Tanzania: Pilot Rural Investment Climate Assessment. Stimulating Nonfarm Microenterprise Growth

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Stimulating Non-farm Microenterprise Growth

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ABBREVIATIONS AND ACRONYMS

BOT	Bank of Tanzania
CRDB	Cooperative and Rural Development Bank
FICOS	Financial Cooperative Societies
FINCA	Microfinance institution in Tanzania
GDP	Gross Domestic Product
HBS	National Household Budget Survey
EA	Enumeration Area
ICA	Investment Climate Assessment (urban/formal industry based)
ICS	Investment Climate Survey (urban/formal industry based)
MEDA	Mennonite Economic Development Associates
MFC	Microfinance Company (subsidiary of CRDB)
MFI	Microfinance Institution
NBC	The National Bank of Commerce
NBS	National Bureau of Statistics
NMB	National Microfinance Bank
NMP	National Microfinance Policy
PRIDE	Microfinance Institution in Tanzania
RICA	Rural Investment Climate Assessment
RICS	Rural Investment Climate Survey
SACAS	Savings and Credit Associations
SACCOS	Saving and Credit Cooperative Societies
SCCULT	Savings and Credit Cooperative Union League of Tanzania
TFC	Tanzania Federation of Cooperatives
THB	Tanzania Housing Bank
TRDB	Tanzania Rural Development Bank

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EXECUTIVE SUMMARY

Tanzania's Pilot Rural Investment Climate Assessment (RICA) measures the economic environment of non-farm enterpreneurs. The pilot assessment has three key objectives: it aims to better understand the rural non-farm economy in Tanzania, shed light on rural enterprise dynamics and business constraints, and reflect on areas where government policies are readily directed to help promote rural non-farm enterprise activity. The RICA is based on an analysis of a unique survey data set collected by the National Bureau of Statistics (NBS) during January and March 2005, covering enterprises, households, and communities in all seven geographical zones of the country. Selected findings are summarized below.

Non-farm enterprise characteristics

Rural non-farm enterprises matter. Non-farm activities are an improtant source of income for approximately 1.4 million rural households, an increase from 1.2 million in 2001. The highest enterprise densities are in the Lake region and in Central Tanzania. Over the past decade the share of rural non-farm self-employment income has almost doubled. In 2004, some 28 percent of rural households reported that at least one member was working in a non-farm business. Non-farm enterprises are an essential source of livelihood for a significant proportion of Tanzania's rural population. Households that run a non-farm enterprise have an income that is about 24 percent higher than that of those without, suggesting that access to informal employment in the rural non-farm sector could provide a path out of poverty.

Tanzanian rural non-farm enterprises differ from their urban counterparts. The capitalization of businesses is extremly low. The median value-added per laborer of a rural non-farm business is only US$ 83, a stark contrast to an urban micro-enterprise in Tanzania that has an estimated median value-added per laborer of US$ 474 (World Bank, 2004b). About one-half of the enterprises are located in rural areas, while the other half is located in rural market towns. Non-farm enterprises are very small with the majority operated by one person during most of the year. However, during peak seasons enterprises often employ part-time or casual labor with these being mostly family members. The level of education among enterprise owners is high by rural standards, with the majority at grades seven and eight.

Rural trade dominates. The overall landscape of non-farm enterprises in Tanzania is quite diverse. However, the predominant entrepreneurial activity is trading. About 57 percent of rural enterprises are engaged in wholesale or retail trading. Consequently, more than 75 percent of Tanzanian enterprises are heavily affected by seasonality, which typically constrains enterprise growth. Non-farm enterprises in rural Tanzania buy and sell locally, operating in relatively thin markets. Only 19 percent of the enterprises are formally registered.

Labor productivity is low. For a typical rural business, sales are less than US$ 1.5 per day of labor. However, there are differences. Small enterprises are relatively more productive than their larger counterparts (which could be due to the intensive use of household family labor). The opposite is true of urban enterprises, which are more labor efficient at the higher end of the employment spectrum. Enterprises in Tabora are more productive than enterprises in any other surveyed region. Productivity differences by sector, however, are not very pronounced. The exception is mining, where labor productivity is higher than in other sectors.

Registration is associated with higher labor productivity. Formal enterprises have higher levels of labor productivity than informal. The median formal enterprise generates US$ 149 per laborer, versus US$ 82 for informal. Regulatory barriers to entry are costly, estimated at about one-third

of enterprise annual gross sales. The productivity differences between formal and informal enterprises are more pronounced in rural market towns. However, additional study is necessary to understand benefits derived from enterprise formality.

Table 1: Snapshot of Tanzania's Rural Non-farm Enterprise Sector, 2005	
Total number of enterprises [a/]	1.2 mio
Formally registered enterprises	19%
Sector of operation	
Trading	57%
Services	21%
Production	19%
Two or more sectors	3%
Location	
Rural towns	46%
Rural areas	54%
Production	
Median net earnings per enterprise (US$)	113
Median value added per worker (US$)	83
Labor force	
Enterprises using only family labor	83%
Enterprises using only hired labor	1%
Both family and hired labor	15%
Family workers (average)	1.6
Hired workers (average)	0.6
Total workers (average)	2.2
Characteristics of entrepreneur	
Female	23%
Primary education (1-6 years)	11%
Primary education (7-8 years)	69%
Secondary education	17%
Tertiary education	3%
Work experience (average in years)	4.9

Source: 2005 Tanzania RICS. a/ 2001 HBS

Rural enterprise dynamics

The rate of new firm creation appears to be lower than in other African countries. This could be a result of investment climate constraints or a weaker rural enterprise culture. In line with the findings from RICAs for other countries, rural entrepreneurs believe that access to finance and basic infrastructure are among the most important constraints that impact on enterprise start-up and closure. The majority of start-ups are small firms, and entry into the non-farm sector is dependant on income generated from agriculture – 77 percent of start-up capital is from agricultural earnings. When agriculture is prospering and overall demand for non-farm products or services is high, starting a business can mean prosperity. But when agriculture is languishing or population growth is high, start-up jobs may simply reflect the news that firms are acting as a sponge, soaking-up excess workers in marginal activities. In Tanzania, both demand-pull and supply-push forces seem to determine entry into the rural non-farm enterprise sector.

A minority of enterprises propels employment growth. About one-third of established rural enterprises (operating five or more years) are high performers. The estimated overall high employment growth rate of 4.5 percent annually for these established enterprises is impressive, considering that the majority of small enterprises in rural areas did not grow at all. Employment

growth is regionally defined and occurs mostly in the formal sector. Tabora employment growth proved strongest among the regions.

Box 1: Characterization of Rural Non-farm Enterprises

The rural non-farm enterprise sector in Tanzania is quite heterogeneous. Nevertheless, at risk of oversimplification, some characterization is possible. Firms are owned and solely operated by a male with five years relevant experience and often with primary education. Owners occasionally hire seasonal labor, but seldom look further than for household labor.

The large majority of enterprises are involved in informal wholesale or retail trading or processing of agricultural commodities. Earnings are subsistence with a net income of some US$ 113 per year – or about one third of annual income. Most entrepreneurs complement their agricultural income with seasonal non-farm activities. Business operations are dependent on readily available resources within the proximity of the local community.

Investment climate constraints

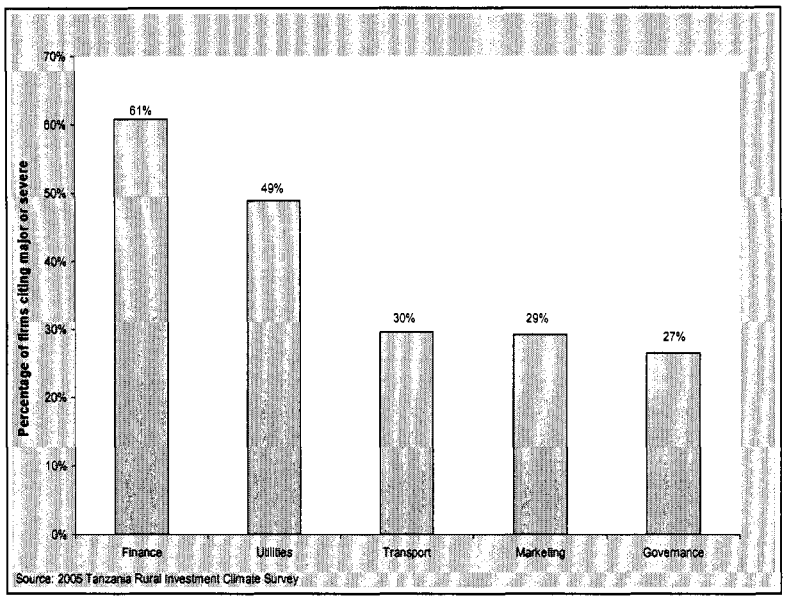
Due to relatively rapid agricultural growth in recent years, demand exists for more rural non-farm economic activity. However, entrepreneurs are now constrained mainly from the supply-side in their response to this increased demand. Overall, the report finds that access to rural finance and road infrastructure are among the main rural investment climate constraints. Access to finance was generally perceived by rural entrepreneurs as the main business constraint. This is not a new finding by ICAs or other studies of the rural economy in Africa. The interpretation is complex as this could simply reflect the desire for additional financial resources. Appendix 4 therefore places the results in the context of what is currently known on rural finance in Tanzania.

Business constraints are assessed in three ways throughout the report:

1. Entrepreneurs are asked directly about what they believe are the major constraints to business operations and growth (Figure 1). Rural entrepreneurs generally perceive rural finance, public utilities and road infrastructure as major constraints. More than 60 percent of entrepreneurs believe that access to finance hampers growth. Regionally, Tabora scores relatively well in three aspects of the investment climate — access to finance, transport, and governance. Financing constraints are perceived as particularly severe in the Lake region, Northern Highlands and Southern zones. Access to public utilities and transport infrastructure is perceived as a major and severe constraint in the Western zone. Demand-side and governance business constraints show lower variability and magnitude.

2. The perceived business constraints are benchmarked with the Sri Lanka Rural and Urban ICA (World Bank, 2004c) and a comprehensive study on rural non-farm enterprises in Africa (Liedholm and Mead, 1999). Such a comparison shows that the overall level of constraints perceptions is relatively high in Tanzania. A comparison with the urban and formal industry based ICA for Tanzania (World Bank, 2004b) shows that the level of perceived constraints for the urban and formal industry-based enterprises is generally higher than in rural Tanzania. A common finding, however, is the perception that access to finance and transport significantly constraint growth. Interestingly, rural and urban enterprises in Tanzania perceive access and costs of finance as a problem of almost similar magnitude.

Figure 1: Top Five Rural Business Constraints, 2005



3. As part of the analysis of this report, the relative impact of investments constraints on enterprise growth is measured with objective data at the community level via econometric techniques. Overall, perceived business constraints generally coincide with these more objective measurements. An empirical analysis suggests that better access to roads and rural finance would have the strongest impact on enterprise employment growth. Interestingly, rural cell phone communication ranks third. Demand-side factors related to agriculture rank fourth. For those rural entrepreneurs who do use electricity, increased reliability of the electricity grid could stimulate growth. Simulations suggest that even marginal improvements of the rural investment climate could significantly increase non-farm enterprise employment growth.

Reflections for policy and future analysis

The pilot approach and methodology taken in this assessment call for a careful evaluation of the following recommendations, which are presented to stimulate dialogue and future analysis. This Rural Investment Climate Assessment is the first of its kind in Tanzania, and only a few assessments are available from other regions of the Bank. Acknowledging the regional dimension and heterogeneity of rural enterprises is important. The main issues are:

1. Most rural non-farm enterprises in Tanzania are highly dependant on the performance of agriculture. This suggests that favorable policies and investment for agriculture play a big role. Policies and investments to meet the Government's agricultural growth targets, as described in the Agricultural Sector Development Strategy, are fundamental for the non-farm rural enterprise sector. Operationalizing the strategy through the recently developed Agricultural Sector Development Program therefore remains a priority.

2. Almost 60 percent of rural non-farm enterprises are trading enterprises. Maintaining favorable internal trade policies may therefore be of utmost importance in determining enterprise performance. Revenues of these enterprises come mainly from local sales. Therefore, internal trade policies set by both local government authorities and line

ministries may need to be revisited. Continued enforcement of recent changes should also be a priority.

3. Road infrastructure is among the main constraints that impact on rural business operations. Easing bottlenecks in rural infrastructure is therefore important. Priority areas are maintenance and rehabilitation of the existing road network. Differing regional impacts should be considered in resource allocation for rural infrastructure, particularly if rural employment growth is a key objective. This should be considered in both national level expenditure prioritization and the local government formula base allocations. Prioritization could be based on the expected rates of return to infrastructure and impacts on the agricultural and rural non-farm economy. Private sector participation may require a strengthening of regulatory institutions and ensuring their independence.

4. Access to rural finance appears to be among the main supply-side constraint — but interpretation is complex and requires future analysis. Microcredit may offer a tool for promoting rural non-farm activity. However, interventions should pay sufficient attention to the performance of the agricultural economy. In buoyant rural markets, where ongoing agricultural income growth drives demand for non-farm goods and services, injections of credit can play a role in enabling non-farm entrepreneurs to participate in growing market niches. Priorities may be the promotion of rural saving schemes, the establishment of greater linkages between commercial banks, SACCOs and MFIs, and credit guarantee schemes to offset risks.

5. Cell phone communication reduces transaction costs. Exploring options for better telecommunications via private sector cell phone nodes may therefore be an attractive policy option. This includes the adoption of a new Electronic Communications Bill, the implementation of the new licensing framework, and the review of policies and regulations to generate competition and reduce communication and operational costs. In addition, capacity building and the continued use of global experiences to enhance the efficiency of the telecoms sector could be important.

6. The large share of informal rural non-farm enterprises may be explained by the fact that being formal is costly. Reduce direct costs of doing business may therefore be important. Despite recent reforms, transaction costs and taxes for formal non-farm enterprises remain very high. Continuation of business registration reform and effective implementation at the local level remains a high priority.

Future analysis of rural non-farm enterprises should focus on three aspects: (a) assessment of the role of larger firms and their economic linkages, particularly in small rural market towns, (b) identifying entry or mobility barriers to high-return niches within the dynamic part of non-farm economy, and (c) for cost-effective interventions, analysis of a handful of specific subsectors, and supply chains within them, that hold the potential for growth.

Muhtasari Jumuishi

Tanzania: Tathmini ya Majaribio ya Hali ya Uwekezaji Vijijini
Kuchochea Ukuaji wa Shughuli Katiti Zisizo za Kilimo

Tathmini ya Majaribio ya Hali ya Uwekezaji Vijijini nchini Tanzania inapima mazingira ya kiuchumi ya wajasiriamali wasio wakulima. Tathmini ya majaribio ina malengo makuu matatu: kuuelewa vyema uchumi usio wa kilimo nchini Tanzania; kubainisha hali za shughuli za vijijini na vikwazo vya biashara; na kuakisi maeneo ambayo sera za Serikali huelekezwa katika kusaidia kukuza shughuli zisizo za kilimo vijijini. Tathmini hii inajikita katika uchambuzi wa vifunganishi vya data za kipekee za utafiti mpana zilizokusanywa na Ofisi ya Takwimu ya Taifa kati ya Januari na Machi, 2005, ikijumuisha shughuli, kaya, na jumuiya katika kanda zote saba za kijiografia nchini Tanzania. Ufuatao ni muhtasari wa matokeo ya utafiti huo.

