, 2004).

The number of Internet hosts meanwhile increased by 300% (Table 36). The Tanzania Communications Commission (TCC) now Tanzania Communications Regulations Authority (TCRA) Board has licensed only nine companies to provide data communication services including Internet bandwidth. As a result of the policy, Tanzania lacks cheap and high-capacity connections to the global Internet, while there is a large and increasing demand for Internet access (TCRA, 2006)

Table 36: Internet use and PCs

	Year	Internet				PCs	
		Hosts	Hosts per 10,000 inhab.	Users (000s)	Users per 100 inhab.	Total (1000)	Per 100 inhab.
Tanzania	2001	1,478	0.44	60.0	0.18	120	0.36
	2005	5,908	1.57	333.0	0.89	278	0.74
Africa	2005		4.92		3.72		2.24
World	2005		421.63		15.17		13.38

Source: ITU (2006)

Privately owned Internet cafés increasingly represent opportunities for ordinary people in economically poor areas to access the Internet. In such venues, computers are made available at various rates and connection speed, enabling regular or occasional customers to search for information and make electronic connections with others via e-mail and chatting (Chachage *et al.*, 2001).

Despite its potential, ICT use in agriculture has been limited to research and market information, partly because primary stakeholders in agriculture (peasants) don't have the purchasing power. ICT can help Tanzania's exports enhance acceptability in international markets by deploying ICT to facilitate traceability and certification that is becoming a prerequisite under Euro GAP (Mwakalinga and Krist, 2006). Internet and data markets have shown continuous, if unspectacular, growth. The government has removed import taxes on computers and appears committed to developing an ICT policy.

Tanzania has as part of its e-services, the Tanzania Agricultural Research Database (TARD), INFORM - Information for Research Managers database, and question-and-answer services. It has proved cheap, easy and fast to access them electronically (Kapange 2002). Table 37 shows a list of some Internet service providers in the country.

Table 37: Internet service providers in Tanzania

Member name	URL	Telephone
Raha	http://www.raha.com	
Africaonline	http://www.africaonline.co.tz/	+255 22 2116090
Simbanet	http://www.simbanet.net/	
Cats-net	www.cats-net.com	
Internet Africa	http://www.Internetafrica.com	
Habari.net (Arusha)	http://www.habari.net.com	
Zanzinet	http://www.zanzinet.com	
Tele 2 (formerly CyberTwiga)	http://www.tele2.com	
BOL	http://www.bol.co.tz/	+255 755 442044
AFSAT	http://www.afsat.com/	
UCC	http://www.ucc.co.tz/	
Vodacom	http://www.vodacom.co.tz	
Zanlink	http://www.zanlink.com/	+255 24 223 7480/1
Celtel	http://www.celtel.co.tz	+255 22 2748 181

Member name	URL	Telephone
SatConet	http://www.satconet.com/	+255 22 2180625/35/38
MIC (T) Ltd Tigo	http://www.tigo.co.tz	

Source: TCRA (2007)

Internet in Tanzania has become a *de facto* source of news used both by Tanzanian citizens and other institutions to access information ignored by owners and editors of well established newspapers, television and radio stations. There are also telecentres providing services to rural communities in Tanzania, the most famous are as shown in Table 38.

Table 38: Telecentres in Tanzania

Name: FADECO	Owner: FADECO Trading Co. Ltd Reach: Karagwe district Website: http://www.fadeco.org
Name: Multipurpose Telecentre in Sengerema	Owner: Tanzania Commission of Science and Technology Reach: Sengerema district Website: http://www.sengerema.or.tz
Name: Rural Schools	Owner: Community multimedia and computerization project Email: ungwasisec@kicheko.com ; waminja@costech.or.tz
Name: Kasulu Internet Centres	Owner: Kasulu Teachers College and Mtabila Refugee camp Email: geoff@caldertowers.com ; mmasawe@costech.or.tz
Name: Ngara Lukole	Owner: Multipurpose Community Telecentre Network E-mail: did@costech.or.tz ; mmasawe@costech.or.tz
Name: Mwanza City/University of Dar es Salaam	Owner: Community Telecentre E-mail: bmutag@ucc.co.tz
Name: The Integrated Rural Community Multimedia Project	Owner: COSTECH/ Planning Commission E-mail: did@costech.or.tz
The Dakawa and Lugoba village	Owner: ICT project E-mail: Lugoba@costech.or.tz ; zulea@costech.or.tz ; did@costech.or.tz
Kinondoni Municipal Council	Owner: eGovernance project E-mail: nyitambe2002@yahoo.com ; pkilassa@costech.or.tz
Zanzibar City	Owner: eGovernance project E-mail: ramamohsin@hotmail.com ; pkilassa@costech.or.tz

Source: TCRA, 2007

ANNEX 3 PROFILE OF INSTITUTIONS

3.1 List of all institutions involved in agriculture and rural development

S/No.	Institution and Contact Address	Type	Role
1.	Name: Akiba Commercial Bank Ltd. Tanzania Acronym: ACB Postal address: P.O. Box 669 Dar Es Salaam, Tanzania Telephone: +255-22-211-4173 Fax: +255-22-211-4173 Email: akiba@cats-net.com Website: www.akibacommercialbank.com	PRV	FS
2.	Name: Anglican Church of Tanzania Acronym: ACT Postal address: P.O Box 899 Dodoma, Tanzania Telephone: +255-26-232—1437 Fax:255-26-232-4565 Email: act@anglican.or.tz Website: www.anglican.or.tz	NGO	RU EX TR
3.	Name: Action Aid International Postal address: P.O. Box 21496 Dar Es Salaam, Tanzania 255-22-215-0711 Fax:255-22-215-1003 Email: admin@actionaidtz.org Website: www.actionaidtz.org/ or www.actionaid.org	NGO	RU EX TR
4.	Name: ADP- Isangati Trust Fund(Tanzania) Acronym: ADP-Isangati Postal address: P.O. Box 1687 Mbeya, Tanzania Telephone/Fax: +255-25-250-3033	NGO	RU EX TR
5.	Name: ADP-Mbozi Trust Fund Acronym: ADP-Mbozi Postal address: P.O. Box 204 Mbeya, Tanzania Telephone: +255-23-258-0095 Fax:255-25-258-0312 Email: vecoclus@cats-net.com	NGO	RU EX TR
6.	Name: Adventist Development and Relief Agency International Acronym: ADRA Postal address P.O. Box 1121 Arusha, Tanzania Telephone: +255-27-255-3842 Fax: 255-27-254-8256 adra@adratz.org , support@adratz.org www.adratz.org	NGO	RU EX TR
7.	Name: Action for Relief and Development Assistance Acronym: AFREDA Postal address P.O. Box 10014 Dar Es Salaam Telephone: +255-22-286-3320 Fax: +255-22-211-2752 Email: afreda@faru.or.tz or afreda@twiga.com	NGO	RU EX TR

S/No.	Institution and Contact Address	Type	Role
8.	Name: AFRICARE Postal address: P.O. Box 63187, Dar-es-salaam, Tanzania Telephone: +255-22-266 6690 Fax: +255-22-266 7662 Email: countryrep@africare.or.tz Website: http://www.africare.org/	NGO	RU EX TR
9.	Name: Agenda for Environment and Responsible Development Acronym: AGENDA Postal address P.O. Box 77266 Dar-es-salaam, Tanzania Telephone: 255-22-245-0125 Fax;255-22-241-0379 Email: agenda@raha.com	NGO	RU EX TR
10.	Name: Agricultural Council of Tanzania Acronym: ACT Contact: Executive Director, Location: ASG Building, Junct of Nyerere/Gerezani Roads, Postal address: P.O. Box 14130, Dar-es-salaam, Tanzania, Telephone: +255 22 2124851; Fax: +255 22 2128032 Email: act@actanzania.org ; Website: www.actanzania.org	NGO	IN
11.	Name: Agro Vision Postal address: P.O. Box 38177; Dar es Salaam, Tanzania Location: Sheen Centre, Swahili Street, Gerezani Area, Kariakoo Telephone: +255 22 218 2546; +255 744 470 559 Fax : +255 22 218 2577; Hotline : +255 748 723467 Email : info@agrovisiontz.com	PRV	
12.	Name: African Institute for Capacity Development Acronym: AICAD C/o Sokoine University of Agriculture, Postal address P.O. Box 3055 Morogoro, Tanzania Telephone: 255-23-260-4360 Email: scsrd@suanet.ac.tz Website: www.aicad.or.ke	NGO	TR RU EX
13.	Name: African Inland Church of Tanzania Acronym: AICT Postal address P.O. Box 905 Mwanza Telephone: 255-28-250-0302	CHU	RU EX TR
14.	Name: AidNet Zanzibar Postal address P.O. Box 646 Zanzibar Telephone: +255-744-378026 Email: aidnet@zanlink.com	NGO	RU EX TR
15.	Name: Aga Khan Agency for Microfinance Acronym: AKAM Location: Zakaria Building, Vuga Street Stone Town, Zanzibar Telephone: +255-748-25-7158 Website: www.akidn.org	NGO	RU
16.	Name: Aga Khan Foundation Acronym: AKF Postal address P.o Box 125 Dar Es Salaam Telephone: 255-22-266-8651 Fax:255-22-266--8527 Email: akf@akftz.org , akftz@atge.automail.com Website: http://www.akdn.org	NGO	RU

S/No.	Institution and Contact Address	Type	Role
17.	Name: AMKA REGISTERED TRUSTEES Acronym: AMKA Postal address: P.O. BOX 2879, Dar es Salaam, Tanzania. Telephone: +255 22 2150088 Fax: +255 22 2153531 E-mail: amka@africaonline.co.tz Web Site: www/catgen.com/amka	NGO	TM TR IN
18.	Name: ANEPA Food Products Ltd, Postal address: P.O. Box 23090, Dar es Salaam, Tanzania. Telephone: 255 22 2774264/o748-295208/694831 E-mail: anepe@hotmail.com	NGO	TM TR IN
19.	Name: Anglican Diocese of Central Tanganyika Postal address P.O. Box 15 Dodoma, Tanzania Telephone: +255-26-232 1777 Fax: +255-26-232-0004 Website: http://centraltanganyika.anglican.org	CHU	RU EX TR
20.	Name: Anglican Diocese of Kagera Postal address: P.O. Box 18 Ngara, Tanzania Telephone: +255-28-222-3624 Email: act-kagera@africaonline.co.tz , or act-kagera@maf.or.tz	CHU	RU EX TR
21.	Name: Anglican Diocese of Mara Postal address P.O Box 131 Musoma, Tanzania Telephone : +255-28-262-2679 Fax: +255-262-2474 Email: actmara@africaonline.co.tz Website: http://www.anglican.or.tz	CHU	RU EX TR
22.	Name: AIDS NGOs Network in East Africa Acronym: ANNEA Postal address P.O. Box 6187 Arusha, Tanzania Telephone: +255-27-254-8224 Fax: +255-27-254-8224 Email: annea@habari.co.tz Website: http://www.annea.or.tz	NGO	IN RU
23.	Austro Project Association Tanzania Acronym: APA-TZ Postal address P.O Box 31665 Dar-es-salaam, Tanzania Telephone: +255-22-266-7930	NGO	RU TM
24.	Name: Azania wheat flour Acronym: AZANIA Postal address P.O. Box 5055, Dar es Salaam, Tanzania Email: info@azaniawheatflour.com Website: www.azaniawheatflour.com	PRV	PS-M
25.	Name: National Muslim Council of Tanzania Acronym: BAKWATA Postal address P.O. Box 5137 Dar es Salaam, Tanzania Telephone: +255-22-266-7273	OT- RELIG IOUS	RU
26.	Name: Bara Institute of Sustainable Agriculture Acronym: BISA Postal address: P.O. Box 179 Mbeya, Tanzania Telephone: +255-25-250-0903	NGO	RU EX TR

S/No.	Institution and Contact Address	Type	Role
27.	Name: Buhemba Rural Agricultural Centre Acronym: BRAC Postal address P.O. Box 160 Musoma, Tanzania Telephone: +255-28-262-2376 Fax: +255-262-2474 Email: actmara@africaonline.co.tz	NGO	RU EX TR
28.	CARE International Tanzania Programme Acronym: CARE Tanzania Postal address P.O. Box 1042 Dar-es-salaam, Tanzania Telephone: +255-22-266-8581 Fax; +255-22-266-6944 Email: care-tz@africaonline.co.tz , care-tzhq@care.org Website: http://www.care.org	NGO	RU EX TR
29.	Name: CARITAS Tanzania Acronym: CARITAS - Tanzania Postal address P.O. Box 2133 Dar Es Salaam Telephone: +255-22-285-1075 Fax: +255-285-0285 Email: tec@cats-net.com Websites: http://www.caritas.org or http://www.rc.net/tanzania/tec	CHU	RU EX TR
30.	Name: Centre for Agricultural Mechanization and Rural Technology Acronym: CAMARTEC Postal address: P.O. Box 764, Arusha, Tanzania Telephone: +255-27-2553214 (Gen. line); +255-744-674672 Fax: +255-27-2553216 Email: camartec@hotmail.com	TE	RD TR EX IN
31.	Name: Community Habitat Environmental Management Programme Acronym: CHEMA Contact: The Coordinator, Postal address: P.O. Box 253, Karagwe, Kagera, Tanzania Telephone/Fax: +255 28 222 3226 Email: info@chematanzania.org Website: www.chematanzania.org	NGO	RD TR EX
32.	Name: Concern for Development Initiatives in Africa Acronym: ForDIA-Tanzania Postal address P.O. Box 32505 Dar-es-salaam, Tanzania Location: Mandela Rd, Ubungu River Side, Plot No.31, Block A Telephone: +255-22-245-1735 Fax: +255-22-245-1655 Email: fordia@ud.co.tz	NGO	RU EX TR
33.	Name: CRDB Bank Ltd Postal address P.o Box 268 Dar-es-salaam, Tanzania Telephone: +255-22-211-7442 Fax: +255-22-211-3341 Email: crdb@crdb.com Website: http://www.crdb.com	PRV	FS
34.	Name: Tanzania Christian Relief Services Acronym: TCRS Postal address P.o Box 34701 Dar-es-salaam, Tanzania Telephone: +255-22-277-3141 Fax: +255-22-277-4059 Websites: http://www.crs.org	CHU	RU EX TR

S/No.	Institution and Contact Address	Type	Role
35.	Name: German Development Service Acronym: DED -TZ Postal address P.o Box 2488, Dar-es-salaam, Tanzania Telephone: +255-22-215-0761 Fax: +255-22-215-0764 Email: tza@ded.de , info@ded-tanzania.de Website: www.ded.de http://tanzania.ded.de ; http://tanzania.ded.de	NGO	RU EX TR
36.	Name: Economic and Social Research Foundation Acronym: ESRF-Tanzania Postal address P.O. Box 31226, Dar-es-salaam, Tanzania Telephone: +255-22-276-0260 Fax: +255-22-276-0062 Email: info@esrf.or.tz , esrf@esrf.esrf.or.tz Website: http://www.esrf.org	NGO	RD PP TR IN
37.	Name: Environmental and Human Rights Organisation, Tanzania Acronym: ENVIHURO Postal address P.O. Box 70862 Dar-es-salaam, Tanzania Telephone: 255-22-226-3048 Fax: 255-22-211-2434 Email: envirohuro@sokoine.posta.africaonline.com	NGO	IN RU
38.	Name: Environmental Human Rights Care and Gender Organization, Acronym: ENVIROCARE Postal address P.O. Box 9824 Dar Es Salaam, Tanzania Telephone: +255-22-277-5592 Fax: +255-22-270-1407 envirocare@cats-net.com , envicare_2002@yahoo.com http://www.envirocaretz.org/	NGO	IN RU
39.	Name: Evangelical Lutheran Church in Tanzania Acronym: ELCT Postal address P.O. Box 3033 Arusha, Tanzania Telephone: +255-27-250-8855 Fax: 255-27-254-8858 Email: http://www.elct.org Website: http://www.elct-ned.org	CHU	RU EX TR
40.	Name: Exim Bank Tanzania Ltd Acronym: EBT Postal address P.O. Box 1431 Dar Es Salaam, Tanzania Telephone: +255-22-211-3091 Fax: +255-22-211-9737 Email: enquiry@eximbank-tz.com Website: http://www.eximbank-tz.com	PRV	FS
41.	Name: Family Alliance for Development and Co-operative Acronym: FADECO Postal address P.O. Box 223, Karagwe, Tanzania 255-28-222-3024 Fax: 255-28-222-3024 fadeco@satconet.net http://www.fadeco.org	NGO	RU EX TR IN
42.	Name: Farmers' Community Based Unit Acronym: FCBU-TZ Postal address P.O. Box 232 Sumbawanga, Rukwa, Tanzania Telephone: 255-25-280-1028	NGO	RU EX TR

S/No.	Institution and Contact Address	Type	Role
43.	Name: Finance and Advice in Development Assistance in Small Enterprise Promotion Acronym: FAIDA-SEP Postal address P.O. Box 13869 Arusha, Tanzania Telephone: +255-27-250-3549 Fax: 255-27-250-4080 Email: faida@faida.or.tz Website: http://www.faida.or.tz	NGO	RU TM IN TR EX
44.	Name: Foundation for Civil Society Ltd Acronym: FCS-Tanzania Postal address P.O. Box 7192 Dar Es Salaam, Tanzania Telephone: +255-22-213-8580 Fax: +255-22-213-8533 Email: information@thefoundation-tz.org Website: http://www.thefoundation-tz.org	NGO	IN OT (Advocacy & Lobbying)
45.	Name: Foundation for International Community Assistance Acronym: FINCA-Tanzania) Postal address P.O. Box 78783, Dar-es-salaam, Tanzania Telephone: +255-22-213-1092 Fax: +255-22-212-3613 Email: fincatanzania@africaonline.co.tz Website: http://www.villagebanking.org	NGO	FS IN TM
46.	Name: INADES Formation Tanzania Postal address: P.O. Box 203, Dodoma Tanzania, Telephone: +255 26 235 4230; Fax: +255 26 235 4722 Email: inades-fo@maf.org or inades@do.ucc.co.tz Website: www.inadesfo.org/	NGO	EX RU TR IN
47.	Name: Kilimanjaro Agricultural Training Centre Acronym: KATC Postal address P.O. Box 1241 Moshi, Tanzania + 255 27 - 2752293 Email: katc_mafc@yahoo.co.uk Website: www.agriculture.go.tz/katcweb/html/index.htm	GOV	TR EX
48.	Name: Kilimanjaro Natural Food Cooperative Society Location: AMKA/APT Office Postal address: P.O.BOX 376, Moshi, Tanzania Telephone: +255 27 27 55037 Email: amkapt@africaonline.co.tz or amka@africaonline.co.tz	NGO	TM TR IN
49.	Name: Laela Agricultural Centre, Postal address PO Box 21, Rukwa 255 061 243 00 Email: laela@bushlink.co.tz	NGO	EX TR RU
50.	Name: Ministry of Agriculture and Food Security, Postal Address: P.O. Box 9192, Dar es Salaam, Tanzania Telephone (Gen.): +255 22 2862480; +255 22 2862481 Location: Kilimo Road, along Nelson Mandela Road, Temeke; Email: psk@kilimo.go.tz Website: www.agriculture.go.tz	GOV	PP RD EX IN RU TR
51.	Name: Ministry of Communication, Science and Technology Postal address P.O. Box 37650, Dar Es Salaam, Tanzania Telephone: +255 22 2114426	GOV	PP RD IN TR

S/No.	Institution and Contact Address	Type	Role
52.	Ministry of Education and Vocational Training, Postal address P.O. Box 37650, Dar Es Salaam Telephone: +255 22 2114426 Email: ps-moec@twiga.com ; Website: www.moe.go.tz	GOV	PP TR
53.	Name: Ministry of Livestock Development and Fisheries Postal address: P.O. Box 9152, Dar es Salaam, Tanzania Telephones (Gen.): +255 22 2861910; Fax: +255 22 2861908 Location: Mifugo House, along Nelson Mandela Road, Temeke Email: info@mifugo.go.tz Website: www.mifugo.go.tz	GOV	PP RD EX IN RU TR
54.	Name: Ministry of Trade and Industry, Postal address: P.O. Box 9503, Dar Es Salaam, Tanzania Telephone: +255 22 2181397, 2180418	GOV	PP IN TM RU
55.	Name: Ministry of Water and Irrigation Postal address: P.O. Box 9153, Dar Es Salaam Telephone: +255 22 2117153-9, 2117038	GOV	PP RD EX IN RU TR
56.	Name: Mixed Farming Improvement Programme Acronym: MIFIPRO) Trust Fund, Postal address P. O. Box 183, Mwanga, Kilimanjaro, Tanzania Email : mifiprotrustfund@yahoo.com	NGO	RU EX TR
57.	Name: Mogabiri Farm Extension Centre Acronym: none Postal address P.O. Box 134, Tarime, Tanzania Fax: none Websites: none	NGO	EX TR
58.	Name: Moshi University College of Cooperative and Business Studies Acronym: MUCCoBS Postal address: P.O. Box 474, Location: Sokoine Road, Moshi, Tanzania, Telephone: +255 (0) 27 54401; +255 (0) 27 54403; Fax: +255 (0) 27 2750806; +255 (0) 27 2753857 Email: info@muccobs.ac.tz ; or registrar@muccobs.ac.tz Websites: www.muccobs.ac.tz	EDU	TR RD EX IN
59.	Name: National Bureau of Statistics (NBS) Contact: The Director General, Postal address P.O. Box 796, Dar es Salaam. Phone: 255-22-2122722/4; Fax: 255-22-2130852 Email: dg@nbs.go.tz ; it@nbs.go.tz ; Website: www.nbs.go.tz and www.tsed.org	GOV	PP IN
60.	Name: Participatory Ecological Land Use Management Acronym: PELUM – Tanzania Contact: The Country Desk Coordinator, Postal address: P.O. Box 54, DODOMA, Tanzania. Telephone: +255 26 235 0744/4230; Fax: +255 26 235 4722 Email: pelumtz@maf.or.tz , Web; www.pelumtanzania.org	NGO	EX RU TR IN OT- ADVOCA CY

S/No.	Institution and Contact Address	Type	Role
61.	Name: Radio Free Africa Acronym: RFA Postal address: P.O. Box 1732, Mwanza, Tanzania Telephone: 255 28 254008/2503262/2530075 Fax: 255 28 2500713 Mob: +255 742-782237 DSM Office: Tel: 2116375/0742-785203 Email:	MED	IN
62.	Name: RADIO ONE/ITV Postal address: P. O. Box 4374, Dar es Salaam, Tanzania Telephone: +255 22 2775914, 2775916, 2773980 Fax: +255 22 2779737; 2775915 Website: www.ippmedia.com	MED	IN
63.	Name: Radio Maria Postal address: P.O. Box 34573, Dar Es Salaam, Tanzania	MED	IN
64.	Name: Radio Sauti ya Injili Postal address: P.O. Box 777, Moshi, Tanzania	MED	IN
65.	Name: Said Salim Bakhresa & Co. Ltd (SSB) Postal address P. O. Box 2517 Telephones: +255 22 2861116/7/8/9 info@bakhresa.com www.bakhresa.com	PRV	PS-M
66.	Name: Netherlands Development Organisation Acronym: SNV Tanzania Postal address: P.O. Box 3941, Dar-es-salaam, Tanzania Physical address: Chole Road, Plot No. 1142, Msasani Peninsular, Dar-es-salaam Telephone: +255 22 260 0340; Fax: +255 22 260 0339 Email: snvtanzania@snv.or.tz or snvtz@snvtanzania.org Website: http://www.snvworld.org/ or http://www.snvtanzania.org	NGO	RU EX
67.	Name: Sokoine University of Agriculture The Vice Chancellor, Postal address P.O. Box 3000 Chuo Kikuu, Morogoro, Tanzania. Tel: +255 23 2603511-4, Telefax +255 23 2604651. E-mail sua@suanet.ac.tz ; Website: www.suanet.ac.tz	EDU	TR RD EX IN
68.	Name: Sugar Research Institute Kibaha Acronym: SRI - Kibaha, Postal address: P.O. Box 30031, Kibaha, Tanzania Location: Old Morogoro Road, Tumbi, Kibaha, Pwani Telephone: +255 23 240 2017 (Gen. line) or ; +255 23 240 2038 Fax: +255 23 240 2039 Email: sri@iwayafrica.com	GOV	RD TR EX
69.	Name: Tanzania Association of Non-Governmental Organisations Acronym: TANGO Contact: Executive Director, Location: Shekilango Road, Afrika Sana – Sinza, Postal address: P. O. Box 31147 Dar Es Salaam, Tanzania Telephone/fax: +255 22 277 4582 Website: www.tango.or.tz	NGO	IN OT- ADVOCA CY

S/No.	Institution and Contact Address	Type	Role
70.	Name: Tanzania Association of Women Leaders in Agriculture and Environment Acronym: TAWLAE Postal address: P.O. Box 76498, Dar-es-salaam, Tanzania Telephone: +255 22 270 0085 Email: tawlae@ud.co.tz	NGO	RU IN TR
71.	Name: Tanzania Broadcasting Cooperation Acronym: TBC-Radio or TBC Taifa Postal address: P. O. Box 9191, Dar es Salaam, Tanzania Email:	MED	IN
72.	Name: Tanzania Chamber of Commerce, Industry and Agriculture Acronym: TCCIA Postal address: P.O. Box 9713, Dar-es-salaam, Tanzania Telephone: +255 22 211 9436; or 255 22 2121421 Fax: +255 22 2119437 Email: tccia.info@cats-net.com or tccia.hq@cats-net.com Web page: http://tccia.co.tz	PRV	PP TM
73.	Name: Tanzania Coffee Research Institute Acronym: TACRI Postal address: P.O. Box 3004, Moshi, Tanzania Telephone: +255-27-2756868/759 Email: tacriced@kicheko-mos.com & tacriced@yahoo.com.com Website: www.tacri.org/home/coffee-in-tanzania.html	PRV	RD TR EX
74.	Name: Tanzania Commission for Science and Technology Acronym: COSTECH Postal address: P.O. Box 4302, Dar es Salaam, Tanzania Location: Ali Hassan Mwinyi Road, Kijitonyama, COSTECH Building, Tel: +255-22-700745/6/9, 75311/2; Fax: +255-22-775313/4 Email: info@costech.or.tz ; Website: http://www.costech.or.tz	GOV	RD TR EX
75.	Name: Tanzania Fishery Research Institute Acronym: TAFIRI Postal address P.O. Box 9750, Dar Es Salaam, Tanzania	GOV	RD TR EX
76.	Name: Tanzania Food and Drugs Authority Acronym: TFDA Postal address: P.O. BOX 77150; Dar Es Salaam; Tanzania. Telephone (office): +255 22 2450512, 2450751, 2452108; Tele (Mobile): +255 787 555 527 or +255 754 772 220 Fax: +255 22 2450793 Email: info@tfda.or.tz ; Website: www.fda.or.tz	GOV	RD IN TR
77.	Name: Tanzania Food Processors Association of Entrepreneurs Acronym: TAFOPA Contact: The Secretary, Location: SIDO Small Business House, Room 5, Bibi Titi Mohamed Road, Postal address: P.O. Box 77246, Dar es Salaam, Tanzania Telephone: +255 22 2153018	NGO	TM TR IN
78.	Name: Tanzania Forest Research Institute Acronym: TAFORI Postal address: P.O. Box 1854, Morogoro, Tanzania Telephone: +255-23-2263725 Website: www.tanzania.go.tz/environment.html	GOV	RD TR EX

S/No.	Institution and Contact Address	Type	Role
79.	Name: Tanzania Gatsby Trust Acronym: TGT Postal address: P.O. Box 8695, Dar es Salaam. Tanzania. E-mail: tgt@tanzania-gatsby.com ; Website: www.tanzania-gatsby.com/	NGO	FS IN TM
80.	Name: Tanzania Home Economics Association Acronym: TAHEA Postal address: P.O. Box 1125, Dar-es-salaam, Tanzania; or P.O. 11242, Mwanza Tanzania Location: MOEC Lithuli St. Dar-es-salaam, Telephone: +255 22 211 0104; +255 28 2502555 Email: tahea@twiga.com or taheamwanza@yahoo.com	NGO	RU TR EX
81.	Name: Tanzania Industrial Research and Development Organization Acronym: TIRDO, P. O. Box 23235 Dar es Salaam, Tanzania Tel: +255-22-2666034/2668822; Fax: +255-22-2666034 E-Mail: tirdo@intafrica.com http://www.sdnf.undp.org/tirdo/	OT (UN)	RD TR EX IN TM
82.	Name: Tanzania Meteorological Agency Acronym: TMA Postal address: P.O. Box 3056 Dar-es-salaam, Tanzania Telephone: +255 22 2460706-8; Fax: +255 22 2460718 Email: met@meteo.go.tz or agromet1_tz@meteo.go.tz Website: www.meteo.go.tz	GOV	IN RD
83.	Name: Tanzania Pesticide Research Institute Acronym: TPRI Postal address: P.O. Box 3024, Nairobi Road, Arusha Tanzania Telephone: +255-27-2508813-15 (Gen. line); +255-27-250868-69 Fax: +255-27-2508217; +255-27-2509674; +255-27-2508042 Email: tpri@habari.com or tpridg@yahoo.com	GOV	RD TR EX IN
84.	Name: Tanzania Standard Newspapers Acronym: TSN Location: TSN Daily News building, Samora Avenue, Plot No. 7, Postal address: P.O. Box 9033, Dar es Salaam, Tanzania Telephone: +255222110595, Fax: +255222135239 Or +255222112881 E-mail: newsdesk@dailynews-tsn.com ; Website: http://dailynews.habarileo.co.tz/	MED	IN
85.	Name: Tea Research Institute of Tanzania Acronym: TRIT Postal address: ----- Telephone : +255 (0) 22 2122033 Fax: +255 22 2113838 Email: info@trit.or.tz Website: www.trit.or.tz	PRV	RD TR EX
86.	Name: Vice President's Office – Environment Acronym: VPO - Environment Postal address: P.O Box 5380, Dar-es-salaam, Tanzania Telephone: +255 22 2113857 Email: makamu@twiga.com	GOV	PP

