



Country Review Report

July 2011 Dar as Salaam, Tanzania

Introduction

This document reports the findings of the Comprehensive Africa Agriculture Development program (CAADP) Post Compact technical review for the United Republic of Tanzania's "Tanzania Agriculture and Food Security Investment Plan" (TAFSIP). The purpose of the review is to enhance the quality of agricultural development and increase effectiveness of domestic and foreign development assistance for agricultural growth, food security and reduction of hunger and poverty.

The guiding documents for the TAFSIP are the Agricultural Sector Development Strategy (ASDS)/Kilimo Kwanza and Agricultural Transformation Initiative (ATI) of Zanzibar. Together they translate the National Development Visions 2025 and 2020 and the Mkukuta and Mkuza, the Growth and Poverty Reduction Strategies for both the mainland and Zanziba respectively, into action. The ASDS seeks to achieve agricultural sector growth of 6 percent per annum, contributing to a target GDP growth rate of 7 percent, as proposed in the 2020/25 Visions. Further, the ASDS/Kilimo Kwanza is seeking to reduce the number of people living on less that US\$ 1.2 per day from the 2003-2009 average of 35.7 percent of the population to 19.5 percent by 2015 and reduce food insecurity. The FAFSIP's development goal is to contribute to the Tanzania's economic growth, household income and exports in line with national and sector aspirations. The TAFSIP focuses on four Priority Investment Areas: (i) productivity and production; (ii) food and nutrition security (iii) rural commercialisation; and (iv) institutional development. Within each of these investment areas specific interventions are identified.

Fundamentally, TAFSIP will be implemented through the ASDP/ASP which will encompass a broad range of initiatives, programs, and projects operating at the national, regional, district levels consistent with the principles and goals of decentralization. TAFSIP serves as a sector wide umbrella for resource mobilization and facilitation of strategic coordination of investments within the ASDP and ASP and review of ongoing and new efforts with the ambition of increasing the effectiveness of development assistance.

The Comprehensive Africa Agriculture Development Program presents a social transformation agenda with a wide-reaching influence on development aid architecture and development planning. CAADP is intended to support African governments prepare quality strategies and investment plans, ensure enabling policy environment to implement the plans and translate these plans into programs and projects for stimulating the necessary sectoral growth for effective poverty reduction and food security.

In general the TAFSIP is an ambitious agenda. It is a positive, constructive, step forward for the country as it strives to build a comprehensive investment plan. It recognizes and integrates the ongoing efforts of a number of initiatives and programs such as ASDP and ASP, and identifies key areas of engagement that are not now being attended to. The targets are aggressive and to achieve them will likely require more expeditious implementation of plans, as well as increased investment than has been provided, historically. Possibly the most significant issue facing the country as it looks to

implementation of TAFSIP is whether the institutions with the responsibility to steward its implementation will have the operational capacity and tools to make this real. The challenge of institutional capacity development of the sector is well recognized by stakeholders in the sector and means for ensuring appropriate corrective actions have been elaborated under Strategic Objective Four (SO4) on Institutional Strengthening under the TAFSIP.

The Technical Review team's key findings and recommendations regarding Tanzania's TAFSIP are outlined below. The recommendations are intended to help strengthen the TAFSIP and inform a pre-implementation road map for the TAFSIP, commencing immediately.

Component 1: Alignment with CAADP Vision, Principles and Strategy Elements

Alignment with CAADP Vision, principles and strategy

The TAFSIP is comprehensive and aligns effectively with the CAADP goals, objectives and targets. The Plan aligns well with the targets and principles set out in the Visions 2025 and 2020 for the mainland and Zanzibar respectively. The TAFSIP is also clear in its linkages to, and instructed by, MKUKUTA and MKUZA as the Republic's growth and poverty reductions strategies as well as the Agriculture Sector Development Strategy (ASDS), *Kilimo Kwanza* and Agricultural Transformation Initiative (ATI) as sector specific strategies. This consistency in the linkages and alignment with these broad and sector specific strategies is a fundamental tenet of CAADP.

The CAADP vision calls for countries to develop a comprehensive plan to stimulate and achieve agricultural growth of 6 per cent per annum that enables the country to reduce poverty and hunger in half in line with the MDG one. CAADP also calls for contribution of 10 percent of the annual national budget to agriculture. Based on the documents reviewed, including the Draft 2010 Agricultural Sector Review/Public Expenditure Review, funding for agriculture has been on the rise in the past decade. That said, government funding falls short of the targeted 10 percent of the national annual budget. The financing plan laid out in the TAFSIP, requests and proposes that government funding be increased so that by 2012, funding will be increased to the 10 percent level, from the current 7.6 percent. An issue of concern is that actual disbursement of funds available to support agriculture are slower and lower than planned for, hence, reducing investment in the sector. In sum, TAFSIP is fully consistent with the CAADP framework, goals and objectives.

The consistency analysis part of the review will further elaborate the likelihood of the current and projected spending in meeting the growth and poverty targets.

The TAFSIP will be implemented through the ASDP/ASP frameworks, which will include ongoing and emerging initiatives like SAGCOT, MIVARF, MUVI, Feed the Future and others. SAGCOT will enlist private sector engagement and support PPP, which will be scaled up to include similar models and arrangements to other regions of

the country. Within ASDP, the decentralized framework of implementation of different programs, embracing different funding modalities, is appreciated.

Recommendations

- (i). Accelerate the pace and increase the level of funding for agriculture to meet the 10 percent target and commitment.
- (ii). Strengthen the TAFSIP implementing mechanisms to effectively absorb and efficiently use the resources available in achieving the objectives of TAFSIP

Reform agenda

The TAFSIP provides a comprehensive investment framework necessary for the sector. It proposes important reforms in bringing government agencies together to effectively coordinate and deliver services through the ASDP and ASP. It builds on and broadens the ASDP and ASP by proposing more flexible funding modalities that tap into government, nongovernment and private sector resources.

At present, the TAFSIP clarifies, under CAADP brief No 1 and its working papers, the necessary policy actions that can and should be taken to ensure that the enabling environment to implement TAFSIP. However, complimentary work is needed to identify and advance key policy actions, and to review current modalities. An example on this is to elaborate the modalities, policy implications and possible effects under which input subsidies, as tools for implementation will be handled.

Inter-ministerial collaboration and coordination

Both in the mainland Tanzania and in Zanzibar, agriculture activities fall within the mandates of different Ministries. This, undoubtedly, creates a coordination and implementation challenge. The TAFSIP recognizes how this may compromise the attainment of the set targets and builds from previous experience to propose coordination mechanisms. The proposed coordination structures embraces institutional hierarchy and stakeholders from different Ministries, Private Sector and Civil Society is commendable. If implemented, it can be robust. The challenge is that the complex structures for coordination will make it difficult to establish and maintain accountability.

The proposed TAFSIP Inter-Ministerial Coordination Committee (ICC) is of critical importance. It proposes to bring together technical leaders of Ministries - the Permanent Secretaries – as well as leaders of key initiatives and programs such as SAGCOT, the ASDP and development partners. This will constitute a high level team to make decisions. Managing the TAFSIP for results will largely depend on how effective this team is. A significant innovation is the proposed Presidential Retreat, and if operationalised, will create a strong review and accountability platform for effective and efficient service delivery. It however comes with challenges of (i) whether it will be respected and conducted and (ii) if the M&E will be effectively operationalised to facilitate dialogue at this Presidential Retreat.

Recommendations

- (i). Include the proposed institutional coordination in the M&E framework with indicators to track whether and how well coordination is taking place.
- (ii). Elevate attention to, or integrate annex on, management and coordination into the TAFSIP and clarify what resources will be made available to support it

Stakeholder consultation

Engagement of all stakeholders in the design and implementation of national strategies and programs is key principle of CAADP. The design of the ASDP several years back was supported with an elaborate stakeholder involvement. The concern in the past was, those involved especially at formulation and setting of priorities were largely public sector officials and development partner community and less of non-state actors, farmer organisations, and civil society. The formulation of TAFSIP, on the other hand, has rectified this by developing Task Forces composed of different stakeholders from both mainland Tanzania and Zanzibar. A drafting team was constituted and numerous consultative workshops were undertaken at the Regional and Zonal levels. The team concludes that stakeholder workshops generated ownership and agreement on priorities. The review however takes note of several requests by stakeholders for the validation of the revised draft TAFSIP before it is presented at the Business Meeting.

Recommendations

(i). Ensure effective participation of all stakeholders (mainly private sector) in the various coordinating structures of the TAFSIP

Incorporation of private sector

The role of the private sector is central to the TAFSIP approach. However, opportunities for private sector engagement are discussed only briefly and only cover outgrowers, block farming, and contract farming arrangements. There is also reference to SAGCOT as an ambitious new initiative heavily linked to private investment. As a new initiative, there can be few lessons to be learnt from SAGCOT on the feasibility of scaling up under TAFSIP. Innovative approaches such as the Catalytic Fund to finance "social venture capital" to address up-front costs of agribusiness investment such as transport infrastructure and communications are interesting but cannot alone be expected to drive private sector investment over the next 5 years.

Apart from contributing to growth in the sector, as recognized in the document, private sector play critical roles in linking farmers to processing, value chains, technology and the creation of employment.

In establishing performance measures and benchmarks for various parts of TAFSIP, it will be useful to clarify milestones and targets for private sector engagement and

participation in the agricultural sector, both on- and off-farm. The review recognizes with appreciation that in addition to the proposed Patient Capital and Catalytic Fund under SAGCOT, the TAFSIP funding and financing arrangements include setting up partnership arrangements through out-grower schemes and contract farming as well as establishing and strengthening Savings and Credit Cooperative Societies (SACCOS) and farmer organizations to provide innovative means of engaging the private sector in the sector. The concerns and recommendations by in-country developments partners on private sector are noted. Issues like enhancing privatization or outsourcing of existing jobs done by public sector like in areas of irrigation is an issue to note. As an example, and as has been noted, the irrigation program is ambitious and will require ready skills. The government plans to have these skills through increasing enrollment in Universities and graduating may who can respond to this demand. These proposals are un-attainable in the medium term. Evidently, there are shortages of irrigation engineers and the workload for the Zonal Irrigation and Technical Service Units (ZITSUs) is increasing. Government can consider creating space for private sector in this area and only create the necessary incentives and policy environment for this to happen.

The recognition of private sector as key driving force to attaining the desired goals of TAFSIP should be reflected especially on how the government will provide the enabling policy and regulatory environment to encourage the private sector to participate in agricultural development. The key recommendations for TAFSIP should be to:

- (i). Establish an inceptive regime and policy environment for private sector in irrigation activities.
- (ii). Enhance private sector competitiveness for better market access
- (iii). Increase private sector capacities to become credible for financial assistance
- (iv). Increase access to private sector information
- (v). Design and support appropriate investment climate to stimulate and accelerate private investment in agribusiness

Donor coordination, alignment and harmonization

In-country development and technical partners constitute one of the major stakeholders critical to the delivery of CAADP and agricultural sector objectives. Development partners are expected, not only, to provide financial resources in supplementing national commitments, but they also play a significant role in supporting policy and strategy development and implementation. Donor coordination to harmonise and align is important to increase the effectiveness of development assistance.

The review notes that a number of development partners are signatory to the Joint Assistance Strategy for Tanzania (JAST).

To strengthen the financial and technical support to the agricultural sector, government (represented by ASLM) and selected development partners signed an MoU for ASDP Basket Fund. This has been operating since 2006. A key objective of the MoU is to facilitate alignment with budgetary and accountability systems to enhance effective implementation, reduce administrative burden on government and minimize transaction costs. This is a key principle of Paris declaration and Accra Agenda for Action. Tanzania

has donor Agriculture Working Group (AWG) and Agriculture sector Consultative Group. The groups' activities are guided by clear and detailed Terms of Reference. In either, both the original and the amended MoUs together with different versions of ToR, constitute clear instruments to facilitate donor coordination, harmonisation of development assistance and alignment to country priorities. The review was informed that the central work for AWG is to support policy and strategy development as well as program implementation. The review further noted that there is a database that lists all donor projects which is updated annually. It is, however, not clear what this database is used for. It seems likely that there is no clear understanding of what coordination and harmonization of development assistance means. What is clear is that both bilateral and other donors support a series of programs in the country. The practice of AWG however seems different from what the instruments and the database are intended to help and or achieve. The database of projects is intended to tease out where different projects from different partners are focusing on related activities, involving differing models and in similar geographical regions. The review noted that there are no discussions in any forum to facilitate merger, dropping and/or aligning some of the projects to agreed country priorities. The absence of such efforts demonstrates lack of coordination and hamonisation.