Sifa za Shughuli Zisizo za Kilimo

Suala la shughuli zisizo za kilimo za vijijini. Shughuli zisizo za kilimo ni chanzo muhimu cha kipato kwa kaya takribani milioni 1.4 nchini Tanzania, ikiwa imeongezeka toka kaya milioni 1.2 mwaka 2001. Shughuli hizi nyingi hufanyika katika kanda ya Ziwa na katikati ya Tanzania. Katika kapindi cha muongo mmoja uliopita mchango wa shughuli zisizo za kilimao katika pato litokanalo na kujiajiri vijijini limeongezeka maradufu. Kwa mfano, mwaka 2004, kiasi cha asilimia 28 ya kaya za vijijini ziliripoti kuwa angalau mwanakaya mmoja alikuwa akijishughulisha na kazi isiyo ya kilimo. Shughuli zisizo za kilimo ni chanzo muhimu cha ustawi wa sehemu kubwa ya Watanzania waishio vijijini. Kaya zinazoendesha shughuli zisizo za kilimo zina kipato cha takribani asilimia 24 zaidi ya kile ambacho kaya zisizo na shughuli hizo hupata, jambo linaloashiria kuwa fursa za ajira zisizo rasmi katika sekta ya shughuli zisizo za kilimo vijijini zinaweza zikasaidia katika kuondokana na umaskini.

Shughuli zisizo za kilimo vijijini hutofautiana na shughuli kama hizo mijini. Mkazo katika biashara ni mdogo mno. Wastani wa pato kwa kila anayeshughulika kwenye shughuli isiyo ya kilimo vijijini ni dola za Kimarekani 83 tu, kiasi ambacho kinatofautiana sana na kile cha anayejishughulisha na shughuli ndogondogo za mijini nchini Tanzania ambapo wastani wa pato lake ni dola za Kimarekani 474 (Benki ya Dunia, 2004). Kiasi cha nusu ya shughuli hizi ziko katika maeneo ya vijijini wakati ambapo nusu nyingine iko katika maeneo ya masoko vijijini. Shughuli zisizo za kilimo ni chache sana ambapo kiasi kikubwa huendeshwa na mtu mmoja katika kipindi chote cha mwaka. Hata hivyo, wakati wa msimu, shughuli hizi mara nyingi huajiri vibarua wa muda mfupi ambao mara nyingi huwa ni wanafamilia. Kiwango cha elimu miongoni mwa wamiliki wa shughuli hizi ni cha juu kwa viwango vya vijijini, wengi wao wakiwa na elimu ya kiwango cha darasa la saba au zaidi.

Kukithiri kwa biashara za vijijini. Hali ya jumla ya shughuli zisizo za kilimo nchini Tanzania ina sura mbalimbali. Hata hivyo, shughuli ya kiujasiriamali inayotawala sana ni biashara ndogo ndogo. Kiasi cha asilimia 57 ya shughuli zisizo za kilimo vijijini ni biashara za jumla au rejareja. Matokeo yake, zaidi ya asilimia 75 ya shughuli za Kitanzania huathiriwa sana na misimu, ambayo kwa kiasi kikubwa huathiri ukuaji wa shughuli hizo. Shughuli zisizo za kilimo vijijini nchini Tanzania hununua na kuuza kienyeji, zikiendeshwa katika masoko madogo sana. Ni asilimia 19 tu ya shughuli hizo ndizo zimesajiliwa rasmi.

Tija ya kazi ni ndogo. Kwa shughuli ya biashara halisi za vijijini, mauzo ni chini ya dola 1.5 kwa siku ya nguvukazi. Hata hivyo kuna tofauti. Shughuli ndogondogo zina tija zaidi kuliko kubwa

(jambo linaloweza kutokana na matumizi makubwa ya nguvukazi ya familia ya kaya). Hali hii ni kinyume kwa shughuli za mijini, ambako tija ya nguvukazi ni kubwa zaidi kileleni mwa mlolongo wa ajira. Shughuli mkoani Tabora zina tija zaidi kuliko sehemu zingine zozote ambazo zilihusika katika utafiti huu. Tofauti za tija kisekta , hata hivyo, si bayana sana. Sekta ya migodi imeonesha tofauti kubwa, ambapo tija ni kubwa sana kuliko sekta zingine.

Picha ya Sekta ya Shughuli Zisizo za Kilimo Vijijini Nchini Tanzania, 2005	
Jumla ya shughuli	1.2 mio
Shughuli zilizosajiliwa	19%
Sekta ya Uendeshaji	
Biashara	57%
Huduma	21%
Uzalishaji	19%
Sekta mbili au zaidi	3%
Mahali	
Miji ya vijijini	46%
Maeneo ya vijijini	54%
Uzalishaji	
Pato la wastani la jumla kwa kila shughuli (dola za Kimarekani)	113
Thamani ya wastani iliyopatikana kwa kila shughuli (dola za Kimarekani)	83
Nguvukazi	
Shughuli inayotumia nguvukazi ya familia tu	83%
Shughuli inayotumia nguvukazi ya kuajiriwa	1%
Familia na nguvukazi ya kuajiriwa	
Familia zote mbili na nguvukazi ya kuajiriwa	15%
Wafanyakazi wa familia (wastani)	1.6
Wafanyakazi wa kuajiriwa (wastani)	0.6
Jumla ya wafanyakazi (wastani)	2.2
Sifa za mjasiriamali	
Mwanamke	23%
(miaka 1-6)	11%
Elimu ya msingi (miaka 7-8)	69%
Elimu ya sekondari	17%
Elimu ya juu	3%
Uzoefu kazini (wastani katika miaka)	4.9

Chanzo: Utafiti wa Tathmini ya Hali ya Uwekezaji Vijijini Nchini Tanzania, 2005. a/2001 HBS

Usajili unahusishwa na tija kubwa ya nguvukazi. Shughuli rasmi zina viwango vikubwa vya tija ya nguvukazi kuliko zile zisizo rasmi. Shughuli rasmi ya wastani huzalisha kiasi cha dola za Kimarekani 149 kwa mhusika, ikilinganishwa na dola za Kimarekani 82 kwa shughuli isiyo rasmi. Masharti ya udhibiti wakati wa kusajili shughuli ni ghali sana; inakadiriwa kuwa ni 1/3 ya mauzo yote ya mwaka. Tofauti za tija kati ya shughuli rasmi na zisizo rasmi ni za wazi zaidi

katika miji ya vijijini. Hata hivyo, utafiti zaidi unahitajika kubaini faida zinazopatikana na urasimi wa shughuli

Hali ya shughuli za vjijini

Kiwango cha uanzishwaji wa shughulii mpya kinaonekana kuwa cha chini zaidi kuliko katika nchi nyingine za Kiafrika. Hii inaweza kuwa imesababishwa na hali ya vikwazo vya uwekezaji au utamaduni wa kutotilia maanani shughuli za vijijini. Kwa kuzingatia matokeo ya Tathmini ya Majaribio ya Hali ya Uwekezaji Vijijini katika nchi nyingine barani Afrika, wajasiriamali wa vijijini huamini kuwa tatizo la upatikanaji wa fedha na miundombinu mingine ya msingi ni miongoni mwa vikwazo vikuu vinavyoathiri uanzishaji na ukamilishaji wa shughuli husika. Shughuli nyingi mpya ni ndogondogo, na uingiaji katika sekta isiyo ya kilimo hutegemea kipato kitokanacho na kilimo. Kilimo kinapostawi na mahitaji ya bidhaa au huduma zisizo za kilimo yanapoongezeka, uanzishaji wa biashara huweza kuleta mafanikio. Lakini kilimo kinapodorora au ongezeko la idadi ya watu linapokuwa kubwa, shughuli mpya huweza kutafsiriwa kama njia ya kufyonza nguvukazi ya ziada katika shughuli zilizopuuzwa. Nchini Tanzania, msukumo wa mahitaji na nguvu ya usambazaji huonekana kuwa ni mambo muhimu yanayomsukuma mtu kuingia katika sekta isiyo ya kilimo vijijini.

Idadi ndogo ya biashara huchochea ongezeko la ajira. Kiasi cha 1/3 ya shughuli zilizoanzishwa vijijini (zinazoendeshwa kwa miaka mitano au zaidi) hustawi. Makadirio ya kiwango cha juu cha jumla cha ukuaji wa ajira cha asilimia 4.5 kwa mwaka cha shughuli hizi ni cha kufurahisha, ikitiliwa maanani kuwa shughuli nyingi katika maeneo ya vijijini hazikukua kabisa. Ukuaji wa ajira hutafsiriwa kikanda na mara nyingi hutokea katika sekta rasmi. Ukuaji wa ajira mkoani Tabora ulikuwa ni madhubuti zaidi kuliko katika mikoa mingine.

Kisanduku 1: Sifa za Shughuli Zisizo za Kilimo Vijijini

Sekta ya shughuli zisizo za kilimo vijijini nchini Tanzania hutofautiana. Hata hivyo, bila kujali kama mambo yatakuwa yamerahisishwa sana, inawezekana kuainisha baadhi ya shughuli hizo. Shughuli humilikiwa na kuendeshwa na wanaume wenye uzoefu wa miaka mitano na mara nyingi wenye elimu ya msingi. Mara chache wamiliki huajiri vibarua wa msimu, lakini kwa kawaida hutumia nguvukazi ya kaya.

Kiasi kikubwa cha shughuli ni za biashara ya jumla au rejereja isiyo rasmi au usindikaji wa bidhaa za kilimo. Mapato ni ya kujikimu ikiwa na kipato cha jumla cha dola za Kimarekani 113 kwa mwaka, au kiasi cha 1/3 ya pato la mwaka. Wajasriamali wengi hujazilia kipato chao kitokanacho na kilimo kwa kipato kitokanacho na shughuli zisizo za kilimo. Uendeshaji wa biashara hutegemea rasilimali zilizopo katika jamii husika.

Vikwazo vya mazingira ya uwekezaji

Kutokana na ukuaji wa haraka wa kilimo katika miaka ya hivi karibuni, kuna mahitaji makubwa ya shughuli za kiuchumi zisizo za kilimo vijijini. Hata hivyo, wajasiriamali sasa wanakabiliwa hasa na kikwazo cha usambazaji katika jitihada zao za kuitikia ongezeko hili la mahitaji. Kwa ujumla, ripoti inabaini kuwa tatizo la upatikanaji wa fedha na miundombinu ya barabara ni miongoni mwa vikwazo vikuu vya hali ya uwekezaji vijijini. Kwa ujumla, ukosefu wa fedha ulitajwa na wajasiriamali wa vijijini kuwa ndio kikwazo kikuu cha biashara. Haya si matokeo mapya ya tathmini ya mazingira ya uwekezaji vijijini au tafiti nyingine za uchumi wa vijijini barani Afrika. Tafsiri ni ngumu kwa kuwa hali hii huweza kuashiria tu shauku ya kupata

rasilimali fedha za ziada. Kiambatisho 4 kinabainisha matokeo katika muktadha wa kinachofahamika kuhusiana na fedha vijijini nchini Tanzania .

Katika ripoti hii, vikwazo vya biashara vinatathminiwa kwa njia tatu:

1. Wajasiriamali wanaulizwa moja kwa moja kuhusu wanachoamini kuwa ni vikwazo vikuu vya uendeshaji na ukuaji wa biashara (Mchoro 1 katika tafsiri ya kiingereza). Wajasiriamali vijijini kwa ujumla huona kuwa tatizo la fedha vijijini, rasilimali za kijamii, na miundombinu ya barabara ni vikwazo vikuu. Zaidi ya asilimia 60 ya wajasiriamali vijijini huamini kuwa ukosefu wa fedha huathiri ukuaji. Kimkoa, Tabora inafanya vizuri katika maeneo matatu ya hali ya uwekezaji—upatikanaji wa fedha, uchukuzi, na utawala. Vikwazo vya fedha vimechukuliwa kuwa ni vibaya zaidi katika kanda ya Ziwa, kanda ya Nyanda za Juu Kaskazini na kanda za Kusini. Tatizo la upatikanaji wa rasilimali za kijamii na miundombinu ya uchukuzi limeonekana kuwa kikwazo kikuu na kibaya katika kanda ya Magharibi. Upande wa vikwazo vya mahitaji na vya usimamizi wa biashara vinaonesha kutotofautiana sana na kutokuwa tatizo kubwa.

2. Vikwazo vilivyotajwa vya biashara vinabainishwa pia katika tathmini ya hali ya uwekezaji vijijini na mijini nchini Sri Lanka (Benki ya Dunia, 2004c) na utafiti makini kuhusu shughuli zisizo za kilimo vijijini barani Afrika (Liedholm and Mead, 1999). Ulinganisho huo unaonesha kuwa kiwango cha jumla cha mitazamo ya vikwazo ni cha juu kidogo nchini Tanzania. Ulinganisho wa mijini na sekta rasmi kwa kuzingatia tathmini ya hali ya uwekezaji kwa Tanzania (Benki ya Dunia, 2004b) unaonesha kiwango cha vikwazo vinavyotajwa kwa shughuli za mijini na za sekta rasmi ni cha juu kidogo nchini Tanzania. Mwelekeo kwa ujumla , hata hivyo, ni kuwa matatizo ya fedha na usafirishaji huathiri ukuaji wa biashara vijijini nchini Tanzania. Kinachofurahisha ni kwamba, shughuli za vijijini na mijini nchini Tanzania huchukulia tatizo la upatikanaji wa fedha na gharama za fedha kama tatizo lenye uzito sawa.

3. Kama sehemu ya uchambuzi ya ripoti hii, matokeo ya vikwazo vya ukuaji wa shughuli hupimwa kwa data halisi zilizotokana na jamii kwa kutumia mbinu za kiikonometriki. Kwa ujumla, vikwazo vilivyotajwa vya biashara huoana na vipimo hivi vyenye uhalisia mkubwa zaidi. Uchambuzi yakinifu unaashiria kuwa hali nzuri ya upatikanaji wa barabara na fedha vijijini ingeweza kuwa kichocheo madhubuti cha ukuaji wa ajira katika biashara. Kinachofurahisha, mawasiliano ya simu za mkononi vijijini yameshika nafasi ya tatu. Sababu za kimahitaji zinazohusiana na kilimo zimeshika nafasi ya nne. Kwa wajasiriamali wa vijijini wanaotumia umeme, wanaamini kuwa kuongezwa kwa uhakika wa umeme wa gridi kutachochea ukuaji. Maigizo yanaonesha kuwa hata uimarishaji wa kiasi kidogo wa hali ya uwekezaji vijijini unaweza kuongeza kwa kiasi kikubwa ukuaji wa ajira katika shughuli zisizo za kilimo vijijini.

Tafakari kuhusu sera na uchambuzi wa baadaye

Mkabala na mbinu zilizotumika katika tathmini hii unadai upimaji wa mapendekezo yafuatayo, yaliyotolewa ili kuchochea majadiliano na uchambuzi wa siku zijazo. Tathmini hii ya Hali ya Uwekezaji Vijijini ni ya kwanza ya aina yake nchini Tanzania, na ni tathmini chache tu ndizo zilizopo kutoka katika kanda zingine za Benki ya Dunia. Ni muhimu kutambua hali na uchangamani wa kikanda wa shughuli za vijijini . Masuala makuu ni:

1. Shughuli nyingi zisizo za kilimo vijijini nchini Tanzania ni hutegemea mafanikio ya kilimo. Hii humaanisha kuwa sera nzuri na uwekezaji katika kilimo ni mambo ya

muhimu. Sera na vitegauchumi vyenye kutimiza malengo ya Serikali ya ukuaji wa kilimo, kama ilivyoelezwa katika Mkakati wa Kukuza Sekta ya Kilimo, ni muhimu sana kwa sekta ya shughuli zisizo za kilimo vijijini. Kutekeleza mkakati huu kupitia Mpango uliobuniwa hivi karibuni wa Kukuza Sekta ya Kilimo kunabaki kuwa ni kipaumbele cha kwanza.