S/No.	Institution and Contact Address	Type	Role
87.	Name: World Vision of Tanzania Acronym: WVI - Tanzania Postal address: P.O. Box 6070, Arusha, Tanzania Location: Radio Tanzania Road, Block C, Plot # 181, Njiro, Arusha; Telephone: +255 27 250 4359 or 250 8850; Fax: +255 27 2508248; Email: tza@wvi.org ; Website: www.wvi.org	NGO	RU EX TR
88.	Name: Young Women's Christian Association Acronym: YWCA - Tanzania Location: Ghana Avenue, Dar-es-salaam Postal address: P.O. Box 2086, Dar-es-salaam, Tanzania Telephone: +255 22 212 2439; Email: ywca.tanzania@hotmail.com Website: http://www.worldywca.org/	CHU	RU OT (Faith)
89.	Name: Youth Employment and Food Production Foundation Acronym: YEFOFO Postal address: P.O. Box 838, Dodoma, Tanzania Location: Plot No. 353, Block A Nkuhungu East Dodoma, Tanzania Telephone/Fax: +255 26 234 0388	NGO	RU
90.	Name: Zanzibar AIDS Commission Acronym: ZAC Postal address: P.O. Box 2820, Zanzibar, Tanzania Telephone/Fax: +255 24 222 3152;	NGO	OT (Health)
91.	Name: Zanzibar Association of People with HIV/AIDS Acronym: ZAPHA Postal address: P.O. Box 1300. Zanzibar Tanzania Telephone: +255 24 223 2019; Email: zapha_2003@yahoo.co.uk	NGO	OT (Health)
92.	Name: Zanzibar Fishermen and Farmers Association Acronym: ZFFA Postal address: P.O. Box 2043, Zanzibar, Tanzania Telephone: +255 24 223 3719; Fax: +255 24 2231730	NGO	PS-P
93.	Name: Zanzibar Ministry of Agriculture Natural Resources and Environment Conservation. Acronym: MANREC Postal address: p.o. Box 159, Zanzibar, Tanzania Location: Forodhani area Email: kuew_znz07@hotmail.com Websites: linked to http://www.tanzania.go.tz/snz	GOV	PP RD EX TR IN
94.	Name: Zanzibar Muslim Women Aid Support Organization Acronym: ZMWASO Postal address: P.O. Box 1610, Zanzibar, Tanzania Telephone: +255 24 223 6230; Fax: +255 24 223 0195;	NGO	RU
95.	Name: Zanzibar NGOs Cluster Acronym: ZANGOC Postal address: P.O. Box 1610 Zanzibar, Tanzania Telephone/Fax: +255 24 223 0195; Email: zangoc@zanzinet.com	NGO	RU
96.	Name: Kiteto Civil Society Organizations Acronym: KCS Forum Co-ordinator Postal address: P.O.Box 83 Kibaya, Kiteto. Telephone: 027 255 2087, Fax: 027 255 2201 E- mail: kinnapa-dp@habari.co.tz , iriyavj@yahoo.co.tz	NGO	RU

S/No.	Institution and Contact Address	Type	Role
97.	Name: Union of Non Governmental Organisations, Acronym: UNGO Postal address: Box 6075, MOROGORO, Telephone: +255 23 260 0362, Mob. 0745 681, E-MAIL: ungomoro@yahoo.co.uk	NGO	RU RD TR
98.	Name: Kigoma Development Promotion Agency. Acronym: KDPA Postal address: P.O. Box 1333, Kigoma Telephone: +255 (0)28 2802397, Mobile: 0741491474 E-mail: kdpaorg@yahoo.co.uk	NGO	RU
99.	Name: Tanga Youth Development Association Acronym: TAYODEA Postal address: P.O.BOX 5344, Tanga Telephone: +255 272646933, Fax: +255272643426	NGO	RU TR
100.	Name: Maendeleo Ya Wakulima (Farmers Service Centre) Acronym: MAYAWA Postal address: P.O. Box 1753; Bukoba, TANZANIA Telephone: +255 (0)28 222 09 21 E-mail: mayawa@bukobaonline.com	NGO	RU TR PS-P
101.	Name: Tanzania National Institute for the Blind Acronym: TNIB Postal address: P.O. Box 16454, Dar es salaam Email : trib38@hotmail.com		
102.	Name: Peace Action for Child Care and Education Acronym: PACE Postal address: P.O. Box 138, Tanga Telephone: +255 (0)27 2641273 Email: pace@yahoo.co.uk	NGO	RU TR
103.	Name: Tanzania Youth Aware Acronym: TAYOA Postal address: P.O. Box : 77874, Dar es salaam Telephone: 0744-260996 Email: pmasika@youthaware.org		

Key:

Type AS-F Farmers' association (includes co-operatives)
AS-W Women's association
AS-Y Youth association
BNK Bank or credit institution
CCI Chamber of commerce and industry
CHU Church-based group
EDU Educational institution
GOV Government department / ministry
MED Media
NGO Non-government organisation
PRV Private enterprise, company
REG Regional organisation, project or network
STA Statutory body
STE State enterprise
OTH Other

Role	EX	Extension and outreach
	IN	Information services
	FS	Financial services
	PP	Policy and planning
	PS-E	Private sector – Exporter (fresh, frozen and dried produce)
	PS-M	Private sector – Manufacturer (e.g. tannery, bottler, refiner, roaster)
	PS-P	Private sector – Producer (e.g. commercial farm, fishing company)
	PS-S	Private sector – Supplier (e.g. ag-chemicals, equipment, seeds)
	RD	Research and development
	RG	Regulation (compliance, standards)
	TR	Training (at secondary, tertiary and vocational level)
	TM	Trade and marketing (include market development)
	RU	Rural Development
	OT	Other

3.2 Profile of Institutions Interviewed

Name of institution: Ministry of Agriculture, Food Security and Cooperatives - Research and Training (DRT) and Extension sub-directorate (DCD-Ext)
<p>Acronym: MAFC</p> <p>Postal Address:</p> <p>Permanent Secretary, P.O. Box 9192, Dar-es-Salaam, Tanzania</p> <p>Director of Research and Training, P.O. Box 2066, Dar es Salaam, Tanzania</p> <p>Physical address: Kilimo Road, along Nelson Mandela Road, Temeke; Dar-es-salaam,</p> <p>Country: Tanzania</p> <p>Tel. Landline: DRT: +255 22 2865323 (General line); Others : +255 22 2865313/2865318/19/20/22 Fax: +255 22 2865312</p> <p>AD-EXT: +255 22 2866401, 2866351; Fax: +255 22 2866372</p> <p>Email: drt@kilimo.go.tz, and dcd@kilimo.go.tz</p> <p>Website: www.drd.mafs.go.tz/; http://www.agriculture.go.tz</p> <p>Type of the Institution: Government Department (GOV) Role: RD, PP, TR, EX and RU</p>
<p>Mission statement: The overall mission of the Ministry of Agriculture, Food Security and Cooperatives is:</p> <p>To deliver quality agricultural and cooperative services, provide conducive environment to stakeholders, build capacity of Local Government Authorities and facilitate the private sector to contribute effectively to sustainable agricultural production, productivity and cooperative development. The MAFC will fulfil this by:</p> <ul style="list-style-type: none">• Formulating, coordinating, monitoring and evaluating the implementation of relevant policies in the agricultural sector and monitoring crop regulating institutions,• Collaborating with the private sector, local government and other service providers to provide relevant technical services in research, extension, irrigation, plant protection, crop promotion, land use, mechanization, agricultural inputs, information services and cooperative development• Undertaking crop monitoring and early warning, maintaining strategic food reserves and promoting appropriate post harvest technologies; and• Encouraging, undertaking and coordinating research and development and training <p>For the provision of efficient and effective services to the agricultural sector the DRT is coordinate agricultural research and training liaising with Local Government Authorities (LGAs), the Private sector, National and International institutions and other stakeholders to promote, undertake and deliver client and demand driven technologies to the farming communities.</p>

Name of institution: Ministry of Agriculture, Food Security and Cooperatives - Research and Training (DRT) and Extension sub-directorate (DCD-Ext)

Field of specialisation:

DRT is specialising in the conducting research and training in various crop sciences including the following:

1. Crop breeding, production, protection and related sciences
2. Natural resources management especially in soil fertility, soil and water management, agroforestry, agro-mechanisation including farm machinery like animal drawn implements and tractor driven technologies, conservation tillage and post harvesting technologies.
3. Farming system and socio-economics

Technical divisions at DRT include: Crop research, Natural resources management, Farming system and socio-economics research, support services including Planning, Information and Documentation Unit, Monitoring and Evaluation, Finance, Procurement and Personnel Management.

Department of Crop Development – Extension section is supporting extension and advisory services through Local Government Authorities (LGAs) and Private extension services providers to farmers and other stakeholders and promote improved and demand driven technologies. Its mandate is to provide policy guidance and mobilise resources for LGAs. Specialisation include:

- Extension and advisory services
- Extension methodologies
- Farmers education and publicity
- Crop production and related sciences including horticulture, plant protection,
- Agricultural Mechanisation
- Human Nutrition, food science and processing
- Agricultural economics and agribusiness
- Journalism
- Research and extension Linkages
- Training for extension staff and farmers in liaison with the DRT.

Number of staff:

The work force at DRT constitutes:

- Professionals: 308 research scientists and 109 agricultural tutors,
- Technical staff: 300 technicians and.
- Support staff: 384
- In each of the seven zones there are also libraries, information and documentation units, and zonal research and extension liaison unit dealing linking stakeholders in technology dissemination activities.

The Extension section has :

- A total of 54 staff, where 15 are Professionals; 20 Technical staff and 19 supporting staff.
- Extension section is also being supported by the LGAs in all 133 districts of Mainland Tanzania and Farmers Training Centre, and its estimated that there are 3,500 extension staff.

Branches:

DRT accomplishes its tasks through a network of research centres and training institutes in seven zones and associated stations. There include:

Lake Zone:

Zonal Director, ARI Ukiriguru, P.O. Box 1433, Mwanza, Tanzania.

Tel.: +255 28 2550215; Fax: +255 28 2550214

Email: ukiriguru@iwayafrica.com

Name of institution: Ministry of Agriculture, Food Security and Cooperatives - Research and Training (DRT) and Extension sub-directorate (DCD-Ext)

Principal, MATI Ukiriguru, P.O. Box 1434, Mwanza, Tanzania.

Email: matiukiriguru@coolgoose.com

Southern Highlands Zone:

Address: The Director, Agricultural Research Institute (ARI) Uyole, P.O. Box 400, Mbeya, Tanzania

Tel.: +255 25 2510062; Fax: +255 25 2510065

Email: ariuyole@iwayafrica.com

Principal,

MATI Uyole, P.O. Box 2292, Mbeya, Tanzania;

Tel.: +255 25 2510015

Email: matiuyole@atma.co.tz

or

MATI Igurusi, P.O. Box 336, Mbeya, Tanzania.

Northern Zone

Zonal Director, ARI Seliani, P.O. Box 6024, Arusha, Tanzania

Tel.: +255 27 2503883/2505211/2505212; Fax: +255 27 2502397/2548557

Email : sari@habari.co.tz

Principal KATC, P.O. Box 1241, Moshi, Tanzania,

Tel./Fax: +255 27 2752293; Email: katc@kilionline.com

Southern Zone:

Zonal Director (S), ARI Naliendele, P.O. Box 509, Mtwara, Tanzania.

Tel.: +255 23 2333836; Fax: +255 23 2333141

Email: utafiti@makondenet.com

Principal, MATI Mtwara, P.O. Box 121, Mtwara, Tanzania.

Tel.: +255 23 2333837

Central Zone:

Zonal Director, Makutupora Viticulture Research Institute, P.O. Box 1676, Mpwapwa, Tanzania.

Email: imroso@yahoo.com

Eastern Zone:

Zonal Director, ARI Ilonga, P.O. Ilonga, Kilosa, Morogoro, Tanzania.

Tel.: +255 23 2623201; Fax: +255 23 2623284

Email: olinga@iwayafrica.com

Principal MATI Ilonga, P.O. Box 66, Kilosa, Morogoro, Tanzania.

Principal, National Sugar Institute (NSI), Kidatu; P.O. Box 97, Kidatu, Morogoro, Tanzania.

Tel.: +255 23 2626050; Email: nsi@raha.com

Sub zone (Eastern):

Deputy Zonal Director, ARI Mlingano, P.O. Box 5088, Tanga, Tanzania.

Tel.: +255 27 2647647/2647680; Fax: +255 27 2642477; Email: mlingano@iwayafrica.com

Principal, MATI Mlingano, P.O. Box 5051, Tanga, Tanzania; Email: matimlingano@hotmail.com

Western Zone:

<p>Name of institution: Ministry of Agriculture, Food Security and Cooperatives - Research and Training (DRT) and Extension sub-directorate (DCD-Ext)</p> <p>Zonal Director (W), P.O. Box 306, Tabora, Tanzania. Tel.: +255 26 2604142, Email: zdrdwz@yahoo.com</p> <p>Principal, MATI Tumbi, P.O. Box 603, Tabora, Tanzania. Email: principalmatitumbi@yahoo.com</p> <p>Annual budget: Total is TZS 7 billion (equiv. Euro 3,741,854.78)³ for research and training Amount allocated for ICM activities is TZS 31 million mainly used for packaging and repackaging of innovations, improving retrieval systems and library digitization.</p> <p>At the headquarter extension section in the last financial year had a budget of TZS 982 million (equiv. Euro 524,928.77). Amount allocated for ICM activities which include farmers' education and publicity and Agricultural shows is TZS 236 million (equiv. to Euro 126,153.96).</p> <p>Source of funding include:</p> <ol style="list-style-type: none"> Government Agricultural Sector Development Programme finance under basket funding arrangement by various donors Regional research networks like ASARECA, SACCAR International agricultural research organisations like CIMMYT, ICRISAT, IITA, ICRAF and other IARCs. <p>Programme / projects undertaken: The DRT implemented the Tanzania Agricultural Research Project (TARP) phase I and II which ended in 2002. Achievements are summarised as follows:</p> <ul style="list-style-type: none"> Establishment of a unified research services by merging the various research parastatals (TARO, TALIRO and UAC) in a single department within seven zones. Prioritization of research activities at national and zonal levels. Improved physical research and training infrastructure through rehabilitation of stations and training institutes, Improved skills of research and training staff through training in both long-term (96 staff) and short term (2892 staff) programmes between years 2000 – 2005. Strengthening of research and extension linkages Establishment of sustainable funding initiatives (Agricultural Research fund at national level and Zonal Agricultural Funds) Involvement of private sector and stakeholders in agricultural research and training endeavours Release a number of varieties of various food and cash crops Generation of improved plant protection and post-harvest technologies <p>In the Extension section the programme/project undertaken involved: NALERP and later NAEP were implemented to improve extension services in Tanzania and the activities carried include:</p> <ul style="list-style-type: none"> Coordination of activities related to extension services including resource allocation; formulating extension policies and strategies; monitoring and evaluation of extension activities Provision of guidelines in extension methodologies and standards for extension service delivery Coordinate and facilitate training of extension staff at national level and in LGAs. Enhance collaboration among service providers through strengthening public-private partnership and reinforcement of research-extension-farmer linkages Production of agricultural training materials and dissemination of agricultural technologies using radio, TV, Video episodes, print materials (Ukulima wa Kisasa Newsletters and various booklets, leaflets and poster) and organised agricultural shows.

³ 1€ = 1870.73 TZS according to Bank of Tanzania on 30th April, 2008

<p>Name of institution: Ministry of Agriculture, Food Security and Cooperatives - Research and Training (DRT) and Extension sub-directorate (DCD-Ext)</p>
<p>Target audience: DRT and Extension services serve a broad spectrum of stakeholders in the agriculture and environment sector. These include:</p> <ul style="list-style-type: none"> • Small holder farmers in rural and peri-urban areas • Medium and large scale commercial farmers • Extension systems • Farmers associations • Crop boards • Agribusinesses and agro-industries • Policy and decision makers; and • Universities
<p>Extent of interaction with CTA products and services: DRT, Extension section and other department in the MAFC have been collaborating with CTA for a long time and received a variety of products and services from CTA including <i>Spore</i> Magazine, CTA publications like books, SDI, CD ROM, Database subscriptions, QAS. DRT staff also participated in CTA seminars and training programmes on ICM and ICT; and organised seminars with support from CTA.</p> <p>Researchers and Extension Staff have also indicated that they receive <i>Spore</i> magazine as individuals.</p>
<p>Appreciation of CTA's products and services: Products and services from CTA supported the institutions' library to access information on agricultural and rural development, hence supported researchers and tutors to develop their capacity in relevant study areas. Training programmes helped to develop capacity of the information and documentation unit and the library to carry out its duties effectively.</p> <p>Many staff of DRT and extension section who subscribed individually to <i>Spore</i> magazine highly appreciated the knowledge and information received on improved and information on indigenous technologies used in other countries especially on IPM, Value adding, natural resources management and marketing.</p>
<p>Extent of collaboration / interaction with other institutions: DRT specifically is collaborating with Universities especially SUA and UDSM; and regional centres, for example, ASARECA, and SACCAR; and international research bodies like CIMMYT, ICRISAT, IITA, ICRAF, and other IARCs.</p> <p>Other institutions supporting agricultural and rural development include World Bank, EU, UNDP, FAO, IFAD, JICA, KOICA, DANIDA, NORAD, FINNIDA, and SIDA; and have bilateral relationships with most embassies.</p>
<p>National / sectoral policies impacting ICT use / information and communication within the institution: The ICT policy is supporting government department like DRT and Extension to acquire ICT infrastructure like L/WAN. Almost all researchers have access to computers and all seven zones are connected with Internet services. The problem is the cost of maintaining Internet connection and the small band width available.</p>
<p>How information needs are currently met, and from where or by whom:</p> <ul style="list-style-type: none"> • DRT have documentation centres and libraries in all the seven zones that document scientific information; collect books, bulletins, journals, abstracts from various sources locally, regionally and internationally; store and distribute.

Name of institution: Ministry of Agriculture, Food Security and Cooperatives - Research and Training (DRT) and Extension sub-directorate (DCD-Ext)
<ul style="list-style-type: none"> • DRT organize annual events at ARIs level for internal reviews of research activities where researchers and extensionists and farmers share knowledge and information generated from research activities. They also participate in various seminars, workshop and training sessions which also give opportunity for sharing information on various issues related to agricultural development. • Through regional and international collaborations and joint activities they exchange and share knowledge and information with peer researchers and extensionists. Exchange of information through regional networks like ASARECA, SACCAR and the like as mentioned earlier provide opportunity for accessing information from research. • CTA products and services is one of the most important sources of information that help the departments to have up-dated scientific information in the library. CTA has also supported in capacity building and acquiring of journal papers through the CDROM services. Unfortunately, there has been a change of staffs that were trained and spearheaded the process of making follow-up of CTAs' products and services particularly the QAS. The current officer in-charge is still acquainting with the information and communication system. There is a need for more capacity building interventions to improve the level of utilization of the products and services. <p>Software used includes XITAMI, Weblis and a variety of windows programmes.</p>
<p>Main information needs not satisfied: Due to dynamic nature of agricultural development there is still demand for information that is not yet met by the current sources in many areas as follows:</p> <ul style="list-style-type: none"> • Broad rural development information including farm problems, social development issues including gender issues, available agricultural/development networks • Technical information includes crop varieties especially for non-traditional crops; post harvest technologies; IPM, and grading systems. • Economic information like identification of markets, commodity profiles, credit and micro-credit, market data and crop insurance systems; project identification and appraisal. And entrepreneurship. • Training needs on application of communication technologies in extension services especially linking farmers with QAS using mobile phones, participative methodologies, editing of reports and development of a communication strategy.
<p>Successes/main problems faced in terms of information and communication management: Achievements include:</p> <ul style="list-style-type: none"> • Improved information and documentation system in the DRT Head office, research centres and training institutes. • Establishment of the DRT website • Connection of research centres and training institutes with Internet and email services. • Maintain a database <p>Problems are as follows: Human resources</p> <ul style="list-style-type: none"> • Need for capacity building of new staff joining the Information and Documentation Unit, Libraries and ICT unit. Currently at the headquarters there are only 4 staff and only one is an Extensionists and the other 3 are technicians with knowledge on general agriculture fields. There is no ICT specialist within the department. Knowledge for digitization of available information is also lacking and hence slowing the process.

Name of institution: Ministry of Agriculture, Food Security and Cooperatives - Research and Training (DRT) and Extension sub-directorate (DCD-Ext)
<p>Equipment and ICT facilities</p> <ul style="list-style-type: none"> There are demands for more ICT equipments such as computers and relevant software for documentation and storage of information and data especially at zonal level. The unit needs support in terms of facilities like computers, software, digital cameras, and other ICT to facilitate communication with farmers and other stakeholders. <p>Financial resources:</p> <ul style="list-style-type: none"> ICM is allocated a small budget which is limiting and not enough for catering of demands of ICM. <p>Under ASDP, DRT intends to fund new investments including two-way information and communication capacity at local, district, zonal and district levels.</p>
<p>Successes/main problems faced in terms of knowledge management:</p> <p>Knowledge sharing is accomplished through:</p> <ul style="list-style-type: none"> Training programmes, seminars and workshop where researchers and extension staff share knowledge and information generated from research programmes amongst themselves and with key stakeholders. Its network of training institutes where students graduated a total of 1,252 young men and women agricultural experts interact with trainers, researchers and farmers. Interaction with smallholder farmers (about 42,137) attended short-term training (lasting from two to four weeks) at the nine training centres.
<p>Why institution selected as a key:</p> <p>It is a national institution with a mandate for formulating policy and planning development of livestock sector. Coordinate a network of livestock research centres in seven agro-ecological zones spread in the country; provide technical support to extension department in the local government authorities; and has a network of training colleges for livestock development. It is responsible for disseminate information on livestock related issues using radio, TV and printed materials. It is capable of reaching a large number of key stakeholders including agro-pastoralists and pastoralists.</p>
Other observations: The department is willing to continue collaborating with CTA.

Person interviewed:

1. Mrs. Vidah Mahava – Agricultural Research officer, Acting Head of Information and Documentation Unit, DRT Office.
2. Mr. Geoffrey Kirenga – Assistant Director – Extension,
3. Mr. Richard Kasuga Information Officer of the MAFC and former head of IDU, DRT

<p>Name: Ministry of Livestock Development and Fisheries (MLDF) – Department of Livestock Research, Extension and Training (DLRET)</p> <p>Postal address: P.O. Box 9152, Dar es Salaam, Tanzania Telephones (Gen.): +255 22 2861910; Fax: +255 22 2861908</p> <p>Physical address: Mifugo House, along Nelson Mandela Road, Temeke, Dar-es-salaam Country: Tanzania</p> <p>Email: info@mifugo.go.tz; Website: http://www.mifugo.go.tz</p> <p>Type: GOV Role: PP, RD, TR, TX and RU</p>
<p>Mission statement:</p> <p>The mission of the livestock industry is to ensure that livestock resource is developed and managed sustainably for economic growth and improved human livelihoods.</p> <p>The overall objective of the National Livestock Policy is to develop a competitive and more efficient livestock industry that contributes to the improvement of the well being of the people whose principal occupation and livelihood is based on livestock.</p> <p>The specific objectives of the National Livestock Policy are to:-</p> <ul style="list-style-type: none"> • Contribute towards national food security through increased production, processing and marketing of livestock products to meet national nutritional requirements. • Improve standards of living of people engaged in the livestock industry through increased income generation from livestock. • Increase the quantity and quality of livestock and livestock products as raw materials for local industry and export. • Promote integrated and sustainable use and management of natural resources related to livestock production in order to achieve environmental sustainability. • Strengthen technical support services, develop and disseminate new technologies. • Develop human resources including livestock farmers. • Promote production of safe and quality foods of animal origin in order to safeguard consumers. • Promote the use of draught animal power and biogas utilization. • Mainstream cross-cutting and cross-sectoral issues such as gender, HIV/AIDS, land and environment.
<p>Field of specialisation:</p> <p>Department of Research, Extension and Training is specialising on:</p> <ul style="list-style-type: none"> • Animal diseases research • Feed resources research • Livestock production • Beef cattle research • Dairy cattle research • Poultry research • Piggery research • Research on other livestock types • Socio-economics, biometrics and marketing research • Extension and advisory services to livestock keepers and other key stakeholders

Name: Ministry of Livestock Development and Fisheries (MLDF) – Department of Livestock Research, Extension and Training (DLRET)
Number of staff: Research section has more than 122 staff Professional are about 35, technical staff around 60 and support staff 27 scattered in all research centres. Extension at the Headquarters have 12 staff, which compose of 5 professionals, 2 technicians and 5 supporting staff including secretaries, clerical staff and drivers. The bulk of extension staff are under the Local government at regional and district level.
Branches and other sites: <ol style="list-style-type: none"> Livestock Research centres (LRCs) in West Kilimanjaro, Tanga, Uyole, Naliendele and Kigoma Pasture research centre at Kongwa, Dodoma Tsetse Research Institute, Tanga. National Livestock Research Institute Mwapwa
Annual budget: Research section: about TZS 1.8 Billion (equiv. Euro 962,191.23). Allocated for ICT is about 10% Extension section: about TZS 273,142,000 (equiv. Euro 146,008.24) (development budget) used for printing of brochures, poster, exhibitions, and procurement of equipments like laptops, editing machines, cameras and other charges.
Source of funding: <ol style="list-style-type: none"> Government of Tanzania Donors through ASDP basket funding
Programme / project undertaken: Currently, the department is implementing ASDP project which involves research activities in all specialisations mentioned earlier. These are implemented in the following divisions: <ul style="list-style-type: none"> Animal breeding research Pasture research Nutrition research Disease control research, and Socio-economic research
Target audience: <ol style="list-style-type: none"> Livestock keepers Policy makers Private sector dealing with livestock related issues like input and output markets, processors, middlemen Consumers and the public at large.
Extent of interaction with CTA: There is interaction at an individual research level but not as an institution.
Appreciation of CTA's products and services: Staff interviewed positively assessed CTA products especially <i>Spore</i> magazine, although most of them complained that it is not regular as it used to be. Other services like CDROM they used to access at the DRT library which is now in a different ministry. They therefore requested to be one of the collaborators of the CTA to benefit from products and services which are needed most.