This review observes that the AWG meets regularly mainly to share information rather than to facilitate and support coordination efforts. There are indications that there are many small projects funded through bilateral assistance and or NGOs but are not aligned to country priorities or are duplicative. Building from established databases, efforts should be made to increase alignment and coordination of all the development activities.

Recommendations

- (i). Development partners should, institute mechanisms to align different projects and programs to each other and to TAFSIP (including those supported by NGOs). This should involve merger and/or dropping of some projects or any other practical way to avoid duplication of efforts but harmonise and align them to TAFSIP. As part of this, all donor project activities (whether on and/or off-budget) should be included in a common and agreeable M&E framework. This will guarantee common reporting tools that will ensure clear attribution of each support to a common and agreed agriculture sector objective and targets.
- (ii). Donors should identify innovative approaches to engage government and compelling each other to account for agreed promises by benchmarking key undertakings and regularizing the Sector Consultative Group meetings to discuss these common agreed benchmarks.
- (iii). Development partners should support and participate in an effective joint sector review that is inclusive of all activities and not limited to the ASDP.

Component 3: Adoption of best practices and inclusion of core program elements

3.1 Sustainable Land and Water Management

General

The TAFSIP recognises sustainable and responsible natural resource management as being critical to the achievement of rapid and broad-based agricultural growth. With a total of 94.5 million hectares of land, of which 44 million hectares are arable, Tanzania has vast potential for agricultural development. To realise this potential and increase food productivity, the country, through the TAFSIP, intends to increase the area under irrigation for agriculture from the current 344,490 hectares to 1 million hectares within 5 years. Furthermore, given that Tanzania has 38 percent forest cover, it should also be possible to promote sustainable forest-based livelihoods that support the food security needs of the population in forested regions. The TAFSIP also recognises the multiple constraints and challenges affecting the 'natural resource sector', and presents a comprehensive problem analysis in this regard. The Investment Plan contains a set of interventions that are consistent with the principles of sustainable land and water management (SLWM) approach emerging as best practice in Africa.

However, some of the major challenges that beset the natural resource sector have not been adequately addressed in the identification of sub-programmes and outputs. In this regard, clarification is needed as to why 'unsustainable use of natural resources' is categorised under the list of 'Risk factors' in an investment plan under CAADP that proclaims a broader understanding of the agriculture sector as including all forms of agriculture, livestock, fisheries, forestry and natural resource management. Furthermore, it is not clear why the recognition given by the Tanzanian compact to SLWM, along with increasing food supply through enhanced cereal and livestock production, as a major priority theme, has not been followed through during the preparation of the TAFSIP. In TAFSIP the SLWM issues are largely subsumed in the Productivity and Production This approach may be limiting the inclusion of a broad range of thematic area. environmental initiatives in the TAFSIP that Tanzania has been implementing, and those that are likely to be embraced in the years to come. At any rate, it would be important for the TAFSIP stakeholders to reflect on the merits of giving SLWM the visibility that the other Thematic Areas have been accorded to in the structure of the TAFSIP. The following are the principal observations made about the TAFSIP as they relate to the SLWM sub-components captured under the 'Production and Productivity' Thematic Area.

3.1.1 Land resource management

The TAFSIP document provides a useful account of the multiple causes of land degradation. Investment Plan lays out and proposes a good balance of measures to be put in place (e.g., awareness raising, technical capacity building, conservation package development, and implementation of the measures) in arresting land degradation. The move towards collating existing experiences of watershed management and the plan to produce an integrated watershed management guideline in a participatory manner is also

a welcome measure. Further, mechanisation is an aspect of land management that is stipulated in the TAFSIP, which is considered as a means of enhancing labour productivity and increasing agricultural output. However, the measures contained in the investment plan lack spatial specificity, including thoughts about responses for land degradation in pastoral and agro-pastoral contexts, as well as in the context of the Zanzibar and Pemba islands. In addition, given that the majority of farmers in Tanzania cultivate small size of crop land, TAFSIP has not examined any options and incentives for *land consolidation* so that small scale farmers could make effective use of mechanisation services and reap the advantage of economies of scale

Although Tanzania is a relatively forested country, and forest-based livelihoods play important roles in mitigating food insecurity and enhancing income opportunities, the TAFSIP makes little reference to the decade-and-half long experience of the country with respect to instituting participatory forest management (PFM) as an approach for ecosystem conservation and maintenance of rural livelihoods. Given the limited involvement of the Mainland's Ministry of Natural Resources and Tourism (MoNRT) and other selected stakeholders in the elaboration of the TAFSIP, it is not clear, whether eco-tourism and forest-based activities, such as enhancement of bee keeping and extraction of other non-timber forest products (NTFPs) that the investment plan envisages would be undertaken in a coordinated manner with those envisaged by MoNRT. Furthermore, it may be helpful to clarify the extent to which NTFPs have been factored into the 'rural commercialisation' thrust of TAFSIP. For instance, the case for integrating such NTFPs as honey into the value chain and within a broader resource management perspective, such as PFM, becomes all the more compelling because most of the honey produced in Tanzania comes from game reserves, forest reserves and buffer zones of national parks – areas free from pollution by agricultural chemicals and industrial wastes – and hence qualify as 'organic', with growing demand in overseas markets¹.

Recommendations

- (i). Clarify how the extension system is organised to impart land managementrelated knowledge in an integrated manner so as to ensure small scale farmers and pastoralists receive these services in a cost-effective manner.
- (ii). Devise mechanisms of engaging MoNRT (Mainland) as well as such principal non-state stakeholders as the Tanzanian Forest Conservation Group in the TAFSIP processes so that not only the planned activities of these entities are better integrated into the TAFSIP, but also that their perspectives inform the formulation and implementation of programmes under the 'Production and Productivity' thematic Area.
- (iii). Additional and more detailed targets (e.g., 'percentage of land under SLM' and 'percentage of common forest resources under PFM') should be

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¹ National Beekeeping Programme, Ministry of Natural Resources and Tourism (2011), "Beekeeping in Tanzania – Beekeeping Status and Investment Opportunity in Tanzania". Dar Es Salaam.

established to demonstrate measurable impact within the five year timeframe of the TAFSIP.

3.1.2 Water Management

The TAFSIP recognizes the importance of improved water resources management to the sustainability of production and productivity under both rain-fed and irrigated systems. The Plan takes cognizance of sustainability issues in terms of water use efficiency, sustainable extraction rates (especially with regard to groundwater in Zanzibar, which if over-abstracted, would result in seawater intrusion) and maintenance of irrigation and drainage structures that would arise from any effort to utilise the country's water resources for irrigation. Further, the Plan is aware of the benefit to be derived from subjecting all irrigation schemes to the Environmental Management Act in order to safeguard sustainability of irrigation schemes, water sources and community health. The TAFSIP promotes efforts to maximise opportunities to adopt sustainable (land and) water management systems, and avert threats to sustainable use of natural resources. Since irrigation development is TAFSIP's high priority for increased agricultural productivity based on commercial and smallholder schemes, the Plan guarantees conservation of water resources through watershed management initiatives, water harvesting and improved irrigation and drainage systems to increase water use efficiency and ensure sustainability of irrigation investments.

However, separation of irrigation from water resources assessment and development creates management challenges and knowledge gaps about quantities of water that are really available. In this regard, the tendency to maximise abstraction from end-use side 'to increase crop production' at the expense of other user-interests and resource sustainability would be an expected regular occurrence; after all, it is Kilimo Kwanza. Further, the low staffing levels across the Sector Line Ministries also pose a major execution gap in terms enforcing legislation that promotes sustainable water resource utilisation. Although measures have been suggested to strengthen, align and harmonise shortfalls identified in the institutional and policy challenges in the implementation of the TAFSIP for sustainable water resource management, no enforcement instrument has been suggested to rectify this scenario in the successful implementation of the TAFSIP. Some of the critical ministries that deal with natural resources, e.g. Ministries of Lands, and Natural Resources and Tourism, are not members of the Agricultural Sector Line Ministries (ASLMs). Therefore, to deal with ministries outside of this set-up, would require special coordination mechanisms to get them involved in natural resources and watershed management initiatives, which have not been suggested in the TAFSIP. The review notes that Government has already started on responding to this issue where ASDP Steering Committee has been expanded to include MoNRT, and the Ministry of Lands and Human Settlements. The Ministry has further engaged a consultant to look into the best coordination mechanisms for sector initiatives and it is expected that the work of the consultant will strengthen the coordination mechanism for TAFSIP.

The proposed plan to increase land under irrigated cultivation from the 344,490 ha to the 1 million ha is a very ambitious undertaking. The plan does not provide details about

where and by how much growth is anticipated in each of the targeted irrigation potential areas. The team was not able to find adequate assessments of what would or could be the levels of pollution that will arise from the use of agrochemicals – fertilizers, pesticides, herbicides, etc. – that are expected to be used to boost crop production. This is especially so in Zanzibar, where such fertilizers, pesticides and herbicides will be used in the production of rice on about 8,000 ha of land under irrigation. In spite of this huge expanse, there has not been any monitoring mechanisms that have been suggested in the TAFSIP to ascertain any environmental impacts that may arise from this practice. Finally, although the country consists of different agro-ecological zones, based on terrain and climate, prioritization has not been done within the different zones. The different zones include: coastal zone², made up of low coastal plains (less than 750 m above sea level, 750-1,200 mm annual rainfall (bimodal in the north and unimodal in the south); semi-arid zone³, consisting of medium altitude (500-1,800 masl) areas, characterised by low and unreliable unimodal rainfall (below 600 mm per annum); Northern, Southern, Southwestern and Western Highlands zone⁴ is a high altitude (1,200 – 2,300 masl) plateau, with generally reliable rainfall (800-1,400 mm/a), while rainfall in the western areas is bimodal and higher.

Where there are problems with surface water due to draught, rainwater harvesting, especially for artificial recharge (as a 'water serving' technology/method) would provide a more secure (groundwater) source than surface water. Even in the arid Sahara desert, Egypt has managed to tap groundwater for irrigation. So, an assessment still should be done on the availability of groundwater in these areas.

Recommendations

- (i). Examine options to tap and use ground water for irrigation, especially in drier areas, e.g. in regions of Dodoma, Singida, Shinyanga, Tabora, Mwanza, Mara, Arusha, Coast and Southern Kilimanjaro
- (ii). Examine the possibility of constructing dams in some critical areas of the drier central and northern parts of the country as an aid to artificial groundwater recharge and as an adaptation measure against climate change/variability.
- (iii). Align, harmonise and strengthen enforcement of legislations that promote effective environmental and watershed management from all the Agricultural Sector Line Ministries (ASLMs). Further, it is imperative to develop cross-sectoral coordination strategies/ mechanisms and synergies to guide irrigation development and reduce on duplication of effort across Ministries.
- (iv). Develop the capacity, e.g., monitoring networks to monitor environmental impacts water pollution, water level monitoring to determine responses of water bodies to pumping.
- (v). Formulate strategies to identify and address possible environmental impacts arising from irrigation and the possible inappropriate use of fertilizers and

² Regions in this zone include Coast, Dar es Salaam, Lindi, Mtwara, Morogoro, Tanga and five regions of Zanzibar.

³ Zone includes Dodoma, Singida and Tabora

⁴ Zone includes Arusha, Kilimanjaro, Mbeya, Rukwa, Iringa & Ruvuma

- pesticides, domestic excreta disposal practices and possible proliferation of (water-borne) diseases.
- (vi). Expand the IFPRI analysis to help clarify priorities in the various agroecological areas of the country.

3.1.3 Land policy and land administration

In a bid to increase agricultural production, the TAFSIP calls for the engagement of commercial farming schemes. The Plan recognises that production improvements from these schemes come largely through 'area expansion' and underlines the need to institute measures that would protect the customary rights of small scale operators. The review recognises that Tanzania has a land policy and associated instruments and institutions that have the potential to help forestall land conflicts and resolve land disputes. However, the TAFSIP does not sufficiently incorporate land administration issues and measures that would need to be in place to enhance security of tenure for small scale operators. For instance, it has been reported that large tracts of land, including dry season pastures in pastoralist areas, are lost through large scale investment schemes. Reports further indicate that the enactment of land laws has not been accompanied by the necessary awareness measures and accountability mechanisms at grass roots level that would otherwise help guarantee security of tenure. These notwithstanding, Tanzania has encouraging experiences at a pilot level in instituting measures that would safeguard security of tenure through, among others, issuance of Certificate of Customary Rights of Occupancy (CCRO).