2. Karibu asilimia 60 ya shughuli zisizo za kilimo vijijini ni biashara. Kudumisha sera za ndani zinazofaa kunaweza hatimaye kuwa muhimu sana katika kuamua utekelezaji wa biashara. Mapato ya shughuli hizi kwa kiasi kikubwa hutokana na mauzo ya kawaida. Kwa hiyo, sera za biashara ya ndani zilizowekwa na mamlaka za serikali za mitaa na wizara zinaweza kuhitaji kutazamwa upya. Kuendelea kutekeleza mabadiliko ya sasa ni swala linalopaswa kupewa kipaumbele.

3. Tatizo la miundombinu ya barabara ni miongoni mwa vikwazo vikuu vinavyoathiri uendeshaji wa biashara vijijini. Kuondoa matatizo ya miundombinu vijijini ni muhimu sana. Maeneo ya kipaumbele ni matengenezo na ukarabati wa mtandao wa barabara uliopo. Tofauti za kikanda zizingatiwe katika uelekezaji wa rasilimali kwa ajili ya miundombinu ya vijijini, hususani kama lengo kuu ni ukuaji wa ajira vijijini. Jambo hili lizingatiwe katika vipaumbele vya matumizi ya kitaifa na yale ya ulekezaji wa fedha katika serikali za mitaa. Vipaumbele vinaweza kuzingatia matarajio ya viwango vya faida kwa miundombinu na matokeo yake kwa kilimo na uchumi usio wa kilimo. Ushirikishaji wa sekta binafsi unaweza kuhitaji uimarishaji wa asasi za udhibiti na kuhakikisha uhuru wao.

4. Tatizo la upatikanaji wa fedha vijijini linaonekana kuwa ni miongoni mwa vikwazo vya usambazaji—lakini ufafanuzi wake ni mgumu na unahitaji uchambuzi zaidi. Mikopo midogo midogo inaweza kuwa nyenzo ya kukuza shughuli zisizo za kilimo vijijini. Hata hivyo, uingiliaji kati lazima uzingatie kwa makini uendeshaji wa uchumi wa kilimo. Katika masoko ya vijijini, ambako ukuaji wa kipato kitokanacho na kilimo huongeza mahitaji ya bidhaa na huduma zisizo za kilimo, utoaji wa mikopo unaweza kuwa na jukumu muhimu katika kuwawezesha wajasiriamali wasio wakulima kushiriki katika shughuli za soko linalokua. Vipaumbele vinaweza kuwa uendelezaji wa mifuko ya akiba vijijini, uanzishaji wa uhusiano mkubwa kati ya benki za biashara na vyama vya kuweka na kukopa pamoja na asasi za kati za fedha, na mipango ya dhamana ya mikopo ili kuepuka hatari.

5. Mawasiliano ya simu za mkononi yanapunguza gharama. Kutafuta njia mbadala ya mawasiliano bora ya simu kupitia mitandao ya simu ya sekta binafsi kunaweza kuwa ni juhudi nzuri kisera. Hii hujumuisha Mswada Mpya wa Mawasiliano, utekelezaji wa mfumo mpya wa leseni, na upitiaji upya wa sera na kanuni ili kuchochea ushindani na kupunguza gharama za mawasiliano na uendeshaji. Hali kadhalika, ujenzi wa uwezo na kuendelea kutumia uzoefu wa kiulimwengu katika kuendeleza ufanisi wa sekta ya simu ni swala muhimu.

6. Sehemu kubwa ya shughuli zisizo rasmi zisizo za kilimo vijijini zinaweza kuelezwa kwa kutumia ukweli kuwa kuingia katika sekta rasmi ni ghali. Kupunguza gharama za moja kwa moja za kufanya biashara kunaweza kuwa muhimu. Pamoja na marekebisho ya hivi karibuni, gharama na kodi za kuuza na kununua kwa shughuli rasmi zisizo za kilimo bado ni za juu sana. Kuendeleza marekebisho ya usajili wa biashara na utekelezaji madhubuti wa katika kiwango cha jamii ni swala la kupewa kipaumbele.

Uchambuzi wa siku za usoni wa shughuli zisizo za kilimo vijijini ulenge mambo matatu: (a) Tathmini ya majukumu ya shughuli kubwa na uhusiano wake wa kiuchumi, hususani katika miji midogo vijijini, (b) Kubainisha vikwazo vya kuingia au kusogea kwa shughuli zenye faida kubwa ndani ya sehemu muhimu za uchumi usio wa kilimo, na (c) Kwa ajili ya uchambuzi wa uingiliaji kati wenye faida, uchambuzi wa masuala ya sekta mahususi, na kuweka mikufu miongoni mwao, inayotoa fursa za ukuaji.

1. INTRODUCTION

This report is organized into five chapters. The first chapter lays the analytical groundwork for assessing the rural investment climate in Tanzania and establishes a broader context for the empirical findings. The second chapter describes the profile of Tanzania rural non-farm enterprises.[1] The third chapter analyzes enterprise dynamics: start-up, closures and growth. The fourth chapter is dedicated to the rural investment climate that determines a large part of this dynamics. The fifth chapter provides reflections for policy and future analysis.

The following chapter argues that the rural investment climate measures the economic environment of the poor. By assessing supply- and demand-side constraints of the local economy, one can identify critical areas of reform and prioritize public investments. Changes in measures of poverty in Tanzania are largely determined by the performance of the rural economy. Private entrepreneurs in these areas are of particular importance because they create beneficial links between the non-farm economy and agriculture. In this context, rural non-farm enterprises contribute to alleviating rural poverty, and are of growing significance.

WHAT IS THE RURAL INVESTMENT CLIMATE?

Assessing the economic environment of the poor

Investment climate refers to the opportunities and incentives for firms to invest productively, create jobs, and expand (World Bank, 2004a). Among others, the investment climate includes factors that are incentives or disincentives for starting and running a business, including financial services, infrastructure, governance, regulations, taxes, labor, and conflict resolution. The investment climate is recognized as important to improve output, employment, and enterprise productivity (Dollar et al., 2005), all of which hold the potential to stimulate employment growth and reduce poverty. Micro-entrepreneurs in rural areas create jobs needed to increase income. They provide goods and services and often pay taxes needed to fund public investments, but the size of their contribution largely depends on the environment in which private business can operate. Both risks and barriers can undermine rural entrepreneurship, hence, it is important to understand the conditions necessary to develop rural non-farm enterprises.

The Tanzanian Rural Investment Climate Assessment (RICA) is among the first to take a comprehensive look at the business environment in rural areas.[2] The majority of Investment Climate Assessments (ICA) has not considered the heterogeneity of the investment climate across rural areas and industries. The standard approach is heavily biased toward registered (bigger) enterprises in the manufacturing sector, which are typically located in *urban* areas. Rural areas have lower population densities, making infrastructure and many services costly to maintain. Transaction costs are high, there are relatively more market failures, and the rural economy has distinct seasonality and employment patterns. Most important is that the rural population typically

[1] Non-farm enterprises include all rural businesses engaged in non-primary productive activities. This includes the transformation, transport, and marketing of primary products, but excludes agriculture, forestry, hunting, and fishing. Households primarily engaged in the production of goods and services for home consumption are excluded.

[2] Tanzania is the first pilot assessment for the African continent. Part of a larger World Bank initiative, these piloting RICAs cover Sri Lanka, Nicaragua, Tanzania, Indonesia, Benin, and Ethiopia. Two related studies are also carried out in Bangladesh and Pakistan.

works on farms or in micro-enterprises. In Tanzania, where about 75 percent of the population resides in rural areas, it is thus essential to conduct comparable analyses in rural areas.[3]

Box 2: Design of the Tanzania Rural Investment Climate Survey

The empirical basis of this report is a pilot Rural Investment Climate Survey (RICS). Tanzania's National Bureau of Statistics (NBS) conducted the survey during the months of January and March 2005. Data was collected using face-to-face interviews with members of selected rural households, community leaders and owners or managers of non-farm enterprises. Three separate, but interrelated survey questionnaires for households, enterprises and communities were used to collect data (for more details on the methodology, see Appendix 3).

The survey covers a total of 150 communities, 1,239 enterprises and 1,610 households in selected rural areas and small market towns. Agricultural households that operate a non farm enterprise make about 40 percent of the sample, households that do not operate an enterprise make up another 40 percent, and enterprises that are not household-based another 20 percent. The survey was focusing on non-farm enterprises and did not cover commercial farms.

A stratified multi–stage cluster sampling was used for each survey module. To ensure representation of all geographical and climatic zones, mainland Tanzania was initially stratified into seven zones based on agro-ecological characteristics. One region from each geographical zone was selected into the sample. Thus, Morogoro, Kilimanjaro, Tabora, Kagera, Kigoma, Mtwara and Mbeya were selected respectively from the East, Northern Highland, Central, Lake Victoria, West, Southern and Southern Highland zones.

Overall, the Tanzania RICS has collected extremely detailed rural data — covering both the farm and non-farm economy. It achieved high response rates for all of the three survey modules. The data also compares favorable with the 2000/2001 Household Budget Survey. Unfortunately, the weights that were originally prepared could not be used (see Appendix 3). In addition, a wealth of the survey data could not be fully explored. Merging the three survey modules required careful but time-consuming revisions. Given the uniqueness of the Tanzanian RICS, these issues may be taken up in further analysis

Understanding constraints of rural enterprises

Both supply and demand constraints affect rural non-farm enterprises. In Tanzania, demand constraints for rural enterprises are mainly related to agriculture. Profits from agricultural production, income earned from non-farm enterprises, and demand generated outside the rural economy can all contribute to effective demand for the goods and services produced by rural entrepreneurs. Which of these sources of demand is the most important depends on the local environment and the degree of development in which the enterprise operates.

A virtuous cycle of development can arise through the interaction of farm and non-farm activities. Agricultural and non-farm activities are linked in several ways — through consumption (demand for final products), production (backward and forward supply of inputs among businesses), finances (remittance and savings channeled through urban institutions), and labor market links. In Tanzania, agriculture has major growth links to the non-farm sector, but almost entirely through consumption. Estimated expenditure multipliers range from two to three — Tsh. 1,000 (US$ 0.77) of new household income from crop sales in a remote area can lead to a further Tsh. 2,000 in additional local employment in the production of goods and services. This is a demonstration

[3] An urban ICA for Tanzania has been conducted by the World Bank in 2004. A basic comparison between the urban and rural ICA findings is developed in Chapter 4.

of the importance of agricultural growth, which provides the necessary stimulus to create other economic activities (World Bank, 2000).[4]

On the supply side, a wide variety of factors determines the ability of rural enterprises to produce goods and services. Supply constraints also affect the cost of goods and services that may include the state of local infrastructure, ability to access finance and the cost of doing so, cost and quality of labor, quality of the local regulatory environment, and extent of competition, knowledge of market opportunities, and stability and security in the area. If enterprises use old and highly labor-intensive technologies to deliver goods and services, unit costs can be high and productivity low. Under such circumstances, it is only profitable for enterprises to serve a local clientele because of high transaction costs.

What is the role of the investment climate in this context? First, private entrepreneurs are needed in the creation of the beneficial links between the non-farm economy and local farmers, for example, through agricultural trade. However, unjustified risks, transaction costs, or other barriers to business operations can undermine rural entrepreneurship. Second, the investment climate not only affects rural non-farm entrepreneurs but also farm activities. For example, poor access to rural finance and infrastructure hits both farm and non-farm activities. This RICA may therefore be useful in a broader context. Assessing the economic opportunities and constraints of rural firms sheds light on the general factors pertinent to poverty and rural development. By quantifying the associated costs of a weak business environment, this assessment can help to prioritize rural investments.

SNAPSHOT OF TANZANIA'S RURAL ECONOMY

Overall economic performance improved

Tanzania is among the world's poorest countries, with a per capita income of about US$ 330 when measured at the official exchange rate in 2004. During most of its post-independence history, Tanzania pursued socialist policies that led to extended periods when economic performance was below the country's potential. In the mid-1980s, Tanzania embarked on economic reforms that were not sustained, and after an initial period of economic growth in the late 1980s, the early 1990s were again characterized by macroeconomic disequilibria and poor economic growth. In the mid-1990s, Tanzania resumed its reform course with a commitment to macroeconomic stability. Macroeconomic stabilization was accompanied by wide-ranging structural reforms, including privatization of state owned enterprises, liberalization of the agriculture sector, efforts to improve the business environment, and strengthening the management of public expenditures.

Economic performance in Tanzania has improved consistently over the past decade. Inflation fell from 27 percent in 1995 to 4 percent in 2004. The exchange rate is more stable, with positive effects on agricultural trade, in particular export crops. Annual average GDP growth increased from about 3.5 percent in the mid-1990s to about 6.3 percent in 2004. A key feature of the Tanzanian economy is the continued large share of informal sector activities: estimates suggest that informal activities, including agriculture, may count for up for 60 percent of Tanzania's GDP (World Bank, 2006c).

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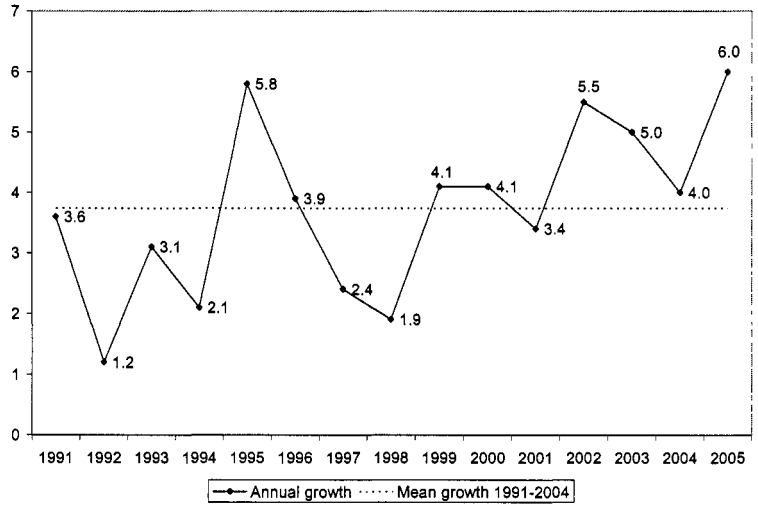
[4] Also from the development literature, there is overwhelming evidence for the potential of agriculture to cause non-farm economic growth. For a recent overview and analysis, see Tiffin and Irz (2006).

Increased growth occurred in all sectors, with industry — in particular manufacturing — as the fastest growing sub-sector. Increased aid financed an expansion of government investments and created favorable demand conditions that supported accelerated growth. In the manufacturing sector, productivity was a result of accelerated entry and exit of firms. An important result of prudent monetary and fiscal policy, combined with ongoing financial sector reforms, is the recovery of credit to the private sector that grew by more than 30 percent annually in recent years (World Bank, 2006c).

Recent increase in agricultural growth

Agriculture plays a dominant role in Tanzania's economy, accounting for nearly 46 percent of GDP and employing around 75 percent of the labor force in 2004. Agriculture provides three-quarters of merchandise exports. In total, about 5 million hectares are cultivated annually, of which 85 percent grow food crops. For the past 10 years, the sector has grown more rapidly than in most other African countries. Agricultural growth has been increasing steadily and at a rate higher than population growth since 1999 (Figure 2). Given the magnitude of agriculture, improvements in overall economic growth rely heavily on the performance of the sector.