Name: Ministry of Livestock Development and Fisheries (MLDF) – Department of Livestock Research, Extension and Training (DLRET)
Extent of collaboration / interaction with other institutions: <ul style="list-style-type: none"> • International Livestock Research Institute (ILRI) for joint project and information sharing) • COSTECH – seminars, workshops and training on ICT • SUA – joint project, training and information sharing
National / sectoral policies impacting ICT use / information and communication within the institution: <p>Staff interviewed were not aware of the national policy on ICT and the ministry do not have one. However, appreciate that ICT policy has a positive impact as it allows scientist to share and exchange information, access knowledge and information from peer research working in similar areas, and networking.</p>
How information needs are currently met, and from where or by whom: <ul style="list-style-type: none"> • Internal research reviewed meetings conducted periodically, • Newsletters and brochures produced by researchers • Universities: SUA and other regional universities like Egerton, Makerere • Proceedings of the seminars organised locally, regionally and internationally • Networks like ASARECA, ILRI and ICRAF • Internet search some mentioned use of AGORA • Networking in the Livestock Early Warning Systems (LEWS) that provide information on marketing systems • Ministry of Trade and Industry of Tanzania – market information
Main information needs not satisfied: <p>Broad rural development information related to livestock including:</p> <ul style="list-style-type: none"> • Farm problems • Social development issues • Gender issues • Government and international regulations • Conferences and meetings • Development and funding programmes • Available livestock/development networks (regional and international) <p>Technical information:</p> <ul style="list-style-type: none"> • Integrated Livestock Disease Management • Processing technology for value addition • Milk handling and hygiene of milk products • Grading systems • Equipment availability • Waste utilisation <p>Economic information:</p> <ul style="list-style-type: none"> • Identification of markets especially for different livestock breed types • Market data • Credit and micro-credit information • Availability of livestock inputs e.g. livestock drugs • Livestock insurance schemes

<p>Name: Ministry of Livestock Development and Fisheries (MLDF) – Department of Livestock Research, Extension and Training (DLRET)</p>
<p>Training needs:</p> <ul style="list-style-type: none"> • Participative technologies for researchers and field staff • Application of communication technologies in livestock extension and market information dissemination • Editing of reports • Development of a communication strategy <p>Formats most difficult to get include:</p> <ul style="list-style-type: none"> • Journal articles • Abstracts from research • Statistical data especially on crop production • Materials suitable for mass distribution in local language like Kiswahili which most livestock farmers understand • Pictorial posters that illiterate livestock keepers can understand
<p>Successes/ main problems faced in terms of information and communication management:</p> <p>The Ministry through department of livestock research, training and extension have succeeded in the following areas:</p> <ul style="list-style-type: none"> • Production of TV and radio programmes for farmers and livestock keeping communities, • Organised campaigns for creating awareness about different diseases and their control; • Produced printed materials on the same like posters, leaflets and booklets; • Organised campaign for increasing consumption of livestock products like milk and meats; and • Training of extension staff and livestock keepers on various improved husbandry techniques. <p>Constraints:</p> <ul style="list-style-type: none"> • Limited awareness on ICM in general and lack of political will is missing to support ICM/ICT in knowledge and information dissemination. Most are still thinking in traditional methods of information dissemination. Specifically, the Ministry has the following constraints: • Lack of a communication strategy • Human resources: low capacity for packaging and repackaging of research products suitable for clients especially livestock keepers • Lack of equipment to capture local knowledge
<p>Successes/main problems faced in terms of knowledge management:</p> <p>Knowledge management strategy is missing although internally there has been sharing of information on peer basis. This is an area that needs improvement so as to optimise on the existing knowledge and information for decision making at all level.</p>
<p>Why institution selected as a key:</p> <p>It is a national institution with a mandate for formulating policy and planning development of livestock sector. Coordinate a network of livestock research centres in seven agro-ecological zones spread in the country; provide technical support to extension department in the local government authorities; and has a network of training colleges for livestock development. It is responsible for disseminate information on livestock related issues using radio, TV and printed materials. It is capable of reaching a large number of key stakeholders including agro-pastoralists and pastoralists.</p>

Name: Ministry of Livestock Development and Fisheries (MLDF) – Department of Livestock Research, Extension and Training (DLRET)
Other observations: Potential hub for dissemination of CTA products and services on livestock related knowledge and information

Interviewed person: Dr. David S.C. Sendalo – Assistant Director Livestock Research
 Ms. Margaret Bakunama – Assistant Director – Livestock Extension
 Felista Kimaro – Principal Livestock Research Officer
 Deograsias A. Ruzangi – Principal Livestock Officer

Name of institution: Tanzania Forest Research Institute (TAFORI)
Postal address: P.O. Box 1854, Morogoro Physical address: Old Dar es salaam Road, Morogoro, Country: Tanzania Tel: +255 26 2303190 (General); +255 26 2302147(Direct), Fax: + 255 26 2302147 E-mail: tafori@morogoro.net Web site: http://www.tafari.org Type: GOV Role: EX, IN, RD
Objective / mission statement: TAFORI's mission is to enhance research capacity for effective carrying out, co-ordination, documentation, and dissemination of research results for sustainable forest and associated natural resources management to enhance economic, social and environmental benefits to stakeholders.
Field of specialisation: TAFORI's core competencies are: <ul style="list-style-type: none"> • Management of Natural forests • Community and Farm Forestry • Plantation Forestry and Tree Improvement • Forest Resource Assessment • Forest Operations and utilization • Socio-economics Policy and Forest Extension • Support Programmes: Human Resources, Infrastructure, Publications and dissemination
Number of staff: TAFORI's staff in total are = 160 Professionals – 40 Technical staff - 80 Clerical – 40 Key skills of staff include: <ul style="list-style-type: none"> • Forestry sciences at PhD, MSc., Ma, BSc levels • Human Resources and Administrative • Social sciences • Technical Diploma in forest related courses
Branches and other sites: TAFORI has offices in Lushoto, Kibaha, Moshi, Tabora, Dodoma, Malya, Mufindi, and Shinyanga There are 3 departments linked to lines of work: <ul style="list-style-type: none"> • Forestry Production (Ecology, Management, Production, Tree Genetics) • Forestry utilization (operations, Engineering, Wood Energy, Wood structure) • Finance and Administration (Accounts and Stores, Personnel and Administration)
Annual budget: The annual budget for 2007/2008 TZS 1,237639,000 (€ 661,580.77) and allocated to ICM TZS 45,450,000 (€ 24,295.33)
Source of funding, incl. main donors / sponsors: Government funding and donors through project like ICRAF, CIFOR

Name of institution: Tanzania Forest Research Institute (TAFORI)
Programme / projects undertaken: <ul style="list-style-type: none"> • Management of Natural Forests • Community and Farm Forestry • Plantation Forestry and Tree Improvement • Forest Resource Assessment • Forest Operations and utilisation • Socio-economics, policy and Forestry Extension
Target audience (plus number, actual or estimated): TAFORI target audience includes: <ul style="list-style-type: none"> • Government of Tanzania • Scientists – Environmental • Wood users • Private sectors • NGOs and Communities Means of contact: publications, TAFORI newsletters (Bi-annual), technical backstopping, consultations, Mass media and communication networks, conferences, meetings
Extent of collaboration / interaction with other institutions (name, nature) TAFORI collaborates with several institutions at the local, regional and international levels: <ul style="list-style-type: none"> • National – SUA, COSTECH, University of Dar es salaam, REPOA, NEMC, TTSA • Regional – SADC, KEFRI, NGARA • International – ICRAF, CIFOR, FAO, IUFRO, INBAR The collaboration is mainly through: Joint projects and Information exchanges
National/sectoral policies impacting ICT use/information and communication within the institution: Not aware of the ICT policy
How information needs are currently met, and from where or by whom: <u>Internal sources:</u> Knowledge bases from its staff are used to implement its activities; TAFORI Library also serves as a source of information and in-house training. <u>National and international sources:</u> <ul style="list-style-type: none"> • Organizations: Universities:(Sokoine University of Agriculture – technical expertise, University of Dar es salaam), ASARECA, RAIN, ICRAF – information and funds, Meetings with beneficiaries, • Publications: CTA booklets/bulletins, University research papers, newspapers, Electronic Media: Radio programmes, Tv programmes, Video presentations, Posters, Internet, Agricultural research electronic networks • Other sources: Fairs and exhibitions, colleagues, forest consultants. <u>ICT resources to support information acquisition and exchange:</u> All staffs have desktop computers and all senior staffs have laptops (Windows XP, Vista), Internet connection at the head office is available. IT resources and the websites are hosted and maintained by a contracted private company (MORO net)

Name of institution: Tanzania Forest Research Institute (TAFORI)
<p>Main information needs not satisfied:</p> <p><u>Broad Rural Development:</u></p> <ul style="list-style-type: none"> • Farm problems • Non-farm livelihoods • Social development issues • Gender Issues • Government and international regulations • Conferences and meetings • Trade fairs • Development and funding programmes • Available agricultural/development networks(regional and international) <p><u>Technical Information:</u></p> <ul style="list-style-type: none"> • Patents <p><u>Economic information</u></p> <ul style="list-style-type: none"> • Credit and micro-credit • Market data • Identification of markets • Crop insurance systems <p><u>Training Needs:</u></p> <ul style="list-style-type: none"> • Application of communication technologies in extension services especially in Agroforestry and forests • Management of information within the organization • Participative methodologies
<p>Successes/main problems faced in terms of information and communication management:</p> <p>TAFORI has succeeded in maintaining its own Library, documentation centre and publishing newsletter jointly published with CIFOR, proceedings of workshops, annual progress reports.</p> <p><u>Main problems:</u></p> <ul style="list-style-type: none"> • Lack of skilled human resource • Limited fund <p>Improvements needed:</p> <ul style="list-style-type: none"> • Training the current staff to acquire the necessary skills • Solicit more funds to purchase journals and books
<p>Successes/main problems faced in terms of knowledge management:</p> <p>Knowledge is shared through meetings, trainings, workshops and participatory research. No specific problems were mentioned.</p>
<p>Why institution selected as a key:</p> <p>TAFORI is a National institution mandated to conduct and coordinate forestry research in Tanzania. It is the only as far as forest research and development is concerned.</p>
<p>Other observations:</p> <p>The interviewed staffs complained that CTA publications are not regular, sometimes are available and sometimes do not come, sometimes a copy and sometimes several copies. TAFORI need more physical support from CTA to acquire products and services.</p>

People interviewed:

Name: Evarest Sabas, Director-Forest Production Research and

Others were library and information staff

<p>Name of institution: Ministry of Agriculture, Natural Resources, Environment and Cooperatives (MANREC) - Commission for Agricultural Research and Extension also known in Kiswahili as “Kamisheni ya Kilimo, Utafiti na Elimu kwa Wakulima (KUEW)</p>
<p>Postal address: P.O. Box 159, Zanzibar, Tanzania</p> <p>Physical Address of main location: Forodhani Area Country: Tanzania</p> <p>Tel.: +255 777 424578</p> <p>Email: kuew_znz07@hotmail.com</p> <p>Website: linked to the Zanzibar Revolutionary Government - http://www.tanzania.go.tz/smz/</p> <p>Type: GOV</p> <p>Role: RD, EX, IN, PP, RU, Other include seed production, multiplication and distribution and plant protection services</p>
<p>Objectives:</p> <p>Include the following:</p> <ul style="list-style-type: none"> • To conduct all research related activities in crop and livestock • To provide agricultural extension to farmers • To conduct training of extension staff and farmers • To provide agricultural input services • To provide pest control services • To provide information in agricultural marketing
<p>Field of specialisation:</p> <ul style="list-style-type: none"> • Plant protection • Seed production and technology • Mechanisation with emphasis on animal drawn technologies • Agro-processing and value addition • Livestock related research • Training • Information and farmers education
<p>Number of staff:</p> <p>Total number of staff = 1,100.</p> <ul style="list-style-type: none"> • Professionals = 51 • Technical staff = 116 • Support staff (including secretaries, clerical workers, drivers, etc. = 733 <p>Specialised skills include Breeding, Crop sciences, Plant protection, Seed technology, Horticulture, Nutrition, Food science, Soil science and Entomology and Pathology</p>
<p>Branches, other sites:</p> <ol style="list-style-type: none"> Kizimbani Research centre; Bambi seed production unit Ole seed farm in Pemba Matangatwani Research centre in Pemba

<p>Name of institution: Ministry of Agriculture, Natural Resources, Environment and Cooperatives (MANREC) - Commission for Agricultural Research and Extension also known in Kiswahili as “Kamisheni ya Kilimo, Utafiti na Elimu kwa Wakulima (KUEW)</p>
<p>Annual budget: Total budget is estimated to be TZS 500 million for recurrent cost (equiv. to Euro 267,275.34). About 10% of this is allocated to ICM.</p> <p>Development budget estimated at TZS 60 million mainly provided by donors</p>
<p>Source of funding:</p> <ul style="list-style-type: none"> • Zanzibar Revolutionary Government • Development partners and projects including: <ul style="list-style-type: none"> ○ World Bank and allied supporting the Participatory Agricultural Development and Empowerment Project and Agricultural Sector Support Project ○ Rockefeller Foundation ○ Farm Africa (but just ended)
<p>Programme / project undertaken:</p> <ul style="list-style-type: none"> • Under PADEP and ASSP the Commission was supported to acquire equipments including computers, TV, Video editing equipments, Amplifiers, Digital and still Cameras. • Farm Africa supported the Commission with production of leaflets, booklets and posters
<p>Target audience:</p> <ul style="list-style-type: none"> • Farmers through extension officers and publications • Entrepreneurs and investors • NGOs • Agro-based businesses • Policy makers
<p>Extent of interaction with CTA: The Commission staff were receiving CTA products especially <i>Spore</i> magazine in the past through a project funded by Dutch Government to “Strengthen Plant Protection Services to farmers”.</p> <p>There was no record of staff benefiting from CTA training programmes and seminars.</p>
<p>Appreciation of CTA’s products and services: The products were very useful as it provided information from research findings conducted in developing countries and get to know new findings in countries with similar environment. Since the closure of the project these products are not available.</p>
<p>Extent of collaboration / interaction with other institutions:</p> <ul style="list-style-type: none"> • Sokoine University of Agriculture for training of staff and research collaboration • Commission of Science and Technology (COSTECH) exchange of information and collaborative research. • Ministry of Agriculture, Food Security and Cooperatives of the Mainland Tanzania on quarantine regulations • Tengeru and Uyole Training Institutes for training of staff • Seed Production Centre in Mainland Tanzania for seed exchange <p>Regional networks such as:</p> <ul style="list-style-type: none"> • ASARECA, IITA AND SADC for exchange of plant breeding products and exchange of information

<p>Name of institution: Ministry of Agriculture, Natural Resources, Environment and Cooperatives (MANREC) - Commission for Agricultural Research and Extension also known in Kiswahili as “Kamisheni ya Kilimo, Utafiti na Elimu kwa Wakulima (KUEW)</p>
<p>Internationally, the Commission is collaborating with:</p> <ul style="list-style-type: none"> • Rockefeller Foundation – support joint research • FAO, IFAD and World Bank supporting research through projects.
<p>National / sectoral policies impacting ICT use / information and communication within the institution:</p> <p>Removal of taxes on imported ICT equipment allowed them to acquire computers and other ICT equipment at reasonable cost. The policy also facilitated access to information globally, although there are still some limitations due to low capacity for Internet connections.</p>
<p>How information needs are currently met:</p> <p>Commission organise regular meetings, seminars and workshop where researchers present their findings and hence sharing information and knowledge generated from research. Other sources include:</p> <ul style="list-style-type: none"> • Universities specifically Sokoine University of Agriculture and University of Dar-es-Salaam where research papers are exchanged and through joint research activities • Ministry of Agriculture, Food Security and Cooperatives of the Mainland Tanzania exchange on various information on regulations and quarantine procedures, seed exchange and policy issues • COSTECH through joint research and links to websites (have password for AGORA) • ASARECA through its regional networks, for example, rice breeding, RAIN and others receive publications that are informative about new findings in specified areas. • International Agricultural Research Centres like ICRAF, IRRI, ILRI and CIMMYT received information about newly released varieties and agronomic practices, natural resources management and related sciences. • Input suppliers on quality of inputs and requirements • Commodity and farmers’ association on demands for technologies and feedback on technologies disseminated • Meeting with beneficiaries to understand their constraints and information and technological needs <p>ICT resources to support information collection, storage and dissemination:</p> <p>The Commission have and Information and Communication Unit for preparation of radio and TV programmes and a Documentation Centre at the Research Centre for ICM. The Unit is supported by a team of 19 staff including 2 professional journalists and 3 technical and 14 support staff. Technical staffs are basically Certificate and Diplomas holders specialising in Agricultural and related fields; while support staff are secondary school leavers with short terms training on Computers.</p> <p>The Unit have 3 computers and will acquire 2 more this year. Software used includes a variety of Windows and Adobe Premier-Pro was recently acquired for editing of videos. There are also plans to buy a powerful computer with an editing programme known as “FINAL-CUT”.</p>
<p>Main information needs not satisfied include:</p> <p>Broad rural development information:</p> <ul style="list-style-type: none"> • Social development issues • Gender issues • Government and international regulations

<p>Name of institution: Ministry of Agriculture, Natural Resources, Environment and Cooperatives (MANREC) - Commission for Agricultural Research and Extension also known in Kiswahili as “Kamisheni ya Kilimo, Utafiti na Elimu kwa Wakulima (KUEW)</p>
<ul style="list-style-type: none"> • Conferences and meetings • Development and funding programmes • Available agricultural/development networks (regional and international) <p>Technical information:</p> <ul style="list-style-type: none"> • Integrated Pest Management • Post harvest technology • Grading systems • Equipment availability <p>Economic information:</p> <ul style="list-style-type: none"> • Identification of markets especially for spices • Market data • Credit and micro-credit information • Commodity marketing especially for spices <p>Training needs:</p> <ul style="list-style-type: none"> • Participative technologies for researchers and field staff • Application of communication technologies like the recently acquired equipment for TV and radio programme preparation <p>Formats most difficult to get include:</p> <ul style="list-style-type: none"> • Journal articles • Abstracts from research • Statistical data especially on crop production • Materials suitable for mass distribution in local language like Kiswahili which most farmers understand
<p>Successes/ main problems faced in terms of information and communication management:</p> <p>Successes:</p> <ul style="list-style-type: none"> • The Documentation centre is collecting information from research centres locally and regionally, store, synthesize and avail it information to researchers and students at Kizimbani Research and training institutes. • Information and Communication Unit is producing radio and TV programmes for farmers and other clients. They also produce programmes for sensitization of policy makers to understand farmers production problems and constraints <p>Main problems identified are:</p> <ul style="list-style-type: none"> • Human resources: the Commission is facing shortage of professional staff to handle new equipments received. Currently 1 staff has gone for further studies in ICT at Makerere University, Uganda. Other technical staffs need short courses to improve their skills but there is financial constraint to achieve the goal. • Transport: the Information and Communication Unit is lacking reliable transport to make the team mobile to capture episodes required for preparation of TV and materials for radio programmes. • The Commission is allocated only 15 minutes of airtime for radio and 15 minutes for TV programme in government owned stations. Staff interviewed felt that it is not enough to disseminate a lot of research findings available in research shelves and from other sources.

<p>Name of institution: Ministry of Agriculture, Natural Resources, Environment and Cooperatives (MANREC) - Commission for Agricultural Research and Extension also known in Kiswahili as “Kamisheni ya Kilimo, Utafiti na Elimu kwa Wakulima (KUEW)</p>
<p>Efforts to get more airtime proved futile because of the cost involved the Commission cannot afford.</p> <ul style="list-style-type: none"> Financial resources: there is limited budget from government compared to the mandate given to the Commission to produce and disseminate technologies. Lack of communication strategy might be a contributing factor since there is no basis for allocation of more funds from the government allocations.
<p>Successes/main problems faced in terms of knowledge management:</p> <p>Knowledge sharing and management is happening during regular departmental meetings. It was noted that the office does not have L/WAN to facilitate smooth knowledge and information sharing among staff and with other institutions within the country and outside. In addition, there is inadequate expertise to establish and maintain database for research and extension.</p>
<p>Why institution selected as a key:</p> <p>The Commission for Agricultural Research and Extension has the mandate for ensuring agriculture and rural development in the Zanzibar Islands. This makes it an focal institution in effort to reduce poverty and attain Millennium Goals. It is therefore a potential for collaboration with CTA in receiving and disseminating products and services to farmers and other key stakeholders.</p>
<p>Other observations:</p> <p>The institution expressed its willingness to collaborate with CTA.</p>

Persons interviewed:

- i. Mberik Rashid Said – Commissioner for Agricultural Research and Extension
 - ii. Othman Ally Maulid – In-charge of Information and Extension Section
- Contact: P.O. Box 159, Zanzibar, Tanzania

Name of institution: Zanzibar Farmers and Fishermen Development (ZAFFIDE)
<p>Postal Address: P.O. Box 159, Zanzibar, Tanzania</p> <p>Physical address: Forodhani – Kilimo Building, Zanzibar</p> <p>Country: Tanzania</p> <p>Tel. Landline: +255 777 420431</p> <p>Email: zaffide2004@yahoo.com</p> <p>Website: NIL</p> <p>Type of the Institution: NGO</p> <p>Role: TR, RU, IN, EX and other include Consultancy services, lobbying and advocacy</p>
<p>Mission statement/objective:</p> <p>ZAFFIDE will work in a transparent and accountable manner to deliver demand driven extension, training and consultancy services to farmers, livestock keepers and fishers, and to address cross cutting issues related to HIV/AIDS, gender, malaria and environmental conservation in order to secure their livelihoods sustainably and foster their social and economic development.</p> <p>To achieve this it has the following objectives:</p> <ol style="list-style-type: none"> 1. To strengthen the internal capacity of ZAFFIDE to effectively deliver services to its stakeholders 2. To analyse livelihood requirements of ZAFFIDE stakeholders and then support appropriate interventions 3. To advocate policy and strategies that defend and promote interest of ZAFFIDE stakeholders 4. To support and provide training to communities in natural resources management, HIV/AIDS and malaria pandemics and/or gender mainstreaming. 5. To enhance networking between stakeholder groups 6. To develop a system of good governance within ZAFFIDE.
<p>Field of specialisation: conduct training in the following fields</p> <ol style="list-style-type: none"> 1. Agriculture: mainly agronomy, horticulture, extension, mechanisation and irrigation 2. Livestock: dairy (cattle and goats); poultry and animal health/veterinary services. 3. Natural resources management: fishing, fish marketing, industrial fishing 4. Forestry: nursery establishment and management; Natural reserves conservation and wildlife management, 5. Cross cutting issues: gender, HIV/AIDS, malaria, environment, advocacy, lobbying on policy issues <p>These are managed through five main departments, namely:</p> <ol style="list-style-type: none"> 1. Crop husbandry 2. Livestock management 3. Natural resources management 4. Cross cutting issues 5. Planning and Administration

Name of institution: Zanzibar Farmers and Fishermen Development (ZAFFIDE)
Number of staff: Permanent staff = 4 <ul style="list-style-type: none"> • Professional = 1 • Technical = 1 (employed on 2 years contract to support implementation of a project on vegetables production supported by EU through an Italian Government. • Support staff = 2 Volunteers: 39 who are basically members of the association
Branches: Established a branch in Pemba but still in its infancy.
Annual budget: Internally generated funds to cover operational costs: TZS 15 million (equiv. Euro 8,018.26) External through donor support: TZS 70 m (equiv. Euro 37,418.55) (depending on activities/project implemented)
Source of funding: <ul style="list-style-type: none"> • Internal sources not specified but include members own contributions. • Donors: EU, Italian government, UNDP (for the project just ended)
Programme/projects undertaken: The main programme and services offer by ZAFFIDE include: <ul style="list-style-type: none"> • Training of farmers, livestock keepers and fishermen in various subjects that they request (demand driven) • Formation and support of groups and associations, including the establishment of farmers field schools and Saving and Credit Cooperative Societies (SACCOS) • Organise farmers, fishers, livestock keepers' field days and study tours. • Establish farmers, fishers and livestock keeper-managed demonstration plots for food crops • Information resources centre to enable farmers to have access to knowledge, information (especially market information) and skills related to their activities; and to provide a place and environment whereby farmers, fishers, livestock keepers with different background and those with common problems could share information, experiences and discuss issues that affect them in farming.
Target audience: ZAFFIDE target farmers (of both crops and livestock) and fishers in Zanzibar. Specifically it targets disadvantaged groups to support them improve livelihoods through development interventions to: <ol style="list-style-type: none"> 1. Women, particularly single mothers, widows, and those living in rural areas 2. Farmers in coral rag areas, particularly women seaweed farmers 3. The disabled, particularly those who are blind and weak bodied 4. Small scale (Artisanal) fishers (the vast majority of Zanzibar) 5. Small scale livestock keepers 6. Rain-fed farmers 7. The Youth 8. People living with HIV/AIDS 9. The illiterate, and 10. Orphans

Name of institution: Zanzibar Farmers and Fishermen Development (ZAFFIDE)
Extent of interaction with CTA: Aware of CTA <i>Spore</i> magazine and receive individually
Appreciation of CTA's products and services: Very useful, they receive new information on improved technologies and rural development in general.
Extent of collaboration / interaction with other institutions: ZAFFIDE is collaborating with various institutions locally and internationally. These include: <ol style="list-style-type: none"> 1. Tanzania Organic Agriculture Movement (TOAM) 2. Tanzania Association of NGOs (TANGO) 3. Tanzania Organic Certification Association (TANCERT) 4. Mtandao wa Vikundi vya Wakulima Tanzania (MVIWATA) meaning National Network of Small-scale Farmers Groups in Tanzania. 5. Africa 2000 Network programme of UNDP 6. FAO 7. JICA 8. Embassy of Finland 9. Farm Africa, and 10. Action Aid
National / sectoral policies impacting ICT use / information and communication within the institution: The ICT policy positively facilitated communication between ZAFFIDE and its partners. However, lack of Internet connection is limiting this process. Government support to NGO like this to joint the e-learning is limited.

Name of institution: Zanzibar Farmers and Fishermen Development (ZAFFIDE)
<p>How information needs are currently met, and from where or by whom:</p> <p>ZAFFIDE is getting information on agricultural needs from the:</p> <ul style="list-style-type: none"> • Ministry of Agriculture's booklets and flyers • Meeting with beneficiaries • University research papers • CTA <i>Spore</i> magazines • Internet search on various websites • Fairs and exhibitions <p>ZAFFIDE is collaborating with various institutions locally and internationally which provide them with information on general rural development, technical, economic and others to meet their needs. These include:</p> <ol style="list-style-type: none"> 1. Tanzania Organic Agriculture Movement (TOAM) on aspects related to standards for organic products 2. Tanzania Association of NGOs (TANGO) as an umbrella organisation where they exchange information on various regulations and guidelines 3. Tanzania Organic Certification Association (TANCERT) for certification of organically produced products of farmers in the islands 4. Mtandao wa Vikundi vya Wakulima Tanzania (MVIWATA) meaning National Network of Small-scale Farmers Groups in Tanzania is an umbrella organisation which is implementing joint programmes with ZAFFIDE in promoting farmers networking to be heard when lobbying for better policy environment. <p>Past collaboration in with:</p> <ol style="list-style-type: none"> 5. Africa 2000 Network programme of UNDP supported community based participatory needs assessment for beneficiary communities e.g. the Tumbatu community assessment study in 1997 that led to development of a community development plan. 6. FAO – support for tree nursery establishment and management 7. JICA – information exchange 8. Embassy of Finland in development of a strategic plan for ZAFFIDE 9. Farm Africa on natural resources management and conservation. <p>Most of the collaborative arrangements are on project and/or on individual basis. Hence they stopped once the project ends or the contact person move to another assignment. Staff interviewed encouraged institutional linkages rather than individual contacts.</p>

Name of institution: Zanzibar Farmers and Fishermen Development (ZAFFIDE)
<p>Main information needs not satisfied (including types and format of information): Members of ZAFFIDE interviewed expressed the need to get more information about:</p> <p>Broad rural development information:</p> <ul style="list-style-type: none"> • Conferences and meetings • Development and funding programmes • Available agricultural/development networks (regional and international) • Farm problems from areas with similar environment <p>Under technical information they would need information on:</p> <ul style="list-style-type: none"> • Patents in suitable formats that they can share with its members and beneficiaries • Equipment sourcing/availability especially for value addition; and • Industrial profiles <p>Economic information include:</p> <ul style="list-style-type: none"> • Market data • Identification of markets • Commodity profiles <p>Training needs in:</p> <ul style="list-style-type: none"> • Management of information within the organisation • Editing of reports • Application of communication technologies in extension services like question and answer using mobile phones and Internet. <p>Format that are difficult to access:</p> <ul style="list-style-type: none"> • Some journal articles • Patents • Statistical data
<p>Successes/main problems faced in terms of information and communication management: ZAFFIDE is an information centre mainly providing technical information on different issues to farmers and investors related to organic farming, beekeeping and spice production. It has organised seminars and workshops for its stakeholders. For example in 2007/08 sensitized farmers to utilise services provided at their information centre and formation of SACCOS to:</p> <ul style="list-style-type: none"> • 30 livestock keepers • 30 fishers • 29 crop producers <p>Constraints faced:</p> <ol style="list-style-type: none"> Limited space at the information centre to store more information collected from various sources. This problem is being addressed and they expect to get a bigger office. Limited equipment for documentation and publication of information for distribution like computers, printers and other ICTs. Have adequate staff but need further training on ICT to handle new challenges Financial limitation to meet needs of their beneficiaries

Name of institution: Zanzibar Farmers and Fishermen Development (ZAFFIDE)
Successes/main problems faced in terms of knowledge management: Through projects they produced leaflets, posters for distribution to their target audiences. However, knowledge sharing among members of ZAFFIDE and its partners is limited due to limited connectivity to Internet.
Why institution selected as a key: ZAFFIDE is constituted by technical experts who aim at complimenting government efforts to reduce poverty. The organisation is uniting fishermen and farmers, and is capable of reaching poor farmers and fisher folks especially women and the disadvantaged groups.
Other observations: None

Persons interviewed:

Salum Rehani – Deputy Secretary

And

Othman Ally Maulid – Member (Extension Specialist)

P.O. Box 159, Zanzibar, Tanzania

Tel. contact: +255 777 420431

Email: oallymamp@yahoo.com

Others were:

Sada Hassan – Office Secretary

Faida Hamisi Alli – Planning officer

Name of institution: Kizimbani Agricultural Training Institute (KATI)
Postal Address: P.O. Box 149, Zanzibar, Tanzania Physical address: Kizimbani Area located in Western District of Zanzibar West Town Country: Tanzania Tel. Landline: +255 713 562967 Email: NIL Website: NIL Type of the Institution: GOV. Role: TR, RU and EX.
Objective: <ul style="list-style-type: none"> • To provide training to ex-secondary school leavers at certificate level • Provide short term training to village extension officers • Provide short courses to farmers and livestock keepers
Field of specialisation: Training in the following fields Animal health and production Crop production including spices production Farm power including animal drawn technologies and tractor driven machines Extension and outreach to farmers Soil and water management Pasture and fodders management
Number of staff: In total the institute has 54 staff, Professional = 6 graduates at MSc and BSc level in fields mentioned above. Technical staff = 12 including one librarian (ex-secondary school who received short on-the-job training) Support staff = 36 including 2 secretaries responsible for documentation
Branches: None.
Annual budget: Total operational cost is TZS. 55 million (Euro equiv. 29,400.29) excluding salaries. Only about 10 percent of the budget is used for ICM including procurement of computers and printers; report writing and dissemination to various stakeholders.
Source of funding: <ul style="list-style-type: none"> • Government of Zanzibar • Projects like Participatory Agricultural Development and Empowerment Project (PADEP); Agricultural Sector Support Project (ASSP).

Name of institution: Kizimbani Agricultural Training Institute (KATI)
Programme/projects undertaken: <ul style="list-style-type: none"> • Training of ex-secondary school leavers who will later be employed as extension workers in the villages and various development programmes including NGOs working in agriculture and rural development • Training of Block extension staff who are working with grass root communities • Training of farmers on improved management crops including spices farming, cassava production and IPM. • Training of livestock keepers on improved management of dairy animals (cattle and goats) and poultry.
Target audience: <ol style="list-style-type: none"> 1. Young men and women from secondary education studying sciences 2. Block extension workers for short courses 3. Farmers groups 4. Youth groups including those affected by drug abuse participating in a rehabilitation programme
Extent of interaction with CTA: Staff interviewed was not aware and have no interaction with CTA.
Appreciation of CTA's products and services: Not applicable.
Extent of collaboration / interaction with other institutions: The institute interacts with the following institutions: <ol style="list-style-type: none"> 1. Sokoine University of Agriculture: information exchange when they send students from SUA for practical sessions at KATI 2. Tengeru Livestock Training Institute – mostly for students exchange programmes 3. Embassies like Netherlands, Norway, Japan send students on exchange programme and for practical sessions 4. Japan International Cooperation Agency (JICA) – sent volunteers in rice irrigation exchange programme 5. Korea International Cooperation Agency (KOICA) provide short training in country and in Korea; Tutors also were sent to Korea for short training
National / sectoral policies impacting ICT use / information and communication within the institution: Staff interviewed had not seen the ICT policy but was aware that through ICT policy taxes were waived and this enabled the institute to acquire one computer. Through support from Projects like PADEP and ASSP they also received more computers and now every section has one computer. ICT has simplified information and communication management. This is a positive impact that enables them produce leaflets and manuals for their students and other clients.