Recommendations

(i). Consideration should be given in the TAFSIP to incorporate the experience and planned activities of Ministry of Lands, Housing and Human Settlement as regards the enforcement of the applicable land laws and the development and implementation of 'Certificate of Customary Right of Occupancy (CCROs)' as a basis for ascertaining customary land use rights in Village Lands.

3.1.4 Climate change issues in the context of natural resource management

The TAFSIP identifies a number of activities that have important contributions towards the mitigation and adaptation efforts of the country towards climate change and variability. The TAFSIP also makes it evident that catchment management and reforestation activities, as envisaged in the investment plan, are significant in terms of regulating the hydrological cycle and generating locally needed environmental goods. However, the TAFSIP does not provide conceptual and programmatic linkages between activities in the Plan and ongoing efforts of the country in responding to the climate challenge and the policy measures being taken to optimise opportunities that climate change/variability is associated with. The direct reference that the TAFSIP makes to new activities as enhancing the climate change/variability mitigation and adaptation objectives of the country are largely contained under the section dealing with 'crosscutting issues'. In other words, the Investment Plan does not systematically present the innovative

schemes identified under this section as components of any of the four broad Thematic Areas (programmes) that the plan identifies. There is a concern that in the absence of specific and ambitious deliverables pertaining to the climate change/variability challenge, the investment cost of implementing instruments necessary to advance mitigation and adaptation responses to climate change/variability may not be sufficiently catered for. A recent study⁵ states that "... in order for the country's forestry sector to benefit from REDD crediting, it has to have overall strategies that will aim at reducing all or some of the CO_2 emissions [emanating from deforestation and net degradation]. If all the deforestation and degradation were to be stemmed completely, and forests biomass allowed to grow at 1.25 tons/ha/year, the country could potentially earn \$630 million assuming the selling price of carbon is \$5 per tCO₂." The review observes that Tanzania has a framework for REDD and is already implementing a number of initiatives on REDD through the MoNRT. Climate change is not dealt with as a separate component but as an issue affecting a number of sub-programme and components of the TAFSIP including productivity, agro-forestry, irrigation, food and nutrition security and disaster risk management. It is expected that the cumulative benefits will add up to the sums outlined above).

Recommendations:

- (i). Create platforms for the engagement of the National Environmental Management Council in the formulation and implementation of schemes aimed at enhancing climate change mitigation and adaptation.
- (ii). Provide a description of the country's experience with REDD in the TAFSIP as well as the opportunities for tapping into the growing carbon market from the catchment management and forest development programmes.
- (iii). Build a capacity strengthening component into the TAFSIP climate change thrust in order to benefit from the carbon market as participation into it is a highly skillintensive undertaking.
- (iv). Due to the increasing recognition of the importance of forests in climate change mitigation i.e. in reducing emissions and storage of CO_2 TAFSIP should formulate strategies that will help the country to benefit from climate change compensation schemes, such as participation in the growing market for forest carbon.
- (v). Integrate the various PFM schemes that are being implemented in the country into the TAFSIP. Such a reorientation in the TAFSIP will necessitate purposetailored planning and gathering of reliable baseline information as preconditions for monitoring and verification activities that could be reflected as specific deliverables in the TAFSIP.

3.2 Improving rural infrastructure and trade related capacities for market access

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⁵ FORCONSULT (2010), "Existing REDD-related Carbon Trade and Marketing Opportunities in Tanzania". Submitted to the Government of Tanzania through the Institute of Resource Assessment, University of Dar Es Salaam

3.2.1 Private sector Investment

TAFSIP recognizes private-sector engagement is essential for "scaling up" government-financed development projects, and for sustaining these projects after government funding is reduced or withdrawn. Because implementation of TAFSIP does not appear to be feasible to reach the necessary level of food security funding through public finance and overseas development assistance, the government has focused on leveraging investments from private companies as can be seen in current investments in inputs importation and distribution. The review seeks to examine what has been done, and what needs to be done to strengthen agricultural development through private sector participation and investments.

The Government of Tanzania has put in place a number of measures and has proposed through TAFSIP further actions to promote private sector partnerships. Some of the measures instituted by the Government of Tanzania include:

- Development of the Southern Agricultural Corridor of Tanzania (SAGCOT), a partnership between the government and the private sector
- Development of a policy and legislation for private/public partnerships (PPPs)
- Tanzania Agricultural Bank started by the government and provides lending to private sector at moderate interest rate (5%)

Private sector engagement through SAGCOT and other initiatives including the creation of an Agriculture Development Bank, but it is not well explained why these new initiatives can really make a difference. Nonetheless, the proposal to establish an Agriculture Development Bank is seen as a good way to reach farmers in a modern and growing economy. It is an innovative and broad based approach to providing farmers long term credit that is not readily available from conventional commercial banks in Tanzania due to the risky nature of agriculture and the seasonality aspects of repayments that are commonly associated with lending to the agricultural sector.

Despite the above Government actions, the private sector in Tanzania has been slow in responding to opportunities and incentives by Government. It seems something unique is not happening for the private sector to take advantage of government offers. TAFSIP proposes to building on the current partnership with the private sector to enhance competitiveness and ensuring that farmers' surplus production reaches the market, e.g. as in the SAGCOT. The government should review its strategy to engaging the private sector to attract private sector. It may be prudent to also look at the policy and legal framework with a view to providing an enabling policy and regulatory environment and physical infrastructural investments in the rural areas. These include building partnership for rural infrastructure and providing incentives to enhance commercial banks lending to the agricultural sector. While it is appreciated that good attempts have been made to address this under Strategic Objective three (SO3) on Rural Commercialization of the TAFSIP), the private sector maintains that its implementation will remain the key challenges for Government since previous efforts seem not to have worked well.

The most innovative set of proposals is under the rural commercialization program. The importance of the private sector as the driving force of commercialization and the need for private investment is well made and is certainly crucial. However, public sector investments that are expected to successfully encourage this are not convincing. It is indeed a challenging task since there are many different constraints which limit private investment.

TAFSIP proposes to fund 30% of its budget from the private sector investments yet it is not clear how these funds will be raised or invested. During consultations Agricultural Council of Tanzania (ACT), the private sector expressed that it's difficult to really determine how much the private sector will invest. They indicated that future investments will depend on the Government support in addressing trade facilitation measures (policies, tariffs, taxation, licensing, and standards) and providing a climate conducive to private sector investment. Finally, it is important that any investments to promote the private sector cover all regions implemented under TAFSIP.

TAFSIP fails to discuss how the seasonality of agricultural credit demand will be addressed. Due to the high seasonal nature of rain-fed agriculture, huge investments are incurred during planting seasons and relatively low during other times of the year generating a pattern of high credit demand during planting seasons. Government recognizes this anomaly and suggests that TAFSIP financing will be done across the commodity value chain to cover all seasons not only the planning season and will use a number of avenues including Patient Capital and Catalytic Fund as described in the SAGCOT and also through the establishment of micro finance and Agricultural finance windows as is currently done through the Tanzania Investment Bank. Financing will also be done through micro finance schemes that exist like the VICOBA and SACCOS. Short term measures will include input support from Government as well.

Because the agricultural sector needs large investments by both the farmers and, through the provision of financing investments, by financial institutions in order to boost production and move product to the market. However, increased investment also means increased exposure to risks. Improved and new risk management techniques and instruments must, therefore, accompany investments, both at the financial institutions and farmer levels, as well as along the whole value chain. This includes the high covariant risks (vagaries of weather, pests, fluctuating and often unpredictable produce prices and markets etc). During consultations with Zanzibar stakeholders, a vegetable farmer spoke passionately how farmers not aware of the prices offered by the hotels, sold their vegetables to the traders at throw away prices. This farmer represented the voices of many smallholder farmers who not aware of the market make huge losses. This issue could be addressed by organizing these farmers into groups and facilitating them to market as a group and build the capacity of these farmers so as to build their advocacy and negotiating skills.

Recommendation:

- (i). Identify and build a private sector database along the specific commodities and initiate networking amongst the actors at different levels of the value chain.
- (ii). Invest in capacity development, especially for farmer groups, to support implementation of TAFSIP
- (iii). TASFIP should clarify which measures will ensure trade facilitation (policies, tariffs, taxation, licensing, and standards) and also should provide a climate conducive to private sector investment

3.2.2 Rural infrastructure and trade related capacities for market access

The TAFSIP proposes a shift from subsistence agricultural economy toward well-functioning commercial systems, where farmers can afford needed inputs and access domestic, regional and international markets. Sustainable growth in agricultural production requires the development of markets for both agricultural inputs and farm products.

Improving access to market is essential to strengthening incentives to improve productivity. A major outcome of TAFSIP is increased competitiveness and access to domestic, regional and global markets. However, the current weak output markets are reflected in the farmers' lack of economic incentive to use fertilizers (low input/output price ratio). Measures to improve input and output markets are clearly outlines under the subprogram on Market access of the TAFSIP under the theme on Rural Commercialization.

A major way to linking major consumption areas with high production potential zones is to develop regional infrastructure corridors by scaling up investment in intra-regional roads, railways, air transport, commercial infrastructure, energy, and telecommunications as is being done under SAGCOT. Public investment in infrastructure – roads, electrification, markets etc – is very important, as are policies and incentives to create an enabling environment, but business councils and forums seem to be inadequate to prompt a rapid increase in private investment in the sector. Value-chain infrastructure development is essential to realizing the objective of rural commercialization. The proposed investment plan outlines major trade facilitation measures to allow the country to have impact on trade. However it's not explicit on how new products and new markets will be organized.

Reasons of weak integration Tanzania:

- Vast size of the country (naturally higher transport costs)
- ▶ Poor road infrastructure adds to high transport costs
- ▶ Poor quality and standards of goods that fail to compete on the regional market place.
- ▶ Periodic restrictions on cross-border trade create significant uncertainty and directly tax farmers

Tanzania has initiated SAGCOT that links the port of Dar-es-Salaam to Malawi, Zambia and the Democratic Republic of Congo. SAGCOT's main objective is to build on existing

infrastructure in areas of high agricultural potential to create agricultural "Clusters" and focus on value chain approach to agricultural development – from primary production to processing and access to markets. In building up this mega program for supporting and working with private sector, an issue is how smallholder farmers will be integrated. There is, however, a need to think of a workable model on how small farmers can graduate from subsistence to commercial and off-farm employment. Although productive safety nets support the vulnerable, there does not seem to be an active exit strategy for farmers to move into non-farm livelihoods, through access to education, credit and non-agricultural skills training. Underlying policy issues concerning access to land and credit, for example, could undermine the approach. The review notes that TAFSIP aims to turn small scale subsistence farmers into highly productive and profit making commercial farmers. The TAFSIP also makes provisions for access to financial services, skills training and availability of business development services through initiatives like the proposed business development centers, which will support farmers to move from one occupation to the next one up on the income-earning hierarchy.

Inevitably, a programme to encourage small farmers to graduate to commercial production is aimed at the least poor small farmers who have the asset base, skills and knowledge to benefit from the opportunities provided. Apart from programme 2.1 which aims to protect the most vulnerable, TAFSIP would need to elaborate on measures to ensure that activities do not exclude marginalised groups in rural areas. For example, how does the DADP process ensure that the views and priorities of the poorest are heard? What incentives can the private sector investors have to work with any but the most successful small farmers? How can the poorest farmers be actively included in farmer groups, cooperatives etc? There is also very little explicitly about gender issues in any of the programmes. The review notes the government assurances that with more assured resources under the TAFSIP, villagers will be able to develop more robust initiatives under the DADPs and will be able to fully implement them. The DADPs will be used as s entry points for smallholder support as it has been done by SAGCOT, Bread Basket, Southern Highlands Food Systems and Feed the Futre. Also It should be pointed out that gender issues are mainstreamed in formulating farmer organizations/groups and SACOOS and well as water user associations and in various village committees for rural development. TAFSIP has highlighted areas where more attention should be accorded to gender balance.

TAFSIP hopes to improve and expand rural market infrastructure and storage facilities in rural areas. It identifies improved rural infrastructure (roads, storage facilities, electricity, etc) as critical to enhancing competitiveness by lowering cost of production and preserving the quality of products, but the plan is not very clear how these infrastructures will be identified and developed in other regions so as to achieve the overall national objective of TAFSIP. While it is noted that TAFSIP is a nation wide investment plan that covers all regions, the review notes that some of the infrastructure development

initiatives are regionally based and TAFSIP needs to be clear how they will be replicated in other regions during the 10 years.