Figure 2: Growth of Agricultural GDP, 1991-2004 (in percent)



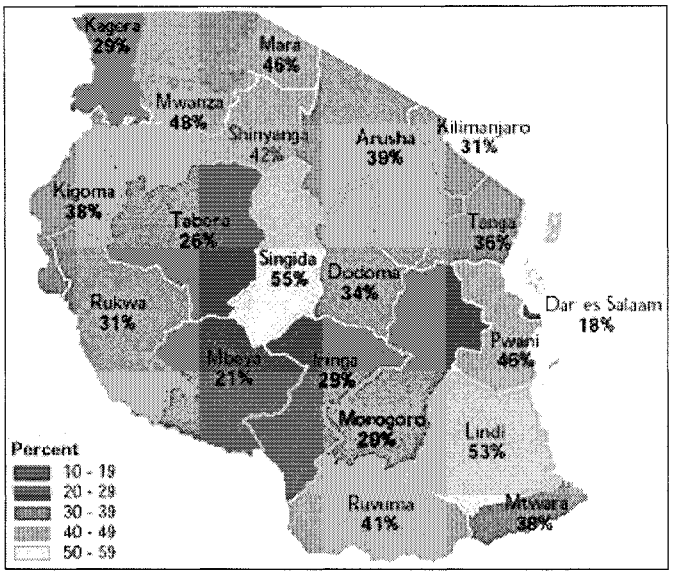
Source: Tanzania National Bureau of Statistics

Recent increases in agricultural growth stem from overall economic and sector reforms that began in the mid-1990s. Farmers have responded to improved incentives and adapted to the challenging external price environment for traditional exports by increasing the production of exportable food crops. Starting from a low base, productivity levels have also improved for several crops. However, agriculture is largely rainfed, and the major constraint for the agricultural and rural sector remains low labor and land productivity. In the absence of major technological breakthroughs or diversification into higher value crops, agricultural growth is mainly driven by cultivation of new land and growth of the labor force (World Bank, 2006c).

Significance of rural economic growth

As most people live in rural areas, changes in the head count of national poverty are almost exclusively determined by the performance of the rural economy. Simulations suggest that rural economic growth has a strong effect on overall poverty (Demombynes and Hoogeveen, 2004).

Map 1: Percentage of Population Below the Poverty Line, 2001



Source: Tanzania Bureau of Statistics (2002)

Rural growth patterns observed during the 1990s may have led to an initial increase in total poverty, followed eventually by a decline. According to these simulations, during the first half of the 1990s per capita incomes actually declined, but in the mid-1990s, economic growth started to accelerate again. The genuine change in poverty will only be known with the next representative household survey.[5] Due to the increase in agricultural and rural growth, however, projections suggest rural poverty may have declined from about 39 percent in 2001 to 34 percent in 2004. However, according to official figures, rural poverty remained virtually unchanged from 1991 to 2001. A comparison of poverty indicators calculated from the National Household Budget Surveys (HBS) shows that total poverty declined only marginally from 39 to 35 percent from 1991 to 2001. In rural areas, poverty remained almost unchanged (moving from 41 to 39 percent). The poverty rate in rural Tanzania is substantially higher than in urban areas, where the incidence of poverty declined. Only Dar es Salaam experienced a statistically significant change in poverty levels. Regionally, poverty rates are high in most regions of the country, but are highest in the South, Singida, and along Lake Victoria (Map 1).

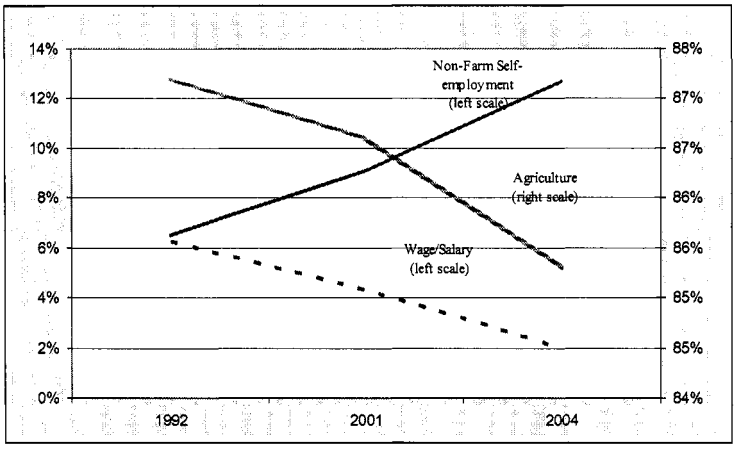
Rural non-farm enterprises matter

Non-farm enterprises are essential for a significant proportion of Tanzania's rural population, and the sub-sector is of growing importance. According to community data from the Tanzania Rural Investment Climate Survey (RICS), some 28 percent of the households report that at least one

[5] An update may build on the Tanzania RICS because the household module has detailed income and asset data.

member is working in a non-farm business. This is still a relatively low number. For Sub-Saharan Africa, frequently cited figures claim that on average up to 40-45 percent of households participate in rural non-farm wage and self-employment activities (Barret et al., 2001).

Figure 3: Evolution of Main Sources of Household Cash Income, 1992-2004 (in percent)



Source: 2005 Tanzania RICS

Box 3: On Structural Transformation of the Rural Economy in Asia

The rural non-farm economy is a result of economic transformation. The process often begins with a countryside dominated largely by self-sufficient and primarily agricultural households. These produce largely for themselves most of whatever farm and non-farm goods and services they need. There is little trade or commerce and the prevailing agricultural technologies require few if any external inputs.

Some non-farm activities can prosper in rural areas dominated by agriculture, particularly in the larger villages and rural market centers where they can better capture local demand (for example, retail establishments, shops, and agricultural services). Rural towns grow in importance and as the rural economy continues to grow, trade with larger urban centers also expand and more urban goods become available. These often displace many traditional rural products, forcing structural changes in the composition of the rural economy and its towns. G

Gradually, as population densities and market access increase, new technologies and modern farm inputs become available, leading to increased agricultural surpluses in some commodities and increased opportunities for trade. Increasing agricultural productivity also raises income, which in turn increases the number and amount of consumer goods and services that rural households wish to purchase. Household begins to specialize, taking greater advantage of their particular skills, resource endowments, and market opportunities. Some non-farm activities that were initially undertaken by farm households for their own consumption expand and are spun off as separate full- or part-time businesses. There is greater trade among rural households and in small market centers and rural towns. The latter is beginning to grow more rapidly.

Source: Adapted from Rosegrant and Hazell (2000)

Over the past decade, however, the share of rural non-farm self-employment income has almost doubled in Tanzania (Figure 3). The average share of household self-employment income in the non-farm sector rose from about 6 percent in 1992 to more than 12 percent in 2004. While the

sale of food and cash crops is the main source of household income, the share of agricultural income has declined over the past decade.

A significant body of empirical evidence shows that rural non-farm enterprises positively affect household welfare in Tanzania.[6] The Tanzania RICS also confirms a positive impact of non-farm activities on household income. Table 2 illustrates the incidence of enterprise ownership and its relation to household income. Self-employed households that run a non-farm enterprise have an income nearly 24 percent higher than that of those without (Sundaram-Stukel, Deininger and Jin 2007). Moreover, the average earnings from enterprises account for about one-third of the total income generated in households currently operating enterprises. The differences in per capita income are statistically significant and suggest that non-farm activities are important for the generation of additional income.

Table 2: House Income Characteristics With and Without Non-farm Enterprise, 2005

	Total	Non-enterprise households	Enterprise households	Statistically significant difference (5% level)
Income and its composition				
Per capita income (TTshs)	288.7	256.8	317.9	YES
Share from crop production	40.7%	54.4%	30.2%	YES
Share from livestock	15.5%	18.5%	11.1%	YES
Share from non-farm self-employment	21.1%	4.6%	35.9%	YES
Share from wage	12.3%	9.7%	14.6%	YES
Share from transfer	10.4%	12.7%	8.3%	NO

Source: 2005 Tanzania RICS

Self-employment in the rural non-farm sector does not reduce household engagement in agriculture. When comparing household income with and without enterprises, the average earning level from agriculture in both groups is almost equal, with no statistically significant difference in the level of agricultural income between the two groups. In addition, a comparison of the average area farmed, about 4.6 acres per household, reveals that both groups farm approximately the same area. One explanation for Tanzanian household-based enterprises engaging in agriculture is the need to diversify risks across agricultural and entrepreneurial activities (Angermann, 2001). In rural Tanzania, farm and non-farm enterprises are therefore complementary.

[6] A decomposition of changes in rural consumption suggests that shifts from agriculture to non-agricultural activities have been an important contributor to poverty reduction (World Bank, 2006c). Also Lanjouw et al. (2001) and Ellis (2003) find that non-farm activities offer an important route out of poverty in rural Tanzania.

2. PROFILE OF RURAL NON-FARM ENTERPRISES

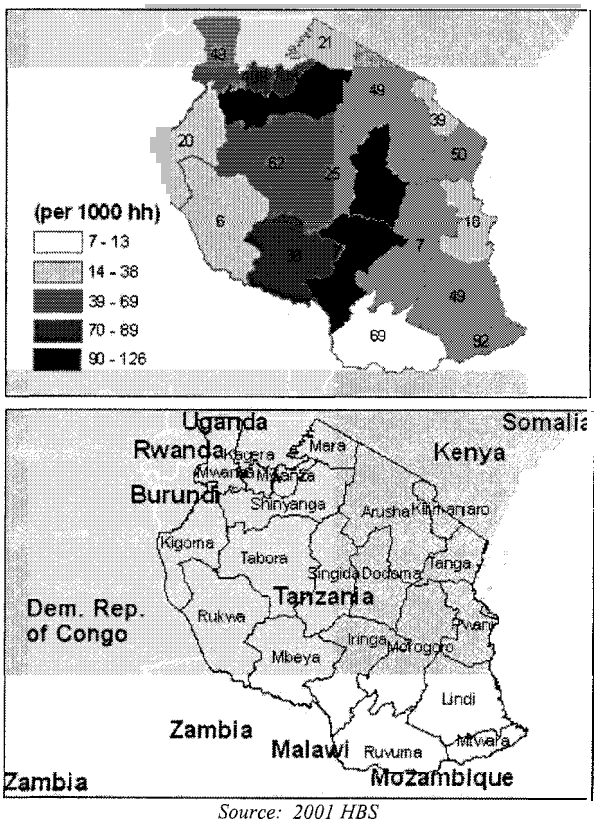
This chapter profiles Tanzania's rural non-farm enterprises sector. The highest enterprise densities are in the Lake Region and Central Tanzania. About one-half of the enterprise population is located in rural market towns. Formal primary schooling is an important qualification for entry. Enterprises are typically very small and operate in local markets with limited competition. About 57 percent of rural businesses are engaged in wholesale or retail trading, predominantly in the informal sector. Local regulatory barriers to entry into the formal sector appear to be insurmountable for most enterprises. Yet, registration has a significant impact on the scale and success of rural business operations. A labor productivity analysis reveals that self-employment is largely the most profitable form of rural non-farm activity. Labor productivity is highest in Tabora, which is associated with an apparently more favorable rural investment climate than in the rest of the country.

BASIC CHARACTERISTICS

Magnitude and location

Tanzania's rural non-farm sector includes about 1.2 million rural enterprises. Regionally, there are large differences. Enterprise densities (the number of non-farm enterprises per 1,000 households) ranges from only 13 in Ruvuma to up to 126 in Shinyanga. The highest enterprise density is around the Lake region and in Central Tanzania (Map 2).

Map 2: Density of Rural Non-farm Enterprises, 2001



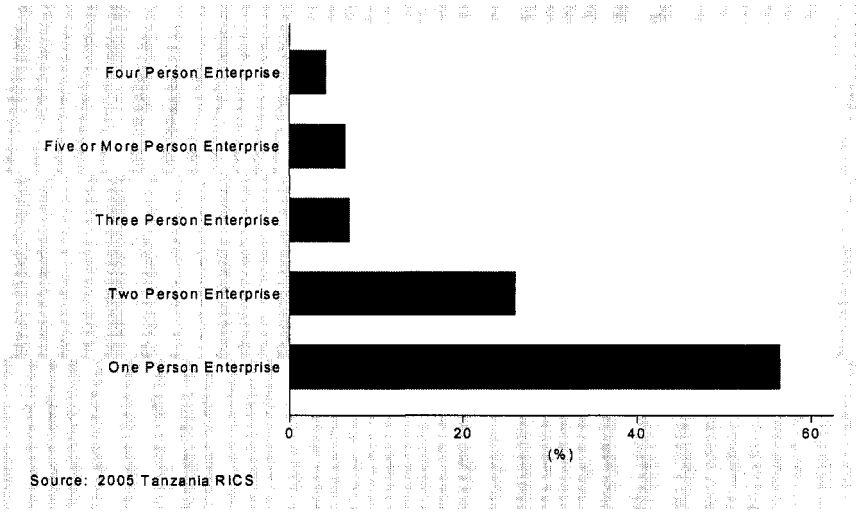
Source: 2001 HBS

This pattern tends to mirror the concentration of roads or railways and associated economic activities. However, the concentration is not related to one single factor. For example, high densities can be found in regions with high agricultural productivity, but also in regions that tend to perform poorly. About one-half of the enterprises are located in rural areas, while the other half is located in small rural market towns.[7] Enterprises in rural towns tend to be bigger. Rural non-farm enterprises are almost entirely sole proprietorships. About 77 percent are owned by men in contrast to other Sub-Saharan countries where a larger share are owned and operated by women. Small-scale activities may explain the low share (Box 4).

But other aspects of the Tanzanian sector are very similar to other countries in Sub-Saharan Africa (Liedholm and Mead, 1999). In particular, the capitalization of rural businesses is low. The median total value for fixed assets claimed by Tanzanian rural entrepreneurs is only US$ 120 per enterprise.[8] About one-half of the enterprises own buildings and land, but only 20 percent own storage facilities and less than 6 percent own machinery or other equipment. The main means of transport are bicycles or pack animals. Less than 1 percent of the firms own motorvehicles.

Enterprises are young and small

Figure 4: Number of Workers per Enterprise, 2005



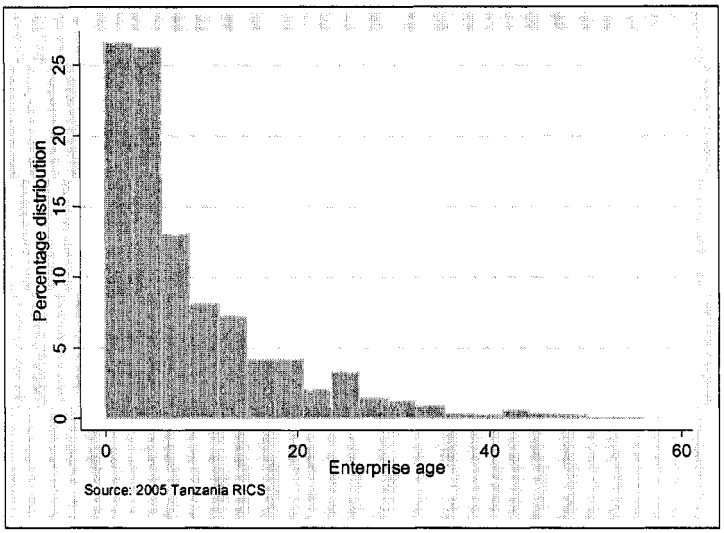
Non-farm enterprises in rural Tanzanian are very small. The majority are operated by one person during most parts of the year. Self-employment is thus a crucial element in rural Tanzania. However, during the peak season, enterprises often employ part-time or casual labor. Figure 4 shows the estimated number of workers per enterprise, including permanent, part-time, and casual laborer. Some 58 percent of the enterprises are managed by the owner (self-employment). About 26 percent of the enterprises employ up to two workers (including the owner) but mostly through household family labor. Very few enterprises are larger than this size.