Name of institution: Kizimbani Agricultural Training Institute (KATI)
<p>How information needs are currently met:</p> <ul style="list-style-type: none"> • Meeting with researchers at the local research institutions • Universities specifically Sokoine University of Agriculture, Egerton University of Kenya through collegial relationships • Collaboration with various universities where staff were trained like in the Netherlands, Philippines, New Zealand, Australia, UK and USA. • Regional and international research institutes like International Livestock Research Institute (ILRI); International Rice Research Institute (IRRI) and World Agro-forestry Centre (ICRAF). • Access to Global Online Research in Agriculture (AGORA).
<p>Main information needs not satisfied:</p> <p>The institute has no Internet connections and cannot afford to subscribe to important information sources. This limit access to information on broad rural development (in order of priority):</p> <ul style="list-style-type: none"> • Government and international regulations • Potential development and funding programmes • Available agricultural/development networks both local, regional and international • Trade fairs to promote products of farmers they support • Information on gender issues • Current social development issues • Farm problems • Non-farm livelihood opportunities • Occasions like conferences and meetings in which they could learn and share with colleagues. <p>There is also limited information on technical aspects especially:</p> <ul style="list-style-type: none"> • Post harvest technology • Crop varieties especially tolerant to diseases, drought and saline conditions • Integrated Pest Management • Industrial profile for processing and value addition • Equipment sourcing and • Patents <p>Furthermore, the institute need information of the following economic areas:</p> <ul style="list-style-type: none"> • Market data • Credit and micro-credit • Crop insurance systems – this is a new area which is not known to most trainers but felt that it is needed to educate farmers and other stakeholders <p>Identification of market especially spices which are being promoted in islands</p> <p>KATI also have training needs on:</p> <ul style="list-style-type: none"> • Application of communication technologies in extension services specifically how to manage question and answer systems using mobile phones • Participative methodologies e.g. FFS • Management of information in their organisation and • Editing of reports and translating into simple language for farmers.

Name of institution: Kizimbani Agricultural Training Institute (KATI)
<p>Successes/main problems faced in terms of information and communication management:</p> <p>The training institute is linked to a Documentation Centre located nearby at Kizimbani Agricultural Research Institute. This is where they access most of the information needed for their students. They also produce leaflets to cater for specific requirement of farmers and other stakeholders like on improved spice farming which is currently being promoted among farmers in the islands.</p> <p>Problems that limit accessibility of new products from other institutions locally and internationally are as follows:</p> <ol style="list-style-type: none"> 1. Lack of Internet connection – this problem has received attention of the government and there are plans to get Internet connections in the coming financial year. 2. Low capacity for ICM and ICT – need for support to train staff on use of ICT for information and communication management was identified. Currently staff especially secretaries and tutors are attending computer classes at State University of Zanzibar (SUZA) for general awareness of Microsoft windows modules.
<p>Successes/main problems faced in terms of knowledge management:</p> <p>The training institute provide training materials to students, farmers and other clients trained of visiting the institute on various crop and livestock management.</p>
<p>Why institution selected as a key:</p> <p>Kizimbani is the only training institute in the Islands of Zanzibar providing knowledge and information about agriculture and rural development. It is therefore a potential hub for dissemination of knowledge and information to farmers and other clients in Zanzibar.</p>
<p>Other observations:</p> <p>The institute is willing to collaborate with CTA but need support in capacity development in ICM and ICT.</p>

Suleiman O. Ludebwe,
Principal Kizimbani Agricultural Training Institute, Zanzibar
Tel: +255 713 562967

Name of Institution: Tanzania Fisheries Research Institute (TAFIRI)
<p>Postal address: P.O. Box 9750, Dar-es-Salaam, Tanzania.</p> <p>Physical address of Institutes' Headquarters: Kunduchi area near Kunduchi Fisheries Institute, Dar-es-salaam.</p> <p>Country: Tanzania</p> <p>Tel. Landline: +255 22 2650043 Mob: +255 784 369755 Fax: +255 22 2650043</p> <p>E-mail: bpngatunga@yahoo.co.uk (for the Director of Research)</p> <p>Web site: www.tafiri.go.tz</p> <p>Type and Role of Institution:</p> <p>Type of the Institution: State Enterprise (SE)</p> <p>Role: RD, EX, IN, TR and RU</p>
<p>Objective/mission statement:</p> <p>TARIFI strives to promote, conduct and manage fisheries research and consultancy for sustainable development of fisheries in Tanzania.</p> <p>The strategic plan of TAFIRI has set priority/strategic objectives for the period 2006/07 – 2010/11 in line with its vision, mission and mandates. A total of nine strategic objectives that will be implemented during the five year period include:</p> <ul style="list-style-type: none"> • Institutional capacity and working environment strengthened • Fish farming developed and improved • Research capacity strengthened • Research in marine both in territorial and EEZ conducted • Research in Great African Lakes and small water bodies carried out • Statistical data collection system harmonised and institutionalised • Local, regional and international research collaboration enhanced • Management Information Systems strengthened • Research in fish processing, marketing and socio-economics emphasised.
<p>Field of specialisation:</p> <ul style="list-style-type: none"> • Fisheries Research focusing on: • Biology and Genetics • Socio-economic aspects of fisheries including livelihoods of fisher folks • Gear technology and management • Fish processing and value adding • Fish farming (aquaculture)
<p>Number of staff:</p> <p>In total there are 109 professional, technical and support staff.</p> <p>Professional = 54, of which 6 have PhD and the other are at various stages of studies (12 PhD and 27 MSc)</p> <p>Technical staff = 33</p> <p>Support staff = 12</p> <p>Key skills of staff at TAFIRI include:</p> <ul style="list-style-type: none"> • Fish management

Name of Institution: Tanzania Fisheries Research Institute (TAFIRI)
<ul style="list-style-type: none"> • Stock Assessment • Marine Biologist • Aquaculture • Fish Genetics • Bio-diversity • Socio-economics <p>In terms of ICM, TAFIRI have 4 librarians, mostly secondary school leavers who received on-the-job training. These are supported by 1 to 2 supporting staff in each of the three libraries. There is no ICT specialist.</p>
<p>Branches:</p> <p>Main branch is in Kunduchi Dar-es-salaam where there is a Director General is assisted by the Director of Finance and Administration and the Director of Research. Under the Director of Research there are thematic leaders including Head of:</p> <ul style="list-style-type: none"> • Project and Programmes • Marine Research • Fresh water research • Aquaculture • Planning and cross cutting issues • Documentation Unit <p>Other branches are.</p> <p>Mwanza Fisheries Research Centre situated in Nyegezi near Freshwater Fisheries Training Centre. Contact: The Director, P.O. Box 475, Mwanza, Tanzania. Specialised in Freshwater fisheries research in Lake Victoria.</p> <p>Kigoma Fisheries Research Centre located near District Natural Resources offices. Contact: The Director, P.O. Box 90, Kigoma. Specialised Freshwater Fisheries Research in Lake Tanganyika.</p> <p>Kyela Fisheries Research Centre in Kyela, Mbeya region specialised in freshwater research in Lake Nyasa. Contact: The Director, P.O. Box 98, Kyela, Mbeya, Tanzania.</p> <p>There are also small branches at Sota and Shirati in Mara region which support the Lake Victoria research activities</p>
<p>Annual budget:</p> <p>Annual total budget is not known because there are many funding sources including government and donors. The government is providing about TZS 500 million (Euro equivalent is 267,275.34) for other charges excluding salaries. Amount allocated to ICM is estimated to be 1% of the total budget (or less) which is TZS 5 million (equiv. to Euros 2,672.75).</p>
<p>Main sources of funding include:</p> <p>The Government of Tanzania provides for salaries and office running charges</p> <p>Donors – there are several, but the main ones support specific areas of research are as follows:</p> <p>Lake Victoria – European Union and Japan</p>

Name of Institution: Tanzania Fisheries Research Institute (TAFIRI)
Lake Tanganyika - USAID, Canada, Japan, Marine research – EU, Japan, World Bank and SIDA
<p>Programme / projects undertaken: Apart from programmes on fresh water and marine research TAFIRI is maintaining two database:</p> <ul style="list-style-type: none"> • Coelanth database – the species that was feared extinct, but recently discovered in the Tanzania shores of Indian Ocean and there is special focus to monitor their presence. • Main database for all other fish information required for research use <p>These provide specific information for fisheries research and management.</p> <p>TAFIRI also have 4 libraries located at the Head quarters, Mwanza, Kigoma and Kyela centres. There is a Documentation centre located at the head quarters but not very active due to limited technical expertise and financial resources. TAFIRI in the past with support from donors to produce a bulletin in which all research findings were documented and communicated to fellow scientists and the general public. Production of bulletin stopped due to funding limitation. Currently individual researchers are publishing papers in local and specialised international journals.</p>
<p>Target audience: Include all people dealing with fish. Specifically they target:</p> <ul style="list-style-type: none"> • Fishermen both doing fishing, processing and marketing • Government institutions and policy makers which benefits from advisory services provided by the institutes • Investors including those fishing and processors • Consumers and the general public who benefit from information on safety of fish consumed
<p>Extent of interaction with CTA: Interaction is on individual basis where researchers subscribe to <i>Spore</i> magazine and books. Currently, they are not receiving the magazine. Other products and services like SDI, QAS, DORA and training opportunities were not known and thus not used.</p>
<p>Appreciation of CTA's products and services: Interviewed staff appreciated the <i>Spore</i> magazine which he used to receive that it was useful as it provided current information about rural development and occasionally on fish management. Complained that <i>Spore</i> Magazine is biased in crop and livestock with very little coverage in fish farming. Currently he is not receiving the product and was encouraged to re-subscribe as an institutions.</p>
<p>Extent of collaboration / interaction with other institutions: Locally there is close working relations with the following institutions:</p> <ul style="list-style-type: none"> • University of Dar-es-salaam on marine biology and engineering research and training activities • Sokoine University of Agriculture on aquaculture research and training • National Institute of Medical Research on effect of fishing and fish farming on human health • Tanzania Wildlife Research Institute (TAWIRI) on mammals' research like turtles, whales, and <i>Pomboo</i> fish; and the relationship between fish and Hippos' population

<p>Name of Institution: Tanzania Fisheries Research Institute (TAFIRI)</p> <ul style="list-style-type: none"> Tanzania Forestry Research Institute on mangrove research along the coastal areas <p>Regionally, they collaborate with:</p> <ul style="list-style-type: none"> East African countries on research and training activities and information exchange. The most active are in Lake Victoria where they collaborate with Kenya Marine Fisheries Research Institute (KEMFRI) and Ugandas' Fisheries Research Institute (FIRI). South Africa Institute of Aquatic Bio-diversity for collaborative research, information exchange and training Other Southern African Development Community (SADC) members – information exchange <p>International main institutions include:</p> <ul style="list-style-type: none"> Wageningen University of the Netherlands – basically for training and collaborative research and information exchange Tokyo Institute of Technology – training, collaborative research and information exchange University of Arizona for training University of Waterloo Canada – research and training Begin University of Norway – training Uppsalla University of Sweden
<p>National / sectoral policies impacting ICT use / information and communication within the institution:</p> <ul style="list-style-type: none"> Mainly <u>positive impact</u> as the Minister supported the idea that TAFIRI should get government support to get connected to Internet services Generally, access to Internet services improved communications with peer researchers from local, regional and international institutions working on similar research area
<p>How information needs are currently met:</p> <p>The 4 libraries located at the Head quarters, Mwanza, Kigoma and Kyela centres collect, store, disseminate and exchange information with collaborating institutions within the country (including University of Dar-es-salaam, Sokoine University of Agriculture and Institute of Marine research in Dar-es-salaam. Regionally share exchange information with research institutions in Kenya (KEMFRI) and Uganda (FIRI). Internationally individual researchers also access a variety of information through Internet and websites related to fisheries sciences. In addition, scientists have access to information from their colleagues in Universities where they attended or doing collaborative research.</p>
<p>Main information needs not satisfied:</p> <p>Types of information/advice needed by TAFIRI that is not satisfied include:</p> <p><i>Broad rural development information:</i></p> <ul style="list-style-type: none"> Social development issues of fisher-folk communities especially in dealing with challenges like HIV/AIDS and livelihood development in general Gender issues Fish farming Development and funding programmes especially on fish farming to support smallholder fish farming Trade fairs and Conferences and meetings

Name of Institution: Tanzania Fisheries Research Institute (TAFIRI)
<p>Technical information:</p> <ul style="list-style-type: none"> • Fish varieties suitable for tropical environment especially for small fish farming • Fish feeding and management • Diseases and pest control • Pond construction • Post harvesting technologies for fish and fish products • Grading systems for fish and fish products • Equipment sourcing and availability <p>Economic information:</p> <ul style="list-style-type: none"> • Identification of markets • Market information and data <p>Training needs:</p> <ul style="list-style-type: none"> • Application of communication technologies in extension services on fish farming • Management of information within the organisation • Participative methodologies particularly in fish farming on how to involve fishing communities and in conducting social research related to livelihoods fisher folks. <p>These could be in scientific formats like journal, but more important in forms and language that could be shared with beneficiaries like farmers and fisher folks.</p>
<p>Successes/main problems faced in terms of information and communication management:</p> <p>TAFIRI is accessing information from collaborating institutions. However, generally there is low capacity for ICM in documentation and communication of research products caused by:</p> <p>Human resources:</p> <ul style="list-style-type: none"> • Lack of expertise in ICM and ICT, the librarians are inadequately trained in ICM and there is no ICT expert. <p>ICM/ICT resources:</p> <ul style="list-style-type: none"> • TAFIRI is not yet have Internet connection which is big limitation to scientists. Currently, all email communications are on individual basis. The problem will be address in the coming financial year and the budget is provided by the government to support the centre get local area network (LAN). • Lack of science journal to publish the country's scientific research that could be used by all sciences in the country <p>Non-supportive regulations</p> <ul style="list-style-type: none"> • Limited communication to the general public due to regulations about communicating information that the spokesman of the institution is the Director General. This led to limited information dissemination to peers who can understand and access scientific information that are published in science journals which are mostly external and mostly not accessible easily to target audiences. <p>Financial resources:</p> <ul style="list-style-type: none"> • Low financial capacity as indicated in the financial part that less than 1% of other charges is allocated for ICM and ICT. This is due to lack of will by the management to support development of ICT and ICM. Individual researchers get limited support from donor funded projects.

Name of Institution: Tanzania Fisheries Research Institute (TAFIRI)
Suggestions for improvements: <ul style="list-style-type: none"> i. Develop capacity of staff and utilise their expertise effectively ii. The government should support the institutions to get connected to L/WAN so that they access and disseminate information iii. TAFIRI to have a policy and communication strategy that encourage researchers to document and communicate research findings to public iv. National institutions like Science and Commission (COSTECH) should also consider having a national scientific journal for scientist to document and publish locally and make it available to the public. v. Encourage individual research projects to allocate resources for supporting the institute with ICM and ICT.
Successes/main problems faced in terms of knowledge management: <ul style="list-style-type: none"> • Lack of W/LAN limit exchange and sharing of information locally and with other institutions, but also with international community.
Why institution selected as a key: <p>TAFIRI is a potential partner in efforts to reduce poverty in Tanzania. As a sub-sector in agriculture, TAFIRI is producing products and services to improve fisheries sub-sector in efforts to improve fish farming so as to improve supply of protein food sources and livelihoods in general. There is limited capacity for ICM in TAFIRI where information about improved fish farming is not available to target audiences. Involving them will help to improve dissemination of fish farming and aquaculture knowledge among farmers, fisher folks and consumers.</p>
Other observations: <p>TAFIRI is very willing to collaborate with CTA. There is great potential for involving TAFIRI as they have great research capacity to generate knowledge and information on fish farming which if integrated with other farming activities like livestock keeping can be a source of diversification of income and hence improve livelihood of farmers.</p>

Person interviewed:

Dr. Benjamin Peter Ngatunga PhD, Director of Research

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Name of institution: Tanzania Chambers of Commerce, Industry and Agriculture (TCCIA)
Postal address: P.O. Box 9713, Dar-es-salaam, Tanzania Physical address: Twiga House, 2 nd Floor, Samora Road, Dar-es-Salaam Country: Tanzania Tel: +255 22 2119436; Fax: +255 22 211 9437 Email: hq@tccia.com Website: www.tccia.com Type of Institution: CCI Role: PP, EX, RD, TR, Other includes advocacy and lobbying for conducive business environment and development of infrastructure.
Objective/mission statement: TCCIA Mission is to strengthen and unite the Private Sector in Tanzania and Africa in general by: <ul style="list-style-type: none"> • Promoting and assisting businesses to become competitive and successful • Providing effective business representation • Advocating for an ideal business environment • Providing quality services • Upholding highest standards of business ethics • Promoting collaboration and networking among business organizations • Building a strong and sustainable business organization
Field of specialisation and technical divisions are related to its mandate in: <ul style="list-style-type: none"> • Industry • Commerce • Agriculture • Information and Documentation • Marketing • Finance and organisation development
Number of staff: Total staff at the Headquarters = 22 Professional staff = 9 Technical staff = 10 Support = 3 In the regional offices at least 1 Professional and 1 Secretary. Occasionally they do get volunteers from collaborating institutions.
Branches, other sites: 21 branches in all regions in Tanzania and 85 districts have opened offices. The aim is to go as far as ward level.
Annual budget: (in local currency with Euro equivalent): The budget depends on projects implemented in a specific period. Last year the budget is estimated to be TZS. 400 million (equiv. Euro 213,820.27). About 10% is used in ICT and ICM like Internet fees, buying equipment, printing, etc.

Name of institution: Tanzania Chambers of Commerce, Industry and Agriculture (TCCIA)
Source of funding: <ul style="list-style-type: none"> • Member contributions • Donors: various through projects but currently receiving support from Swedish International Development Agency (SIDA)
Programme / project undertaken: <ul style="list-style-type: none"> • In collaboration with DAIPESA a local NGO in Dar-es-salaam participate in promotion of rural based SME initiatives with support from Belgium Embassy. • Mobilise members from SMEs to join the chambers and promote partners match-making • Maintaining a database and a directory for members and potential business partners from all countries. It has a description of 1.8 million companies and business partners from 75 countries. • Support its members to sought for investment partners and issuing of business certificates • Maintaining the website that collect, disseminate information to its members and business partners and link to other websites • Printing of newsletter, booklets and leaflets • Maintaining small libraries in each region • Organising and participate in exhibitions and exchange visits for its members. • TCCIA collaborate with its sister chambers of commerce in member countries of East Africa Community, SADC, AU and others in the world for information exchange and sharing. • Business promotional events such as business delegations are very important for the international trade. Each year TCCIA as only host or as coordinator is organizing business delegations to various countries. TCCIA is also welcoming and hosting business delegations from other countries as well as co-operating with other institutions and organizations for these events.
Target audience: <ul style="list-style-type: none"> • Member organisations and companies • Policy makers for lobbying in issues affecting the economy like taxes and business environment in general
Extent of interaction with CTA: Have not received any products and services from CTA, but felt there is a need to interact so that they get more information particularly on agriculture and rural development because of its focus on SME.
Appreciation of CTA's products and services: Not applicable
Extent of collaboration / interaction with other institutions: <ul style="list-style-type: none"> • TCCIA is an associate member to various local and international bodies such as the EAC, SADC, COMESA, The International Chamber of Commerce (ICC) and many African and Overseas Chambers of Commerce with whom TCCIA has signed Memoranda of Association. The Linkages place the TCCIA Members on the World Business Map • TCCIA collaborate with Investment Trading Centre (ITC) and United Nations Conference on Trade and development (UNCTAD) to create an enabling environment for international trade and enterprise development; attend to seminars,

<p>Name of institution: Tanzania Chambers of Commerce, Industry and Agriculture (TCCIA)</p>
<p>workshops and conferences; receive publications.</p> <ul style="list-style-type: none"> • TCCIA also collaborate with the World Bank, IFAD, FAO and other UN organisations related to trade and development. • TCCIA have close working relationship with Commission of Science and Technology (COSTECH) of Tanzania on technical matter. It also works with Business Registration and Licensing Agency of Tanzania for legal advisory services.
<p>National / sectoral policies impacting ICT use / information and communication within the institution:</p> <p>Aware of the National policy on ICT and appreciate that it has enabled most institutions including TCCIA to access information through Internet connection.</p> <p>However, staff interviewed was not satisfied with the support provided by the government in that access to information is urban biased. Rural areas are not adequately covered. Radio which is the most convenient communication media is not used effectively to bring about changes in rural areas on health, agriculture and trade. Information provided is more political, lacking technical input from scientists.</p>
<p>How information needs are currently met:</p> <p>All staff at TCCIA headquarters has access to computers to facilitate working and communication. All regional offices have computers and are connected to Internet to facilitate communication with its members and key stakeholders.</p> <ul style="list-style-type: none"> • Internally, there is exchange of information and knowledge with its member organisations through Internet. • Through websites they access information from United Nations organisations like UNCTAD, IFAD and FAO on matters related to trade, investment and enterprise development and share it with member organisation. • Participation in trade fairs and exhibitions organised locally in the country like the annual SABASABA Trade fair and NANENANE Agricultural shows. Internationally, they participate in most trade fairs through mobilisation of resources its member organisations to attend. • Collaborate with chambers in countries who are member of EAC, COMESA, SADC, AGOA, etc. • Exchange visits in the country, regionally and international
<p>Main information needs not satisfied:</p> <p>Internally they need information about policy research (national, regional and international) and application of ICT in knowledge and information management.</p> <p>Their members needs information on:</p> <ul style="list-style-type: none"> • Commodity profile what to produce and the prices of these commodities; • Identification of reliable market information of various products; • Value addition information
<p>Successes/ main problems faced in terms of information and communication management:</p> <ul style="list-style-type: none"> • They have organised information and knowledge exchange visits within and outside the country for its member organisation which helped to create awareness on various issues related to trade and entrepreneurship. • Organised training for members organisations and provide advisory services

Name of institution: Tanzania Chambers of Commerce, Industry and Agriculture (TCCIA)
<ul style="list-style-type: none"> • Publish Bimonthly Newsletter distributed to its member organisations • Through websites share information within and from outside the country. <p>Problems experienced:</p> <ul style="list-style-type: none"> • Limited human resources: They have an ICT person who is managing its website, but lack trained librarian to manage information and documentation unit at the headquarters (one who was trained left to other organisation). At regional level Secretaries are the ones managing the libraries, but are not trained in ICM. • Limited financial resources for collecting and storing adequate information needed by its member organisations
<p>Successes/main problems faced in terms of knowledge management:</p> <ul style="list-style-type: none"> • There is limited participation of members in exchanging information through Internet and hence knowledge sharing not very effective limiting decision making in joint programmes implemented by the chamber.
<p>Why institution selected as a key:</p> <p>It is the umbrella organization that unites traders, manufacturers, suppliers, processors and transporters. Capable of reaching large number of stakeholders' supporting agricultural industry and rural development.</p>
<p>Other observations:</p> <p>None</p>

Person interviewed:

Adam A. Zuku, Chamber Development Officer (Industry)
Email: adzuku@gmail.com

Name of institution: FAIDA- MARKET LINK (FAIDA-MALI)
<p>Address: P.O Box 13869, Arusha, Sekei Area, Off Barabara ya Afrika Mashariki, Opposite Mount Meru Hospital, Tanzania</p> <p>Tel: +255 027 2503549; Fax:+255 027 2504080 Cell:+255 754 962800</p> <p>E-mail: faida@faidamarketlink.or.tz Web site: http://www.faidamarketlink.or.tz</p> <p>Type of institution: NGO Role: RU, TM</p>
<p>The mission statement:</p> <p>FAIDA MALI mission is to empower women and men in Rural Tanzania to access markets through capacity building of community based organizations and implementation of the market linkage methodology in order to increase income and create employment opportunities in rural areas.</p>
<p>Field of specialisation:</p> <ul style="list-style-type: none"> • Market linkages • Capacity building to farmer groups • Capacity building to other development organizations
<p>Number of staff professional, clerical, technical, etc; permanent / temporary):</p> <p>Total: 17 Professionals:7 Technical:2 Clerical: 8</p> <p>There are currently 2 post-graduate students from Sokoine University of Agriculture on field attachment.</p> <p>Key skills: Marketing Plant breeding Agribusiness and Economics Accounts</p>
<p>Branches and other sites:</p> <p>FAIDA MALI Office is based in Arusha, but works also from Districts; Muheza, Same, Moshi-Rural, Hai, Babati, Singida.</p> <p>There are technical divisions linked to areas of speciality of staff, namely: Accounts department Market linkages and training department Plan and research</p>
<p>Annual budget:</p> <p>The total annual budget of the organization is approximately €320,000 and 1/8 of the total budget €40,000 is used for ICM activities (ICM is very important in the success of the organization but due to limited budget that is what the organization can afford to use)</p>

Name of institution: FAIDA- MARKET LINK (FAIDA-MALI)
Source of funding: FAIDA MALI is a non profit company its main source of funding is through donors and fees from consultancies undertaken.
Programme / projects undertaken: <ul style="list-style-type: none"> • Compilation of training material for agricultural markets • Formation of farmer groups for farmer's apex organizations (e.g. Mamba ginger growers) • Publication of newsletters, brochures • Organization of farmers workshops from regional, district, ward to village level • Participation in the Saba-saba trade fairs and Nane nane Agricultural Shows annually. • Publication of promotional materials such as T-shirts, fliers, and leaflets • Mobilization of farmers • Co-authored a book titled "Chain Empowerment Supporting African farmers to develop markets"
Target audience: FAIDA-MALI targets: <ul style="list-style-type: none"> • Farmers in their groups • Other development organizations both local and international • Local Government authorities
Extent of interaction with CTA: The staff interviewed did not know the existence of CTA or of its products and services
Appreciation of CTA's products and services: Not applicable
Extent of collaboration / interaction with other institutions: Apart from linking with farmers, development organizations and local government authorities in establishing agricultural market linkages, FAIDA MALI collaborates with different organizations/institutions, locally, regionally and internationally: <ul style="list-style-type: none"> • TOAM • PELUM • TAFORI • TACRI • FARM AFRICA • ICRAF • ICRISAT • OXFAM AFRICA through joint projects, information and experience sharing <ul style="list-style-type: none"> • SUA: through training, students for research and field attachments, and as resource persons and sometimes collaborative projects • KIT universities in the Netherlands • ICUN • CIAT

Name of institution: FAIDA- MARKET LINK (FAIDA-MALI)
<p>National / sectoral policies impacting ICT use / information and communication within the institution:</p> <p>So far the government has done enough on the policy in ICT and information, by reducing tax on ICT equipments, but the Internet connection has remained expensive, there should at least be a tax intervention to enable ISPs to provide an affordable service, and tax on mobile handsets should be removed.</p>
<p>How information needs are currently met:</p> <p>Sources – Internal: The personal knowledge and information resources of the FAIDA MALI staff are important sources of information in their respective fields of specialization</p> <p>Sources – National and international:</p> <p>Organizations: Universities- Sokoine University of Agriculture, MVIWATA, Ministry of Agriculture, ASARECA, KIT-Netherlands, Commercial attaches at embassies, Regional research institutions</p> <p>Publications: Booklets/flyers from the Ministry of Agriculture, Food Security and Cooperatives</p> <p>Electronic Media: Internet (subscriptions to various online electronic markets)</p> <p>Other sources: Fairs and exhibitions; Nane nane and Saba saba, colleagues from other organizations, Agribusiness consultants.</p> <p>ICT Resources to support information acquisition and exchange:</p> <p>FAIDA MALI has 7 desktop computers and laptops (windows XP and VISTA all connected to a LAN. IT resources and the website are maintained by a contracted company (Arion)</p>
<p>Main information needs not satisfied:</p> <p>FAIDA-MALI staff are in need of range of information from social development issues, gender issues, development and funding programmes, available agricultural/development networks (regional and international) under the broad rural development and to have Jatropa development policy.</p> <p>As for technical information they would like to have information on Post harvest technology, crop varieties-especially drought resistant crops, equipment sourcing/availability, waste utilization, patents, industrial profiles and integrated pest management. Credit and micro-credit, market data, identification of markets, crop insurance systems under the economic information.</p> <p>Training needs: application of communication technologies in extension services, management of information within the organization especially database management and participative methodologies.</p> <p>The possible formats in which it may be most useful are</p> <ul style="list-style-type: none"> • Journal articles • Briefings/summaries • Standards • Patents • Material suitable for mass distribution • Material in appropriate languages.