TAFSIP hopes to pursue a value chain approach in addressing both productivity and marketing challenges in delivering its strategy. A value chain is a sequence of related business activities (functions) from the provision of specific inputs for a particular product to primary production, transformation, marketing, and up to the particular product to consumer. It is the set of enterprises (operators) performing these functions i.e. producers, processors, traders and distributors of a particular product. However, the plan does not show how these sequences of activities will be implemented. The plan is not clear on how major components and activities at all the level of the value chain i.e. access to inputs, development of rural infrastructure, development of technical capacities and business frameworks and through the development of private sector in particular. While the review appreciates that TAFSIP has organized the thematic areas (SO1, SO2, SO3 and SO4) into a progression of the value chain that is from production and productivity to infrastructure, agro processing, marketing and consumption, the link on how they are going to be sequentially implemented so as to achieve the overall TAFSIP objective is not well elaborated.

The fragmented nature of smallholder farmers poses a challenge on how they could be organized so as access markets for input and output. It is often impossible for smallholder farmers to obtain reasonably priced farm inputs, such as fertilizer and improved seeds. However, simply giving fertilizer and inputs subsidies is unsustainable.

TAFSIP underscores the importance of well functioning farmer organizations in delivering on desired outcomes. The objective of the plan in developing the capacities of the FOs is to create effective market-oriented organizations.

The plan includes promotion of irrigation as a way of boosting production and reducing reliance on rain fed agriculture. There is need to ensure that such efforts have an additional functions of promoting cooperate production, access to inputs and adherence to produce quality standards to facilitate access to markets and increased incomes. In Zanzibar for instance, it was noted that the market for dairy and horticultural products is not being fully exploited by small scale producers due to lack of collective marketing and adherence to standards. There is an urgent need to capacitate farmers in terms of accessing capital, improved production and handling technologies, knowledge of the market expectations, and how to mobilise and benefit from collective marketing. Improved rural infrastructure that facilitates market access both for consumers and farmers is vital.

Recommendations:

- (i). Enhancing capacity of farmers and SMEs to understand the market needs and access markets through improved commodity value chain management
- (ii). Development of market information systems to improve the capacities of farmers including small scale farmers to the emerging regional and global opportunities.

- (iii). Give priority to connecting rural areas with a combination of rich natural and economic potential and high population densities with major domestic and cross-border markets
- (iv). Inputs Value Chains adopt policies and develop institutions that increase farmers' purchasing power while also increasing access to farm inputs. For example, new financing arrangements could allow farmers to pool their resources, or make credit available at low interest rates.
- (v). improve the "economies-of-scale" of fertilizer production, procurement, and distribution, for example by creating "platforms" to help the private sector and farmer organizations be more cost effective in delivering key agricultural inputs to remote farm-gates.
- (vi). Build capacity of the farmer organizations to provide services to its members some that are currently done by the public sector e.g. facilitating imports of inputs
- (vii). Provide training and other capacity building mechanisms to improve risk perception and thus reduce the barriers to as well as cost of borrowing.
- (viii). Articulate the mechanisms for supporting small scale farmers to access and sustain access to existing and other potential markets for their produce including mobilization for collective marketing.

3.3 Reducing Hunger and poverty

The main aim of CAADP pillar III is to ensure that those vulnerable to food insecurity are able to contribute to, and directly benefit from, increased agricultural growth. The CAADP framework for African Food Security (FAFS) recommends that reduction of vulnerability and improved food security initiatives must address four key objectives; improving risk management, increasing food supply through improved production and market linkages, increased economic opportunities for the vulnerable and increased quality of diets through diversification of food.

The TAFSIP highlight the important components necessary for the improvement of food and nutrition security status of the vulnerable and suggest pertinent interventions that have the potential to improve food insecurity challenges in the Mainland and in Zanzibar. In addition, the strategies propose to greatly improve responsiveness to emergencies. It is noted that some strategies cut across various sectors and government ministries. This will require inter-ministerial and institutional collaboration and coordination especially amongst Ministries of Health and Social Welfare, Education and that of Community Development Gender and Children with agriculture, livestock and fisheries.

3.3.1 Risk Management

Disasters like drought, diseases and pest infestation have potential to negatively affect the gains in food production and food security. The TAFSIP notes that such disasters have, of recent, increased in both frequency and intensity. One such disease is Newcastle for poultry which is an important components of rural livelihoods, food and nutrition security

for the vulnerable. The TAFSIP gives sufficient attention to risk management issues and clear steps have been suggested for the improvement of disaster risk management and preparedness both for the mainland and Zanzibar. It clearly stipulates the priority activities in the areas of capacity development, research in climate change adaptation, a communication strategy, and improvement of the existing strategic grain reserves. Increased production in quantity and diversity of food types to include tubers (like potatoes and cassava) and other drought resistant crops has a potential to reduce dependency on cereals and reduce vulnerability to food insecurity due to droughts and soaring staple cereal prices. There is need to develop mechanisms of using grain reserves for price stabilization especially in important foods like rice and maize.

The TAFSIP is clear about the need to revise existing strategies such as Nutritional Emergency Preparedness Plan by the Ministry of Health and Social Welfare. The plan also suggests the establishment of weather insurance system. The revision should ensure that small-scale farmers and nomadic pastoralists, whose fragile livelihoods, and are adversely affected when disasters occur, are included and their unique challenges taken care of.

Recommendations

- (i). As part of the implementation, promote research in pest and disease management with special focus on developing and promotion local expertise and capacity for production and stocking of sufficient pesticides and disease remedies.
- (ii). Consider carrying out a beneficiary analysis that clearly shows how the food insecure and vulnerable groups will benefit from the growth throughout the market chain in different areas. The comprehensive food security and vulnerability analysis specifies the vulnerable, their characteristics and where they are found.
- (iii). Fast track the approval of Nutritional Emergency Preparedness Plan and review of other related policy documents in line with TAFSIP as an essential support to the risk management and emergency response strategy.
- (iv). Clarify mechanisms for coordination of nutrition related activities that involve the other ministries like the Ministry of Health and Social Welfare, Ministry of Community Development and Gender and Children and how related activities within strategies like the draft Nutrition Emergency Preparedness and Response plan will be incorporated for effective emergency response.
- (v). Develop mechanisms that will facilitate participation of small scale farmers including nomadic pastoralists in the weather insurance programme.
- (vi). There is need to develop mechanisms of using grain reserves for price stabilization especially in important foods like rice and maize.

3.3.2 Improved food supply through increased production and market linkages

TAFSIP recognises the role played by fisheries in household nutrition and income. Improvement of aquaculture both on the mainland and in Zanzibar covers fresh water and sea fish farming, fish feeds, fingerling production and issues of pond management. Promotion of small scale fish farming with special emphasis on promoting consumption and income generation among small scale farmers needs highlighting. Increasing production and productivity of urban and peri-urban agriculture has potential to address problems of urban food insecurity. Clear articulation of current and potential challenges facing urban agriculture, for instance issues of public health concerns in case of animal production, to identify mitigation measures is needed.

Recommendations

(i). Develop programmatic interventions to promote production of micronutrient rich foods to combat micronutrient deficiencies. Research and extension programmes should include a focus on ensuring that technological improvement in crops storage and processing take into account nutrition considerations in their implementation.

3.3.3 Increased economic activities for the vulnerable

TFSIP has extensively looked into the issue of promoting the participation of small scale farmers in the agricultural led growth and suggests a number of ways to facilitate this including promotion of cooperatives for increased bargaining for the poor and access to markets. The suggested programmes to build the capacity of farmers to operate farming as a business have potential to increase incomes. The plan has highlighted different options to diversify incomes in rural areas including development of area specific income generating activities based on comparative advantage of those areas. Suggested options include dairy farming, bee keeping, aquaculture, seaweed farming, spice production and spice tourism and horticulture to mention some. The advantage of organic production in some parts of the country with regard to poultry, horticultural products and spices need to be exploited for increasing incomes through participation in lucrative niche markets. In addition, there is need to look into ways of encouraging pooling of produce for bulk sales as well as exploring guaranteed markets for the farmers that would act as an impetus to maintain increased production. The review notes that one of the TAFSIP includes a Sub programmes to create market-oriented cooperatives with the objective enabling small scale producers to pool bulk produce for sale to large scale buyers and be able to respond to market demands).

TAFSIP suggests creation of opportunities for rural off- farm economic activities that provides opportunities for both the landless rural poor and the group of non-adopters who may not fully benefit from taking farming as a business drive. This may avail land to

progressive small scale farmers for scaling up production through renting, subleasing or otherwise. In addition it has potential to create avenues for income for those with land but not actively or profitably engaged in farming.

Recommendations

- (i). Utilise the information in Comprehensive Food Security and Vulnerability Analysis on the profile the vulnerable and carry out beneficiary analysis defining benefits to different livelihood groups in the value chains in the TAFSIP
- (ii). Put in place supporting mechanisms for organic farming including certification, farmer support in terms of research and extension services and facilitation of access to nice organic markets both locally and more importantly internationally.
- (iii). Clarify small holder farmer support mechanisms that enable them to market their produce albeit in small quantities for income generation. Promotion of produce collection points system in the areas of dairy, bee keeping horticulture and poultry production is suggested. Exploration of contract farming for guaranteed markets of produce for small scale farmers in cooperatives is recommended.

3.3.4 Improving food intake and diversifying diets

The Comprehensive Food Security and Vulnerability Analysis report of 2010 describes the vulnerable and foods insecure in Tanzania as being characterised by low intake of micronutrient rich foods like fruits, vegetables and animal products. Chronic malnutrition in the form of stunting in under five children stands at 35% with anaemia and vitamin A deficiency levels presenting a micronutrient problem that needs to be addressed. TAFSIP has included interventions in the area of food fortification, school feeding programmes. It is possible to obtain the right mix of foods to alleviate malnutrition from locally produced animal products, fruits, pulses and vegetables. While there is clear emphasis on increasing production, a clear focus on diversifying livelihoods and production that would support diversified diets is lacking.

It is estimated that post-harvest losses range from 30%-40% for cereal grains and legumes, up to 45% for roots and tubers and 40% - 80% for fresh vegetables and fruits. In addition, inappropriate food management at the household level diminishes food stocks available for consumption. TAFSIP proposes promotion of food storage technologies that minimize waste, small scale food processing and improved management of pests and diseases as ways of minimizing losses and increasing available food at household level.

Promoting consumption of fortified foods is a prerequisite to increasing micronutrient intake through fortification. Furthermore, fortification should take into consideration the

point of processing of the bulk of locally consumed staples to maximize micronutrient consumption. Research into bio-fortification and increasing bioavailability of iron and other important micronutrients in foods should be encouraged and supported. Promotion of nutrient rich and easy to produce foods, like pawpaw and yellow fleshed potatoes and preservation of fruits and vegetables for use in lean (off season) months would be an important integral components for diversifying and enriching diets.

Recommendations

- (i). Incorporate the role to be played by the Ministry of health and Social Welfare, Ministry of Community Development, Gender and Children and Ministry of Education in promotion of nutrition security activities in TAFSIP.
- (ii). Highlight the need for and develop programmes to encourage research and extension services in support of diversifying and improving diets to include nutrient rich food varieties. Extension officers and community development officers should be capacitated to promote production and consumption of diverse nutrient rich foods.
- (iii). Review the School feeding programme focusing on improvement of the quality of food to increase nutrient intake apart from promoting school attendance. Recommended prototype nutritionally adequate meals and use of fortified foods in the programme should be considered.
- (iv). Increase or establish presence of nutrition officers in the district planning and implementation structures as well as in the relevant ministries of Education and Agriculture, Food Security and Co-operatives and Community Development, Gender and Children to ensure that nutrition issues are prioritised in the implementation of TAFSIP and other supporting development programmes.

3.4 Increasing technology generation and adoption

3.4.1. General

The real success of agriculture development in Tanzania will be achieved only if crop and livestock productivity levels are increased significantly, farmers are able to add value to their farm products, access markets and increase their incomes, and ensure that the environment and natural resource base are conserved in a sustainable manner. The GoT TAFSIP within the framework of the CAADP in order to achieve this. The Framework for African Agricultural Productivity (FAAP), developed to address issues of CAADP Pillar IV, outlines the guiding principles on how best practice can be employed to improve the performance of agricultural productivity in Africa. It also highlights the need to replicate and out-scale such practices through increased, well aligned and coordinated investment in agriculture. Effective integration of the FAAP guiding principles in TAFSIP will ensure that the latter addresses the productivity challenges currently facing Tanzania's agriculture sector. This part of the review examines the extent to which the elements of agricultural research and development (Pillar IV) are integrated in the investment plan.