Most enterprises are young and new firms emerge rapidly. The median firm age is 5 years (Figure 5). There is little regional variation in enterprise size and age. The only exceptions are

[7] As defined by NBS geographical classification. Rural towns have higher population densities than rural areas and usually have their own markets or social service providers, such as schools and health centers.
[8] Whenever the distribution of a variable is skewed, the median instead of the arithmetic mean is used throughout the report.

Kilimanjaro, where businesses tend to be bigger, and Tabora, where enterprises are more experienced.

Figure 5: Distribution of Enterprises by Age, 2005



Box 4: Women's Microenterprises in Rural Tanzania

To supplement their husband' income or their own, a large share of women engages in some cash earning activity. These activities are significant, but at the same time too small to be fully captured through the Tanzania RICS.

A small survey among village women in the Morongo and Ruvuma region in the 1990s finds that more than 90 percent have at least one income generating activity, and almost two thirds have two. Almost half of the women think that their main business is a reliable source of income. Interestingly, the most common problem is not lack of capital; but rather a lack of raw materials (the economy was not yet liberalized), inadequate technology, and low market demand.

Brewing and beer selling top the list of women's business ventures: this popularity is due to substantial income and because it does not require regular labor. This is followed by cooking and selling food, and by selling agricultural or fishing surplus products. A variety of other occupations is also common, for example hair plaiting and hairdressing. Although profits can be high, demand tends to be low, and selling these services is done on a sporadic basis.

Source: Adapted from Tovo (1991)

Formal education is important for entry

Formal schooling appears to be an important prerequisite for entrepreneurial activities. Some 75 percent of rural entrepreneurs have primary education. About 11 percent have completed primary schooling. Secondary education is less common in rural areas, but it becomes more important when the enterprise is located in a rural market town. Also an empirical analysis, undertaken for this study, revealed that the probability to start-up a non-farm enterprises raises by 2.3 percent for each additional year of schooling of the household head (Sundaram-Stukel, Deininger and Jin 2007). The educational profile of hired workers is rather similar to the entrepreneurs — almost all

employees working in the rural non-farm sector have some sort of primary education. Men and women entrepreneurs do not have significantly different education levels or work experience.

Entrepreneurs have as little as 5 years average working experience in their sector. More than three-quarters of the entrepreneurs have learned their management skills from relatives, friends, or through self-learning. Only a minority received formal vocational training or relevant working experience. Training through NGOs or local associations is not common generally. Moreover, formal schooling seems to be more rewarding than vocational training. The marginal rate of return of 1 year of formal education ranges between 4.8 and 17.5 percent. This is in comparison to a marginal rate of return to 1 year of vocational training that ranges between 1.4 and 2.8 percent. Vocational training, therefore, does not appear to be a substitute to formal education for entrepreneurs in rural Tanzania (Kahyarara and Teal, 2006).

ECONOMIC ACTIVITIES

Rural trade dominates

The overall landscape of non-farm enterprises in Tanzania is quite diverse. However, the predominant entrepreneurial activity of rural non-farm enterprises across all regions is trading. Figure 6 shows that 57 percent of rural enterprises are engaged in wholesale or retail trading. Rural services also play an important role with a participation of 21 percent. The production sector accounts for 19 percent of all enterprise activity. Activities without a clear sectoral association are not very common.[9]

Of the trading enterprises, 42 percent of rural enterprises buy and sell unprocessed agricultural commodities, while about 31 percent trade processed agricultural products. Despite the dominance of agriculture in rural Tanzania, only 2 percent of the trading enterprises are engaged in agricultural input trading. The service sector is dominated by a variety of personal and business services, followed by hotels, restaurants, and the transport sector. About 0.5 percent of the enterprises are engaged in rural financial services.[10]

Seasonality constrains growth

Seasonality is a hallmark of the Tanzanian rural non-farm sector, a variation largely due to labor supply, demand for rural products, and availability of raw materials. More than 75 percent of Tanzanian enterprises are heavily affected by seasonality. Sales in all sectors usually peak before planting and after harvesting seasons. Not surprisingly, the seasonal variation in sales is particularly pronounced in the trade sector. Figure 7 illustrates the seasonal patterns from January to December. For each month, entrepreneurs were asked to rate the level of activity from very low to very high. The busy season arrives earlier for production and trade enterprises, with a pronounced lull early in the year among service enterprises. Enterprises that indicated activities in more than one sector experienced fewer fluctuations.

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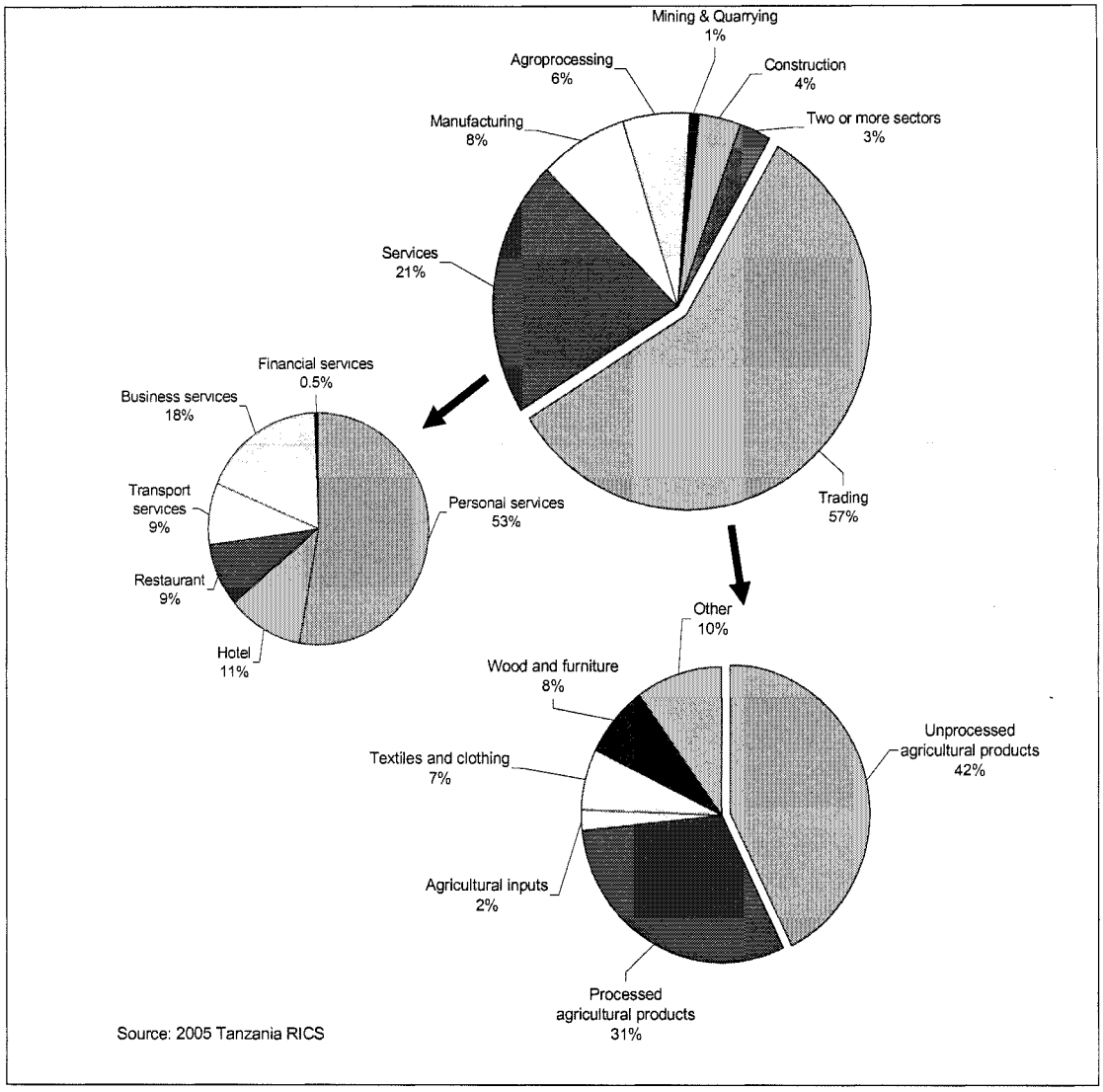
[9] The sectors are defined by the *largest* proportion of annual sales produced by the establishment in a specific sector. Enterprises are classified here as multisectorial if they attribute *equal* shares of sales revenues of a sector (for example, 50 percent in agroprocessing and 50 percent in trade). This definition underreports the multisectorial character of rural activities.

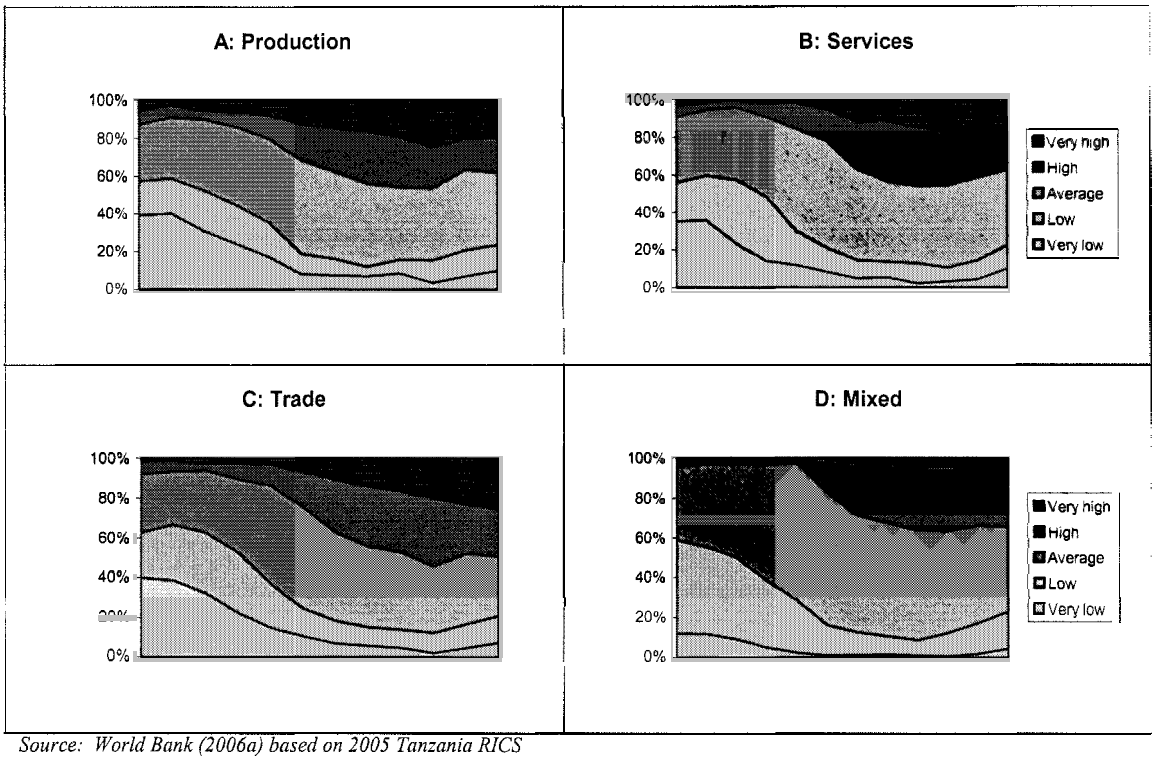
[10] The detailed sectoral disaggregation for trade and services is derived from a decomposition of sales revenues.

Figure 6: Sectoral Distribution of Enterprises, 2005



Seasonality negatively affects enterprise performance in rural Tanzania in the following ways. First, with worker participation in both agriculture and the non-farm economy, many firms experience an ebb and flow of workers that hampers continuity and ability to upgrading skills. Second, seasonal demand fluctuations can also drive entrepreneurs into informality with a variety of implications. Third, seasonal rains deteriorate rural roads and increase transaction costs or make mud roads impassable.

Seasonality often implies an additional need for short-term capital that cannot be met. For example, manufacturing or construction enterprises cannot buy necessary inputs, even when raw materials are available during peak periods. In construction, which is concentrated during certain periods of the year, raw materials such as cement can not be purchased any time so producers often try to build their inventories of finished products in anticipation of seasonal demand peaks, but are constrained by their limited supply of working capital (Angermann, 2001).



Source: World Bank (2006a) based on 2005 Tanzania RICS

Local markets with thin competition

Non-farm enterprises in rural Tanzania buy and sell locally with little access outside markets. Marketing is often perceived as a key factor for enterprise success, thus one important goal is to build a distribution network that increases sales and operates at a low cost. Such distribution networks include intermediaries such as brokers, wholesalers, or retailers, or simply selling direct to the customer. The latter predominates in Tanzania. Only manufacturing enterprises have a more diversified client structure (Table 3). Moreover, most rural enterprises activities are locally defined. Revenue is generated almost entirely within the enterprise's own ward or district.

The degree of competition in the rural enterprise sector depends mainly on market attractiveness and industry structure. The relationship between competitors can be a continuum, ranging from conflict to collusion, passing through competition, coexistence, and cooperation along the way. Data from the rural enterprise survey about these relationships is somewhat scarce.

From the available information, however, it may be inferred that market competition in rural Tanzania is low. On average, a rural enterprise has only five competitors.[11] Similarly, the average market share is 20 percent (Table 3). One interesting finding is that informal enterprises in rural market towns face a higher degree of competition, which could indicate additional barriers to enter the formal sector. Further analysis may clarify whether substantial entry or mobility barriers

[11] Also Angermann (2001) suggests in her empirical and qualitative assessment that rural manufacturing enterprises have a low degree of market competition in rural Tanzania. Future analysis could deepen this assessment by verifying regional price differentials. If markets were integrated and there is competition, there should be little price fluctuation.

to "high return niches" within the non-farm economy limit the access to a sub-population of relatively well-endowed households.

Table 3: Market Links, 2005

Indicator (in percent)	Trade	Services	Production
Buyers' structure			
Government	9	9	14
Traders	n/a	n/a	20
Agricultural producers & cooperatives	12	15	15
Consumers	73	66	41
Other	6	10	10
Location of sales revenue			
Within ward	71	78	75
Within district	18	16	17
Within region	8	4	4
Within country	3	1	4
Average market share for main product/service	26	20	17

Source: 2005 Tanzania RICS

Table 4: Average Market Shares for Main Product or Service, 2005

	Total	Formal	Informal
Total	20	21	19
Rural area	22	26	22
Rural town	16	18	16

Source: 2005 Tanzania RICS

LABOR PRODUCTIVITY

Low productivity of informal enterprises

One of the most interesting finding is the difference between the relative productivity of enterprises based on registration, size, sector, and region. Survey data show that about 20 percent of the sampled enterprises claim to be unprofitable because total annual costs exceed sales revenues.[12] Standard measures such as total value added per worker are therefore unreliable. Total annual sales per average working day are used as an approximate indicator for labor productivity, a measure that also considers seasonal employment patterns and can serve as an approximate welfare indicator.

[12] An economic interpretation of this number is difficult given the fact that most entrepreneurs simply estimate their operating costs, which is more difficult that estimating sales revenues.

Tanzania's rural economy is dominated by informal sector activities.[13] Only 19 percent of the enterprises are formally registered. Enterprises in rural areas are more likely to be informal than their counterparts in rural towns. About 27 percent of rural enterprises in towns are registered compared to 14 percent in rural areas. There is little variation by enterprise size, economic sector, or region. Asked about reasons for not registering a business, 54 percent of rural enterprises claim that there is no need to register. However, about 30 percent of businesses perceive registration and license fees as too high. Also, empirical analysis undertaken for this study reveals that enterprise size, registration costs, and education are correlated with the decision to enter into formal sector (Appendix 2).