Name of institution: FAIDA- MARKET LINK (FAIDA-MALI)
Successes/main problems faced in terms of information and communication management: Financial resources: lack of adequate funds to translate training modules to languages needed by clients in Tanzania and other countries such as Rwanda who have expressed interests. Human resources: lack of skilled staff to support market information department which needs a strong department with networks.
Successes/main problems faced in terms of knowledge management: FAIDA MALI has been able to publish a bi-annual newsletter called FAIDA MALI, a database for clients and information
Why institution selected as a key: FAIDA-MALI has emphasis on supporting farmers and link them with markets.
Other observations: The institution is supporting farmers to get to market

Persons Interviewed: Name: TOM SILLAYO, Market Linkages and Training Manager
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Email: tom.sillayo@faidamarketlink.or.tz tomsillayo@yahoo.com

Name of institution: Foundation of Civil Society - Acronym: FCS
<p>Address: P.O. Box 7192, Dar es Salaam, Tanzania</p> <p>Physical address of main location: Haidery Plaza, 5th floor, Upanga/Kisutu Street, Dar-es-salaam</p> <p>Tel:+255 22 - 2138530/31/32, +255 744 760770, +255 741 323175; Fax: +255 22 – 2138533</p> <p>E-mail: information@thefoundation-tz.org</p> <p>Web site: http://www.thefoundation-tz.org</p> <p>Type: NGO</p> <p>Role: IN, PP, RU, TR</p>
<p>Objective / mission statement:</p> <p>To provide grants and other capacity building support to civil society organisations to enable economically disadvantaged and vulnerable citizens to:</p> <ul style="list-style-type: none"> • Access information and understand policies, laws and their rights • Engage effectively in policy formulation and monitoring on poverty reduction • Contribute to social development and to constructively hold the government and private sectors to account <p>The Foundation aims to establish an intermediary support mechanism for civil society organisations in Tanzania which will enable effective engagement in poverty reduction efforts as set out in the Government of Tanzania policies: Vision 2025, the Tanzania Assistance Strategy, and the National Strategy for Growth and Reduction of Poverty (NSGRP).</p>
<p>Field of specialisation:</p> <p>FCS's core competences are in:</p> <ul style="list-style-type: none"> • Delivering grant aid • Supporting capacity building initiatives • Strengthening effective programmes in poverty reduction
<p>Number of staff:</p> <p>FCS staff team comprises of:</p> <p>Total number of staffs: 27</p> <p>Professionals – 20</p> <p>Clerical – 7</p> <p>Key skills of staff include:</p> <ul style="list-style-type: none"> • Monitoring and Evaluation • Policy and Development • Accounts <p>Technical:</p> <ul style="list-style-type: none"> • IT and database specialist
<p>Branches and other sites:</p> <p>The foundation works from its headquarters in Dar es salaam and has 3 departments: Policy and Development, Grants and Administrative and Finance Manager</p>
<p>Annual budget: (in local currency with Euro equivalent)</p> <p>The annual budget for the foundation is not the same every year. The annual budget for last year was about 980 million Tshs (Euro equivalent 523,859) and about 90 million Tshs (Euro equivalent 48,109) is used for ICM.</p>

Name of institution: Foundation of Civil Society - Acronym: FCS
Source of funding: Donors such as: <ul style="list-style-type: none"> • DFID • SDC • Embassy of Denmark • Irish Aid • Embassy of Norway • Embassy of Sweden • Embassy of the Netherlands
Programme / projects undertaken: The foundation has been involved in the following projects: <ul style="list-style-type: none"> • Training to Civil Society Organizations • Public Policy dialogues • Civil Societies Organizations • Bunge Exhibitions • Annual Civil Society Forum and Exhibition • Partnership and networking initiatives; Roundtable discussions • Publications, ICT and Publicity of Civil Society Organizations
Target audience: <ul style="list-style-type: none"> • Non-governmental organisation (NGO) • Community based organisation (CBO) • Trade Unions • Media organisation • Law makers • Donors Means of contact: <ul style="list-style-type: none"> • Conventional meetings • Newsletters • Publications • Reports • Tv Programmes • Letters • Media houses • Website
Extent of interaction with CTA: No interaction with CTA could be established.
Appreciation of CTA's products and services: N/A
Extent of collaboration / interaction with other institutions: The foundation collaborates with: <ul style="list-style-type: none"> • Government ministries • CIVICUS • Bunge (The parliament) – policy dialogue, information exchange • Baraza la wawakilishi (House of Representatives in Zanzibar) – exchange and sharing of information • Regional Networks – information exchange • Tanzania Library Services – information sharing and exchange • Universities – mainly in research and resource persons

Name of institution: Foundation of Civil Society - Acronym: FCS
<p>National / sectoral policies impacting ICT use / information and communication within the institution:</p> <p>The foundation is pleased to see that the government has enabled the availability of cheap computers in the country by reducing taxes to importing of computers</p> <p>The government has stayed away from hindering information exchange, the blogging system is actually growing very fast in the country.</p> <p>Wireless connection and Internet connection is still very expensive in the country for Civil society organizations to afford paying the monthly or annual subscriptions from providers.</p>
<p>How information needs are currently met:</p> <p><u>Internal sources:</u></p> <p>Staffs knowledge in different areas of specializations is the main source of information, the foundation library and in-house trainings.</p> <p><u>National and international sources:</u></p> <p>Organizations: Universities, Government ministries</p> <p>Publications. Research papers</p> <p>Electronic Media: Internet</p> <p>Other sources: staffs personal collections</p>
<p>Main information needs not satisfied:</p> <p>Information needs of the foundation</p> <ul style="list-style-type: none"> • Farm problems • Non-farm problems • Social development issues on rural development and civil society organizations • Gender issues • Government and international regulations • Conferences and meetings • Trade fairs • Development and funding programmes • Available agricultural/development networks (regional and international) • Patents <p>Economic Information</p> <ul style="list-style-type: none"> • Credit and micro-credit • Market data • Identification of markets • Commodity profiles <p>Training needs</p> <ul style="list-style-type: none"> • Application of communication technologies in extension services • Management of information within the organization • Participative methodologies <p>Type and formats</p> <ul style="list-style-type: none"> • Journal articles • Statistical data • Standards

Name of institution: Foundation of Civil Society - Acronym: FCS
<p>Successes/main problems faced in terms of information and communication management:</p> <p>The foundation has successfully implemented the following:</p> <ul style="list-style-type: none"> • Running and maintaining the foundation website • Launching foundation database • Online information to clients on the status of their applications • Online grant application <p>Problems</p> <ul style="list-style-type: none"> • Lack of skilled man-power • Resources for printing because it is very expensive • Printing spaces online
<p>Successes/main problems faced in terms of knowledge management:</p> <p>Successes of the foundation:</p> <p>The foundation has a very healthy database.</p> <p>Problems: clients, the Civil Society Organizations have not been able to exploit fully the information available within the foundation</p> <p>The foundation is therefore planning:</p> <ul style="list-style-type: none"> • to help grantees to use ICT in their activities, especially when applying for grants • to enrich its mailing list • to introduce financial management using ICT to its grantees • to help in the design of websites for civil societies, host them and provide email services to all CSOs. • to encourage formation of CSO blogs • to provide special skills training in obtaining software for CSOs- tailored in Kiswahili • to provide training on ICT to grantees. <p>Assistance needed: possibly from CTA</p> <ul style="list-style-type: none"> • Support in training of staff
<p>Why institution selected as a key:</p> <p>Foundation for Civil Society is a grant giving society targeting civil society organizations in the country, capable of reaching large groups of stakeholders involved in rural development</p>
<p>Other observations:</p> <p>None</p>

List of Persons Interviewed:

Name: Joseph Mzingi, Policy and Development Manager, FCS

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Name of institution: The Institute of Rural Development Planning (IRDPA)
Postal address: P. O. Box 138 Dodoma, Tanzania Physical address: Miyuji area seven kilometres from Dodoma Town – along the Arusha Road Country Tanzania Tel: +255 26 2303190 (General); +255 26 2302147(Direct), Fax: + 255 26 2302147 E-mail: director@irdp.ac.tz OR irdp@irdp.ac.tz Web site: http://www.irdp.ac.tz Type: EDU Role: TR, EX, IN, PP, RD, RU,
Objective / mission statement: IRDP focuses to facilitate the process of development and management with an emphasis on rural areas by providing top quality training, research and consultancy services aimed at bridging the knowledge gap between different practitioners of development planning, which include the central government sectors, Local Government Authorities community based organizations, Non-governmental organizations and the private sector.
Field of specialisation: The institute's functions have been defined in its Act of Establishment, in which the Government established IRDP as a body corporate and a national centre for rural development planning.
Number of staff: Total number of employees – 130 <ul style="list-style-type: none"> • Academicians – 65 • Technical staff – 65 • Temporary employees: <ul style="list-style-type: none"> ○ Technical – 25 ○ Volunteer – 1 • Visiting Lecturers – 2 • Part time Lecturers – 14 Key Skills of staffs of Academic staffs: <ul style="list-style-type: none"> • Land management • Environmental planning • Regional Development Planning • Develop Planning technique • Population studies • Administrative and Environment Law • Development Finance Planning and Management • Natural Resources Development

Name of institution: The Institute of Rural Development Planning (IRDP)
<p>Branches and other sites: The institute has no branch. The institute has two Directorates each having four departments.</p> <p>Directorate of Studies which has four departments</p> <ul style="list-style-type: none"> • Department of Rural Development and Regional Planning • Department of Environmental Planning • Department of Population studies • Department of Research and Consultancy <p>Directorate of Administration</p> <ul style="list-style-type: none"> • Department of Finance • Department of Human Resource Management • Department of Estate • Department of Student Affairs.
<p>Annual budget: The total annual budget for is about 1.38billion TZS (Euro 737,679.94). The annual budget for ICM is about 52million TZS (Euro 27,796.64)</p>
<p>Source of funding:</p> <ul style="list-style-type: none"> • IRDP's main source of funding is the Government of Tanzania. They receive also funding from NUFFIC to support a programme known as Rural Information Centre (RIC) • Consultancy services • Student fees
<p>Programme / projects undertaken: Apart from the training programmes conducted by the institute ICM programmes implemented by the institute are:</p> <ul style="list-style-type: none"> • Rural Information Centre started in 2004 • Website and database design and construction • Data management and record keeping to Local Government Authorities
<p>IRDP target audience includes:</p> <ul style="list-style-type: none"> • Students of all cadres • Training to Local Government Authority. The institute offers about 10 courses to the Local Government Authority Councils, Non-Governmental Organizations, FBOs and the private sector
<p>Extent of interaction with CTA: Individual members interviewed were aware of CTA products like <i>Spore</i> magazine, but as an institution they do not receive any publications and services from CTA. There are few individuals at the institute who attended CTA trainings, before joining IRDP</p>
<p>Appreciation of CTA's products and services: For those who had received the CTA publications, seminars and training rated them as very useful and informative</p>

Name of institution: The Institute of Rural Development Planning (IRDP)
<p>Extent of collaboration / interaction with other institutions:</p> <p>IRDP from time to time collaborates with national institutions such as:</p> <ul style="list-style-type: none"> • Universities: Sokoine University of Agriculture in which they have a Memorandum of understanding and University of Dar Es Salaam, Mzumbe University for exchange of visiting lecturers • Government Ministries (Agriculture, TAMISEMI, Livestock and fisheries, Trade and Industry). <p>Internationally:</p> <ul style="list-style-type: none"> • Management of Development Foundation implementers of NUFFIC programmes and ITC through Rural Information Centre project • DANIDA through MSTCDC • MDF – implementation of RIC Programme • SUA – short term and long term training • University of London – visiting lecturers • East Africa Statistical Training Centre – short term training.
<p>National / sectoral policies impacting ICT use / information and communication within the institution:</p> <p>The interviews at the institute noted that the National ICT policy does not encourage the growth of ICT such as the high prices of laptops which are needed by researchers and academicians, and the policy on Internet connection is not clear, the prices of Internet connection is still very high in the country.</p>
<p>How information needs are currently met:</p> <p>Internal sources: personal knowledge of staff is key to performing normal duties at the institute</p> <p>National and international sources include Organizations such as</p> <ul style="list-style-type: none"> • Universities: Sokoine University of Agriculture, University of Dar Es Salaam (Demographic Training Unit), East Africa Statistical Institute, • Regional Research centre – central zone, ASARECA, RAIN, SADCC, International Research Institutions, such as IFS, IIED <p>Publications from:</p> <p>Ministry of Agriculture, Food Security and Cooperatives, Ministry of Livestock Development and Fisheries, National Bureau of Statistics; REPOA,</p> <p>National Research Institutions- not regularly</p> <p>Electronic media: Internet, newspapers</p> <p>Other sources: posters, meetings, fairs and exhibitions, flyers, personal collections of staffs</p>

Name of institution: The Institute of Rural Development Planning (IRDP)
<p>Main information needs not satisfied: Information needs for IRDP:</p> <p>Broad rural development information</p> <ul style="list-style-type: none"> • Farm problems • Non-farm livelihoods • Social development issues • Gender issues • Government and International regulations • Conferences and meetings • Trade fairs • Development and funding programmes • Available agricultural /development networks (regional and international) <p>Technical information</p> <ul style="list-style-type: none"> • Post-harvest technology • Crop varieties • Packaging • Equipment sourcing/availability • Transportation (sea, land, air) • Waste utilisation • Industrial profiles • Integrated pest management <p>Economic information</p> <ul style="list-style-type: none"> • Credit and micro-credit • Market data • Identification of markets • Commodity profiles • Crop insurance systems <p>Types and format of information not satisfied</p> <ul style="list-style-type: none"> • Journal articles: because there is a need for subscription to journals and publications • Abstracts: relevant abstracts are sometimes not available • Statistical data: difficult to obtain • Materials suitable for mass distribution • Cartographic information (e.g. maps)
<p>Successes/main problems faced in terms of information and communication management:</p> <p>Successes: IRDP has one main Library and a branch library in town. It has also a documentation centre called Rural Information Centre (RIC), Publications: Journal and Newsletter produced twice a year.</p> <p>Main problems:</p> <ul style="list-style-type: none"> • Resources for publications: currently are in a process of publishing a Planner's Handbook, but lack funds for review and publication • Lack of skills: need for training

Name of institution: The Institute of Rural Development Planning (IRDP)
Successes/main problems faced in terms of knowledge management: Successes: A database in preparation which will link rural information as low as the ward level to the national level, plans are underway and people will be able to access the information from our database
Why institution selected as a key: IRDP as a training institute for rural development and planning attracts future planners and community development specialists. The institute has a potential for improving ICM in agriculture and rural development efforts towards reduction of poverty in the country.
Other observations: None

List of Persons Interviewed

Name: Prof. Innocent J.E Zilihona, Head: Department of Research and Consultancy

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Email: innocent.zilihona@irdp.ac.tz; drc@irdp.ac.tz; zilihona@yahoo.com

Others are: Dr. Omar Mzirai

3 IT specialists of the institute

Name of institution: National Network of Small-scale Farmers Groups in Tanzania (or Mtandao wa Vikundi vya Wakulima Tanzania) – (MVIWATA)
Postal address: P.O. Box 3220, Morogoro, Tanzania Tel: +255 232614184; Fax: +255 232614184 E-mail: mviwata@africaonline.co.tz Web site: It is in designing stages (will be ready by August 2008) Type: NGO Role: RU, EX, OT(Network, lobbying and advocacy)
Mission statement: The mission of MVIWATA is to strengthen farmers' groups, local and middle networks to form a sound and strong national farmers' organ to ensure effective representation of their interests, to facilitate learning and training, to enhance communication and advocacy strategies to defend and promote their interests.
Field of specialisation: MVIWATA specializes in: <ul style="list-style-type: none"> • Institutional development at all levels • Lobbying and advocacy • Improving market access • Improving Saving and Credit (rural financial) services • Promoting agricultural production systems • Cross cutting issues
Number of staff: Total staff: 30 <ul style="list-style-type: none"> • 22 technical/professional staff • 8 support staff Key skills of professional staffs <ul style="list-style-type: none"> • Agricultural economic • Accounting • Food Science • Agribusiness • Extension and Training • HIV/AIDS • Agricultural Marketing • Journalism
Branches and other sites: MVIWATA works from its headquarters in Morogoro and works with farmer groups There are five departments at MVIWATA <ul style="list-style-type: none"> • Directorate office • Finance and Administration • Institutional development/programme office • Marketing unit • Communication Unit
Annual budget: About 500 million Tanzania Shilling (Euro 267,275.34), about 50 million TZS (Euro 26,727.53) is used for ICM activities

Name of institution: National Network of Small-scale Farmers Groups in Tanzania (or Mtandao wa Vikundi vya Wakulima Tanzania) – (MVIWATA)
Source of funding: Donor-funded projects Membership fees Income generating activities like rural markets
Programme / projects undertaken: <ol style="list-style-type: none"> Livelihoods diversification project in Shinyanga (2007), funded by Oxfam GB. MVIWATA was involved in organizing and mobilizing farmers to form a strong and groups and networks and build their capacities (leadership skills) at all levels (village, ward, district and region) in two districts of Shinyanga Rural and Kahama, resulted to formation of 130 farmers' groups, 15 wards and 2 district farmers' networks. Rural Markets Development Project (RMDP), which was funded by the French Government, and was implemented in 3 years, from 2002 to 2005. Results of the project was construction of 4 rural markets in Kibaigwa, Tandai, Tawa and Nyandira, construction of 3 training centres, rehabilitation of about 39 km of rural roads, and improvement of traditional irrigation system in Kinole and Mgeta. Support to income generation activities project that was funded by European Union (EU). This project was implemented in partnership with FERT (French farmers Organization) and LVIA (Italian NGO) and implemented in Kilimanjaro, Dodoma and Morogoro regions; It was a 4-year project from 2002 to 2006. Institutional development program funded separately by VECO and TRIAS, both Belgian NGOs. Capacity building of farmers networks project, supported by a Dutch Organization, AGRITERRA for 3 years. Capacity building of farmers in Trade Advocacy and entrepreneurship skills. It was funded by Oxfam Ireland. Support to rural markets project whose implementation started in April, 2006, is a 3-year project and is funded by EU in partnership with FERT. Food security in Chunya District, it is a 4- year project, which started in 2004, funded by Belgian Government. Production and Marketing of Sesame in Dodoma, funded by RLDC Participates in Nane nane agricultural shows annually Organizes workshops, meetings, field visits with farmer groups in different parts of the country both mainland and Zanzibar.
Target audience: Small-scale farmers, whom contacted through their local groups and networks.
Extent of interaction with CTA: MVIWATA reported to receive the <i>Spore</i> magazine and CTA publications and attended a CTA seminar of Communication Methods, held in Uganda, 2006
Appreciation of CTA's products and services: MVIWATA appreciated the extent of collaboration with CTA's products and ranked them useful. Quoting the interviewed person said "The seminar attended, for example, is relevant to MVIWATA organization development. CTA publications contain useful information about agriculture and rural development."

Name of institution: National Network of Small-scale Farmers Groups in Tanzania (or Mtandao wa Vikundi vya Wakulima Tanzania) – (MVIWATA)
<p>Extent of collaboration / interaction with other institutions:</p> <p>MVIWATA work in collaboration with other national, regional and international farmers' networks in order build unity and strong lobbying voice of farmers. Currently, MVIWATA is a founder member of Eastern and Southern African Farmers Forum (ESAFF) and Eastern African Farmers Federation (EAFF), and is a member of the International Federation of Agricultural Producers (IFAP).</p> <p>It works also with universities such as Sokoine University of Agriculture, Ministry of Agriculture, Food Security and Cooperatives mainly in learning and information sharing, joint development projects, technical backstopping. lobbying and advocacy on issues of farmers interests</p>
<p>National / sectoral policies impacting ICT use / information and communication within the institution:</p> <p>The Government has developed a conducive policy environment on the use of ICT. Private sector initiatives on ICT are well advanced.</p>
<p>How information needs are currently met:</p> <p>Internal sources:</p> <p>MVIWATA depends on the personal knowledge of its staff in implementing and formulating activities in the organization.</p> <p>National and international sources.</p> <p>Organizations:</p> <ul style="list-style-type: none"> • Universities –especially SUA for technical backstopping, • National research institutions • Ministry of Agriculture, Food Security and Cooperatives <p>Publications. CTA publications, university research papers</p> <p>Electronic Media: Internet,</p> <p>Others: fairs and exhibitions, consultants</p> <p>ICT resources to support information acquisition and exchange:</p> <p>MVIWATA has few computer facilities (desktop and laptop) (Windows 2000, XP and Vista), connected to Internet, and websites under construction</p>

<p>Name of institution: National Network of Small-scale Farmers Groups in Tanzania (or Mtandao wa Vikundi vya Wakulima Tanzania) – (MVIWATA)</p>
<p>Main information needs not satisfied:</p> <p>Broad rural development;</p> <ul style="list-style-type: none"> • Available agricultural / development networks (regional and international) • Trade fairs • Development and funding programmes • Farm problems • Social development issues <p>Technical information;</p> <ul style="list-style-type: none"> • Post-harvest technology • Crop varieties • Grading systems <p>Economic information:</p> <ul style="list-style-type: none"> • Credit and micro-credit • Market data • Commodity profiles <p>Training Needs:</p> <ul style="list-style-type: none"> • Management of information within the organisation • Participative methodologies <p>Information format difficult to obtain:</p> <ul style="list-style-type: none"> • Journal articles, • Abstracts, • Materials suitable for mass distribution • Materials in appropriate languages
<p>Successes/main problems faced in terms of information and communication management:</p> <p>Success and progress:</p> <p>MVIWATA has started developing brochures, technical bulletin and radio programmes for communication and education purpose to small-scale farmers</p> <p>Website under construction and will be ready by August 2008-06-25</p> <p>Main problems</p> <ul style="list-style-type: none"> • Lack of technical staff • Lack of improved documentation centre • Lack of computer facilities <p>Assistance required: possibly from CTA</p> <ul style="list-style-type: none"> • Capacity building to our staffs especially training on ICT, ICM and related ones from recognized universities in Africa (Uganda for example) • Looking for potential partners to support ICT through project interventions
<p>Successes/main problems faced in terms of knowledge management:</p> <ul style="list-style-type: none"> • MVIWATA shares information with farmer groups all over the country and works hand in hand with research institutions and researchers for the well being of farmers. • MVIWATA being a member of PELUM shares with other NGOs and publishes the Pambazuko newsletter to meet its target groups, attends forums, meetings and conducts workshops all to share knowledge and information with others. <p>Problems:</p> <ul style="list-style-type: none"> • Financial constraints to meet all stakeholders

Name of institution: National Network of Small-scale Farmers Groups in Tanzania (or Mtandao wa Vikundi vya Wakulima Tanzania) – (MVIWATA)
Why institution selected as a key: MVIWATA is an umbrella organisation of farmers groups and associations in Tanzania and has a large network of farmers, capable of reaching large groups of stakeholders involved in agriculture and rural development.
Other observations: None

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Name of institution: Same Agricultural Improvement Trust Fund (SAIPRO)
Postal address: P.O. Box 1, Hedaru, Kilimanjaro Region, Tanzania Tel: +255-027-2757883; Fax: +255-27-2757883 E-mail: saipro@habari.co.tz Type: NGO Role: EX, RU
Mission statement: SAIPRO's mission is to contribute to sustainable agricultural development through capacity building of organized small holder farmers and agro-pastoralists, men and women, to develop balanced social relations, own initiative and utilize available resources for their own benefit.
Field of specialisation: SAIPRO specializes in: <ul style="list-style-type: none"> • Agricultural production • Gender and development • Environmental conservation/management • Marketing access and information • Mainstreaming of HIV/AIDS.
Number of staff: <ul style="list-style-type: none"> • Total number of staffs:12 • Professional:2 • Technical:3 • Clerical staff:7 Key skills of staff include: <ul style="list-style-type: none"> • Irrigation agronomy • Accounts • Crop production • Community development • Crop processing
Branches and other sites: SAIPRO's main office is situated in Hedaru, Same. There are four technical divisions or departments within the institution: <ul style="list-style-type: none"> • Soil water and environmental management • Agricultural extension and research • Agribusiness and marketing • Community development and Gender • Finance and Administration
Annual budget: The annual budget: 152,000,000 TZS (€ 81,251.70) and about € 6,344.2 is used for ICM activities.
Source of funding: <ul style="list-style-type: none"> • Donors • Farmers contributions • Agents

Name of institution: Same Agricultural Improvement Trust Fund (SAIPRO)
<p>Programme / projects undertaken:</p> <p>Extension services and rural development programmes provided by SAIPRO include:</p> <ul style="list-style-type: none"> • Provision of demand oriented training on post-harvest technologies to farmers in villages • Training on improvement of reservoirs called Ndiva • Publication of newsletters, quarter reports, annual reports, magazine forums • Organization of workshops for farmers on agricultural markets • Participated in Nane Nane agricultural shows • Provision of training to farmers on drought tolerant crops, soil water conservation methods and climate changes issues in collaboration with Soil Water Management Research Programme of Sokoine University of Agriculture.
<p>Target audience:</p> <p>SAIPRO target audiences are small holder farmers and livestock keepers men and women of western lowlands of Same District, Kilimanjaro region</p> <p>And have been contacting them through mails in post office boxes, mobile telephones, workshops, meetings, field visits, demo plots and publications.</p>
<p>Extent of interaction with CTA:</p> <p>The interviewed programme co-ordinate was aware of the existence of <i>Spore</i> magazines, CTA publications and DORA, but they had not attended any of the CTA's trainings.</p>
<p>Appreciation of CTA's products and services</p> <p>The CTA's products were ranked as useful</p>
<p>Extent of collaboration / interaction with other institutions:</p> <p>SUA- joint projects and technical expertise especially in rain water harvesting researches and climate change</p> <ul style="list-style-type: none"> • RELMA and ICRAF-Rain water harvesting projects • PELUM- promoting local innovation projects and information exchange • ASARECA – Agricultural water management projects • SELIAN-Drought tolerant crops information exchange • HORTI-TENGERU- Vegetable and fruits information • ICS-Good governance • LEISA-Sustainable Agriculture Information • OXFAM-NOVIB- Donor
<p>National / sectoral policies impacting ICT use / information and communication within the institution:</p> <p>Not aware of ICT policy.</p>

Name of institution: Same Agricultural Improvement Trust Fund (SAIPRO)
<p>How information needs are currently met:</p> <p>Sources of information -Internal The personal knowledge of SAIPRO staff contributes to the knowledge base of the organization.</p> <p>Sources-National and International Organizations: University-SUA, Ministry of Agriculture, Food Security and Cooperatives, National Research Institutes, Commodity/farmer associations, meetings with beneficiaries, input suppliers Publication: CTA booklets/bulletins, university research papers, Ministry of Agriculture booklets/flyers, Newspapers, personal collection Electronic Media: Internet, Radio and TV programmes, video presentations, posters Other sources: fairs and exhibitions, colleagues, agribusiness consultants.</p>
<p>Main information needs not satisfied:</p> <p>Broad rural development information:</p> <ul style="list-style-type: none"> • Farm problems • Social development issues • Gender issues • Government and international regulation • Trade fairs • Development and funding programmes • Available agricultural/development networks(regional or international) <p>Technical information:</p> <ul style="list-style-type: none"> • Grading systems • Post-harvest technology • Crop varieties • Packaging • Transportation <p>Economic information:</p> <ul style="list-style-type: none"> • Credit and micro-credit • Market data • Identification of markets <p>Training needs:</p> <ul style="list-style-type: none"> • Application of communication technologies in extension services • Management of information within the organization • Editing of reports • Participative methodologies <p>Formats of information difficult to acquire:</p> <ul style="list-style-type: none"> • Journal article • Abstracts • Statistical data • Standards • Patents • Materials suitable for mass distribution • Materials in appropriate languages: Kiswahili • Cartographic information • Visual or pictorial information

Name of institution: Same Agricultural Improvement Trust Fund (SAIPRO)
Successes/main problems faced in terms of information and communication management: Financial resources: Budget limitation to meet the demands of target group, the geographical location of our target group is complex to do timely collection and dissemination of information: the improvement could be to get a reliable means of communication and transport. Lack of competent human resources in report writing, those who can get straight forward and striking information needed by the community on time. A need for training of our staff in areas of report writing, ICT skills and communication ICT resources: the presence of five desktop working was reported to be enough for their activities but an addition on laptops would be appreciated as they have only one. Internet connection is available, but expensive to subscribe. Future plans: SAIPRO is planning to develop its own website and a database for farmers and other organizations to access information and training its staff on ICT.
Assistance required (possibly from CTA): <ul style="list-style-type: none"> • Funds to be able to conduct training for its staff • Equipments such as the addition of laptops • Expertise in database and website development.
Successes/main problems faced in terms of knowledge management: SAIPRO has newsletters, fliers, crop market prices and brochures.
Why institution selected as a key: SAIPRO is an non governmental organization dealing directly with farmers. It can reach many other stakeholders in the agriculture sector, in both crop and livestock activities.
Other observations: None

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Name of institution: Tanzania Food Processors Association of Women Entrepreneurs (TAFOPA)
Postal address: P.o Box 38119 Dar Es Salaam, Tanzania Physical address: SIDO Small Business House, Room 5, Bibi Titi Mohamed Road Tel: +255 222 153018; Mob: +255 754 750 811; +255 754 286 902 E-mail:tafopa@hotmail.com Type: AS-W Role: EX, IN, TR
Objective / mission statement: TAFOPA focuses on supporting its members through capacity building and empower them so that they can develop the food processing industry.
Field of specialisation: TAFOPA's core competencies are in: <ul style="list-style-type: none"> • Mobilizing members in the country • Training members in Food Processing • Looking for Markets for TAFOPA members products • Advocacy
Number of staff: TAFOPA works with different groups of entrepreneurs; it has a central committee and regional chapters. The total number of staffs at the central committee is 6 Professionals: 5 Clerical: 1 Key skills of professional staff: <ul style="list-style-type: none"> • Agricultural economics and marketing • Accounting • Food Science • Extension and Training
Branches and other sites: TAFOPA's headquarters are situated in Dar es Salaam, but works with regional chapters which are situated in SIDO offices in the following regions: Arusha, Kilimanjaro, Tanga, Morogoro, Iringa, Shinyanga, Kagera, Coast Region, Mwanza, Mara, Mbeya, Lushoto, Singida.
Annual budget: TAFOPA budget varies and cannot therefore be quantified.
Source of funding: <ul style="list-style-type: none"> • Member contributions • Donors and sponsors (Tanzania Gatsby Trust)

Name of institution: Tanzania Food Processors Association of Women Entrepreneurs (TAFOPA)
Programme / projects undertaken: <ul style="list-style-type: none"> • Participation of Sabasaba Trade Fair in Dar es salaam, Nane Nane Agricultural shows, East Africa Jua Kali Trade Fairs and Trade fairs organized by SIDO in different regions • Participated in organizing seminars and training on Food Legislation and Licensing, skills – upgrading and Loan procurement • Mobilization of members into SACCOS • Formation of SACCOS for its members • Production of TAFOPA brochures, TAFOPA Profile and leaflets • Training of women and men in short and long courses in entrepreneurship (writing business plan, keeping sales records, marketing skills, soliciting for loan, product promotion) and food processing together with information on machinery and equipment.
Target audience: <ul style="list-style-type: none"> • Women entrepreneurs all over the country, currently TAFOPA has trained about 1700 women and few men • Its members, about 260 food processors in eight regions in the country • The general public to buy products
Extent of interaction with CTA: No interaction with CTA was reported.
Appreciation of CTA's products and services: No CTA products and services have been received.
Extent of collaboration / interaction with other institutions: TAFOPA collaborates with different organizations at national, regional and international levels in implementing its activities: <ul style="list-style-type: none"> • SUA – training to entrepreneurs • TFDA, TBS – testing and quality assurance of products and training on standards • UNIDO, SIDO – sponsors • NEMC/VICE President Office – development of environmental friendly and cleaner technologies in food processing • Tanzania Gatsby Trust (TGT) – sponsorship • Tanzania Investment Centre (TIC)
National / sectoral policies impacting ICT use / information and communication within the institution: The Government has developed a conducive policy environment on the use of ICT. Private sector initiatives on ICT are well advanced.