The recognition given to agricultural research and development in the Tanzania CAADP Compact is clearly visible in the investment plan. The investment plan presents a set of strategic interventions that address issues of agricultural research and development. These include interventions to strengthen (i) research and dissemination of appropriate technologies, (ii) extension and training services to increase farmers' access to technologies, (iii) farmer organizations and (iv) capacity building. As much as this is highly commendable, it is important however, to see how, in general, the plan proposes to address these and bring research and development to bear on agricultural productivity in Tanzania mainland and Zanzibar.

3.4.2. Agriculture growth, productivity and agricultural research and development

The TAFSIP has adequately articulated the relationship and linkages between agricultural research and development, productivity and growth. It states that the estimated 4.4% real growth rate of agriculture in Tanzania lags behind the CAADP target of 6% and the MKUKUTA target of 6 - 8 %. This is mainly because of low crop and livestock productivity, particularly among smallholder rural farmers. Both mainland Tanzania and Zanzibar face a wide spectrum of agricultural research and development issues that should be addressed if planned agricultural productivity targets are to be achieved. Details of these issues have been captured in a series of background documents (ref. Working Paper 4) and are summarized in the investment plan. The TAFSIP document states clearly that there is general under-funding of research, extension and farmer education/training institutions and that there is inadequate capacity in research and extension planning. It also recognizes that there is insufficient research and extension professionals in the research departments and institutions; inadequate research infrastructure, facilities and manpower; low level of private sector participation in research and extension service delivery; poor management of research information; an under-resourced extension system; and inadequate linkages between research and extension. These result in low generation and dissemination of technologies and farm practices to farmers; impacting negatively on agricultural productivity and production.

The plan has demonstrated, under four thematic areas (TAs), how these constraints will be addressed to make research responsive to farmer needs. It proposes to increase production and productivity in order to narrow the gap between large scale commercial farmers by up-scaling the use of affordable agronomic packages including the use of improved seeds, fertilizers and fertility management, weed and pest control and to improve harvest and post-harvest management. It also proposes to improve the capacity of research institutions, farmer organizations and cooperatives; develop a more effective and affordable extension system (through training and provision of equipment) to roll out technological packages; and the involvement of the private sector within the framework of Southern Agriculture Growth Corridor (SAGCOT) PPP initiative. It addresses linkages between research and extension. What the plan does not do is to indicate the types of technological packages to be up-scaled for each of the priority crops, livestock and fisheries interventions in the various agro-ecological zones.

3.4.3. Increasing the scale of productivity investments in agriculture

Given the critical role of research and development in reaching the productivity levels required to attain the target 6-8 % growth, does the investment plan make adequate resource allocation to research, extension and training? The plan takes cognizance of the fact that "investment in research and extension has huge positive impacts on agricultural growth and household incomes. For every Tshs 1 million spent on agricultural research, household incomes increase by Tshs 12.5 million and lifts 40 people out of poverty". At the same time, the amount of resources allocated to research and development in agriculture appears to be below the optional required level (Ref. Working Paper 4). The review however notes that since the detailed costing were still be made, the revised figures may address this issue.

The review team notes that the interest in agricultural research, extension and training is backed by the government's pronouncement to allocate 1% of the agriculture sector budget. However, the proportion of the agriculture budget allocated to research and development is 0.3% only. This falls short of the planned 1%; rendering the achievement of the targets unrealistic. Of the total TAFSIP budget of US\$3.3 billion for mainland Tanzania (US\$3.1 billion) and Zanzibar (US\$270 million), about 70% will support interventions that contribute to increased production and productivity, 14% will support institutional development while the rest will support food and nutrition, and rural commercialization. Exactly how much or what proportion of the production and productivity budget will go to research and extension in each of these programme areas is not clear from the investment plan.

Another issue of interest is the scope and scale of distribution of available research and extension resources among the various priority production and productivity increasing interventions. The plan has done a good job of prioritizing strategic commodities (maize, rice, cassava, livestock, fish) under Thematic Area 1. One would therefore expect research, extension and capacity building interventions to focus on these commodities. As articulated in the plan however, it is not clear which technologies will be developed and/or adapted/disseminated and which ones will be out-scaled in the various agroecological zones where these commodities thrive. Also, it is not clear how much of the available resources will be devoted to research and extension of these commodities.

3.4.4. Alignment with CAADP Pillar IV

To what extent is the investment plan aligned with the elements and guiding principles of CAADP Pillar IV? In general terms, the plan has made a commendable attempt to align each of the four strategic objectives with the four CAADP Pillars. Strategic objective 1 (SO1) on agricultural production and productivity is aligned with CAADP Pillar I. SO2 on rural commercialization is aligned with Pillar II and SO3 on food and nutrition is aligned with Pillar III. SO4 which seeks to develop the institutional capacities required for implementing a sector-wide approach to agricultural development is aligned with Pillar IV. The review team is conscious of the need to align the institutional aspects of agricultural research and development (Ref. FAAP's evolution and reform of agricultural institutions) with SO4. However, a significant number of Pillar IV type activities are

embedded in SO1 and it is not clear why production and productivity interventions are not aligned with Pillar IV instead. Most of the SO1 interventions fall within the ambit of CAADP Pillar IV and so aligning production and productivity interventions (SO1) and the institutional issues of SO4 with CAADP Pillar IV would be in order.

3.4.5. End user involvement and empowerment

The emphasis on gender sensitive and environmentally responsible agricultural research and technology development in mainland Tanzania reflects a good example of how the plan proposes to empower end users i.e. farmers, the majority of whom are women. It needs however, to go a step further to demonstrate the extent to which the end users, including farmers' organizations and other civil society entities, should be involved in planning and setting priorities for research, extension and training to ensure their relevance and ownership.

3.4.6. Institutional and human resource capacity strengthening

Successful implementation of investment plan depends not only on the effectiveness and efficiency of existing agricultural institutions but also on the human resource capacity. This raises the question: Can the current agricultural research, extension, education and training institutions and human resource capacity support effective and efficient implementation of the investment plan?

The review team notes that Tanzania's national agricultural research system (NARS) comprises of 16 public research institutes⁶, the public and private universities, the private sector and an array of CSOs and NGOs. The investment plan taps from and builds on support from these agricultural research institutions. But these institutions do not perform well due to inadequate human and financial resources, and poor infrastructure and equipment. Currently, the Department of Research within the Ministry of Agriculture, Food Security and Cooperatives (DRD) has a total of 321 scientists and 225 technicians working in the 16 research institutions located in strategic areas of the country with modest capacity for undertaking research. What is of concern to the review team is whether the number and caliber of research personnel is adequate for a country as large as Tanzania. There is need for further analysis to determine the adequacy of the current research and extension personnel in generating and disseminating improved technologies for attaining productivity levels that are commensurate with the target 6 – 8% growth.

It is comforting to note that the investment plan recognizes that agricultural transformation requires productive human resources for generation and diffusion of technologies and has gone ahead to propose the enhancement of human resource capacities for research and extension. It does not however, show in concrete terms how this will be done and who the main actors will be and whether or not this will be limited

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⁶ Currently there are plans and discussion to establish a single national autonomous research institute to coordinate the activities of the other research institutes.

to public research personnel or whether it will include research staff of Universities and private research entities.

3.4.7. Participatory planning, priority setting and decision-making

The Departments of Research and Development within the Ministry of Agriculture, Food Security and Cooperatives and the Ministry of Livestock and Fisheries in Mainland and the Department of Policy, Planning and Research within the Ministry of Agriculture and Natural Resources in Zanzibar are the largest entities within the NARS and are responsible for planning, executing and coordinating public sector agricultural research and disseminating its findings. But not all of these departments participate in the planning and decision-making processes of the investment plan. For example, the Director of Research and Development is not a member of the Technical Committee of Directors (TCD) which supports the TAFSIP Inter-Ministerial Coordinating Committee (ICC), whereas in Zanzibar, the Director of Policy, Planning and Research co-chairs the TCD. The non-involvement of the Director of Research and Development in the TCD makes it difficult for research priorities to be well articulated and adequately funded within the TAFSIP resource envelope.

As indicated above, Tanzania has a well structured research network comprising of the research institutes and the Zonal Centers (ZCs) but the ZCs do not participate in the Zonal Coordination Meetings; making it difficult for research and extension issues at the grassroots to be brought to the fore. Given the important role of research and extension, there is need for further reflection on the structure, organization and representation of the research departments and ZCs in the various committees of TAFSIP so that research and extension issues can be better articulated, prioritized and funded.

Recommendations

- (i). Judging from the several research and development constraints to be addressed, the under-investment in agricultural research, extension and training makes it unlikely that the target productivity growth levels will be achieved. To deliver on the targets, it is essential to work out the optimal investment levels that are required to develop the research and extension infrastructure, facilities and manpower to generate and disseminate improved crop varieties, livestock species and improved farming practices. There is need for further elaboration of how the agricultural research and development budget will be increased and which interventions will be targeted. The investment plan should clearly indicate, in a sequenced manner, the magnitude of resources available for research and development and how much of this will be allocated to research, extension and training in crops, livestock and fisheries.
- (i). A detailed breakdown of the budget showing how much is allocated to research and development in general, and how much of this amount goes to the development, dissemination and adoption of new technologies for each of the

priority commodities (maize, rice, cassava, other crops, livestock, fisheries) will be helpful.

- (ii). Fully integrate the DRD, regional research institutes and zonal centers in the management structures of TAFSIP. Also clarify the role of each of the NARS in the implementation of TAFSIP and propose a strategy for involving all research and development stakeholders (public, private, CSOs, FOs) and how their capacities will be developed to deliver.
- (iii). Clearly spell out how coordination between the DRD, research institutes, Zonal Centers, Universities, private research entities and research-related NGOs will be strengthened. Such coordination is needed if research is to respond in a systematic manner, to the needs and opportunities for innovation in agriculture.
- (iv). Considering the wide spectrum of research institutions in Tanzania, it is not apparent from TAFSIP what role each of them will play in implementation. This needs to be clarified. Also, it is not obvious from TAFSIP how the collective efforts of the NARS will be harnessed in order to support the generation and dissemination of technologies to farmers. There is thus a need to reflect on strategies for involving all the research and development stakeholders (public, private, CSOs, FOs) and how their capacities will be strengthened to contribute to the implementation of TAFSIP.

Component 4: Alignment with Country commitments

4.1. Prioritization within the investment plan along Agro-ecological Zones (AEZs) and in other programs.

The TAFSIP's four thematic areas are well formulated and comprehensive. They are also presented in an integrated manner to ensure complementarities for the successful implementation of the plan. This prioritization process has benefited from broad stakeholder participation and also a detailed review of agriculture related policies, existing programs/projects and the agriculture sector expenditure patterns. However, discussions on possible new investments and the framework for prioritization are inadequate. The IFPRI analysis was used for setting priority commodities covering agricultural policy, poverty and nutrition⁷. In this study, it was stated that weak linkages between growth and poverty can be explained by the structure of agricultural growth in Tanzania, which favors larger-scale production of rice, wheat, and traditional export crops in specific geographic locations. The analysis demonstrated that accelerated agricultural growth with higher effectiveness in reducing poverty can be achieved over the next five years (2010-2015) if a wider range of subsectors than those currently leading the growth process are enhanced.

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⁷ Agriculture Policy, Poverty and Nutrition in Tanzania: Analysis to support TAFSP, 2011. IFPRI

The analysis by IFPRI has important policy implications and is helpful in prioritization of investment and selection of interventions. TAFSIP has tried to use the study findings for setting priority, particularly, with respect to crops targeted for increasing productivity. Beyond commodity priorities, prioritization along AEZ is not done and for sequencing investments. The reason for this deficiency could be absence of clear assumptions about availability of funds and foreign exchange, capacity constraints, and other constraints that could limit implementation. In other words, it appears that the exercise is carried out under a constraint free scenario, which is indefensible.

When considering the IFPRI study to provide a framework, it is useful to consider the following and the necessary adjustments to the draft TAFSIP.