Figure 8: Median Sales per Day of Labor by Location and Registration, 2004

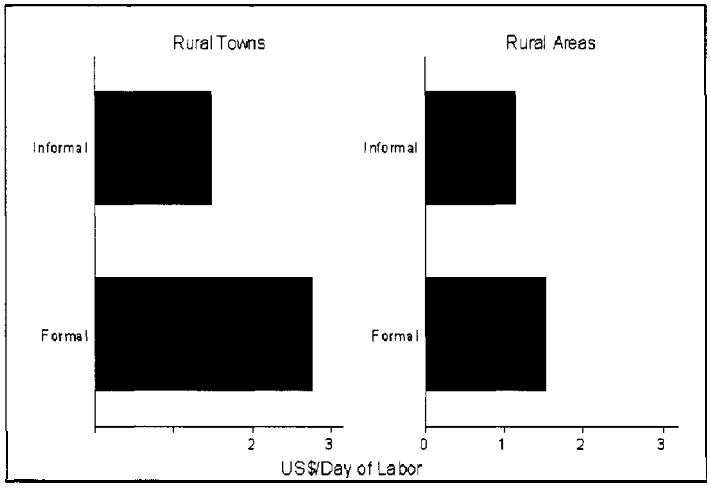
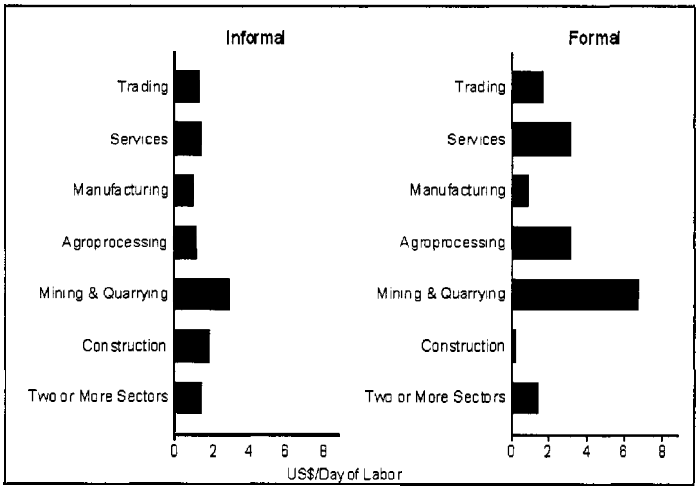


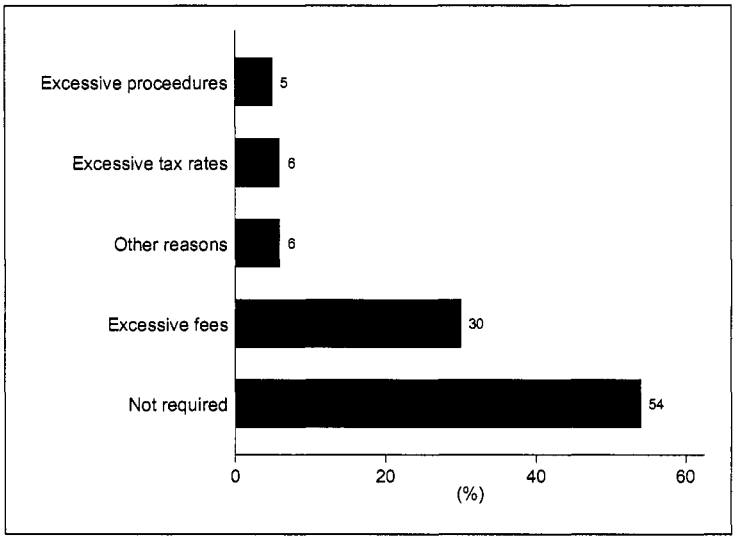
Figure 9: Median Sales per Day of Labor by Sector and Registration, 2004



[13] Formality of rural non-farm enterprises is defined as not being registered with any government agency *and* not complying with any legal obligation concerning taxes, safety, or labor laws. This definition somewhat oversimplifies the Tanzanian reality. Many small enterprises operate under various degrees of semi-formal legal status. For example, they do not register but pay taxes to local authorities.

Registration is therefore associated with the scale of rural business operations. Figure 8 illustrates that informal enterprises have lower sales than their formal counterparts. Informal enterprises in the manufacturing and mining sectors, however, report higher sales levels than their formal counterparts (Figure 9). Manufacturing activities that take place at home are usually on a very small scale. Being informal in the mining sector appears to be advantage when exploiting precious metals.

Figure 10: Reasons for Not Registering With Government, 2005



Source: 2005 Tanzania RICS

Median sales per labor day for formal enterprises in rural towns are more than double than for their counterparts located in rural areas. The difference is statistically significant and suggests that most informal enterprises can expand their operations only up to a certain threshold. The difference between formal and informal businesses is more pronounced for businesses located in rural towns — in rural areas, productivity gains would be marginal if transitioning to formal. It therefore appears rational for many enterprises in rural areas to stay informal to avoid associated cost increases. In rural market towns, however, becoming formal appears an attractive option.

What are the reasons for low productivity of informal enterprises?

Many small and informal firms in rural Tanzania that are profitable prefer to reinvest their revenue into agriculture or eventually set up an additional small enterprise (Angermann, 2001). The reason is that expanding the rural business beyond a certain threshold would require an entry into the formal sector. Expansion would mean moving beyond the local market and incurring higher transaction costs, registration, managing a more complex organizational structure, and improved (and more expensive) service, production, or trading methods.

Box 5: Costs and Benefits of Being Informal

Informality offers benefits to the rural entrepreneur. Informal entrepreneurs can avoid taxes and fees. Seasonal demand fluctuations make it easier for an informal firm to adjust because of its simple and flexible technology, and hence it can avoid some costs associated with idle capacity. The ease with which an informal firm can vary its employment level saves labor costs. In addition, entrepreneur's skill requirements are less demanding. Government policies and regulations, to the extent that they apply, can be circumvented. There are also other regulations, such as laws pertaining to property rights, which informal firms may avoid. These advantages must be weighted against the costs and risks associated with operating informally. Rural entrepreneurs may receive fewer services from the state, such as access to electricity and water. Informality also means that it is difficult to access financial and other commercial services. Informal firms may be unable to use formal channels of dispute resolution and have to rely on local networks, confining them to local markets.

Source: Adapted from Bigsten and Söderbom (2005)

In particular, dealing with government agencies involves high costs. As such, entry into the formal sector under the existing regulatory environment is a challenge for most rural enterprises. Average one-time *official* registration costs are approximately 6 percent of annual gross sales. Formal enterprises have to deal with more than three government agencies, which frequently increase *unofficial* registration costs. These are estimated about 4 percent of sales revenue. In addition, rural enterprises have to pay annual fees for operating permits or licenses, which can be up to about 4 percent of annual sales. Furthermore, depending on the sector, the estimated annual tax rate on enterprise profits is approximately 20 percent. Formal enterprises may have to pay in total up to one-third of their sales revenue — a strong disincentive to enter the formal sector.

These findings should be placed into a context of broader local government tax reforms, implemented since 2003. The main elements of the reform were the abolition of the flat rate development levy in 2003 along with "nuisance taxes," and the abolition of business license fees for enterprises below a certain size—and capping of those fees for larger enterprises—in 2004. The pre-reform situation in Tanzania had variable market fees, dues distorted relative prices, small start-up businesses were taxed arbitrarily, collection costs were high relative to amounts collected, taxes were patently not fair (the flat rate development levy was self-evidently regressive), there was little transparency regarding amounts collected and disbursed, and citizens were unable to perceive links between the public services they received (or failed to receive) and the majority of taxes that they paid.

A preliminary rapid assessment of these ongoing reforms suggests that the impacts of the reforms varied between groups, but were broadly progressive (World Bank 2006c). Businesses recorded a 14 percent decrease in tax burden overall. Within this, medium businesses recorded 11 percent less tax, small businesses 36 percent less tax, and microbusinesses (under Tsh. 54,000 turnover) 11 percent more tax. The increased payment by micro-businesses (an exception to the otherwise progressive trend) probably results from their nonpayment of previous business license fees, coupled with the wider use of other taxes (such as billboard fees) by councils after the reform: these were all imposed on micro businesses with greater vigor than were the defunct license fees.[14]

[14] Future work is currently undertaken with World Bank support to identify viable sources of revenue and to model the impact of various scenarios. This work includes modeling local taxation options.

Table 5: Transaction Costs and Taxes for Formal Non-farm Enterprises, 2005 [a/]

Indicator	Value
One-time registration	
Number of days to complete registration	21
Number of government agencies involved in registration process	3.5
Official registration cost (US$)	24.8
Unofficial registration cost (US$)	25.7
Average official and unofficial registration costs (as % of gross sales)	5.6
Operating permit	
Number of days to obtain operating permit	22
Number of government agencies involved in obtaining operating permit	3.4
Official operating permit cost (US$)	19.5
Unofficial operation permit cost (US$)	12.5
Average official and unofficial permit costs (as % of gross sales)	3.6
Operating license	
Number of days to obtain operating license	23
Number of government agencies involved in obtaining operating license	2.3
Official operating license cost (US$)	22.5
Average official operating license cost (as % of gross sales)	2.5
Taxes	
Average income tax rate for manufacturing enterprises	21
Average income tax rate for trading enterprises	19

Source: 2005 Tanzania RICS.

a/ The survey data and technical documentation does not provide sufficient details on the type of taxes or how the data was collected. Numbers are approximate due to small sample size and omitted responses.

Self-employed entrepreneurs are most productive

One-person enterprises are relatively more productive than their larger counterparts (Figure 11). On average, these enterprises generate about US$ 1.5 on sales revenue per working day.[15] Overall, rural labor productivity tends to decline with enterprise size. The exception is enterprises that employ more than four workers. Self-employment appears to be more attractive than wage employment in the non-farm sector. However, due to the seasonality of non-farm activities, self-employed entrepreneurs need to substitute part of their income trough agriculture.

Productivity differences by sector are small

Productivity differences by sector are less pronounced. Figure 12shows that the median sales per day range from about US$ 0.9 to US$ 1.5, depending on the sector. Median sales generated through the services, trade, or construction sectors are almost identical. The only exception is the mining sector, which generates three to four times more enterprise revenue than any other sector. Mining activities are mainly related to the discovery of gold around the country. Tanzania is becoming an emerging gold producer with major gold mining activities located in the Biharamulo District (Kagera Region) in the Lake Victoria goldfields.

[15] This finding runs against mainstream evidence. A possible explanation could be the use of family labor. That is, larger rural firms could use a higher amount of relatively less productive family labor.

Figure 11: Median Sales Per Day of Labor by Size, 2004

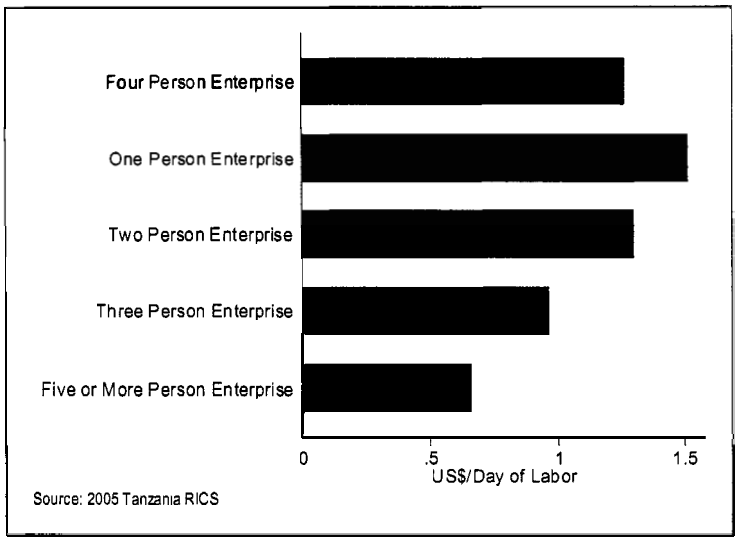
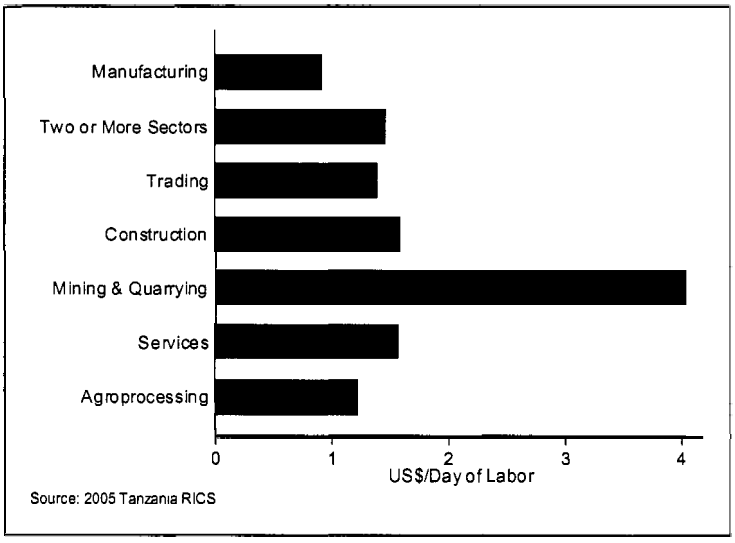


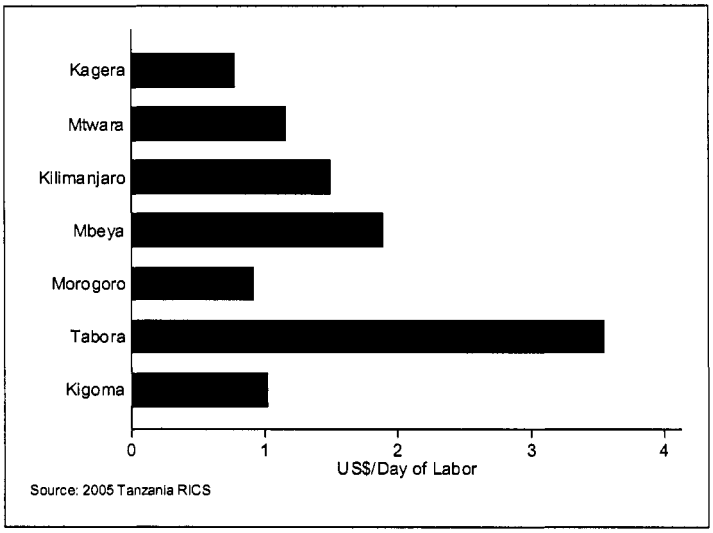
Figure 12: Median Sales per Day of Labor by Sector, 2004



Regional differences — does the rural investment climate matter?

Enterprises in Tabora are more productive than their counterparts in other surveyed regions (Figure 13). This finding is important because statistical analysis of the RICS data revealed this productivity could be associated with a better investment climate in the region. In particular, *objective* measurements of road infrastructure and financial constraints at the community level are significantly correlated with higher levels of labor productivity in Tabora. Moreover, entrepreneurs in Tabora *perceive* lower levels of major and severe business constraints in three key areas — finance, transport, and governance. The perceived business constraints are significantly lower from the constraints reported in other regions of the country.