<p>Name of institution: Tanzania Food Processors Association of Women Entrepreneurs (TAFOPA)</p>
<p>How information needs are currently met: Internal sources: Members own knowledge acquired through different trainings is very useful. National and international Sources: Organizations: Universities – SUA (training), meeting with beneficiaries such as SIDO/UNIDO, other-Tanzania Food and Drugs Authority (TFDA) (training and standards. Publications: University research papers, newspapers, personal collections, Other- machine and equipment manuals Electronic Media: Internet, TV programmes, Radio Programmes and posters. Other sources: Fairs and exhibitions, colleagues</p> <p>ICT resources to support information acquisition and exchange: No ICT facilities at the office.</p>
<p>Main information needs not satisfied: <u>Broad Rural Development:</u> <ul style="list-style-type: none"> • Development and funding programmes • Trade fairs • Gender Issues <u>Technical Information:</u> <ul style="list-style-type: none"> • Grading System • Post-harvest technology • Packaging • Equipment sourcing/availability • Patents <u>Economic information:</u> <ul style="list-style-type: none"> • Credit and micro-credit • Market data • Identification of markets <u>Training needs:</u> <ul style="list-style-type: none"> • Others – training in food processing technologies and entrepreneurship </p>
<p>Successes/main problems faced in terms of information and communication management: <u>Financial resources:</u> <ul style="list-style-type: none"> • Lack of funds to train more members • Limited scope in both technology and capital • Lack of packaging material for small scale operators • Lack of packaging material for small scale operators • Competition from mass-produced and imported products <u>Human resources:</u> <ul style="list-style-type: none"> • Lack of funds to employ human personnel for information and communication management <u>ICT resources:</u> <ul style="list-style-type: none"> • Lack of ICT facilities (computers, Internet, website and database for markets for members to access information) <u>Training needs:</u> <ul style="list-style-type: none"> • Training in food processing, entrepreneurship, information and communication management • Training on basic use of ICT in their activities <u>Assistance required: possibly from CTA:</u> <ul style="list-style-type: none"> • Capacity building to our staffs and members especially training on food processing, entrepreneurship and Information and communication management. </p>

Name of institution: Tanzania Food Processors Association of Women Entrepreneurs (TAFOPA)
Successes/main problems faced in terms of knowledge management: <u>Successes:</u> Members have improved their knowledge and skills tremendously by attending workshops and study tours and are actively sharing information and knowledge <u>Problems:</u> Financial constraints to meet needs of all members to participate in trainings and fairs.
Why institution selected as a key: It is an umbrella organization for processing entrepreneurs. It can reach a large number of stakeholders through training on processing; mobilised trading and marketing.
Other observations: None

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Name of institution: Tanzania Association of Non-governmental Organizations (TANGO)
Postal Address: P.o Box 31147, Dar Es Salaam, Tanzania Physical address: Sinza Afrika Sana Tel/Fax: +255 732 922849 E-mail: tango@bol.co.tz OR info@tango.or.tz Web site: http://www.tango.or.tz Type: NGO Role: EX, IN, PP, RU, TR
Objective / mission statement: TANGO focuses to empower NGOs, CSOs, Leaders and Actors of public institutions to effectively engage and influence policies, strategies and development programmes through facilitation of lobbying and advocacy activities, capacity building and information and knowledge sharing.
Field of specialisation: TANGO's core competencies are in: <ul style="list-style-type: none"> • Capacity development and solidarity building • Lobbying and Advocacy • Policy engagement • Knowledge and experience sharing
Number of staff: Total number of employees at TANGO – 10 Professionals – 7 Clerical - 3 Special skills of staff
Branches and other sites: TANGO has one central office, which is located in Dar es salaam, it is from here that TANGO plans, monitors and evaluates program performance, does its public relations and controls and is responsible for the financial management. TANGO has 5 technical departments <ul style="list-style-type: none"> • Policy and advocacy • Capacity building and NGO Liaison • Information and Knowledge sharing • Management and programme support
Annual budget: The budget is not known
Source of funding: TANGO has a diverse range of funding sources: <ul style="list-style-type: none"> • Members' contribution, • Partners and donors, • Income generation projects • Other fundraising activities and events.

<p>Name of institution: Tanzania Association of Non-governmental Organizations (TANGO)</p>
<p>Programme / projects undertaken:</p> <p>TANGO has implemented or participated in implementing the following:</p> <ul style="list-style-type: none"> • Engagement in Governance and decentralization/Local Government Reform Process Ensuring Effective Engagement of NGOs in Poverty Eradication Strategies Fighting for fair and just International Economic and Trade System Effective presence and participation of CSOs in policy and decision making, and monitoring Policy Engagement and advocacy strengthened and staff maintained • Building relations and solidarity among TANGO member organizations and other development actors. • Building and enhancing the capacity of member organizations, regional and district networks in organization development, lobbying and advocacy, networking and coalition building and information and knowledge sharing. • Formation of new district and regional networks and networking among CSO. • Enhancing member organizations and rural development networks understanding on cross cutting issues like HIV/AIDS, gender, environment and development strategies • Publication of Organizational development manuals in Kiswahili • Production of TANGO directory of its members • Construction and maintenance of TANGO website • TANGO in collaboration with the Tanzanian Millennium Development Goals Coalition organized a grand rally on the event of the launch of the MDGs campaign in Tanzania named “Ondoa umaskini Tanzania” • TANGO participated in organizing STAND UP JALI YATIMA RALLY- “ Simama-Jali Yatima (Care for Orphans)” in 2006.
<p>Target audience:</p> <p>TANGO's audience include:</p> <ul style="list-style-type: none"> • Generic NGO networks/coalitions • Thematic NGOs • Lobbying and Advocacy NGOs • Service delivery NGOs • Capacity building NGOs • Policy and research NGOs
<p>Extent of interaction with CTA:</p> <p>The interviewed person was aware of the presence of <i>Spore</i> magazine, but failed to establish the presence of other publications.</p>
<p>Appreciation of CTA's products and services:</p> <p>The received publications were useful</p>
<p>Extent of collaboration / interaction with other institutions:</p> <p>TANGO collaborates with different organizations PELUM, other NGOs Universities</p>
<p>National / sectoral policies impacting ICT use / information and communication within the institution:</p> <p>No specific policy was mentioned.</p>

Name of institution: Tanzania Association of Non-governmental Organizations (TANGO)
<p>How information needs are currently met: TANGO sources of information are: <u>Internal sources:</u></p> <ul style="list-style-type: none"> • Personal knowledge of its staff and those of its member organizations are a useful resource. <p><u>National and international resources:</u> Organizations: universities, meetings with beneficiaries Publications: University research papers, personal collections Electronic media: posters, Internet, agricultural research networks, radio and TV programmes Others: Fairs and exhibitions, colleagues</p>
<p>Main information needs not satisfied relevant to TANGO include: Broad rural development</p> <ul style="list-style-type: none"> • Social development issues • Gender issues • Development and funding programmes • Conferences and meetings <p>Training needs</p> <ul style="list-style-type: none"> • Management of information within the organization • Editing of reports • Participative methodologies <p>Types and formats not satisfied:</p> <ul style="list-style-type: none"> • Journal articles • Material suitable for mass distribution • Material in appropriate languages
<p>Successes/main problems faced in terms of information and communication management:</p> <ul style="list-style-type: none"> • Semezana publication-quarterly, • NGO development watch – published online quarterly. • Publishing Organizational Development manual – Sustain your NGO vol 1&2, published Know your NGO, Management and governance, • Development of member database • TANGO has been able to organize rallies for poverty eradication and stand up Jali Yatima campaigns. • More CSOs are engaging in the National Strategy for Growth and reduction of Poverty (MKUKUTA) monitoring. • Public private dialogues in 16 districts of seven regions have improved relationships between LGAs and CSOs. • CSOs are now more proactively engaged in understanding more about the local government planning and budgeting processes • GCAP/Ondoa Umaskini Campaign has increased the CSOs demand for government to honour its pledge to MDGs and allocate more resources to MKUKUTA • There is an increased CSOs voice and involvement in Economic Partnership Agreements (EPAs) • There is enhanced capacity of CSOs in evidenced based advocacy through Public Service delivery and Public Expenditure Tracking Surveys and training for CSOs.

Name of institution: Tanzania Association of Non-governmental Organizations (TANGO)
<p>Problems:</p> <ul style="list-style-type: none"> • Budget limitations • Lack of technical staff • Lack of improved documentation centre • Few computer facilities and documentation centre. <p>Assistance required: possibly from CTA for capacity building to staff and member organizations, especially training on ICT, ICM</p>
<p>Successes/main problems faced in terms of knowledge management:</p> <p>TANGO has been able to share with its different member organizations and other partners the available knowledge through publications, dialogue, meetings, website and training of trainers who train others.</p> <p>TANGO has participated in the steering committee for organizing the Tanzania Social forum which is an open meeting for reflective thinking, democratic debate of ideas, free exchange of experiences and interlinking of effective action. The Forum also enabled the participants to seriously start thinking that: "An Alternative and Better Tanzania is Possible."</p> <p>Problems:</p> <ul style="list-style-type: none"> • Lack of adequate funds to support knowledge management initiatives • Lack of funds to support capacity building to members in our member organizations on knowledge management and sharing.
<p>Why institution selected as a key:</p> <p>It is an umbrella organization for NGOs in Tanzania mainland capable of reaching large groups of stakeholders involved in agriculture and rural development.</p>
<p>Other observations:</p> <p>None</p>

Persons Interviewed:

Samuel, Information specialist and Musa Billegeya Programme officer

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Name of institution: Tanzania Irrigation and Environment Development Organization (TIP)
<p>Postal address: P.O Box 8909, Moshi, Tanzania Tel: +255 27 2753025/2754232; Fax: +255 27 2751124 E-mail: tip@tiptz.org Web site: http://www.tiptz.org</p> <p>Type of institution: NGO Role: EX, RU, TR</p>
<p>Mission statement: The mission of TIP is to effectively contribute to socio-economic development of men and women living in selected traditional irrigation areas in the context of sustainable agriculture and natural resource management.</p>
<p>Field of specialisation:</p> <ul style="list-style-type: none"> • Traditional irrigation improvement • Organizational Development and Gender Mainstreaming • Soil and Water Conservation, Afforestation and Land Use Planning • Market Access and Agro-Enterprise Development
<p>Number of staff: Total number of staff – 17 Professionals – 8 Supporting staff – 9 Key Skills of staffs:</p> <ul style="list-style-type: none"> • Irrigation Engineering • Land use management • Accounts and finance • Natural Resources management • Agriculture • IT
<p>Branches and other sites: TIP's main office is in Moshi, Kilimanjaro, but works in district offices which are in Same, Mwanga, Lushoto and Arumeru. There are 5 departments:</p> <ul style="list-style-type: none"> • Finance and Administration • Irrigation improvement • Market Access and Agro Enterprise • OD & Gender • Land use Planning
<p>Annual budget: The annual budget is around TZS 467,682,500 (equiv €250,000) and about TZS 65,475,550 (equiv. €35,000) is allocated to ICM</p>

Name of institution: Tanzania Irrigation and Environment Development Organization (TIP)
Source of funding: <ul style="list-style-type: none"> • Donors • Consultancies and assignments
Programme / projects undertaken: <ul style="list-style-type: none"> • TIP has participated in Nane nane agricultural shows every year • TIP has published and produced Newsletters, calendars, leaflets, brochures and other publications • TIP has trained farmers in districts on different aspects, and has participated in the formation of water user's groups • TIP has participated in improvement in land management practices • TIP has encouraged in the use of innovative technologies
Target audience: <ul style="list-style-type: none"> • Farmers • District and government officials • Demand driven approach: Trainings, Meetings, Fairs (Nane Nane), Newsletters, Calendars, Website, Brochures, Leaflets, Fliers, T-shirts
Extent of interaction with CTA: <p>An interaction with CTA was seen through the presence of <i>Spore</i> magazine, and a CTA book, but it was reported that the interaction was through an employee known as Shangwe Kiluvia who is currently away for further studies, but the magazines and publications are read in the office.</p> <p>A staff of TIP had attended one of the CTA training programmes in Ethiopia some years back.</p>
Appreciation of CTA's products and services <p>It was reported to be useful and very informative.</p>
Extent of collaboration / interaction with other institutions: <p>TIP is collaborating with different organizations SUA, Mzumbe University, UDSM, Ardhi university, MUCCoBS, AMSDP, Local Government authorities through joint projects, information and experience sharing, and forums They also collaborate with other international organizations such as CIAT, JOLIT, OXFAM-NOVIB, Embassies-Japan and Royal Netherlands through information exchange and forums.</p>
National / sectoral policies impacting ICT use / information and communication within the institution: <p>No specific policy was mentioned.</p>

<p>Name of institution: Tanzania Irrigation and Environment Development Organization (TIP)</p>
<p>How information needs are currently met:</p> <p>Internal sources: staff knowledge on specific fields of specializations is essential for the development of TIP.</p> <p>National and international sources:</p> <p>Organizations: SUA, Ardhi university, Ministry of Agriculture, Food Security and Cooperatives, ASARECA, CIAT, JOLIT, Embassies: Japan, Netherlands</p> <p>Publications: university research papers, personal collections, Ministry of Agriculture booklets.</p> <p>Electronic media: Internet, Agricultural research electronic networks</p> <p>Other sources: personal contacts, colleagues, fairs and exhibitions</p>
<p>Main information needs not satisfied:</p> <p>Broad rural development information:</p> <ul style="list-style-type: none"> • Farm problems • Social development issues • Gender issues • Government and international regulation • Trade fairs • Development and funding programmes • Available agricultural/development networks(regional or international) <p>Technical information:</p> <ul style="list-style-type: none"> • Grading systems • Post-harvest technology • Crop varieties • Packaging • Transportation <p>Training needs:</p> <ul style="list-style-type: none"> • Application of communication technologies in extension services • Management of information within the organization • Editing of reports • Participative methodologies <p>Economic information:</p> <ul style="list-style-type: none"> • Credit and micro-credit • Market data • Identification of markets <p>Formats of information difficult to acquire:</p> <ul style="list-style-type: none"> • Journal article • Abstracts • Statistical data • Standards • Patents • Materials suitable for mass distribution • Materials in appropriate languages: Kiswahili • Cartographic information

Name of institution: Tanzania Irrigation and Environment Development Organization (TIP)
Successes/main problems faced in terms of information and communication management: Human resources; lack of enough personnel in ICM and those currently doing lack adequate skills to deal with challenges. Training is needed to the current staff to acquire necessary skills Financial resources; no enough funds to support all our programmes
Successes/main problems faced in terms of knowledge management: TIP has been able to publish a bi-annual newsletter called Maendeleo ya TIP. Has also been able to publish experiences and achievements though not yet circulated Produced calendars annually Future plans: TIP is planning to develop further its database to contain useful information for its target group and an online catalogue of the resource centre Assistance required possibly from CTA Training on website maintenance and database development
Why institution selected as a key: It deals with farmers in sustainable agriculture and natural resource management.
Other observations: None

Persons Interviewed:

Fokas Makauki, Assistant – Management Information System, TIP

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Mission statement: The mission of TMA is to provide quality, reliable and cost effective meteorological services to stakeholders' expectations thereby contributing to the production of life, property and national poverty reduction goal.
Field of specialisation: TMA's core competencies is in METEOROLOGY
Number of staff: TMA's team of staff comprises of the total of 529 staffs <ul style="list-style-type: none"> • Professionals (Meteorologists)– 71 • Technical – 299 • Clerical – 159 • Special skills of staff • Forecasting • Agricultural meteorology • Climatology • Hydrometeorology
Branches and other sites: TMA's headquarters are in Dar es salaam but has offices and stations in nearly every district in the country and a training institution in Kigoma. TMA has 4 main directorates Forecasting, Research and Applied Meteorology, Technical Services, Support Services
Annual budget: The annual budget of the organization is about TZS 4,676,825,000 (Euro 2.5 mil)
Source of funding: The government of Tanzania and Aviation Consultancies Data and services

Name of institution: Tanzania Meteorological Agency (TMA)
Programme / projects undertaken: TMA has so far been able to: <ul style="list-style-type: none"> • Expand station network and perform data rescue • conduct training in software application • organize and administer efficient networks of surface and upper air stations necessary to capture accurate records of the weather and climatic conditions of the United Republic of Tanzania; • observe, collect, archive and disseminate meteorological and related information for the United Republic of Tanzania; • take part in global exchange of meteorological and related data and products for the safety of humankind and to enhance the understanding of the global atmosphere; • provide weather, climate services and warnings for the safety of life and property to the general public and to various users including aviation, agriculture and food security, water resources, disaster management, health and construction industry; • carry out research and training in meteorology and climatology and in other related fields, and cooperate with other institutions where appropriate, for use in socio-economic development planning; • cooperate with other institutions concerned with issues related to climate variability, climate change and environment; • participate in activities dealing with meteorology under Regional Organizations e.g. Southern African Development Community (SADC) and East African Co-operation (EAC); • publish weather and climatology summaries, bulletins and other interpreted products
Target audience: TMA audience includes: <ul style="list-style-type: none"> • The government of Tanzania • General Public those dealing with agriculture, transport (air, marine, land) • Media • Construction industry • Health • Research and higher learning institutions
Extent of interaction with CTA: No interaction with CTA was reported during the interview.
Appreciation of CTA's products and services: No evidence of CTA's products and services were reported.
Extent of collaboration / interaction with other institutions: <u>TMA collaborates with different organizations</u> National: Sokoine University of Agriculture, University of Dar es salaam, Ministry of Agriculture – mainly through joint projects and information exchange, NGO-CEEST Regional: ICPAC, SADC-DMC, ACMAD, SADC-Early warning for food security International: WMO, ICAD, UNEP, FAO Many of them through information exchange.
National / sectoral policies impacting ICT use / information and communication within the institution: TMA is pleased that the government policy of tax exemption on imported ICT has been implemented; this has boosted and helped spread the use of ICT in the country.

Name of institution: Tanzania Meteorological Agency (TMA)
<p>How information needs are currently met: TMA's main source of information: <u>Internal sources:</u> The personal knowledge and information of TMA staff in their different fields of specialization.</p> <p><u>National and International sources:</u></p> <ul style="list-style-type: none"> • Organizations: ICPAC, SADC-DMC, ACMAD,WMO (meteorological, climate and weather information) National Research Institutions, District Agricultural offices, Ministry of Agriculture, Universities-SUA and UDSM (Agro-meteorological, research and related sciences information) • Publications: Met science journal (WMO publications) • Electronic media: Satellite pictures, GTS(Global Telecommunication System), Internet (subscriptions to various online national and international) • Other sources: Voluntary rainfall observers, hydrological gauging stations <p><u>ICT resources to support information acquisition and exchange:</u> Nearly all staff have PCs and Laptop computers(Windows XP and Vista), various climate and weather related software, Internet access at 19 stations, website, LAN, WAN, VSAT dish. IT resources and the website are maintained by the IT section which coordinates all ICT issues in TMA countrywide.</p>
<p>Main information needs not satisfied: <u>Broad rural development:</u></p> <ul style="list-style-type: none"> • Conferences and meetings • Development and funding programmes <p><u>Technical information:</u> Other: Climate data management in digital format, new software for data management</p> <p><u>Training needs:</u> Training scientists in processing and analysis of real time and non-real time data</p>
<p>Successes/main problems faced in terms of information and communication management: <u>Successes:</u></p> <ul style="list-style-type: none"> • TMA has been able to maintain a its libraries at the headquarters and Kigoma training school • The Agromet section publishes monthly and decadal bulletin • Publication of the research journal • Establishment and refurbishment of TMA website • Training of Staff in ICM and ICT • Installation of Internet at our outstations <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unreliable Internet connectivity (low speed) • Inadequate budget • Inadequate station network • Limited capacity in real time and non-real time data processing and analysis <p><u>Assistance needed; possibly from CTA</u></p> <ul style="list-style-type: none"> • Staff training on ICM and ICT related issues • Capacity to acquire facilities, upgrading the available infrastructure

Name of institution: Tanzania Meteorological Agency (TMA)
Successes/main problems faced in terms of knowledge management: TMA has been sharing meteorological and agro-meteorological information with the Ministry of Agriculture, Food Security and cooperatives, other government ministries, universities such as SUA, UDSM and the general public through press conferences, meetings, conferences, publications and joint researches.
Why institution selected as a key: The institution has a mandate for collecting, analysing and disseminating climate information in the country.
Other observations: Potential collaborator of CTA

Persons Interviewed:

MARTIN LUKANDO, Director, Research and Applied Meteorology

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Name of institution: Tropical Pesticide Research Institute (TPRI)
Address: P. O Box 3024, Arusha, Tanzania Physical Address: Email: tpri@habari.co.tz Website: http://www.tpritz.org Type of institution: GOV Role: EX, RD, TR
Mission statement: TPRI's mission is to enhance high quality pests and pesticides research and services in human, animal, plant, and ecosystem hygiene, health and safety in order to contribute to an increase in market access and share of agricultural and natural resource products, as an economic incentives for sustainable development.
Field of specialisation: Pesticides research And research on biodiversity
Number of staff: Total: 250 Professional: 70, Technical: 80, Supporting: 100, Casual labourers = 35. Currently there are 8 students on field attachments. Key skills of staff include: <ul style="list-style-type: none"> • Entomology • Chemistry • Research and Extension • Pathology • Environment • Botany • Laboratory techniques
Branches and other sites: There are several out stations: Miwaleni in Moshi, Mto wa Mbu in Monduli, Magugu in Babati and Mabogini in Moshi There are 4 technical departments based on the activities of the institution <ul style="list-style-type: none"> • Certification Unit (TCU) • National Plant Genetic Resource Centre (NPGRC) • National Herbarium (NH) • Pesticides, Environment Management Centre (PEMC)
Annual budget: (in local currency with Euro equivalent): The total budget for TPRI is about TZS 3,185,060,292 (equiv. € 1,702,576.16) approximately 25% is used for ICM
Source of funding: <ul style="list-style-type: none"> • Government subvention • Internal Sources • Administrative costs taken from donor funded projects.

Name of institution: Tropical Pesticide Research Institute (TPRI)
Programme / projects undertaken: TPRI has: <ul style="list-style-type: none"> • Participated in fairs and exhibitions annually (Nane nane agricultural shows, Saba saba Trade fairs and Bunge (National Parliament) Exhibitions) • Conducted community based trainings • Published brochures, leaflets • Conducted meetings with farmers • Published a strategic plan (2005-2015)
Target audience: <ul style="list-style-type: none"> • Farmers in their numbers and the general public; • Ministry of Agriculture, Food Security and Cooperatives and line ministries; • NGOs • Farmer organizations All are reached through a number of media; training, fairs, face to face, demo plots, and farmer field schools and print media as well
Extent of interaction with CTA: The interviewed staff was aware of the existence of CTA and of its products and in fact TPRI had been a recipient of <i>Spore</i> magazine, DORA, SDI, CTA publications, but for some years back, the institution has not received the publications for like 3 years in a row.
Appreciation of CTA's products and services: For the years the products were received the answer given: very useful
Extent of collaboration / interaction with other institutions: TPRI collaborates with various research and training institutions: National: COSTECH, NIMRI, TBS, Ifakara Medical Research Centre, MARTI, TACRI, Selian Research Institute, Uyole, Tengeru, SUA, UDSM mainly in joint research, information and knowledge exchange. Regional: ASARECA, Regional plant Genetic Resources Centre, Regional Vegetable Centre International: IITA, ILRI, ICRISAT, CTA
National / sectoral policies impacting ICT use / information and communication within the institution: The reduction of taxes on some ICT tools was identified as a positive aspect in the policy, but the Internet connection was said to still be very expensive for the centre to afford subscription and that was referred to be contributed by the current policy.

Name of institution: Tropical Pesticide Research Institute (TPRI)
<p>How information needs are currently met:</p> <p><u>Internal sources:</u> The personal knowledge and information resources of the staff at TPRI are important sources of information in their respective fields of specialization.</p> <p><u>Sources-National and International:</u></p> <ul style="list-style-type: none"> • Organizations: Universities-SUA, UDSM (technical backstopping and students for field attachments and knowledge exchange) • Publications: Ministry of Agriculture, Food Security and Cooperatives booklets/flyers, Newspapers, personal collections of staff, Ministry of Livestock development and fisheries • Electronic: Internet (subscriptions to Sources – National and international: • Other sources: Fairs and exhibitions such as Nane nane and Saba saba, colleagues from other organizations, consultants. <p><u>ICT Resources to support information acquisition and exchange:</u> TPRI has about 50 desktop computers and 15 laptops connected via TTCL broadband (Operating system: Windows 2000-VISTA), and the website is under construction.</p>
<p>Main information needs not satisfied:</p> <p><u>Broad rural development:</u></p> <ul style="list-style-type: none"> • farm problems, • gender issues, • development and funding programmes, • conferences and meetings, • available agricultural/development networks (regional and international) <p><u>Technical information:</u></p> <ul style="list-style-type: none"> • integrated pest management, • patents, • post harvest technology, • grading systems <p><u>Economic information:</u></p> <ul style="list-style-type: none"> • market data, • commodity profiles, • crop insurance systems <p><u>Training needs:</u></p> <ul style="list-style-type: none"> • participative methodologies, • application of communication technologies in extension services, especially the use of ICT in pests research and dissemination of research findings. • management of information within the organization . <p><u>The possible formats in which it may be most useful are</u></p> <ul style="list-style-type: none"> • Journal articles • Briefings/summaries • Standards • Patents • Material suitable for mass distribution • Material in appropriate languages.

Name of institution: Tropical Pesticide Research Institute (TPRI)
Successes/main problems faced in terms of information and communication management: <u>Successes:</u> The institute has successfully been able to communicate with different stakeholders through fairs (the Nane Nane Agricultural shows and Saba Saba Trade fairs), publications such as the TPRI strategic plans, brochures, leaflets and the TPRI website. <u>Main problems:</u> Financial resources: the budget does not meet the needs to strengthen ICM such as buying of books, publishing, and employing skilled human personnel in the sector, the financial constraint also limits efforts to do maintenance of the library which is in bad shape. <u>Human Resources:</u> no enough human resources to work in the ICM and ICT sector contributed by budget constraints. The IT recruits always leave the institute as they get lucrative deals elsewhere. <u>ICT resources:</u> the need to have a satellite dish is limited by financial constraints. <u>Future plans:</u> The institute is planning to employ an IT specialist to be able to automate the library by introducing online library catalogue, construct and maintain database and website.
Successes/main problems faced in terms of knowledge management: <u>Main problems:</u> lack of funds to train staffs and disseminate the knowledge to end users (the farmers and the general public)
Why institution selected as a key: It is a research institution with a mandate for research on pesticide and generates, disseminates information for various target groups.
Other observations: None

Persons Interviewed:

Said D Sevuri, Principal Personnel and Administrative Officer and Library and Information In-charge

Name of institution: Agricultural Council of Tanzania (ACT)
<p>Contact: Executive Director, Physical address: ASG Building, Junct of Nyerere/Gerezani Roads, Postal address: P.O. Box 14130, Dar-es-salaam, Tanzania, Telephone: +255 22 2124851; Fax: +255 22 2128032 Email: act@actanzania.org; Website: www.actanzania.org</p> <p>Type: PRV (Chamber on Agriculture) Role: EX, IN, PP (lobbying and advocacy); RD, TR, OT – being instrumental in supporting members to access financing in agriculture.</p>
<p>The mission statement of ACT:</p> <ul style="list-style-type: none"> • To unite and strengthen the private organisations in agriculture for rapid development including its modernisation and commercialisation • To actively undertake participative and consultative lobbying and advocacy roll on key private sector agricultural issues on behalf of members and stakeholders • To promote, coordinate and protect the interests of all stakeholders in the agricultural and agribusiness in the country • To enhance agriculture position in the development of the country.
<p>Field of specialisation:</p> <ul style="list-style-type: none"> • Crop promotion • Livestock promotion • Fisheries • Policy Research – influence policy formulation and review and assess impact of policy in the sector
<p>Number of staff professional, clerical, technical, etc; permanent/temporary: There are 14 staff Professionals 4 Tanzanians and 2 Foreigners Technical staff = 5 Support staff = 3</p> <p>Key skills:</p> <ul style="list-style-type: none"> • Economists • Agronomists/agriculture general • Agribusiness <p>These are working in 5 main technical departments:</p> <ol style="list-style-type: none"> Promotion and networking Programmes and projects Finance and Administration and Policy Research and Advocacy
<p>Branches, other sites: At various stages of establishment in the regions.</p>
<p>Annual budget: No exact figure given, but for ICM it is estimated to be TZS 15 m (equiv. €8,018.26) this year, basically to cater for development of a communication strategy, promotion of the ATC activities to members through TV and radio programmes, maintaining the websites and production of a newsletter.</p>
<p>Source of funding:</p> <ul style="list-style-type: none"> • Members contributions

Name of institution: Agricultural Council of Tanzania (ACT)
<ul style="list-style-type: none"> • Government through the ASDP project • Donors through projects like NORAD, Alliance for Green Revolution in Africa (AGRA), CNFA (Citizen Network for Foreign Affairs based in USA)
<p>Programme / project undertaken:</p> <ul style="list-style-type: none"> • Newsletter production to inform the mass about development agricultural related issues • Advocacy and lobbying to promote ACT through workshop and seminars • Development of TV and radio programme <p>Future/in preparation: Development of a communication strategy</p>
<p>Target audience: ACT main target group include:</p> <ul style="list-style-type: none"> • Farmers associations • Association of Livestock keepers • Cooperative Societies • Association of input suppliers • Agro-processors associations • Transporters associations, and • Government
<p>Extent of interaction with CTA: None</p>
<p>Appreciation of CTA's products and services: NA</p>
<p>Extent of collaboration / interaction with other institutions: ACT collaborate and interact with various partner institutions, the main ones include:</p> <p>Local public institutions:</p> <ul style="list-style-type: none"> • Central government: Ministry of Agriculture, Food Security and Cooperatives; Ministry of Livestock development and Fisheries for policy issues • Local Government Authorities in district like Kilombero, Mbeya Rural, Songea, Mbarali, and Mufindi for technical advice on implementation of DADPs <p>Local private companies/institutions</p> <ul style="list-style-type: none"> • National Microfinance Bank (NMB), CRDB Bank and Exim Bank for credit facility of its member organisations. <p>NGOs and associations</p> <ul style="list-style-type: none"> • ESRF as a partners in policy research and advocacy • MVIWATA • Small Industries Development Organisation (SIDO) an institution under the Ministry of Trade and Industries • Dunduliza a local apex organisation for Savings and Credit Cooperatives Societies (SACCOS) <p>Projects and Programmes</p> <ul style="list-style-type: none"> • Agricultural Marketing Systems Development Programme (AMSDP) • Rural Financial Support Project (RFSP) supported by IFAD • Participatory Agricultural Development and Empowerment Project (PADEP) <p>International Partners:</p> <ul style="list-style-type: none"> • Norwegian Agency for Development Cooperation (NORAD) for technical support