- (a) It is important to exercise caution in interpreting and applying the findings of the IFPRI study. The lack of progress in poverty rate reduction, as well as decline in the share of population consuming insufficient calories should not fully be attributed to a "bias" in resources allocation towards traditional and export crops. These crops are mostly grown by smallholder farmers and government support is aimed at encouraging smallholder production and productivity, directly or through the private sector. These commodities are also important foreign exchange earners and raw material for local industries. Moreover, potentials for partnerships among the public sector, private sector and farmer organizations are the highest for these commodities. It is apparent that where there is private sector participation, small public sector allocations go a long way to show tangible results and that is one reason for better performance of these commodities relative to others. The challenge to the agriculture sector has a lot to do with shortage of public funding for the sector and resource use efficiency. Therefore, the plan's emphasis should be on: (i) increasing sector allocation and, (ii) encouraging private sector participation, as proposed under the commercialization thematic area of TAFSIP.
- (b) Tanzania has seven major agro-ecological zones (AEZs) based on temperature, moisture, soil and topographic characteristics. The potential and constraints of the AEZs for sustaining crop production vary widely. The smallholder farmers who live in these AEZs practice one of the seven broad farming systems (Coffeebanana, Maize-legumes, Livestock-sorghum-millet, Wetland rice-sugar, Cassava-cashew-coconut, pastoral and agropastoral). Close to 60 percent of the farming population practice coffee-banana and maize-legumes farming systems. It is imperative therefore that discussion about priority crops should take into account the diversity in these AEZs and farming systems, thus differentiating strategies and interventions accordingly.
- (c) Horticultural crops and livestock are important income generating activities and critical for improving nutrition security. It will be useful to highlight this when priorities are discussed under each of the AEZs. Even if the IFPRI analysis may

- not have brought them up as priority enterprises, their role in nutrition balance requires special attention.
- (d) Interventions within the Commercialization component or strategic objective need to be prioritized along priority commodities as was done on component 1; on production and productivity and to the extent possible along AEZs. This is important especially to ensure that proposed interventions are not aimed at everything but focused on those priority crops and or livestock that will deliver the necessary fast growth and poverty reduction.

Recommendations.

- (i). Provide additional information, if "bias" towards selected traditional and export crops is the reason why poverty rate did not fall and the population consuming insufficient calories declined marginally for the last nearly one decade.
- (ii). Articulate a prioritization framework taking the AEZs and farming system into account. Include a discussion about the AEZs and farming systems and what this would mean for setting priorities for increasing productivity.
- (iii). Extend the prioritization beyond program 1 to other programs.

4.2. Prioritization within different thematic areas

The Review Team recognises the considerable work done towards reviewing policies, strategies, and institutions. This has resulted in the identification of gaps and weaknesses that are also institutional in nature. Some of these gaps included weak capacity in policy analysis, planning; M&E and statistics; general weak capacity at LGA level; and lack of experience in working with the private sector. The TAFSIP further underlines the need for overcoming and the capacity constraints for the full and effective implementation of the various programme activities envisaged under the Plan. Nonetheless, the thorough problem analysis that is contained in the TAFSIP has not been comprehensively followed through at the stage of identifying programme components constituting the 'Institutional Development' Thematic Priority Area. In other words, a number of programme ideas that would have adequately meet the strategic objectives which the 'Institutional Development' Thematic Area is expected to address have been left out of any planning consideration. There is, therefore, a concern that if these project ideas are left unaddressed as programme components and independent cost centres, the various challenges confronting effective programme coordination and instituting accountability structures under the TAFSIP will impede progress towards meeting the overall goals and development objectives of the Plan in a cost-effective and timely manner.

On the other hand, some of the programme components placed under 'Institutional Development' that have a productivity and business development orientation are better placed under the corresponding Thematic Areas because these components are bound to contribute more to meeting the respective strategic objectives of Thematic Areas 1 and 3. This assessment is also predicated on the realization that programme components that fall

under the 'Institutional Development' Thematic Area need to address reform agenda and have direct relevance for streamlining organisational relationships in pursuit of the coordination of stakeholders at all levels of implementation. Moreover, failure to reclassify such productivity orientated programme components to where they belong is likely to result in fragmentation in the implementation of the programme components and affects the institution of a comprehensive M&E and theme-specific coordination structures as envisaged under TAFSIP.

Recommendations

- (i). Incorporate programme components and interventions that would help put in place a country Strategic Analysis and Knowledge Support System (SAKSS) as a foundation for instituting a functioning sector-wide M&E including the strengthening of the country's agricultural statistics system.
- (ii). Identify a programme component that would help strengthen mutual accountability across the myriad actors and players in the country.
- (iii). The attention given in the TAFSIP document to the establishment of sectorwide coordination structures including, among others, the proposed Inter-Ministerial Committee and the Presidential Retreat, need to be included under this Thematic Area as deliverables with budgetary allocations and monitoring indicators.
- (iv). Consideration should be given to place the following programme components under the 'Production and Productivity' Thematic Area:
 - Research and Technology Development and Dissemination
 - Extension Services (Dissemination Mechanisms)
 - Access to Financial Services
- (v). Consideration should be given to place 'Agriculture-based Business Development Centres' under the 'Rural Commercialisation' Thematic Area.

Links with Existing programs/projects.

Regrouping thematic areas: Review of the existing and some of the proposed agriculture (crops and livestock), natural resources management (water and land), rural infrastructure and institutional reform interventions led the review team to conclude that an adjustment to the proposed thematic areas in the summary report would benefit from regrouping of some of the sub-themes to create stronger link among interventions. The current grouping, i.e., productivity, food and nutrition security, rural commercialization and institutional capacity is good, but it can be restructured to bring closely related interventions under one thematic area and bring out to the front some critical areas that are sidelined and presented as "cross cutting issues'.

The first area where regrouping is considered necessary is that of agricultural productivity and rural commercialization. The agricultural development paradigm has shifted from discussion of productivity increase separately as an end by itself to a "commodity value chain" approach which will integrate production and with commercialization in order to elevate smallholder farmers from subsistence to commercial oriented production systems. In light of this shift the review team proposes

that the rural commercialization and agriculture productivity thematic groups be combined and form one thematic area called "Agricultural Productivity and Commercialization". The implication of this regrouping is that all productivity and commercialization programs and projects will be clustered together to make sure that investments are addressing these two sub-themes simultaneously and the value chain approach is meaningfully applied when developing commodities, providing services and developing capacities and skills.

The other area where realignment is proposed is with regard to developing and managing the national water resources, land resources, forestry, and wildlife in a sustainable manner. Other than small scale irrigation development, that is included under the productivity theme, the rest of this important and critical area of the plan is sidelined to "cross cutting issues", thereby reducing the extent of alignment of the plan to CAADP Pillar 1 and possibly reducing the focus and investment that should be accorded to this thematic area.

Another regrouping proposed is, (i) to bring the private sector development effort into the headline by including it in one of the thematic areas and, (ii) and to highlight the necessary institutional reforms in the agriculture sector while capacity development of these institutions is maintained. Thus the thematic area according to the proposed regrouping will be as follow:

- 1. Agriculture productivity and rural commercialization (that would also include; research, advisory services, credit)
- 2. Irrigation development, sustainable water resources and land use management
- 3. Food and Nutrition Security
- 4. Private sector development,
- 5. Rural infrastructure, market access, trade and
- 6. Institutional reform and support

The plan document has therefore to be re-arranged if possible re-drafted and investment plans regrouped along the lines proposed above in order to improve the quality and flow and facilitate sooth implementation.

Recommendations

(i). Consider regrouping the thematic areas along the line proposed above and make the necessary adjustment to the TAFSIP document accordingly.

Review of Core Programs/Projects. The report hardly mentions the rich program implementation experience that Tanzania has accumulated over the years. Long-term investment plan should be informed by lessons learned from investment programs and projects in the sector. Unfortunately, the report discusses generic problems and constraints faced by the agriculture sector and not specific issues concerning program effectiveness, sustainability, replicability, management challenges, impact, financing, etc. For instance, reports availed to the review team about ASDP show that private sector

engagement, development of farmer organizations and their networks, reforms in service delivery were some of the key activities planned, but progress in all these areas is reported limited. Lack of progress in these areas could be the main causes for the limited program impact as its closing date approaches. The question is, what has TAFSIP learned from ASDP's implementation in these areas? What corrective measures are incorporated in the plan and what lessons should the ongoing, as well as new programs/projects, learn from ASDP? Putting it differently, in view of the fact that TAFSIP represents an extension/expansion of ASDP/ASP as well as incorporating many other existing programmes and projects, it is surprising that there is not more analysis of the results of these programmes. The section on lessons learned from previous development initiatives is interesting at a macro level but is mainly about processes rather than about how successful or not different approaches to the development of the sector have been.

Another example is the proposal to expand the current fertilizer subsidy scheme to cover the whole country (only 7 regions out of 22 are now covered). The review team have not seen an evaluation of the program and TAFSIP document does not provides an analysis of the program's effectiveness, sustainability, management and governance challenges and other issues surrounding the program. How is it possible to recommend national coverage in the absence of such an analysis about the program? It is therefore necessary that for large and core programs and projects, such analysis be carried and their inclusion into the plan justified.

Through discussions during the review, government has noted that the proposed nationwide coverage of the current fertilizer subsidy programme through the AFSP is a typographical error in the TAFSIP write up. Government explains that under the ASFP the graduation exists strategy is explicitly spelled out. Government further explains that the TAFSIP proposes efforts to enable all framers in the country to access inputs through a variety of channels including the current fertilizer subsidy programme for some. Other means will include facilitating famers to access input financing through SACCOS, commercial banks and other microfinance schemes as well as through Agricultural Inputs Trust Fund. It is further clarified that other farmers will be able to access long term agricultural loans from commercial and the Agricultural bank to finance inputs and other requirements for agricultural activities along the value chain).

Going by budget allocations, the input subsidy program is the largest single investment in the sector. TAFSIP proposes that this will increase in size and coverage during implementation. The review notes that over 50 percent of input subsidy is donor funded with the World Bank indicating that resources targeting this will be wound up by 2012. This aside and even if it was largely funded by Government own resources, it should have been treated as a catalytic fund to allow farmers slowly adapt to use of inputs through independent financing system such Banks. This would ensure the sustainability of input use since the subsidy is not sustainable. The TAFSIP should therefore begin to develop a plan to graduate the subsidy program from government to a sustainable and commercially viable mechanism such as an agricultural Bank. Instead of government putting own funds to a subsidy, it could initially inject it in an agricultural bank as a guarantee and to allow farmers access at a concession rate until when it the inputs begin

to demonstrate payoffs sufficient for farmers to manage by themselves. Only through this the subsidy program can be sustained otherwise it cannot.

It would have been beneficial to provide some analysis of the current coverage and or payoffs to the subsidy program. For example, the TAFSIP does not explain why low input use is low and what specific market constraints have resulted in a declining production of maize per capita. Is it not possible to disaggregate small farmer production and productivity figures from large-scale farming? Related to this, are there any figures to give an indication of the scale of low calorie availability amongst small farmers and whether this is indeed a credible reason for low productivity?

We recommend that the government, with support from development partners, mainly World Bank, initiates a study in the shortest time possible to this effect. This should clarify if the program is likely to extend beyond the current period, plans for this extension be discussed with major financing partners but with a view of downsizing it towards a commercial private sector support

Recommendation:

- (i). Consider undertaking a quick evaluation of core ongoing programs/projects (review existing evaluations if available) and incorporate key lessons into the TAFSIP process so that ongoing projects and new projects can benefit from the outcome and lessons learnt.
- (ii). Develop a detail plan for graduating the subsidy program and how this will be handled in the initial years of TAFSIP

Listing and Grouping of Ongoing Programs/Projects: Tanzania has several projects under implementation and, in the pipeline. Although few donors agreed to the principle of basket funding and supported the sector through this financing modality, there are still several self-standing projects that are carried out by donors, NGOs and civil society organizations.

Given this situation, it is important to know the kind of sector programs and projects that are ongoing outside the basket funded ASDP. The stocktaking should include all interventions by DPs, NGOs and other civil society organizations. It is important to prepare a list of all donor and NGO funded projects and programs and prepare a brief profile that include the area of focus, beneficiary districts/ communities, target beneficiaries, total cost, etc. The listing should be organized under the thematic areas proposed above to determine the financial resources allocation for each theme. The question that would arise is whether the non basket funded programs will be able to be reviewed in an agreed joint review by donors and if the sponsors of the projects will be willing to be part of this and be accountable for common performance measures. This issue should be treated along with the observations made on donor coordination, harmonization and alignment.

Recommendation

- (i). List and group all ongoing donor, NGO and CSO supported programs/projects and prepare a short profile about each.
- (ii). Introduce annual joint review of TAFSIP that is inclusive, helping create a culture of accountability and evidence based planning.

Agriculture Sector Related Investments. It is recognized that investments in the agriculture sector by themselves will have limited impact and will be effective if complementary investments are made in other sectors. These complementary investments are implemented by other ministries and agencies and therefore there is a tendency not to examine the programs and projects and determine the extent to which they support the sector objectives, as well as the sector programs and projects in the investment plan. In addition to gathering information on such projects, there should be a discussion with concerned authorities to ensure that their projects will contribute to, and facilitate the implementation of, the planned sector investment programs. This is particularly important where availability of basic infrastructure such as roads, electricity, drinking water and the like are necessary pre-conditions for implementation and attaining agricultural sector objectives. In addition to such infrastructure investments, investments in the ASLMs should be carefully analyzed and areas of coordination identified so that the respective ministries and agencies will take the necessary action.