Figure 13: Median Sales per Day of Labor by Region, 2004



The remainder of this report expands on these findings. Chapter 3 discusses factors that affect establishment and growth of rural non-farm enterprises, while Chapter 4 describes the magnitude and regional dimension of the rural investment climate. It shows that Tabora is the only region that has significant employment growth of rural non-farm enterprises in the informal sector, the sector in which the majority of enterprises operate. Chapter 5 argues that a combination of factors that determine the rural investment climate seem to matter. Tabora is rarely the region with the lowest level of perceived or objective infrastructure, finance, or governance constraints. But it is the only region that scores relatively better in *all* of these areas.

3. ENTERPRISE DYNAMICS

This Chapter analyzes factors that affect entry and growth of rural non-farm enterprises. Enterprise start-up is closely related to income generated from agriculture. These enterprise "birth rates" are in the order of 11 percent, which is lower than in many other countries in Sub-Saharan Africa. The majority of start-ups are small firms. The single most important factor that determines start-up and closure is lack of access to formal credit. Employment growth is regionally defined, occurs in the formal sector, and is systematically higher among small and young firms, a powerful finding for those concerned with job creation in rural Tanzania.

ENTRY INTO THE NON-FARM SECTOR

Moderate "birth rate" among small enterprises

The non-farm enterprise sector in rural Tanzania is less dynamic than in comparable countries. The annual rate of new start-ups was about 11 percent in 2004,[16] a rate higher than the 6 to 7 percent rate often reported for industrialized countries, but substantially lower than the approximate 20 percent reported for urban and rural enterprises in other Sub-Saharan African countries (Liedholm, 2002).[17] The comparatively low rate could be a result of high investment constraints, or possibly due to weaker entrepreneurship in Tanzania than in other countries.

The majority of new enterprises are small firms — more than 60 percent are created as one-person establishments, mostly in the informal sector (Table 6). Formal enterprises are more likely to start as relatively big enterprise. A sectoral breakdown reveals that in the construction, manufacturing, and agro-processing sectors comparatively more enterprises are created in the category of having five or more workers.

Driving forces behind start-up enterprises

Start-ups of new rural non-farm enterprises can indicate "good" or "bad" news. When agriculture is prospering and overall demand for non-farm products or services is high, starting a business can mean prosperity. But when agriculture is languishing or population growth is high, start-up jobs may simply reflect the news that firms are acting as a sponge, soaking-up excess workers in marginal activities. Unfortunately, the survey data do not reveal the driving forces behind creation because entrepreneurs were not asked their motivation for starting a new business. Limited empirical evidence from other enterprise surveys suggests that in rural Tanzania both factors may play a role. About one-half of Tanzania's rural enterprise creation is due to demand-pull factors, while the other half is due to supply-push forces (Angermann, 2001).

Enterprise start-up is closely related to agriculture (Figure 14), with about 55 percent of start-up capital from agricultural production. The survey data provide some support for the finding that both supply and demand drive the creation of rural non-farm enterprises in Tanzania. Seventeen percent is from non-agricultural income sources and more than 13 percent from local friends or relatives.

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[16] This number is likely to provide a lower bound estimate because the estimate does not include firms that opened and closed during the survey period. The calculations are based on cross-sectional data and follow the methodology advocated by Liedholm and Mead (1999).

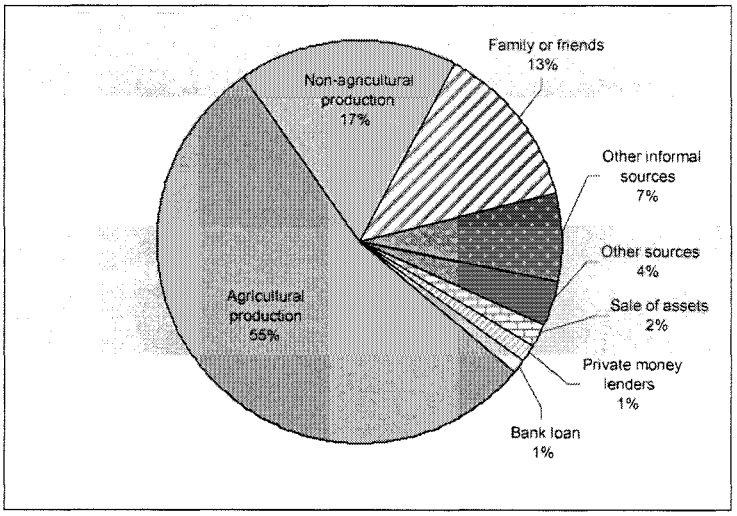
[17] Surveys were undertaken for Botswana, Kenya, Malawi Swaziland, Zimbabwe, Lesotho, Niger, Nigeria, and South Africa, covering more than 50,000 rural enterprises (Liedholm and Mead, 1999).

Table 6: Decomposition of Start-up by Enterprise Size, 2005

Category	Percentage distribution by enterprise size				
	Number of workers				
	1	2	3	4	5+
Overall	63	22	6	4	5
Formal	54	25	5	6	10
Informal	66	21	6	3	4
Sectoral breakdown [a/]					
Trading	65	22	6	4	3
Services	63	23	6	3	5
Manufacturing	62	20	2	1	15
Agroprocessing	58	18	8	3	13
Construction	64	16	2	2	16
Mining and quarrying	80	20	0	0	0
Two or more sectors	47	29	12	6	6

Source: 2005 Tanzania RICS. a/ The breakdown is approximate due the small number of observations in the production sector, and the small number of observations for larger enterprises

Figure 14: Sources of Start-up Capital, 2005



The most important factors that constrain rural entrepreneurs are capital and basic infrastructure. A regression analysis on the determinants of entry undertaken for this study reveals that credit, along with access to roads, is significantly correlated with new enterprises (Appendix 2).

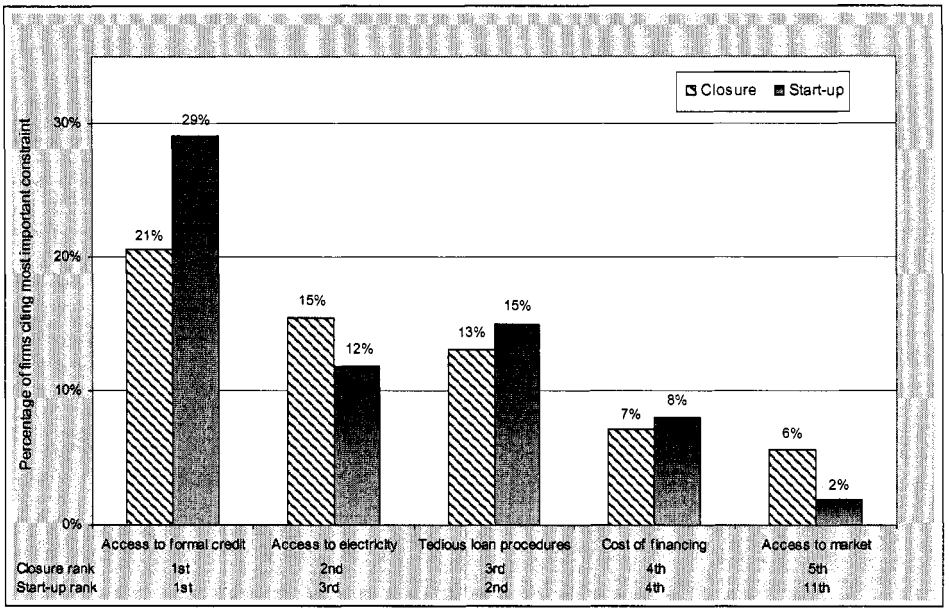
BUSINESS CLOSURES

Why do enterprises in rural Tanzania close?

Tanzanian entrepreneurs perceive lack of access to formal credit as their main reason for closure. A surprising finding is that only a minority of rural entrepreneurs attribute "traditional" business

failure, such as the lack of market demand, as an important reason for closures. Lack of market demand is often cited amongst the most important causes of business failure in Sub-Saharan Africa (Liedholm and Mead, 1999). Another surprising finding is that electricity access ranks second even though a large majority of rural entrepreneurs are traders without immediate need for electricity. One reason might be a difficulty in separating household and enterprise needs. It is also remarkable that the reasons for closure and preventing start-up are almost identical (Figure 15), which could suggest that those who have closed their enterprises were able to immediately set-up a new business, and were as such not able to separate the constraints.

Figure 15: Perceived Reasons for Closure of Business – and Reasons Preventing Start-up, 2005



Source: 2005 Tanzania RICS

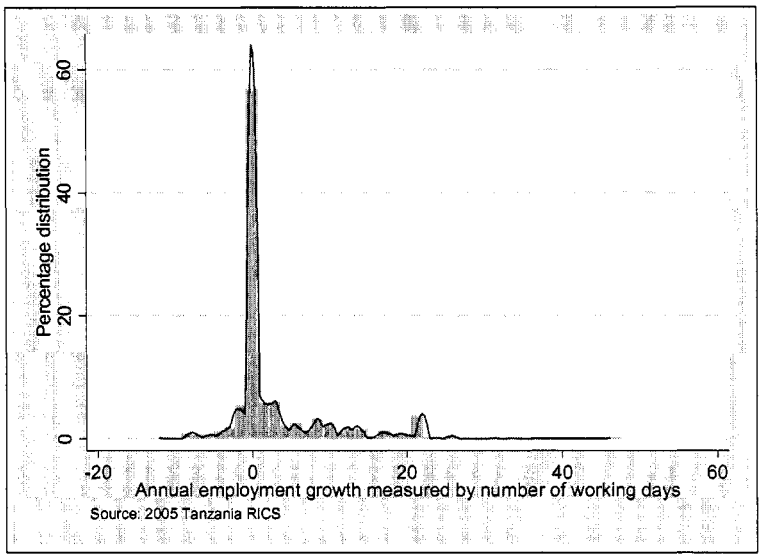
ENTERPRISE GROWTH

One-third of rural enterprises are high performers

Employment growth generated by rural non-farm enterprises has been low. The mean annual growth rate of labor days for the period 2000 to 2004 is about 4.5 percent. However, employment growth is being propelled by a minority of enterprises (Figure 16). The distribution of average annual employment growth shows that about 60 percent of rural non-farm enterprises have been stagnant, about 5 percent have contracted over the past years, with the remaining 35 percent growing, some quite substantially.[18] The differences are more pronounced between the formal and informal sector. Formal enterprises grew faster. A decomposition of the relative contribution of start-up and existing enterprises for 2004 suggests that most rural jobs (94 percent) were created from the growth of relatively high-performing firms. Employment generation through new start-ups had a relatively limited role (6 percent).

[18] The cross-sectional and recall character of the data implies that the growth numbers are approximations. Employment growth could be over- or underestimated depending on firm survival and new entries.

Figure 16: Distribution of Enterprise Employment Growth, 2000-2004 (in percent)



Box 6: Typology of Rural Non-farm Enterprise

Survivalists. These enterprises have survived the perils of start-up. Enterprises are often run by those who have no choice but to generate non-farm income. The level of income may be at the poverty line or below. The enterprise will not grow and eventually collapse.

Trundles. These enterprises have been in existence for some time. Enterprise turnover is roughly static and entrepreneurs show no great desire to expand. Income is at the poverty line. Enterprises have added to their workforce since starting but only in small amounts.

Flyers. Enterprises run by entrepreneurs who see opportunities for growth. Income levels may meet more than basic needs. Enterprises will hire new labor and may graduate to the small enterprise spectrum.

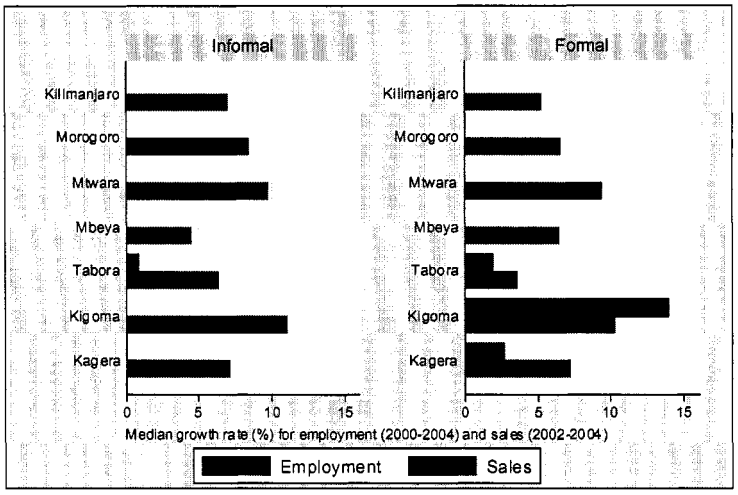
Source: Adapted from Liedholm and Mead (1999); Duncombe and Heeks (2002)

Enterprise growth is regionally defined

In general, when median growth rate of sales and employment are compared, annual sales growth is always higher than employment growth (with the exception of formal enterprises in Kigoma). One possible explanation is that only 50 percent of entrepreneurs are investing in their businesses: additional income could be used for non-business purposes.

The data also show that employment growth is regionally defined. Significant employment generation over 2000-2004 only took place in Kigoma, Kagera, and Tabora (Figure 17) but employment generation was almost entirely due to jobs in the formal sector. The exception is Tabora, the only region that also showed significant employment growth in the informal sector.

Figure 17: Employment and Sales Growth of Formal and Informal Enterprises by Region, 2000-2004 (Upper bars show median employment growth)



Source: 2005 Tanzania RICS

Box 7: Why Do Rural Non-farm Enterprises Grow?

Growth of rural non-farm enterprises can be measured in several ways, including sales growth, profits, and number of working days. If measurement error were not a problem, defining growth in terms of sales or profits might be preferable to a labor-based measure from an accuracy standpoint. However, the Tanzania RICS data rely on a retrospective technique. Since most proprietors do not keep records, they can only estimate their sales or profits, even at the present time. Expecting that guesses from five years ago would be accurate might be folly. As a result, the key measurement of growth used in the Tanzanian RICA is number of working days.

There is no specific growth theory for rural non-farm enterprises, but by combining theoretical insights with empirical evidence, it is possible to identify potential variables (Jovanovic 1982; McPherson 1996; Evans 1987; and Sleuwaegen and Goedhuys, 2002). Besides the factors than determine the rural investment climate, the two key determinants of enterprise growth are age and initial size. "Learning models" of enterprise growth along with empirical evidence from the United States and developing countries support an inverse relationship between these two variables and enterprise growth. Once firms are established they learn about their efficiency, and competition forces the least efficient ones to exit. Managers learn about their efficiency and adjust their scale of operations accordingly.

Young and small firms that are at the initial stage of uncovering their own efficiency level grow faster. It is thus the youngest along with the smallest firms at start-up that are more likely to create jobs — a powerful finding for those concerned with job creation in rural Tanzania.

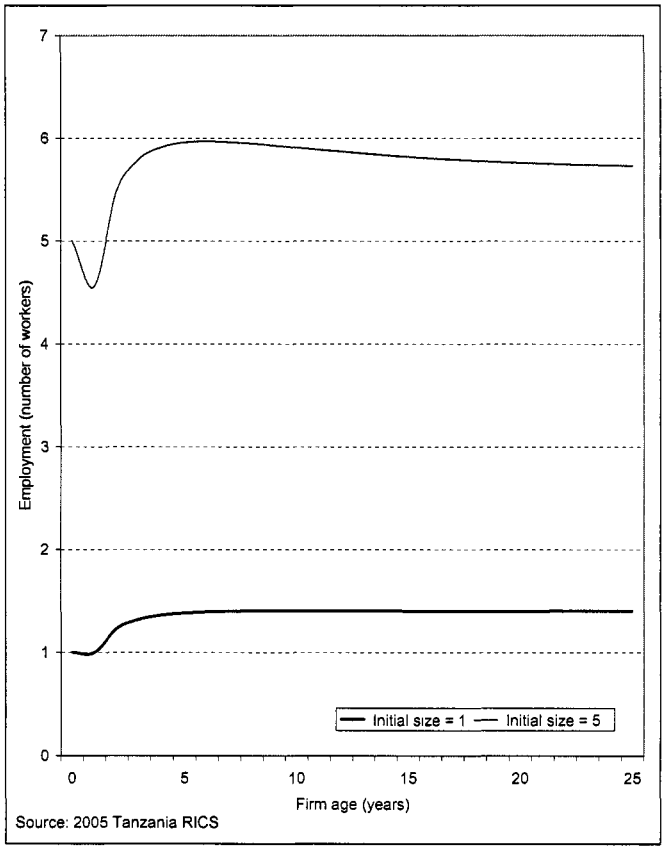
Determinants of enterprise growth

Among those firms that did grow between 2000 and 2004, employment growth is systematically higher among smaller and younger firms. The inverse relationship between size and age on growth suggests an important role for these firms in rural Tanzania. Figure 18 predicts enterprise growth as a function of size and age to facilitate interpretation of an empirical analysis

undertaken for this study.[19] The estimate is based on coefficients obtained from a regression analysis of enterprise employment growth.