Name of institution: Agricultural Council of Tanzania (ACT)
<p>develop a monitoring and evaluation system</p> <ul style="list-style-type: none"> • Yara International, a largest fertiliser manufacturers in the world • Norfund (Norwegian Investment Fund for Developing Countries) • Alliance for Green Revolution in Africa (AGRA) • Citizen Network for Foreign Affairs (CNFA) - training and certification of agro-dealers; • Food and Agriculture, Natural Resources, Policy Analysis (FANRIPAN) of South Africa • Research Into Use Programme (RIUP) finance by DFID of the UK • Farm Inputs Promotion (FIPS) based in Kenya for input supply • IFAD support investment in marketing • MS Tanzania a Danish Agency for International Cooperation
<p>National / sectoral policies impacting ICT use / information and communication within the institution:</p> <p>The impact is positive as it enables the institution to link with the world.</p> <p>ICT resources:</p> <ul style="list-style-type: none"> - 7 computers (3 – desktops and 4 laptops. - Maintain a website - Establishing a database <p>There is expertise in website management and a Journalists, but as it is in its infancy need more expertise in ICM and ICT.</p>
<p>How information needs are currently met:</p> <ul style="list-style-type: none"> • Commodity marketing websites • FAO and other UN organisations for policy advice, technical information and international regulations • Agribusiness issues • Agricultural Commodity exchange (ACE)
<p>Main information needs not satisfied:</p> <ul style="list-style-type: none"> • Market information – input and outputs (quantities and qualities) • Value Chain Approach in marketing • Capturing information from partners to create efficient database • World market prices of inputs and outputs markets and trends – globally and regionally e.g. knowing Malawi Agricultural Commodity exchange helps in planning to take advantage. • Daily information about fuel market • Manufacturers of fertilisers world wide to create competition • Participative methodologies • Management of information in their organisation
<p>Successes/ main problems faced in terms of information and communication management:</p> <p>Successes:</p> <p>ACT is at its infancy and had limited staff and equipments, but have produced newsletters monthly this year; design efficient way like networking to disseminate information to its members through district, regional and private offices on market prices and opportunities and get feedback on implementation of voucher scheme in inputs and output marketing. There are also constraints/needs including:</p> <ul style="list-style-type: none"> • Equipment (like server) to facilitate a bigger database of farmers and its members

Name of institution: Agricultural Council of Tanzania (ACT)
<ul style="list-style-type: none"> and networking. • Software to facilitate networking • Limited expertise on ICT
Successes/main problems faced in terms of knowledge management: <ul style="list-style-type: none"> • No strategy yet for knowledge management • Establishment of regional and district branches for institutions still in progress • Limited expertise on ICM
Why institution selected as a key: It is the umbrella organization for the agricultural private sector capable of reaching large number of agricultural and rural development stakeholders. It unites groups and associations of farmers, livestock keepers, suppliers, processors, transporters, researchers, in order to push for improved economical and organizational environment for the sector.
Other observations: Very willing to collaborate with CTA

Persons interviewed:

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Email: jbitegeko@actanzania.org

Mark J. Magila,
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Email: mjmafila@actanzania.org

Name of institution: Commission for Science and Technology Tanzania (COSTECH)
<p>Postal address: Director General, P.O. Box 4302, Dar es Salaam, Tanzania</p> <p>Physical address: COSTECH Building, Ali Hassan Mwinyi Road, Kijitonyama. Country: Tanzania</p> <p>Tel: +255-22-700745/6/9, 75311/2; Fax: +255-22-775313/4</p> <p>Email: info@costech.or.tz; Website: http://www.costech.or.tz</p> <p>Type: TE (parastatal)</p> <p>Role: RD, IN, TR, RD (telecentres establishment and management),</p>
<p>Mission statement:</p> <p>As the principal advisory organ of government on all matters related to Science and technology, and while fully aware of the emerging global consensus of the vital role of science and technology in fostering economic growth and development COSTECH shall strive to promote and coordinate research, technology development (products and services) and technology transfer so as to optimally harness S&T for the eradication of poverty, protecting the environment, improving the quality of life and attaining sustainable socio-economic development of Tanzania.</p>
<p>Field of specialisation include:</p> <ol style="list-style-type: none"> Agriculture and livestock Natural Resources management Industry and energy (with emphasis on renewable energy) Public health and medical research Environmental research Basic sciences Social sciences Development and technology transfer Bio-technology
<p>Number of staff:</p> <p>COSTECH has about 100 staff amongst which there are:</p> <p>Professionals = 30</p> <p>Technical staff = 30</p> <p>Support staff = 40, and</p> <p>Each year they host about 10 volunteers.</p> <p>Among them there are 10 staff working in the ICM/ICT section where 3 are graduates on ICT, 2 librarians, and 2 with post graduate diploma in Information management and secretaries and registry assistants.</p>
<p>Branches:</p> <p>Dodoma field station.</p>
<p>Annual budget:</p> <p>Total budget is 3.46 billion (equiv. Euro 1,849,545.36); while TZS 400 million (equiv. Euro 213,820.27) is allocated for ICM/ICT.</p>
<p>Source of funding, incl. main donors/sponsors:</p> <ul style="list-style-type: none"> • Government of Tanzania • Donors including: <ul style="list-style-type: none"> ○ EU ○ SIDA ○ IDRC

Name of institution: Commission for Science and Technology Tanzania (COSTECH)
<ul style="list-style-type: none"> ○ And others who provide small support through networking and projects.
<p>Programme / project undertaken:</p> <ul style="list-style-type: none"> • Promotion and acquisition of information communication technologies and equipment. COSTECH has sought to provide training in ICT to empower researchers and other scientists to better manage their work. • ICT for good governance: The project aims at using ICT for storage and processing of key data generated in the sectors of education, health and others vital statistics for better governance • Accessing Internet; COSTECH played a key role in the country in introducing electronic mail services since 1992 to facilitate scientific communication • Telecentre: a multipurpose community telecentre (MCT) in Sengerema town has been established to provide the rural community knowledge and information through use of modern information technology. • Computer hardware distribution: COSTECH has embarked on project supplementary to ICT training namely acquisition and distribution of low-cost computer at a cost recovery basis • Popularisation of science and technology through radio programmes on science and technology • COSTECH also produce television programs on science and technology broadcasted weekly. • Funding and supporting dissemination of R&D products. • Foster collaboration with regional and international organisations.
<p>Target audience:</p> <ul style="list-style-type: none"> • Scientific community • Small and Medium Enterprises (SMEs) private sector including industries • Policy makers and • The general public.
<p>Extent of interaction with CTA: Have been collaborating with CTA for a long time but currently the relationship is very active but did not indicate the reason for dismal collaboration.</p> <p>Products received include: <i>Spore</i> magazine and books; also benefited from training sessions and seminars organised by CTA.</p>
<p>Appreciation of CTA's products and services: The products and services were very useful and informative on new developments in S&T.</p>
<p>Extent of collaboration / interaction with other institutions: National institutions that have joint projects and/or exchange information include:</p> <ol style="list-style-type: none"> National Institute for Medical Research (NIMR) Tanzania Wildlife Research Institute (TAWIRI) Department of Antiquities at the National Museum National Universities: SUA, University of Dar-es-salaam (UDSM), Muhimbili University of Health Sciences (MUHAS), Ardhi University, and Mzumbe University. <p>International organisations such as:</p> <ul style="list-style-type: none"> • EU, IDRC, SIDA, DANIDA, UNESCO, ITU and others. <p>Areas of collaboration include for example, UNESCO provided server and is supporting its</p>

Name of institution: Commission for Science and Technology Tanzania (COSTECH)
<p>maintenance; ITU has joint project on telecentres establishment; DANIDA supported establishment of web portal for linking Bio-diversity project to the world partners. SIDA supported subscription to journals through SAREC.</p>
<p>National / sectoral policies impacting ICT use / information and communication within the institution:</p> <p>Very supportive and enabled COSTECH to spearhead promotion of S&T. Removal of taxes made computer to be affordable to many institutions and people.</p>
<p>How information needs are currently met, and from where or by whom:</p> <ul style="list-style-type: none"> • Internally, using own library for reference materials available and documentation centre • Individual sharing of knowledge and information from research findings. • Through seminars and workshops with stakeholders • Through collaboration with national and international organisations and institutions mentioned above. • Internet search like through websites.
<p>Main information needs not satisfied:</p> <p>Broad rural development information:</p> <ul style="list-style-type: none"> • Farm problems • Non-farm livelihood options • Social development issues • Gender issues • Government and international regulations • Conferences and meetings • Development and funding programmes • Available agricultural/development networks (regional and international) <p>Technical information:</p> <ul style="list-style-type: none"> • Post harvest technology • Grading systems • Equipment availability <p>Economic information:</p> <ul style="list-style-type: none"> • Identification of markets • Market data • Credit and micro-credit information • Commodity marketing <p>Training needs:</p> <ul style="list-style-type: none"> • Participative technologies for researchers and field staff • Application of communication technologies in extension and outreach services <p>Formats most difficult to get include:</p> <ul style="list-style-type: none"> • Journal articles • Abstracts from research • Statistical data especially on crop production • Materials suitable for mass distribution in local language like Kiswahili which most farmers in Tanzania understand
<p>Successes/ main problems faced in terms of information and communication management:</p> <ul style="list-style-type: none"> • Have information and documentation section within the Technology development and transfer which through linkages with partners institutions collect and store information and disseminate to users.

Name of institution: Commission for Science and Technology Tanzania (COSTECH)
<ul style="list-style-type: none"> • They produce newsletter, posters and leaflets that are distributed to partners institutions during workshops and exhibitions. • They also provide Internet service (ISP) to other institutions through their network of 5 servers and a router: <ul style="list-style-type: none"> i. DNS server with capacity of 500 GB of HDD and 2 GB ram; ii. Mail server with capacity of 300 GB of HDD and 1 GB of Ram; iii. Rease with 120 GB of HDD and 512 GB Ram but this need upgrading; iv. VOIP server with 300 GB of HDD and 1 GB ram and v. TIPASIC (Tanzania Intellectual Property Advisory Services and Information Centre) server with 180 GB and 1 GB of Ram vi. Router of 4000 series • They have AGORA password. <p>Problems:</p> <ul style="list-style-type: none"> • Technical capacity to explore the potential areas in ICM and ICT is low • Infrastructure especially the bandwidth is still small to meet the demand • Staff interviewed felt that Telecentres are not sustainable; communities need long term support to pay for the cost and technical expertise. In collaboration with SIDA, COSTECH is looking into this issue and assess various models so that they can advise the government. • Budget allocation from the government is small hence need for seeking donor support in some areas. • There is also high staff turnover for ICT staff
<p>Successes/main problems faced in terms of knowledge management:</p> <ul style="list-style-type: none"> • LAN is not effectively used for internal networking and sharing of knowledge and information. There is need for sensitization of scientists. • Lack of awareness and appreciation on ICT from decision making level. • Security problems with regards to virus infection. Currently there are efforts with support from the World Bank to address this problem and expand the bandwidth. <p>Expressed need for training and sensitisation of scientists on the potential for ICT in decision making.</p>
<p>Why institution selected as a key:</p> <p>COSTECH is an autonomous public institution with a mandate to coordinate research and development for different sectors, and active in communication of agricultural related information. Has high potential and is willing to collaborate with CTA</p>
<p>Other observations:</p> <p>None</p>

Person interviewed:

Mr. Hamis M. Nguli, Senior Research Officer,
Tel: +255 754938877; Email: hnguli@gmail.com

Name of institution: Sokoine University of Agriculture (SUA)
<p>Postal address: P.O. Box 3000 Chuo Kikuu Morogoro</p> <p>Physical address: Mbuyuni,-SUA, Morogoro, Tanzania</p> <p>Tel: +255 (0)23 2603511-4, Fax: +255 (0)23 2604651</p> <p>E-mail: sua@suanet.ac.tz,</p> <p>Web site: http://www.suanet.ac.tz</p> <p>Type of Institution: EDU, GOV</p> <p>Role: EX, IN, RD, RU, TR</p>
<p>Objective / mission statement:</p> <ul style="list-style-type: none"> – SUA's mission is to promote development through training, research, provision of services to the public and private sector in an environmentally friendly manner. – SUA's objectives are to advance knowledge, wisdom and understanding through teaching, research, extension and consultancy through schools, colleges or institutes which are user-friendly and taking into consideration persons with common disabilities of sight, hearing and movement; to assist in the preservation, transmission, dissemination and enhancement of knowledge in the fields of agriculture and allied or complementary sciences; to create a sense of public responsibility for rural development among the educated and to prepare students to work with the stakeholders in Tanzania and worldwide.
<p>Field of specialisation:</p> <ul style="list-style-type: none"> – Offering training at Bachelors, Masters and PhD levels in the field of agriculture and allied subjects including: – Agricultural sciences, Forestry, Wildlife, Veterinary medicine, Animal production, Food science and technology, Human nutrition, Rural development, Environment Horticulture and Aquaculture – Conducting research and providing advice, consultancy and extension/outreach services in areas of agriculture and allied fields.

Name of institution: Sokoine University of Agriculture (SUA)
Number of staff professional, clerical, technical, etc; permanent / temporary): <ul style="list-style-type: none"> – A total of 1,116 members of staff: <u>Professionals</u> <ul style="list-style-type: none"> – 331 academic staff – 108 administrative staff – 481 Technical staffs – 196 Clerical staffs <u>working terms</u> <ul style="list-style-type: none"> – 1043 Permanent – 42 Temporary – 28 Project staff – 3 Volunteers – The academic staffs consist of 123 professors and 210 staff in the ranks of tutorial assistants up to senior lectures. These have training and are skilled in their fields of specialisations according to courses offered at SUA. – Administrative and support staff have training in administration, technical areas including computer applications and laboratory techniques.
Branches, other sites: <ul style="list-style-type: none"> – SUA is currently made up of four campuses; two in Morogoro region-the main campus and Solomon Mahlangu campus, one in Arusha region and one in Lushoto District in Tanga region. It has one Constituent College; the Moshi University College of Cooperatives and Business Studies (MUCCoBS). SUA's main campus consists of four faculties (Agriculture; Forestry & Nature Conservation; Veterinary Medicine and Science), two institutes, three centres and two directorates which include the National Agricultural Library (SNAL).
Annual budget: (in local currency with Euro equivalent) <ul style="list-style-type: none"> – Annual budget is about TAS 10 billion (equiv. to 5,345,506.8 Euro) which include other charges and emoluments) equivalent to EURO. – Budget for ICM is about TAS 150 million (equiv. to 80,182.6 Euro). This combines ICM budget from the Computer Centre, The National Agricultural Library, The Institute for Continuing Education, the Directorate of Research and Postgraduate Studies and SUA Centre for Sustainable Rural Development
Source of funding: <ul style="list-style-type: none"> – Government – Various development partners and donor community – Offering services and products – Student fee

Name of institution: Sokoine University of Agriculture (SUA)
<p>Programme / projects undertaken:</p> <ul style="list-style-type: none"> – Major outreach programmes include: The Uluguru Mountains Agricultural Development Project (UMADEP); The Soil-Water Management Research Group (SWMRG); Soil and Water Conservation in the Uluguru Mountains; The SUA Centre for Sustainable Rural Development (SCSRD) project; The SUA-Tumaini University Linkage Project; and Development of Farm-level Technologies in the Eastern Zone of Tanzania under TARP II SUA Project. – Conducting short courses under the following broad themes: Business management, Natural resources management, Food science and nutrition, Soil water and land management, Animal and fish management and health, Communication and Continuing professional. – Television programmes broadcasted through SUATV covering subjects such as research in agriculture; livestock health and production; forestry and beekeeping; fish farming; gender issues; health issues particularly HIV/AIDS; and environment. – Various university-wide research under programmes such as TARP I and II, Focal Project, PANTIL Programme – Various smaller research projects initiated at departmental level and individuals <p>Target audience:</p> <ul style="list-style-type: none"> – Researchers in agriculture and allied or complementary sciences (in the broad sense of agriculture as outlined in the fields of specialisation at SUA). – Students & Lectures – Farmers (Smallholder, medium and large-scale commercial farmers) – Policy makers at government and institution level – Public and private organisations – Any other group or person interested in agricultural subjects <p>Means of contacting the audience</p> <ul style="list-style-type: none"> – Classroom contact – University publications (Newsletters, Journals, Conference proceedings, Brochure) – University website and email – Board meetings – SUA TV (broadcasting coverage is sq km 32) – Farmer trainings – Outreach programmes – Exhibitions (Events taking place yearly such as “Saba saba” trade fair in Dar es Salaam and agricultural show in Morogoro, Parliamentary exhibitions) – Seminars and workshops

Name of institution: Sokoine University of Agriculture (SUA)
<p>Extent of interaction with CTA:</p> <p>The institution is a recipient of the following CTA publications and services:</p> <ul style="list-style-type: none"> – <i>Spore</i> magazine, regular publication received by the university library as well many individual lecturers and researchers at SUA – CTA publications – DORA (Distribution of Reference Books on Agriculture) – The SDI (Selective Dissemination of Information. Lists of abstracts and bibliographies are sent to recipients on the basis of the topics selected by researchers, scientists and policy-makers). This applies for individual staff members – CD-ROM / Database subscriptions to SNAL and individual scientists – Question & Answer Service (QAS) <p><u>It has participated in:</u></p> <ul style="list-style-type: none"> – CTA Annual Seminars (international meetings on key topics of interest e.g. soil fertility, food security). – Co-seminars (i.e. co-sponsored by CTA with other agencies such as IICA, FAO, etc.) – ICT Observatory (Four day workshop to examine the impact of ICTs in relation to other key issues such as youth, extension and gender) – CTA training programmes or non-CTA training programmes – Seminar Support Programme
<p>Appreciation of CTA's products and services:</p> <ul style="list-style-type: none"> – Very useful – Explanation: Very relevant to what SUA is doing, so a useful source of information for students, researchers and lecturers' work. Most of CTA publication recipients are happy with the content and coverage, and would like to continue receiving them.

Name of institution: Sokoine University of Agriculture (SUA)
<p>Extent of collaboration / interaction with other institutions (name, nature):</p> <ul style="list-style-type: none"> – The University of Dar es Salaam-joint projects, staff capacity building, staff exchange, information sharing – NORAD-Staff capacity building, infrastructure building, staff exchange, joint projects, information sharing – DANIDA -as above – Agricultural University of Norway, Training, research – VLIR - Staff capacity building, staff exchange, joint projects – JICA, staff exchange, joint projects – CTA, Information supply, Training support – INASP, Information supply, staff capacity building – DAAD, Staff capacity building – GTZ, Staff capacity building – FINNIDA, Staff capacity building – Tuskegee University in US, joint projects, staff exchange – University of As in Norway-joint projects, staff exchange – University College of Dublin in Ireland, staff exchange – SIDA, Staff capacity building, staff exchange, joint projects – SAREC, Staff capacity building, staff exchange, joint projects – CIDA, Staff capacity building – AAS (African Academy of Science), staff exchange – IAEA, joint projects – ASARECA – SUA have had formal Memorandum of Understanding with fifty one (51) national and International organisations for purposes of research, development, training, staff exchange and sharing of information and knowledge. Out of these, 13 have been at University level and the rest at individual faculty, institute and departmental level.
<p>National / sectoral policies impacting ICT use / information and communication within the institution:</p> <ul style="list-style-type: none"> – Exclusion of VAT on ICT equipment has generally lowered their prices. This is an encouragement even to individuals to have personal ICT tools. – The Ministry of Communication, Science and Technology has a plan to network all institutions of higher learning both public and private. When successful, there will be central bandwidth management and central ISP. If the intervention materialises, it will revolutionise ICT in these institutions. – The Eastern Africa Submarine Cable System (EASSy). Eassy-a multinational scheme, when completed will further lower the unit price of the Internet, apart from a drastic improvement of the Internet speed. – Tanzania Communication Regulatory Agency (TCRA) as a regulator is making efforts to remove chaos in ICT initiatives, but, on the other hand, there is no provision for restrictions, e.g. other for-profit organisations are operating within the same frequency window which is free and not restricted, these have huge transmitters. This is a disadvantage to small non-profit making organisations.

Name of institution: Sokoine University of Agriculture (SUA)
<p>How information needs are currently met, and from where or by whom:</p> <ul style="list-style-type: none"> – Major units that are responsible for ICM at SUA include the university library which is also a national library for agriculture, the Institute for Continuing Education (ICE) the Computer Centre, the Directorate of Research and Postgraduate Studies and SUA Centre for Sustainable Rural Development. <p><u>Human and IT resources</u></p> <ul style="list-style-type: none"> – Librarians and library assistants (35), Computer scientists and technicians (24), Media Technicians (2), TV programme producers (2) – SUA's information resources include the main library, branch library and departmental libraries; various databases; an informative and up-to-date website; Newsletters (University-wide newsletters such as SUA CONE, SUA Research and Postgraduate news, and for individual units); video programmes; SUA TV with a broadcasting coverage of 32 sq km; booklets leaflets and posters, conference proceedings, journals (such as TAJAS, Tanzania Veterinary Journal, Agricultural Economics and Agribusiness, ICE journal); compendia, thesis and dissertations <p><u>ICT Resources</u></p> <ul style="list-style-type: none"> – The University has a Computer Centre which oversees the overall running of computer network of the entire university. The centre is both an academic as well as a service-providing institution headed by the Director. The university library is also strong in providing ICT-based services. It also has trained human resources – SUA has eleven (11) academic staff and fourteen (14) technical staff, all with a speciality in ICT. Out of these, one (2) is a PhD holders, five (5) are MSc holders, seven (7) Bsc holders and eleven (11) have Diplomas in ICT-related disciplines – The university has four (4) VSATs, seven (7) servers, four (4) major computer labs, and four (4) smaller ones. All academic and most of the senior administrative staff have personal PCs (Windows XP, Vista). It has both the LAN and the WAN, Internet connectivity is on open source software and open source antivirus. There is a wireless bridge linking the two university campuses in Morogoro (Radio transmitter at the main campus and a radio receiver at SMC) and has a GIS laboratory. – ICT budget is about TAS 120 million per year <p>Information needs:</p> <p>Due to the varied nature of programmes and new courses offered at SUA information needs also vary under subjects in agriculture in a broad sense, wildlife, NRM, GIS, Animal health, Market information, Agribusiness, Climate forecasts, Environmental sciences and other basic sciences, bio-fuel studies and socio economic and development information</p> <p>Main information needs not satisfied are listed briefly as:</p> <p><i>Broad rural development information</i></p> <ul style="list-style-type: none"> • Farm problems • Non-farm livelihoods • Social development issues • Gender issues • Government and International regulations • Conferences and meetings • Trade fairs • Development and funding programmes • Available agricultural /development networks (regional and international)

Name of institution: Sokoine University of Agriculture (SUA)
<p><i>Technical information</i></p> <ul style="list-style-type: none"> • Grading systems • Climate forecasts • Post-harvest technology • Crop varieties • Packaging • Equipment sourcing/availability • Waste utilisation • Bio-fuels • Patents • Industrial profiles • Integrated pest management <p><i>Economic information</i></p> <ul style="list-style-type: none"> • Credit and micro-credit • Market data • Identification of markets • Commodity profiles • Crop insurance systems <p><i>Training Needs</i></p> <ul style="list-style-type: none"> • Application of communication technologies in outreach services. • Management of information within the organisation • Editing of reports • Participative methodologies

Name of institution: Sokoine University of Agriculture (SUA)
<p>Successes in terms of information and communication management:</p> <ul style="list-style-type: none"> Dissemination of research information through various publications and regular farmer training, workshops and seminars to agricultural extension personnel <p><u>Organizations:</u></p> <ul style="list-style-type: none"> International Network for the Availability of Scientific Publications (INASP) for electronic information CTA, UN organisations such as FAO, World Food Programme the World Bank, IMF, UNEP, International Research institutions and other organisations such as ISNAR, CGIAR, IFAD, IFPRI, IIED, ICRAF, ICRISAT, USAID, ILRAD, UNESCO, UNICEF, IRRI, Regional research organisations such as ASARECA. Initiatives such as: The Essential Electronic Agricultural Library (TEEAL) database, AGORA Government publications, Government website, Agricultural Sector Lead Ministries and their research institutes, Tz online website (Tanzania online), REPOA Commercial publishers and printers, (local and international public and private ones) Blackwell, Elsevier, University of Dar es salaam (DUP) <p><u>Training needs</u></p> <ul style="list-style-type: none"> Undergraduate courses in ICT for all undergraduates in all degree programmes Short courses on ICT, audience targeted being secondary school leavers, and any other interested person. Tailor-made trainings for various organisations Specific demands by various organisations <p><u>ICT problems which critically need assistance; possibly from CTA or any other organization:</u></p> <ul style="list-style-type: none"> Inadequate Bandwidth Budgetary limitations/Inadequate funding Computer student/user ratio, for students it is 1:10, this is inadequate for efficient ICT-based services
<p>Improvement that is needed in order of priority includes:</p> <ul style="list-style-type: none"> Strengthening the LAN and increase bandwidth, Improve computer user ratio Increase funds for ICT services <p><u>Future plan</u></p> <ul style="list-style-type: none"> Increase clients accessing Internet Increase number of PCs and bandwidth so that ICT becomes an important learning tool Establish and enhance e-learning (in teaching and learning activities) e.g the use of video conferencing/teleconferencing. To achieve the above goals, financial resources will be required in order to improve the LAN and buy enough bandwidth. Strengthen human resource by providing them with short-term training to keep abreast with developments in ICT. Increase farmer-researcher interaction for more impact of SUA research to rural development Increasing courses offered by the university Establishing new institutes and colleges
<p>Main problems faced in terms of knowledge management:</p> <p>Dissemination of SUA research information not wide enough in the country and beyond</p> <ul style="list-style-type: none"> Problems in acquiring Statistical information Limited materials in Kiswahili Difficulties accessing E-books

Name of institution: Sokoine University of Agriculture (SUA)
Why institution selected as a key: Being the only agricultural university in the country, it has had a big contribution to the country's body of agricultural professionals and to agricultural development of the country. The institution hosts the National Agricultural Library for Tanzania. It has various programmes and activities that are relevant to CTA's information services and products. The institution has a long history of interaction with CTA.
Other observations: CTA is well known and appreciated by SUA scientists as a useful organisation supporting the mission of the university by its activities in institutional capacity building, capacity development in information and communication management as well as dissemination of relevant information in agriculture and rural development.

People interviewed:

Mr. F. W. Dulle	Outgoing Director of the Library
Email:	FWDulle@suanet.ac.tz
Prof J. A. Matovelo	Director of Research and Postgraduate Studies
Email:	matovelo@suanet.ac.tz
Dr. W. Ballegu	Deputy Director of the Computer Centre
Mr. H. K. Sanga	Senior Planning Officer
Dr. J. Lyimo-Macha	Deputy Director of the Institute for Continuing Education (ICE)
Mr. M. Ngetti	Principal Agricultural officer at ICE
Email:	mngetti@suanet.ac.tz

Name of institution: AFSAT Communications (T) Ltd (AFSAT)
Postal address: P. O. Box 6154 Dar es salaam Physical address of main location Country Tanzania PPF Tower, 12 th floor Southern wing/Garden Avenue, Dar es salaam E-mail: support@afsatug.com , Web site: http://www.afsatug.com/servicestanzania Type of Institution: PRV, REG Role: IN
Objective / mission statement: <ul style="list-style-type: none"> To provide, establish and maintain data communication solutions through East Africa by being the leader in service and support. This is by committing and supplying quality products at competitive prices with efficient, product support and continued focus on the customer network requirements and cost efficiency to the customer. To provide connectivity between each information centre of your Organization.
Field of specialisation: There are a number of Connectivity Solutions are being offered by Afsat Communications (T) Ltd. The Connectivity Solutions vary from client to client, depending on client's requirements and the span of the locations to be connected. VSAT , Wireless Internet Access , Dial-up Connectivity , and Other Services .
Number of staff: AFSAT has 67 total number of staff; 50 Professionals 15 Clerical 2 Attachments Professional and technical staff include: Satellite Engineers Wide Area Networks Human Resources personnel
Branches and other sites: Group of Companies (Tanzania, Kenya and Uganda)
Annual budget: TZS 7,151,241,485 = € 3,822,701.02
Source of funding: Share holder funds
Programme / projects undertaken: Sales campaigns
Target audience: <ul style="list-style-type: none"> Any Organization that requires Active Data Communication between outlying branches and a Central Site, such as Manufacturing, Military, Media, Oil Companies, Retail Chains, Telecommunication Companies, Governments, Airlines, Consultants, Hospitals
Extent of interaction with CTA: <ul style="list-style-type: none"> There is no interaction with CTA

Name of institution: AFSAT Communications (T) Ltd (AFSAT)
Appreciation of CTA's products and services: <ul style="list-style-type: none"> – No any products of CTA identified in the institution
Extent of collaboration / interaction with other institutions: <ul style="list-style-type: none"> – AFSAT Group of Companies in East Africa (Kenya, Uganda and Tanzania) dealing with communication networking solutions
National / sectoral policies impacting ICT use / information and communication within the institution: <ul style="list-style-type: none"> – National policies constraining ICT and ICM are taxes and licensing fees for some activities are expensive, therefore there is a need to reduce.
How information needs are currently met: <u>Sources – internal</u> Library is one of the sources of information available, also Server Room, Store, Research Materials and Online Research. <u>Publications</u> Newsletter to the clients annually printed, Brochures and Website information
Main information needs not satisfied (including types and format of information): Formats: <ul style="list-style-type: none"> – Journal article – Statistical data – Standards – Patents – Material suitable for mass distribution – Material in appropriate languages
Successes/main problems faced in terms of information and communication management: <u>Financial resources</u> No particular financial restrictions on current activities were noted but getting more customers is a big challenge for the organization <u>Human and IT resources</u> No human and IT resources limitations were mentioned and current computer resources are adequate to support communication networking. <u>Training needs</u> <ul style="list-style-type: none"> – Area of operations - Application of communication technologies in extension services – Technical training and Self promoting training – In Management of information within the organisation <u>Future plan</u> <ul style="list-style-type: none"> – ICT creates efficiency – Quality database management – To have efficient client billing – To have adequate client management
Successes/main problems faced in terms of knowledge management (e.g. availability list of organisations / clients using your products, databases, etc.): <ul style="list-style-type: none"> – Government institutions, Private companies and other clients.