Recommendations

- (i). Undertake an analysis of programs/projects of those ministries and agencies that provide basic infrastructure for agriculture with a view to align their investment with the investments in the agriculture sector.
- (ii). Analyze and coordinate projects of the ASLMs with a view to harmonize and coordinate interventions.

New project ideas. The programs/projects listed in Annex 6 are mostly on-going projects (except SAGCOT and MIVARF). The ongoing CAADP process provides a good opportunity to come up with new programs and projects to achieve higher growth and poverty reduction goals. The review team feels that more can be done to develop a comprehensive plan that is capable of translating the good diagnostic and analytic work done in the preparation of the plan. The growth constraints identified by stakeholders should lead to more programs and projects than what is now included in the plan. There are best practices in the region and outside the region that can be adopted for inclusion in the investment program and these possibilities should be explored. Since it is a long-term plan, investment proposal can be at an idea stage, to be fully developed in the coming years.

Recommendation:

(i). The TAFSIP taskforce look back at the outcome of consultations done with stakeholders and come up with new program/project ideas that can be fully developed in the course of plan implementation.

Regional integration.

Regional agricultural development plans that Tanzania can easily link with may not be available at this time. Discussions going on in the COMESA, EAC and SADC Tripartite process provide room for more integration of synergies to promote trade and competitiveness in agriculture. SADC and EAC are still in the process of developing a regional CAADP compact. The East African Community has finalized a regional food security plan and strategy and will soon be developing their CAADP Compact. The strength of the regional strategy and plan is based on the type of actions beyond countries' own investments but require regional intervention. Tanzania made some proposals on which investment areas should be included in regional plans that are critical in delivery of TAFSIP objectives. Some of these include the East African Food Security Investment Plan, the Agricultural Research and Development and infrastructure under SADC. These are however not exhaustive and it seems this is as a result of limited analysis of what it takes to trade beyond boarders. Some of the additional expected investments will relate to investments that can facilitate cross-border trade in food grains and or regional policy harmonization initiatives and or those aimed at strengthening market access within the framework of SADC and the EAC.

The opportunities created by the EAC common market are only mentioned briefly. In view of Tanzania's comparative abundance of land, the EAC should offer enormous opportunities for expanding regional exports. While it is noted that cross border trade for East African Countries is on-going what, the legislative environment is absent. There are 3 border posts now in operation and include Namanga, Rusumo and Tunduma. These facilitate cross border trade. Tanzania has also prepared all trade facilitation instruments and is in place under the EAC Common Market Arrangements and the SADC Free Trade Area. Despite these, the TAFSIP does not explain why cross-border trade remains limited – are there hidden barriers in operation?

Recommendation:

(ii). Identify and propose regional program/project that can be taken on by regional economic communities.

4.3. **Policy issues**.

Tanzania's policy framework for agriculture is comprehensive and stable. The TAFSIP has done a very good job of describing them and analyzing how it assist plan formulation and facilitate implementation. A lot has been done to come up with coherent agriculture sector development strategy (ASDS) and further measures were taken to refine and update the strategy. The plan includes summary of the results of policy-gap analysis. In reviewing the analysis, it is noted that it describes the status of the various policies, and includes few recommendations for adjustment and refinement. The need to prepare new policy and regulatory framework is not adequately explored and, areas of adjustment in

the existing policy and regulatory framework are not specified. For instance, the right hand column of Annex 2 does not elaborate what kind of adjustment is needed, but prescribes actions necessary to implement the policies. The investment plan does not elaborate the support or line items for policy, policy capacity development, monitoring or review of policy. And while it strongly advocates for policy review processes, it does not program or budget to support such processes. Managing and monitoring policy to support the TAFSIP is a core commitment of the CAADP Compact. It is therefore useful to identify, under each thematic area, new policy and regulatory requirements, if any, and adjustments to existing policies within a given timeframe (short- and medium-term). Identification of the policies will allow monitoring the implementation of the recommendations of the gap-analysis.

The identified policies to be developed or reviewed should forms part of the investments proposed in Component 4 on institutional development.

Recommendation;

- (i). Propose time table for the revision, or for the formulation of new policies to align with implementation of the plan.
- (ii). Strengthen the proposed inputs/activities in Component 4 to include those policy development and or review identified in the policy gap analysis
- (iii). The agricultural sector working group needs to be broadened to ensure it includes all supporters of the agricultural sector efforts including FTF, SAGCOT, ASDP, etc... funding. It should strive to develop one review process that emphasizes results, approaches being promoted are efficient, and ensures resources are going to activities that are efficiently and effectively delivering results.

Component 5: Operational Realism

Via bility of implementation arrangement. The implementation arrangement proposed under TAFSIP seems adequate, provided adjustments are made in the courses of implementation wherever weaknesses are noted. Experience during the implementation of ASDP reveal several coordination challenges as it has always been with SWAPs. The case the Tanzanian SWAP through ASDP is an exemplary example in Africa as almost all Agricultural SWAPs initiated in Africa have either collapsed or limping. The review noted that such challenges continue to exist both within the Ministry of Agriculture and in agriculture sector line ministries. Therefore, robust measures should be taken to ensure strong institutional and inter-sectoral coordination. Further adjustments in the capacity of the sector to manage and coordinate the activities should be considered to avoid setbacks. The following are issues that require further review and adjustment

(a) ASDP evaluations indicate that coordination is a major problem and the main challenge remains getting those responsible for coordination to meet regularly and fulfill their collective obligations. It is therefore necessary to come up with an

- arrangement that introduces accountability on those appointed to coordinate programs/projects.
- During the formulation of the ASDP in 2006, there was a notion that as ongoing (b) projects are closed and new projects prepared, the number of projects that will be harmonized and financed through basket funding mechanism would increase and the number of self standing projects would decline. However, in the last three years only those donors who subscribed to basket funding continued to participate and new donors did not join the group. Discussion of the need to further harmonize development partner's support to the agriculture sector seem to have now fizzled out and most development partners continue follow their own mechanisms and carry out their respective projects with little, or no coordination and harmonization. The DPs meeting that are held regularly are mainly used for exchange of information and serious harmonization is not discussed. The reason for this lack of interest in this area was attributed to several factors; the main one being limited rigor by the leadership in the part of the government. The government has not developed a framework that will bind DPs to participate in a harmonized environment and plan their support accordingly. Donors themselves have not pursued this effort. Therefore, a mechanism that encourages harmonization within and outside of the basket funding modality is absent and, as a result, DPs are showing a preference to undertake self-standing projects and pursue their individual donor agendas. As it stands now, disparate small projects exist across the country with little or no harmonization and discussion on this subject has fizzled out. The challenge is how to restart this dialogue and make a sustained effort to get DP harmonize there support through the basket funding mechanism, or, outside this mechanism. A key proposal to strengthen donor harmonization is a coherent and systematic Monitoring, evaluation and accountability systems. A draft M&E for TAFSIP has been developed but require all stakeholders to discuss it and agree to common indicators in measuring the performance of TAFSIP. Through different accountability platforms such as the proposed coordination committees, the M&E outcomes would be used to hold each party including offbasket programs/projects to account to these set of common indicators. TAFSIP should address this issue and come up with clear strategy and action plan that will ensure the sector investment plan does not contribute to further fragmentation, but to better harmonization of programs and projects.
- (c) More specifically, the A-WG of the Development Partners group (DPG), mentioned as one of the entities for purposes of coordination, has difficulty carrying out its duties and responsibilities as outlined in the MoUs and ToR of their engagement. This is an important entity that can mobilize additional resources and also help in the implementation of the plan. The reason for the weak performance of the entity should be identified and corrective measures taken

- before plan implementation. The plan should therefore include the corrective actions that will be implemented under TAFSIP.
- (d) It is proposed that the TAFSIP will use the existing M&E system developed to monitor and evaluate ASDP. Assessments of the M&E system have shown that it has weaknesses and actions taken to address them have not succeeded yet. TAFSIP being broader and more complex, it will be an oversight to assume the ASDP M&E system will serve the needs of TAFSIP. Therefore, a workable plan to revamp the system so that it can cater for TAFSIP should be developed and put in place before TAFSIP implementation.

Recommendation:

- (i). Propose implementation arrangement that introduces accountability on those appointed to coordinate programs/projects.
- (ii). Propose mechanisms that would strengthen harmonization of donor support to the agriculture sector; consolidate investment proposals so as to avoid fragmentation and create synergy among interventions.

Institutional Assessment: The institutional analysis is fairly comprehensive and sheds light on agricultural institutions' strengths, weaknesses and threats during plan implementation. What is lacking is an action plan to mitigate, in full or in part, the weaknesses and the threats. Although it will be difficult to mitigate all weaknesses and threats identified in the analysis, it is necessary to tackle the critical ones before, or during plan implementation. Again, this is an area that requires prioritization and sequencing in a manner similar to what was suggested for policy issues above. The review notes that the TAFSIP will tap into a recent institutional assessment by USAID to accommodate the shortfalls and gaps observed. Also CAADP Brief No. 6 provides useful information that will boost the institutional development component of the TAFSIP).

The formulation of TAFSIP has not well captured a comprehensive capacity needs assessment to determine the nature and type of capacity needed to implement the plan. The institutional SWOT analysis undertaken in working paper no. 3 does a good job in detailing of strengths and weaknesses of different institutions implementing agricultural sector activities. This institutional analysis is part of this assessment but it does not extend to include capacity requirements needed to implement the plan. The absence of a capacity needs assessment and development strategy is an omission which would compromise guaranteeing implementation. Some discussions noted that in some components support activities such as irrigation, government has embarked on an ambitious plan to train irrigation engineers. This is good but this training plan out to have come from an analysis, for example, on how many irrigation engineers will be required annually to irrigate addition and required 669,000ha of land to meet the TAFSIP targets of 1,0000ha. of land under irrigation. For example, no attention has been given to the need to expand the capacity of tertiary agricultural education at colleges and universities. Although this is a long-term investment it is one which will lay the foundations for enhanced overall capacity in the sector.

Recommendation:

- (i). Prepare mitigation action plan for weaknesses and threats that emerged from the institutional analysis.
- (ii). Develop a capacity building needs and develop capacity development plans.

Program and project cost. (Awaiting information)

Financing plan and scale of investment. Indicative financial projections are based on: (i) estimates of the likely availability of funding from various sources; and (ii) estimates of the size of the investments needed to generate a six per cent per annum growth in agricultural sector GDP. The availability of funding is estimated on the basis of Medium Term Expenditure Framework (MTEF) projections which cover the same period as the first five years of TAFSIP. The modelling used to make these projections assume a 7 percent real GDP growth per annum, Government expenditures averaging about 30 per cent of GDP, of which 10 per cent will be allocated to the agricultural sector in line with the CAADP commitment. On this basis, the agricultural sector development budget will increase from its current (2010/11) level of around USD 270 million to around USD 570 million by year 5, or a total of USD 2.3 billion over five years. It is estimated that the achievement of six per cent annual growth of sectoral GDP will require investments of around USD 3.3 billion in the first five years making the funding gap about USD 1.0 billion of which 30% is expected to be met by the private sector and the rest by Government and the Developing Partners. The annual budget builds up from US\$ 499 Million in year one (1) to US\$ 840 Million in year five (5).

The budget is based on historic financing by Government⁸ and Cooperating Partners and is not desegregated by source. There is no mention of the current proportion of private sector contribution to the current sector budget. The expected funding for the financing gap from Government and Development Partners is lumped together. At the time of the review, the detailed costings paper was still being worked on hence the appreciation of what went into the budget figures as well as the assumptions were not clear. Linked to this point, the IP notes that "...the programmes and projects which collectively comprise the TAFSIP have not yet been designed and costed". In the absence of a detailed costings paper, it is not clear the extent to which the Financing Plan places premium on new innovations which will significantly add value towards the realization of TAFSIP's goal and objectives. The design of these interventions and their respective detailed costing once completed may result in a change in the total TAFSIP budget figure, the financing plan and the financing gap.

Table 1: Government expenditure and estimated agricultural development budget

Item	Base Year	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
Total Gov. Expenditure (\$bn) ¹⁰	7.7	8.2	8.7	9.3	10.0	10.7	46.9

⁸ Government contribution is based on MTEF projections which coincide with TAFSIP in the next 5 years.