Name of institution: AFSAT Communications (T) Ltd (AFSAT)
Why institution selected as a key: <ul style="list-style-type: none"> – Is one of the Internet providers which provide services to agricultural institutions in Tanzania
Other observations: None

Name of the institutional representative interviewed:

Gabriel Onkundi, Operations Manager

Name of institution: MIFIPRO Trust Fund (MIFIPRO)
Postal address: P.O. Box 183 Mwanga Physical address: Mwanga district in Kilimanjaro Tanzania Cel: +255 784 915128 E-mail: mifiprotrustfund@yahoo.com Type of Institution: NGO Role: EX, RU, TR
Mission statement: <ul style="list-style-type: none"> – To contribute to sustainable Agriculture development and improvement of living condition of smallholder farmers.
Field of specialisation: <ul style="list-style-type: none"> – Rainwater harvesting for crop production – Environmental conservation – Entrepreneurship and marketing skill improved – Gender mainstreaming – HIV/AIDS mainstreaming
Number of staff: MIFPRO has 11 total number of staff: Professional :1 Technical: 4 Support staff: 6 Key skills: <ul style="list-style-type: none"> – Irrigation Technician. – Agronomist – Forester – Community Development Officer
Branches and other sites: <ul style="list-style-type: none"> – Has no branch
Annual budget: (in local currency with Euro equivalent) <ul style="list-style-type: none"> – NOVIB - TZS 135,412,066 (equiv. Euro = 72,384.61) – UNDP – TZS 50,000,000 (equiv. Euro 26,727.53)
Source of funding: <ul style="list-style-type: none"> – NOVIB – UNDP
Programme / projects undertaken: <ul style="list-style-type: none"> – Promotion of rainwater harvesting for crop production – Promotion of environmental conservation education and support reafforestation programme – Improvement of entrepreneurship and marketing skill – Gender mainstreaming – HIV/AIDS mainstreaming
Target audience: <ul style="list-style-type: none"> – Farmers of Eastern lowland of Mwanga district, Kilimanjaro region – Tanzania

Name of institution: MIFIPRO Trust Fund (MIFIPRO)
Extent of interaction with CTA: <ul style="list-style-type: none"> – There is no interaction with CTA
Appreciation of CTA's products and services: <ul style="list-style-type: none"> – No any products of CTA identified in the institution
Extent of collaboration / interaction with other institutions: <ul style="list-style-type: none"> – Selian Agricultural Research Institute (SARI) - Maize trials – Asian Vegetable Research Development Centre (AVRDC) - Promotion of indigenous vegetables and Research on vegetables – Sokoine University of Agriculture (SUA) - Information exchange and advice on Rainwater harvesting technologies.
National / sectoral policies impacting ICT use / information and communication within the institution: <ul style="list-style-type: none"> – High import taxes on computers and books reduce the number of institutions who can use ICT
How information needs are currently met: <u>Sources – Internal</u> <ul style="list-style-type: none"> – Knowledgeable staffs are the major source of information <u>ICT Resources</u> <ul style="list-style-type: none"> – Computers – Mobile phones
Main information needs not satisfied: Technical information: <ul style="list-style-type: none"> • Grading systems • Post-harvest technology • Crop varieties • Packaging • Transportation Training needs: <ul style="list-style-type: none"> • Application of communication technologies in extension services • Management of information within the organization • Editing of reports • Participative methodologies Economic information: <ul style="list-style-type: none"> • Credit and micro-credit • Market data • Identification of markets Broad rural development information: <ul style="list-style-type: none"> • Farm problems • Social development issues • Gender issues • Government and international regulation • Trade fairs • Development and funding programmes • Available agricultural/development networks(regional or international) Types and formats of information: <ul style="list-style-type: none"> • Statistical data • Standards • Patents

Name of institution: MIFIPRO Trust Fund (MIFIPRO)
Successes/main problems faced in terms of information and communication management: <u>Human and IT resources</u> <ul style="list-style-type: none"> • Lack of energy power (no electricity) • No local or wide area network <u>Training needs</u> <ul style="list-style-type: none"> • Training on the use of Internet effectively • The use of computer for financial documentation • Use of computer for data analysis <u>Future plan</u> <ul style="list-style-type: none"> • To have electricity power • LAN in the institute • Literacy in computer application
Successes/main problems faced in terms of knowledge management: Knowledge sharing and joint learning among farmers reached is implemented although they did not have a knowledge management strategy in place.
Why institution selected as a key: <ul style="list-style-type: none"> – Is the NGO dealing with sustainable Agriculture development and improvement of living condition of smallholder farmers in Tanzania
Other observations: None

Person interviewed:

Kigingi B. Mwanga, Irrigation Technician
 E-mail: mifiprotrustfund@yahoo.com

Name of institution: Participatory Ecological Land Use Management (PELUM)	
Postal address: P.O. Box 54, Dodoma Physical address: Area "C" Dodoma,	Country Tanzania
Tel: +255 (0)26 2350744 E-mail: info@pelumtanzania.org , Web site: http://www.pelumtanzania.org	Fax: +255 (0)26 2350744
Type of Institution: NGO, AS-F Role: EX, RU, IN, RD	
Objective / mission statement: To build the capacity of its members in sustainable agricultural knowledge, training skills for empowering farmer organisations, communication skills, fund raising strategies, action-learning process and gender policy. PELUM-Tanzania is a tool for documentation and communication to capitalise on experiences and disseminate them on the network; it is an advocacy tool for farmers' organisations and development organisations to influence government, Partners and NGOs on development issues and policies based on common analysis between farmers and organisations. PELUM-Tanzania will collaborate with its members to facilitate networking of Farmer Organisations.	
Field of specialisation: <ul style="list-style-type: none"> • To build capacity of PELUM-Tanzania members, especially through organising own training workshops as PELUM-Tanzania and • To be a tool for documentation and communication • To collaborate with its members to facilitate networking of farmer organisation • To facilitate advocacy work in food Vseed security and sustainable land use management/sustainable agriculture • To advocate on issues of marketing and trade of agricultural products • To develop PELUM-Tanzania membership functioning assessment and visibility 	
Number of staff: The total number of staffs of PELUM Tanzania is contributed by individual member organizations. PELUM secretariat office is a coordinating office. The secretariat has: 4 – professionals 1 - clerical staff 3 - temporary staffs professional and technical staff 1 - Agriculture and Natural resource management 1 - Policy, Advocacy and Lobbying 1 - Livestock 1 - Finance	
Branches and other sites: The secretariat office is based in Dodoma, a sub-office attached with VECO office in Dar es salaam. The organization has 35 member organizations ranging from NGOs, Agriculture, Environment and Livestock	

Name of institution: Participatory Ecological Land Use Management (PELUM)
<p>Annual budget: For the past 3 years the budget has been 200 million TZS (€ 106,910.14), from this year the budget is going to be 300million TZS (€160,365.21).</p> <p>About 60% of total budget is used for ICM activities</p>
<p>Source of funding:</p> <ul style="list-style-type: none"> • EED - Germany contributes to more than 50% of the budget • ETC (Netherlands) • Misereor - Germany • DKA (Austria) • VECO (Tanzania) • Local (member subscription and sale of materials, consultancy) contributes to about 7%
<p>Programme / projects undertaken:</p> <ul style="list-style-type: none"> • PROLINNOVA phase I (2005-2007) phase II (2008-2010) • Local innovation support (Farmers Access to innovation research) phase 2 - 2006-2011
<p>Target audience:</p> <ul style="list-style-type: none"> • Farmers - sharing and dissemination of best practices • Technical staff - through scale-up, review of researchable areas • Policy dialogue - influence specific policy dialogues; lobbying e.g. on Biodiversity, Bio-fuels, GMO issues.
<p>Extent of interaction with CTA: There is interaction with CTA:</p> <p>CTA Products received:</p> <ul style="list-style-type: none"> • <i>Spore</i> magazines (receiving regularly) • CTA publications • CD-ROM for different reports <p>Also participated in</p> <ul style="list-style-type: none"> • Co-seminars sponsored by CTA and other agencies like IICA and FAO • Training programme sponsored by CTA
<p>Appreciation of CTA's products and services: All products received from CTA are very useful and enabled staff to update themselves with new knowledge and information</p>
<p>Extent of collaboration / interaction with other institutions:</p> <ul style="list-style-type: none"> • Sokoine University of Agriculture (SUA) – experience sharing, technical support. • NGOs – collaborating in joint projects • Local Government Authority (LGA) – Implementation of projects, capacity building for extension staff skills. • Researchers – Research outputs, institutionalisation of approach, pilot element into existing teaching curriculum. • Policy makers – Members of Parliament, Ministers in events and policies dialogues.
<p>National / sectoral policies impacting ICT use / information and communication within the institution: Currently PELUM has no formal or informal policy/strategy. They positively viewed the National ICT policy.</p>

Name of institution: Participatory Ecological Land Use Management (PELUM)
<p>How information needs are currently met:</p> <p>Sources – Internal</p> <ul style="list-style-type: none"> • Colleagues are the major source of information • Quarterly Newsletter – Kilimo Endelevu (Farmer stories) • Database for projects just started for PROLINNOVA <p>ICT Resources</p> <ul style="list-style-type: none"> • 5 Desktop Computers fixed with LAN provided by TTCL cable broadband • 3 Laptops • 1 Fixed telephone and mobile • 1 Scanner
<p>Main information needs not satisfied:</p> <p>Broad rural development information</p> <ul style="list-style-type: none"> • Farm problems • Non-farm livelihoods • Social development issues • Gender issues • Government and International regulations • Conferences and meetings • Trade fairs • Development and funding programmes • Available agricultural /development networks (regional and international) <p>Technical information</p> <ul style="list-style-type: none"> • Grading systems • Post-harvest technology • Crop varieties • Packaging • Equipment sourcing/availability • Transportation (sea, land, air) • Waste utilisation • Patents • Industrial profiles • Integrated pest management <p>Economic information</p> <ul style="list-style-type: none"> • Credit and micro-credit • Market data • Identification of markets • Commodity profiles • Crop insurance systems <p>Training Needs</p> <ul style="list-style-type: none"> • Application of communication technologies in extension services. • Management of information within the organisation • Editing of reports • Participative methodologies

Name of institution: Participatory Ecological Land Use Management (PELUM)
<p>Successes/main problems faced in terms of information and communication management:</p> <ul style="list-style-type: none"> • Created awareness to public on benefits and disadvantages of environmental management, conservation of biodiversity. • Sensitize public on bio fuel as alternative source of energy. • Lobby for more support in agricultural budget <p>Human and IT resources</p> <ul style="list-style-type: none"> • Poor networking for uploading and downloading • ICT specialist • Increase funds for ICT services • Broadband issues concerning TTCL levy is very expensive <p>The government to have systems satellite based.</p> <p>Training needs</p> <p>Training on management and maintenance of database</p> <p>Training on management and maintenance of website</p> <p>Use of computer for data analysis</p> <p>Future plan</p> <p>To have server for database security.</p>
<p>Successes/main problems faced in terms of knowledge management:</p> <ul style="list-style-type: none"> • Support formation of networking among Farmers associations • Knowledge sharing within PELUM members • Collaboration with Agricultural Council of Tanzania (ACT) • Interaction with Universities • PROLINNOVA FORUM – 10 Regional PELUM countries.
<p>Why institution selected as a key:</p> <p>The NGO is dealing with Agriculture development institutional and rural development in Tanzania</p>
<p>Other observations:</p> <p>Potential for stronger collaboration with CTA because it serves many farmers and extension services providers at the grass-root level</p>

Person interviewed:

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E-mail: info@pelumtanzania.org
Website: www.pelumtanzania.org

Name of institution: Tanzania Standard Newspapers Ltd (TSN)
Postal address: P.O. Box 9033 Dar es salaam Physical address: Samora Avenue, Dar es Salaam Country: Tanzania Tel: +255 (0)22 21160741/2110595/2132063, Fax: +255 (0)22 2135239/2112881 E-mail: advertising@dailynews-tsn.com , Web site: http://www.dailynews-tsn.com Type of Institution: MED Role: IN, RU, TR, TM
Objective / mission statement: <ul style="list-style-type: none"> To ensure our products become premier consumer choice owing to superior professional practice and competitiveness To be the industry leader at all times, employing top talents and latest technology to deliver beyond expectations and excel in profitability.
Field of specialisation: <ul style="list-style-type: none"> Online advertising services at affordable rates through www.dailynews-tsn.com, www.habarileo.co.tz Special supplements on specific sectors, events, products etc. Companies can easily circulate their Literature to the public by inserting them into the daily news or Habari leo thus reaching the whole of Tanzania in just 24 hours Classified Advertisements suitable for small businesses and individual to advertise their products or disposal of assets such as cars, furniture, TVs, Radio, Plots, Houses for rent or sale etc. Designing of adverts and pullouts for publication in the Daily News or Habari Leo free of charge. The Business Standard: Publishes News and analysis on economic, financial and business areas. Comes out every Tuesday. The academy: Publishes class room materials to help primary and Secondary schools with review of difficult subjects and topics, circulates every Wednesday. Leisure Magazine: Every Sunday, Leisure Magazine covers about entertainments, styles, culture and travel so as to make your Sunday relaxing, yet get informative articles. Digital Library: Archived editorial material available online. Printing of Newspapers and Newsletters in full colour and black and white.
Number of staff: TSN has approximately 200 total number of staff: Key skills include: <ul style="list-style-type: none"> Journalism Photographing Accounting IT Marketing Sales Distribution Store
Branches and other sites: TSN has offices almost in all regions in the country

Name of institution: Tanzania Standard Newspapers Ltd (TSN)
Annual budget: The total budget for TSN and allocated budget for ICT not provided,
Source of funding: Self-running through sales of Newspapers, Advertisements, Printing
Programme / projects undertaken: <ul style="list-style-type: none"> • Politics: Education initiative, Interschool debates in schools 2 years programme (Daily News Academy) • Economics: Essay competitions, Pullout (Jimbo kwa Jimbo)
Target audience: <ul style="list-style-type: none"> • Most cost effective advertising medium in Tanzania • Tanzania's serious business class, Government officials, decision makers, middle and top managers • With the current circulation standing at over 15,000 copies, the News paper reaches more than 150,000 Tanzanian readers daily.
Extent of interaction with CTA: There is no interaction with CTA
Appreciation of CTA's products and services: No any products of CTA identified in the institution
Extent of collaboration / interaction with other institutions: Government and private business institutions who provide information and advertisements
National / sectoral policies impacting ICT use / information and communication within the institution: High taxes on import computers, cameras, printing papers, recorders etc.
How information needs are currently met: Sources – Internal <ul style="list-style-type: none"> • Well-trained and highly experienced journalists • Analytical, investigated and well-written news, features, sports and entertainment reports. • State-of-the-art computer to plate printing press • A wide circulation network across the country • Library (Archives – Access) • Documentation Centre (Returns) • Website with daily updated news in real time ICT Resources <ul style="list-style-type: none"> • Desktop computers and Laptops • Printers • Digital and analogue Cameras • Scanners • Printing machines • Trimming machines • Mobile phones

Name of institution: Tanzania Standard Newspapers Ltd (TSN)

Main information needs not satisfied:

TSN being a print media needs a lot of information:

Broad rural development information

- Farm problems
- Non-farm livelihoods
- Social development issues
- Gender issues
- Government and International regulations
- Conferences and meetings
- Trade fairs
- Development and funding programmes
- Available agricultural /development networks (regional and international)
- Other. Specify

Technical information

- Grading systems
- Post-harvest technology
- Crop varieties
- Packaging
- Equipment sourcing/availability
- Transportation (sea, land, air)
- Waste utilisation
- Patents
- Industrial profiles
- Integrated pest management

Economic information

- Credit and micro-credit
- Market data
- Identification of markets
- Commodity profiles
- Crop insurance systems

Training Needs

- Application of communication technologies in extension services.
- Editing of reports
- Management of information within the organisation
- Participative methodologies

Technical information in all agricultural related issues is required and in formats that can be easily communicated to clients.

Name of institution: Tanzania Standard Newspapers Ltd (TSN)
Successes/main problems faced in terms of information and communication management: Human and IT resources <ul style="list-style-type: none"> • Collection of data is expensive and timing • Lack of equipments (Cameras, Recorder, Receiver etc) • Distribution is expensive Training needs <ul style="list-style-type: none"> • Training on the use of Internet effectively • The use of computer for financial documentation • Use of computer for graphic design • Journalism and editing • Workshops, Seminars, meetings
Successes/main problems faced in terms of knowledge management: Problems: <ul style="list-style-type: none"> • Difficulty to reach to targeted customers • Competitive advertising rates • To meet superior and professional design
Why institution selected as a key: Is a printing media owned by the Government of Tanzania, it publishes English and Kiswahili newspapers
Other observations: None

Person interviewed:

Furaha, Marketing Manager

Tel: +255 (0)22 21160741, Fax: +255 (0)22 2135239; Mobile: +255 713 287770

E-mail: advertising@dailynews-tsn.com

<p>Name of institution: Moshi University College of Cooperative and Business Studies (MUCCoBS)</p>
<p>P.O. Box 474, Moshi, TANZANIA,</p> <p>Physical Address: SOKOINE ROAD, Moshi, Tanzania Tel: +255 27 2754401; 2754403; Fax:+255 (0) 27 2750806; +255 27 2753857 E-mail: info@muccobs.ac.tz Website: http://www.muccobs.ac.tz</p> <p>Type: EDU, STA Role: EX, IN, RD, RU, TR</p>
<p>Objective / mission statement: MUCCoBS focuses on providing opportunities for acquisition, development, promotion, dissemination and preservation of knowledge and skills in cooperative, community, business, organizational and entrepreneurship development process, and any other area as may be determined by the University College, through training, research and consultancy activities thus contributing to poverty alleviation initiatives and development of associative economy</p>
<p>Field of specialisation: MUCCoBS has specialized in the provision of education and training, research and consultancy services in co-operative and business studies at all levels.</p>
<p>Number of staff: MUCCoBS total staff: about 300 Academic staff: 100 Administrative staff: 200 All are on full time, permanent basis Key skills of staff include:</p> <ul style="list-style-type: none"> • Business Management • Accounting and Finance • Co-operative Education and Training • Community Development • Research Methodology • ICT and ICM • Library and Information Sciences • Agricultural and Rural Development
<p>Branches and other sites: The university headquarters are in Moshi, but have campuses in Kizumbi, Shinyanga, Iringa and 18 Regional Centres in Arusha, Coast, Dar es Salaam, Dodoma, Iringa, Kagera, Kigoma, Kilimanjaro, Mbeya, Morogoro, Mtwara, Mwanza, Rukwa, Ruvuma, Shinyanga, Singida, Tabora, and Tanga regions. The Moshi University College of Co-operative and Business Studies currently has two Faculties- Faculty of Business and information sciences which has four departments: Banking and Microfinance, Management and Information Technology and Marketing and International Trade; Faculty of Co-operative and Community Development has three departments; Co-operative Development and Management, Community and Rural Development and Accounting</p> <p>The university has also two administrative directorates and one institute. Each of these has a number of departments, sections and units.</p>

Name of institution: Moshi University College of Cooperative and Business Studies (MUCCoBS)
Annual budget: The annual budget is approximately Tanzania Shillings 4.2 billion (Euro 2,245,112. million); and the part of the budget allocated to ICM activities is about 10%
Source of funding: <ul style="list-style-type: none"> • Government • Internal generating sources • Administrative costs taken from donor funded projects.
Programme / projects undertaken: MUCCoBS has <ul style="list-style-type: none"> • Conducted trainings from certificate to degree levels to various students from schools, organizations and government. • Participated in preparation of cooperatives symposiums • Conducted community based trainings • Carried out research and consultancy services • Conducted meetings with farmers • Publishing journals, newspapers, brochures and leaflets • Helped in the formation and training of SACCOS • Organized shows such as this years cooperatives show.
Target audience: <ul style="list-style-type: none"> • Students of all levels of education • The general public • Organizations Contact is through residential training and distance learning.
Extent of interaction with CTA: The interviewed staff were aware of the existence of CTA and of its products <i>Spore</i> and CTA publications (<i>Spore</i> magazine, CTA publications, DORA, CD-ROM, and QAS). However, there was no mention of a staff who has ever attended a CTA seminar or training
Appreciation of CTA's products and services: CTA's products and services were highly appreciated and they were ranked as: very useful. "Many of CTA's publications are in the MUCCoBS' Library and are accessed and used by many researchers and students."

<p>Name of institution: Moshi University College of Cooperative and Business Studies (MUCCoBS)</p>
<p>Extent of collaboration / interaction with other institutions: MUCCoBS collaborates with various institutions: <u>National:</u></p> <ul style="list-style-type: none"> • Sokoine University of Agriculture (in many levels of policy and decision making as well as assurance of academic excellence); • Centre for Agricultural Mechanization and Rural Technology (CAMARTEC) – in exchanging information relating to agricultural mechanization and technological advancement. On some occasions, we have served as Consultants to prepare a Strategic Plan for the Centre; • Tanzania Coffee Research Institute (TaCRI), Agricultural Research Institute-Naliendele (ARI-Naliendele) – in exchanging research findings; • Ministry of Agriculture, Food Security and Co-operatives; • Ministry of Education and Vocational Training; • Tanzania Commission for Universities; • National Board of Accountants and Auditors – NBAA (MUCCoBS is one of the centres for the Board's Review Programmes); • National Board of Materials Management – NBMM (MUCCoBS is one of the centres for the Board's Review Programmes); • Tanzania Institute of Bankers – TIOB (MUCCoBS provides examiners for the Institutes professional examinations; etc. <p><u>Regional</u> and International :</p> <ul style="list-style-type: none"> • Humber Institute of Technology and Advanced Learning (HITAL) of Canada – implementing jointly the Rural Microfinance Capacity Building 'Partnership' Project which is being funded by CIDA. • Faculty of Agriculture - Makerere University, Agriculture Policy Research Unit – Bunda College of Agriculture (University of Malawi) and Institute of Economic and Social Research – University of Zambia collaborate in the <i>Business Experience Exchange Programme (BEEP)</i> together with respective Rural Producer Organizations – i.e; National Smallholder Farmers' Association of Malawi, Uganda Co-operative Alliance, Tanzania Federation of Co-operatives, Agribusiness Support to Small Farmers Programme Forum and Zambia National Farmers' Union. • Makerere University, University of Malawi and University of Zambia collaborate in the Young Research Fellowship Exchange Programme funded by the Royal Government of Norway. • Co-operative College, UK in a project titled: Education for the Co-operative Sector in East Africa, etc.
<p>National / sectoral policies impacting ICT use / information and communication within the institution: The reduction of taxes on some ICT tools was identified as a positive aspect in the policy, but the Internet connection was said to still be very expensive for the centre to afford subscription and that was referred to be contributed by the current policy.</p>

<p>Name of institution: Moshi University College of Cooperative and Business Studies (MUCCoBS)</p>
<p>How information needs are currently met:</p> <p><u>Internal sources:</u></p> <p>The personal knowledge and information resources of the academic staff as well as supporting staffs at MUCCoBs are important sources of information in their respective fields of specialization. The University Library serves as a good source of information.</p> <p><u>National and international sources:</u></p> <ul style="list-style-type: none"> • Organizations such as Sokoine University of Agriculture ('mother' university), Ministry of Education and Vocational Training, Ministry of Agriculture, Food Security and Co-operatives, Centre for Agricultural Mechanization and Rural Technology (CAMARTEC), Tanzania Coffee Research Institute (TaCRI), Agricultural Research Institute-Naliendele (ARI-Naliendele), International Co-operative Alliance (ICA), Tanzania Commission for Universities (TCU), Food and Agriculture Organization (FAO), The Technical Centre for Agricultural and Rural Cooperation (CTA), and many others. • Publications such as CTA booklets and bulletins, <i>Journal of Co-operative and Business Studies</i>, Research Reports Series from various Research and Training Institutions. • Electronic: Internet (subscriptions to Sources – National and international: • Other Sources such as Trade Fairs, Annual International Co-operative Day Exhibitions, Higher Education Institutions Exhibitions <p><u>ICT Resources to support information acquisition and exchange:</u></p> <p>The university has a department responsible for teaching ICT-related programmes, and the Computer Services unit that handles the hardware part, maintaining a database and the website.</p> <p>All academic staffs and many of the other staffs have access to computers (windows 2000, XP, and Vista) and are all connected to the Internet.</p>
<p>Main information needs not satisfied (including types and format of information):</p> <p><u>Broad rural development information:</u></p> <ul style="list-style-type: none"> • Farm problems • Non-farm livelihoods • Social development issues • Gender issues • Government and International regulations • Conferences and meetings • Trade fairs • Development and funding programmes • Available agricultural /development networks (regional and international) <p><u>Technical information:</u></p> <ul style="list-style-type: none"> • Grading systems • Post-harvest technology • Crop varieties • Packaging • Equipment sourcing/availability • Transportation (sea, land, air) • Waste utilisation • Patents • Industrial profiles • Integrated pest management

Name of institution: Moshi University College of Cooperative and Business Studies (MUCCoBS)
<p><u>Economic information:</u></p> <ul style="list-style-type: none"> • Credit and micro-credit • Market data • Identification of markets • Commodity profiles • Crop insurance systems <p><u>Training Needs:</u></p> <ul style="list-style-type: none"> • Application of communication technologies in extension services especially in cooperatives. • Management of information within the organisation • Editing of reports • Participative methodologies <p><u>The possible formats in which it may be most useful are</u></p> <ul style="list-style-type: none"> • Journal articles • Briefings/summaries • Standards • Patents • Material suitable for mass distribution • Material in appropriate languages.
<p>Successes/main problems faced in terms of information and communication management:</p> <p><u>Successes:</u> MUCCoBS has maintained its own Library and documentation centre, several publications including a Journal of Co-operative and Business Studies, Research Reports Series, Working Papers series, a Newsletter, and several brochures and leaflets for various directorates, faculties and departments. MUCCoBS Library is a teaching library. It has a good collection of books and skilled staffs.</p> <p><u>Main problems:</u> Financial resources: Funds for publications and dissemination of the same are inadequate. <u>Human Resources:</u> lack of training to the staffs</p> <p><u>ICT resources:</u> Shortage of computers in the library</p>
<p>Successes/main problems faced in terms of knowledge management (e.g. availability list of organisations / clients using your products, databases, etc.):</p> <p><u>Main problems:</u> lack of funds to train staffs, publish and disseminate the knowledge to end users.</p>
<p>Why institution selected as a key: The university has a library which supports teaching, research and consultancy in cooperative and Business studies; acquiring, processing, storing, preserving and disseminating relevant materials and managing an information database. It reaches a large number of scientists and advising farmers and other stakeholders.</p>
<p>Other observations: None.</p>

Person interviewed: Remi Michael Tiruhungwa, Deputy Director, Bureau of Research and Consultancy Services, Tel: +255 27 2754401/4; Fax: +25527 2750806, 2753857; Cel: +25527 754 264754 ; E-mail: tirumichael@yahoo.co.uk

4. List of Persons Interviewed

NAME	FUNCTION/POSITION	INSTITUTION	TELEPHONE	EMAIL ADDRESS
1. Mrs. Vidah Mahava	Agricultural Research officer, Acting Head of Information and Documentation	MAFC	+255 754 294250	drt@kilimo.go.tz ,
2. Mr. Geoffrey Kirenga	Assistant Director – Extension,	MAFC	255 22 2866401	dcd@kilimo.go.tz
3. Mr. Richard Kasuga	Information Officer	MAFC	+255 754 887765	drt@kilimo.go.tz ,
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5. Ms. Margaret Bakuname	Assistant Director – Livestock Extension,	MLDF	+255 784 300525	info@mifugo.go.tz ;
6. Ms. Felista Kimaro	Principal Livestock Research Officer	MLDF	+255 22 2861910	info@mifugo.go.tz ;
7. Mr. Deograsias A. Ruzangi	Principal Livestock Officer,	MLDF	+255 22 2861910	info@mifugo.go.tz ;
8. Mr. Evarest Sabas	Director-Forest Production Research	TAFORI	+255 26 2302147	tafori@morogoro.net
9. Mr. Mberik Rashid Said	Commissioner for Agricultural Research and Extension	KUEW	255 777 424578	kuew_znz07@hotmail.com
10. Mr. Othman Ally Maulid	In-charge of Information and Extension Section, Zanzibar	KUEW	+255 777 420431	oallymamp@yahoo.com
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12. Ms. Sada Hassan	Office Secretary,	ZAFFIDE	+255 777 420431	zaffide2004@yahoo.com
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15. Dr. Benjamin P. Ngatunga	Director of Research,	TAFIRI	+255 784 369755	bpngatunga@yahoo.co.uk
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22. Mr. Kahabi A. Medard	Programme Coordinator	SAIPRO	+255 27 2757883	saipro@habari.co.tz
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24. Mr. Samuel	Information specialist	TANGO		samuel@tango.or.tz
25. Mr. Musa Billegeya	Programme officer	TANGO		msbillegeya@yahoo.com
26. Mr. Fokas Makauki	Assistant, Management Information System	TIP	+255 27 2753025	tip@tiptz.org
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32. Mr. F. W. Dulle,	Outgoing Director of the Library	SUA		FWDulle@suanet.ac.tz
33. Prof J. A. Matovelo	Director of Research and Postgraduate Studies	SUA		matovelo@suanet.ac.tz
34. Dr. W. Ballegu	Deputy Director of the Computer Centre	SUA		
35. H. K. Sanga,	Senior Planning Officer	SUA		hsanga@suanet.ac.tz ; hsanga@yahoo.co.uk
36. Dr. J. Lyimo-Macha,	Deputy Director of the Institute for Continuing Education (ICE)	SUA	+255 754 368877	joyce@suanet.ac.tz
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39. Mr. Kigingi B. Mwanga	Irrigation Technician	MIFIPRO	+255 784 837673	mifiprotrustfund@yahoo.com
40. Mr. Laurent Kaburire	Project Officer	PELUM	+255 754 542650	info@pelumtanzania.org
41. Mr. Furaha	Marketing Manager	TSN	+255 713 287770	advertising@dailynews-tsn.com
42. Remi Michael Tiruhungwa	Deputy Director, Bureau of Research and Consultancy Services	MUCCoBS	+255 754 264754	tirumichael@yahoo.co.uk

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