⁹ Paragraph 153, Second Draft TAFSIP Summary Report, 22nd May 2011.

¹⁰ This is projected at 7 percent growth rate of GDP and 30 percent of the GDP being used for total Government Expenditure.

Ag. Expenditure (Rec+Dev) (\$mill) ¹¹	541	652	785	933	1,000	1,069	4,439
Ag. Dev't Budget (50 percent of Agr.	270	326	400	485	529	577	2,317
Exp)(US\$m)							
Annual TASIF Investment (\$mill)		499	575	665	753	840	3,332
Funding Gap 13 (\$mill)		173	174	179	224	263	1,013 ¹⁴

This financing plan hinges upon real 7 percent GDP growth rate assumption for the next ten years and the ratio of total expenditure to GDP. From the figures derived from the modeling show that there will be no major injection of financial resources into the agriculture sector because the economy cannot do this at 7 percent GDP growth rate. This means the economy will continue to allocate limited financial resources to the agriculture sector and, spurring sector growth and reducing poverty through agriculture sector will remain elusive. The report also concludes that the financing gap can be fully met from development partners' contribution to the sector at a level that is close to the historic levels and imply that major financial mobilization for TAFSIP will not be needed.

The review team feels the projected cost and financing plan is feasible in terms of the scale, availability of funds and ability of the Government to secure funding. However, the assumption that 30 percent of the financing gap will be met through the private sector has no basis and should be justified.

The review team also feels that for Tanzania, the 6 percent growth rate for agriculture stipulated in CAADP compact is the minimum and not adequate to bring about the desired increase in rural incomes and to reduce poverty to any significant level. As noted in the draft plan document, a 6 percent growth rate will result in an increase in per capita rural GDP from the current USD 180 to USD 250 after ten years and USD 360 after twenty years, which is modest by any standard. The Tanzania economy as well as the agriculture sector should achieve higher rate of growth than the 7 percent and 6 percent assumed rate of growth, respectively, if incomes are to increase and poverty rates to decline in the coming decade.

It would be interesting to see a table which summarizes the existing financing of ASDP/ASP, SAGCOT and all the other programmes upon which TAFSIP is based. Even in the description of these programmes (e.g. in WP 1, the financing is not described).

Recommendation:

(i). A discussion of assumption about the country's GDP growth rate would be necessary to see if alternative growth scenarios should be considered to improve the investment level that would put the agriculture sector in a sustainable growth trajectory.

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¹¹ Ten percent of total expenditure is assumed to be allocated to agriculture.

This is annual investment required to generate 6 percent real annual growth rate in agriculture sector GDP over a twenty year period.

¹³ This is the difference between agriculture development expenditure and TAFSIP investment.

¹⁴ It is assumed that 30 percent of the financing gap will be mobilized by the private sector.

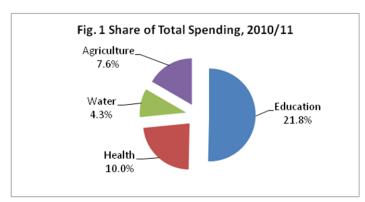
- (ii). There is need to clearly indicate what proportion of the estimated budgeted funds would come from various sources, i.e.; Government, Cooperating Partners and the private sector. This would facilitate strategic resource planning in the event of financing difficulties from any of the sources. In the same vein, funding for the financing gap from Government and Development Partners should be separated.
- (iii). The total TAFSIP budget, funding gap and the Financing Plan should be adjusted accordingly to reflect appropriate priorities and budget details once the design of TAFSIP programmes and projects and the development of their costings have been completed. At that point, there will be need to subject these to a technical review which could be undertaken by someone from within the country.

Agriculture Public Expenditure: An analysis of public expenditure (PER) for the agriculture sector for FY2010/11 is available and provides useful information about funding of the sector as well as the challenges of execution of the budget ¹⁵. The analysis shows that the share of public expenditure allocated to agriculture in 2009/2010 was 7.6 percent compared to 4.6 percent in 2007/08 (see Figure 1). This is an encouraging development since agriculture share was about 2 percent a few years back. Approved budget of the Ministry of Agriculture, Food Security and Cooperatives was about USD 200 million during the same year, out of which 65 percent was for recurrent expenditure and the remaining 35 percent for development expenditure. Of the total agriculture development expenditure 97 percent is foreign aid. The sector share of total spending compared to other major sectors is relatively small. Education, health and roads are priority sectors in terms of public spending.

The sector PER noted the low budget execution as one of the major weaknesses in public finance management, coupled with late release of funds, both of which have shown improvement in recent years. Late disbursement is mainly caused by delay in the approval of individual ministry allocation that takes place nearly two months after approval by parliament. Budget releases from the Ministry of finance has also shown significant improvement in the last five years, with releases approaching the budget level

in most expenditure categories. These improvements are encouraging in that expenditure management and execution under the TAFSIP can be expected to be satisfactory.

The PER projection of financing requirement and availability for the agriculture sector has came up with an estimate different from estimates made for TAFSIP.



Background documents prepared for signing the

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¹⁵ Agriculture Sector Review and Public Expenditure Review, 2010/2011. Ministry of Agriculture, Food Security and Cooperatives.

CAADP compact have also a different estimate. It is difficult for the review team to pass judgment on the accuracy of these projections, but the variation is so wide that the task force in charge TAFSIP preparation should take a closes look and reconcile the differences (see Table 2 below). It is hoped that once the detailed costing is accomplished, clarity will be made on realistic projected spending for the sector. Caution need to be exercised that there could be different assumptions being used in estimating projected spending but at least all the approaches should be projecting towards the same direction.

Table 2:.PER and TAFSIP Estimates of Financing Gap for the period 2010/11 - 2014/15 (in million USD)

Item	2010/11	2011/12	2012/13	2013/14	2014/15	Total
Financing Gap – PER	160	752	1,158	1,715	2,560	6,345
Financing Gap- TAFSIP	173	174	179	224	263	1,013
Financing Gap- Compact Document	160	356	521	761	1,028	2,826

Recommendation;

(i). Reconcile the financing gap estimates of the PER, TAFSIP and compact documents.

Risk Assessment. The risk assessment done for TAFSIP is adequate and relevant. The risks identified include: (i) the willingness of the private sector to participate; (ii) limited capacity in Government institutions and human resources; (iii) the challenge of coordinating TAFSIP in the regional context; (iv) ensuring that the primary target group (smallholders) participate fully; (v) managing environmental risks; and (vi) coordinating multiple funding modalities and procurement systems. To complete the exercise, the risks should be rated low, medium, or high so as to inform the concerned bodies where the focus of mitigation action should be.

Recommendation;

(i). Consider rating the risks as low, medium or high.

The TAFSIP working paper No. 3 presents a comprehensive overview of the various institutions that play a key role in TAFSIP and some of the strengths and weaknesses. The capacity development challenges of the various groups are reasonably clear and, the management and coordination section of the TAFSIP, including the working paper lay out an ambitious effort to establish strategically important coordination structures and systems. On the other hand, the description of the Institutional Development Priority Area simply seems to be a list of ongoing actions that do not clearly align with the capacity development needs. Further, the summary of actions seems to be a duplication of what would be expected to be found in other Priority Areas. In sum, the Institutional Development component of TAFSIP could greatly benefit from significant modification to help focus on a) developing an effective institutional architecture for strategic coordination of the TAFSIP, b) supporting an effective policy process to support

TAFSIP, c) strengthening the capacity of key institutions at the District, Regional and National levels to lead and manage implementation of TAFSIP.

The models for implementation are not presented nor are the options for increasing the efficiency of the agricultural development efforts in Tanzania articulated. In other words, there are different approaches that can be used for implementation. Some approaches may be more effective than others. If the best approaches are used, it will increase effectiveness and efficiency of the development effort, and hence cost less to achieve more or achieve more with the resources available. There is no review of the effectiveness of various approaches that might be used to implement programs. A study could usefully be done to inform these issues, especially with regard to program actions that might be taken under rural commercialization.

The TAFSIP does not provide guidance on the next steps to be taken in supporting program design, steps to facilitate alignment of ongoing programs with the new priorities, and steps to update and improve performance monitoring. This is especially important because TAFSIP calls for adjustments in the focus of current efforts, e.g., greater emphasis on maize and several other commodities that are currently in the ASDP. How will this adjustment be made? Who is responsible for the realignment?

In the institutional development investment area, and in the description of management and coordination, there is need to clarify how the District Agriculture Development Plans (DADPs) will be engaged in the implementation and coordination. And what will be done to strengthen their capacity to handle agricultural development actions of TAFSIP. Moreover, the link between the national programme (SWAp) and the DADPs is not explicit. Apparently 70% or more of programme resources will flow to districts. Districts prepare their DADPs in a highly consultative manner. What mechanism ensures consistency and coherence between the many DADPs and the goals and activities of TAFSIP?

Recommendations

- (i) Consider detailing next steps in translating TAFSIP investment proposals into detail programs ready for investment
- (ii) Elaborate how DADPS will be engaged and used in the implementation of TAFSIP

Monitoring and Evaluation

The M&E framework is impressive. The guiding principles are good, especially the aim to start as simply as possible: the flaw in many M&E systems is to be far too ambitious and to fail in delivering the essential data for management and on results. Effective and credible M&E is becoming more important as donors increasingly demand "results" and "value for money" when they deliver aid. This reflects increasingly constrained aid budgets as a result of the global economic recession as well as the demands of aid effectiveness in the Paris Declaration and Accra Agenda for Action. If, as described, the

TAFSIP M&E framework has evolved from ASDP, it would be useful to hear about lessons learned on the framework itself. In addition, if the system worked well, there should be data about ASDP outcomes that could be used to strengthen the rationale for TAFSIP as a whole. In fact, no use seems to have been made of M&E data.

- (a) Although one principle is "Using the baseline data / information as benchmark" it was not clear how **baseline data** would be gathered. Gathering sound baseline data sets the foundation for the entire system and it is important to understand exactly how this would be done. Or is the baseline already established under ASDP?
- (b) The outline of each of the indicators (Annex 2) is very useful. Two of the three impact indicators are already being gathered and the third value of exports should be easily gathered. The 12 **outcome** indicators are the most problematic and the "comments" already hint at some of the difficulties in gathering data and analysing it. It is logical to rely upon the NSCA (only every 5 years) and NPS (biannual) for much of the data but it seems the NPS, which is the only source of annual data, is new and has only been implemented once, which is a concern. The most difficult to collect accurately is the flow of private funds into agriculture, to be collected from BOT, which will presumably only capture larger enterprises. Most of the output indicators are derived from the LG system and it would be relevant to know how reliable this is.
- (c) Agricultural profitability is one of the important purpose/strategic objectives and one of the long-list indicators, but it is not clear how this would be measured. It would need to be crop- and region-specific and could be time-consuming to gather on a regular basis.
- (d) It was not clear which body or bodies carry out the huge analytical and report-preparation task under the M&E system. For M&E data to be useful, they have to be reliable and reported in a timely way. If the various reviews and committees which are the recipients of M&E data are to operate properly, they will need data and analyses presented in a summarised and comprehensible way which is a challenging task. Although the reporting of data from the public sector SWAp can be reasonably assured, the same may not be true for discrete projects, off-budget activities and the private sector. The compilation of data from discrete projects that have their own logframes and M&E systems will be difficult and no solution has been suggested.
- (e) No reference was made to the role of beneficiaries in the M&E system. Perhaps this is part of the LG system. If not, consideration should be given to include beneficiary reporting in the system.
- (f) Where does the private sector feature in the system? It seems the private sector is only involved in the Agricultural Sector Review and Public Expenditure Review.
- (g) There is no reference in the framework to the monitoring of agriculture sector aid flows. Presumably the reporting to the ASDP Basket Fund Steering Committee will

be assured, but it is not clear where non-BF donors will report, especially the off-budget projects. What is the role of the MoF in this? This is a crucial aspect of the mutual accountability framework.

Although M&E relies upon the quantification of indicators, issues surrounding the methodology of data collection and analysis, as well as the interpretation of the data can often lead to ambiguous or misleading results, especially in the agriculture sector which is subject to major seasonal variation factors, pests and disease etc which makes attribution difficult. For this reason, consideration might be given to including a qualitative dimension to the framework which would attempt to capture outcome indicators at carefully selected sites (possibly villages) across the country on an annual basis, including villages which have not directly benefited from TAFSIP. Village surveys could focus on economic/well-being indicators (income, nutrition, consumption, marketing etc), institutional indicators (access to and quality of various services) and behavioral indicators (decision-making, gender, and other cross-cutting issues etc).