The analysis shows that after start-up, one-person rural enterprises in Tanzania will only grow during the first four years and then remain stagnant. The average enterprise size is about 1.4 employees, a number that coincides with descriptive survey data for one-person start-ups (40 percent growth). By contrast, a bigger enterprise with an initial start-up size of five employees contracts slightly during the first year, but grows relatively fast for five subsequent years (20 percent growth). Thereafter, employment growth declines and the firm eventually start to contract.

Figure 18: Firm Growth, Size and Age in Rural Tanzania



This "stylized" growth process shed light on the distribution patterns of employment growth in Figure 18. Employment generated by rural enterprises is rather low and occurs mostly for a minority of small and young enterprises. However, after a certain period small enterprises appear to never grow substantially — unless other growth obstacles are considered. The following chapter analyzes to what extent the rural investment climate aligns with this growth process.

[19] See Appendix 2 for the analysis.

4. THE IMPACT OF A BETTER INVESTMENT CLIMATE

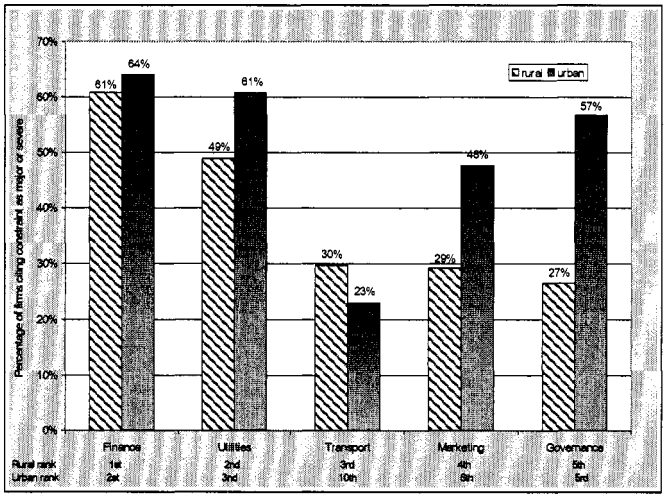
This chapter assesses the impact of the rural investment climate on growth of non-farm employment. Entrepreneurs generally believe that they are mainly affected by supply-side constraints and that access to rural financial services and roads are the main constraints to rural business operations. More than 60 percent of entrepreneurs believe that access to finance hampers growth. Regionally, Tabora scores better in three aspects of the investment climate — finance, transport, and governance. Perceived business constraints generally coincide with measurements that are more objective. The only exception is electricity, where reliability rather then access matters. An empirical analysis suggests that better access to markets, finance, and cell phone communication would have the strongest impact on growth. Demand-side factors related to agriculture rank fourth. Even marginal improvements in the investment climate would affect growth.

CONSTRAINTS TO ENTERPRISE OPERATIONS AND GROWTH — PERCEPTIONS

Finance and infrastructure as main constraints

One of the main goals of a rural investment climate assessment is to identify the leading factors that constrain enterprise productivity and growth. The survey asked entrepreneurs whether they *perceived* various problems as an obstacle. Although these subjective rankings are not a definitive priority-setting tool, they can be a useful starting point. Additional and more *objective* data from the community and household survey and quantitative analysis, which are presented in the next section, can add weight to the survey results.

Figure 19: Top Five Constraints of All Rural Non-farm Enterprises, 2005 and Their Urban ICA Ratings, 2003



Source: 2005 Tanzania RICS

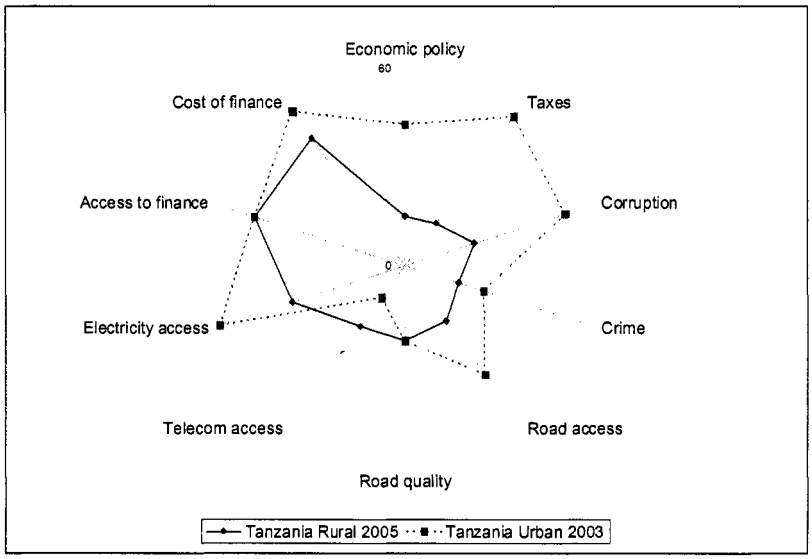
In rural Tanzania, non-farm enterprises are most concerned about access and costs of rural finance (Figure 19). About 61 percent of rural entrepreneurs rate financing as a major or severe constraint to business operations. Other important perceived constraints are access to public utilities (mainly electricity, and water) and transport (roads). A surprising finding is that only 29 percent see demand (marketing) for rural non-farm services and goods as a major or severe

constraint. Since the large majority of businesses operate in the informal sector, less than one-third of rural entrepreneurs perceive that governance negatively affects rural business operations. The claim that limited access to public utilities is the second most important constraint is difficult to interpret because 57 percent of rural entrepreneurs are traders who may not need electricity or water access for their rural businesses, but instead may reflect their household's desire for better access to services.

Benchmarking national and international data

A comparison of the *ranking* of perceived constraints with the urban or formal industry based ICA (World Bank, 2004b) reveals several interesting findings (Figure 19; Figure 20).[20] In urban areas enterprises are mainly concerned with taxation (73 percent rated tax and 65 percent rated tax administration as a major or severe obstacle). Corruption and economic policy are also mentioned as important constraints. By contrast, taxation, corruption, or the overall policy environment are rarely mentioned as a problem in rural areas. The fact that rural entrepreneurs do not perceive these factors as a severe constraint to business operations reflects the high level of informality in rural areas. A finding common among rural and urban enterprises in Tanzania is the perception that access to finance, electricity, and transport constrains business operations.

Figure 20: Comparison of Selected Rural and Urban Business Constraints in Tanzania, 2003 and 2005 a/



Source: 2005 Tanzania RICS and 2003 Urban ICS
a/ On a scale from zero to 60: percentage of enterprises reporting major and severe constraints.

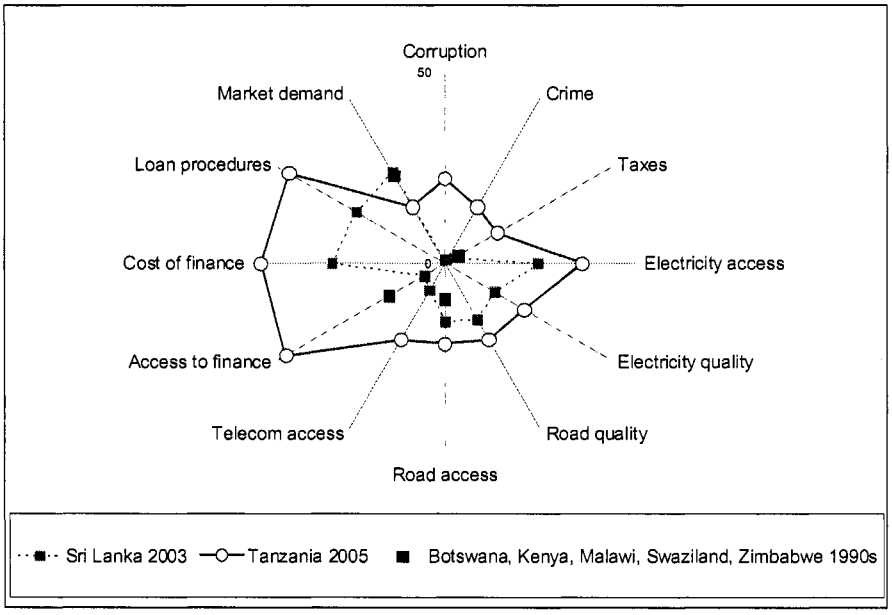
Interestingly, there are differences and similarities in the *level* of rural and urban constraints. The level of perceived constraints in urban Tanzania is generally higher than in rural areas. Rural and urban entrepreneurs perceive access and cost of finance as a problem of almost similar magnitude. This observation points to structural factors in the financial sector that constrain both rural and urban enterprises. It is not surprising to note that smaller, informal enterprises perceive

[20] Comparisons are based on the full sample of the urban ICS. Comparing constraints for urban and informal microenterprises would show less pronounced differences but are omitted due to small sample size.

governance as a smaller constraint due to the weak presence of governmental institutions in rural Tanzania.

Also a comparison with other countries confirms that finance is the main investment climate's bottleneck in Tanzania. The comparator countries are Sri Lanka and selected Eastern and Western Africa rural economies. Figure 21 reveals that the overall level constraints perception is greater in rural Tanzania than in any other country.[21] The exception is market demand for which rural Tanzania scores slightly lower. Tanzania scores particularly high on all aspects of rural finance: access, costs and tedious loan procedures. International comparison of rural data should be taken with prudence in the light of different concepts of rural space and non-farm activities. Nevertheless, the comparison does confirm the earlier analysis.

Figure 21: Comparison of Selected Rural Business Constraints: Tanzania versus Sri Lanka and Selected African Countries a/



Source: 2005 Tanzania RICS; 2003 Sri Lanka RICS; Liedholm and Mead (1999).
a/ On a scale from zero to 50: percentage of enterprises reporting major and severe constraints, or principal problems.

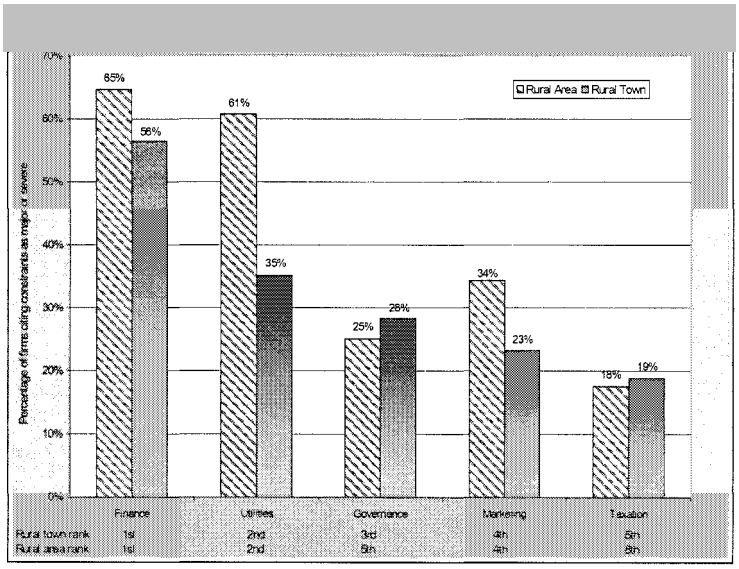
Are rural enterprises supply- or demand-side constrained?

Rural entrepreneurs generally *believe* that they are mainly affected by supply-side constraints. Demand-side constraints, such as marketing problems, seem to play a much less significant role. Rural enterprises perceive markets as a lower priority than their urban counterparts (Figure 19). Also an empirical analysis with *objective* investment climate data at the community-level reveals that demand-side constraints are relatively less important than other supply-side constraints (see Figure 25**Error! Reference source not found.**).

[21] Benchmarking perceived constraints with regional and non-regional comparator countries is a widely used approach. In the case of Tanzania, the non-regional comparison is based on the availability of rural data. Sri Lanka is chosen because it is the *only* pilot study that has been completed. However, also preliminary data from Nicaragua and Indonesia suggests that finance is among the top three constraints.

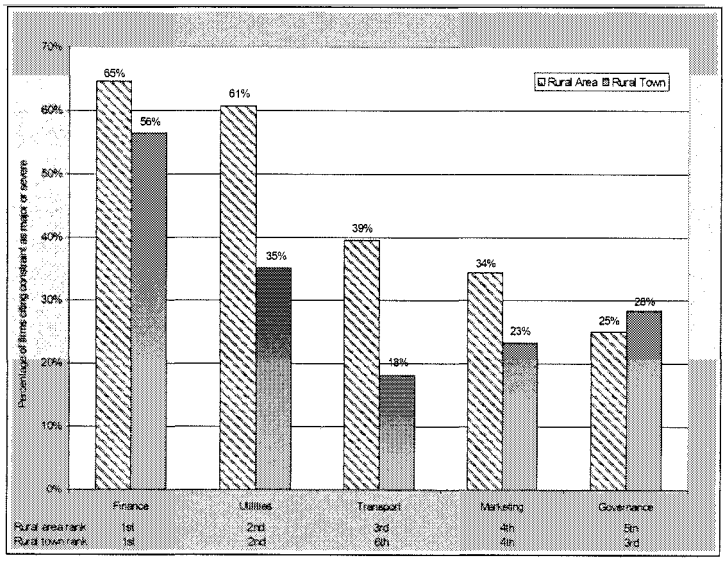
This is an important difference between the rural and urban ICA. In urban Tanzania, enterprises appear to be more driven by demand-side factors. Differences in the structure of enterprises could be one explanation (Daniels, 2003). Rural enterprises have low costs of entry, particularly when operating in the informal sector. Limited capital, skills, or experience do not prevent entrepreneurs from entering the non-farm sector. By contrast, the more capital-intensive industries in the urban sector require higher skill levels and are therefore more vulnerable to fluctuations in market demand.

Figure 22: Top Five Constraints of Rural Market Towns



Source: 2005 Tanzania RICS

Figure 23: Top Five Constraints of Rural Areas, 2005



Source: 2005 Tanzania RICS

Rural areas versus market towns

A comparison between rural areas and small market towns reveals that constraints related to governance and taxation increase with the level of urbanization and market access (Figure 22 and Figure 23). This finding is consistent when the rural and urban ICAs are compared. The level of perceived business constraints is generally higher in rural areas than in small rural market towns. Not surprisingly, governance constraints score higher in market towns than in rural areas where government presence is limited. However, the level of perceived tax constraints does not differ between rural areas and market towns. Independent by the type of location, the accessibility and cost of rural finance are perceived as the main constraints. The perception that finance is the main constraint to entry and growth of existing rural enterprises is therefore robust throughout this report. It echoes a large body of similar analyses for countries in Sub-Saharan Africa (Liedholm, 2002; Bigsten and Söderbom, 2005).

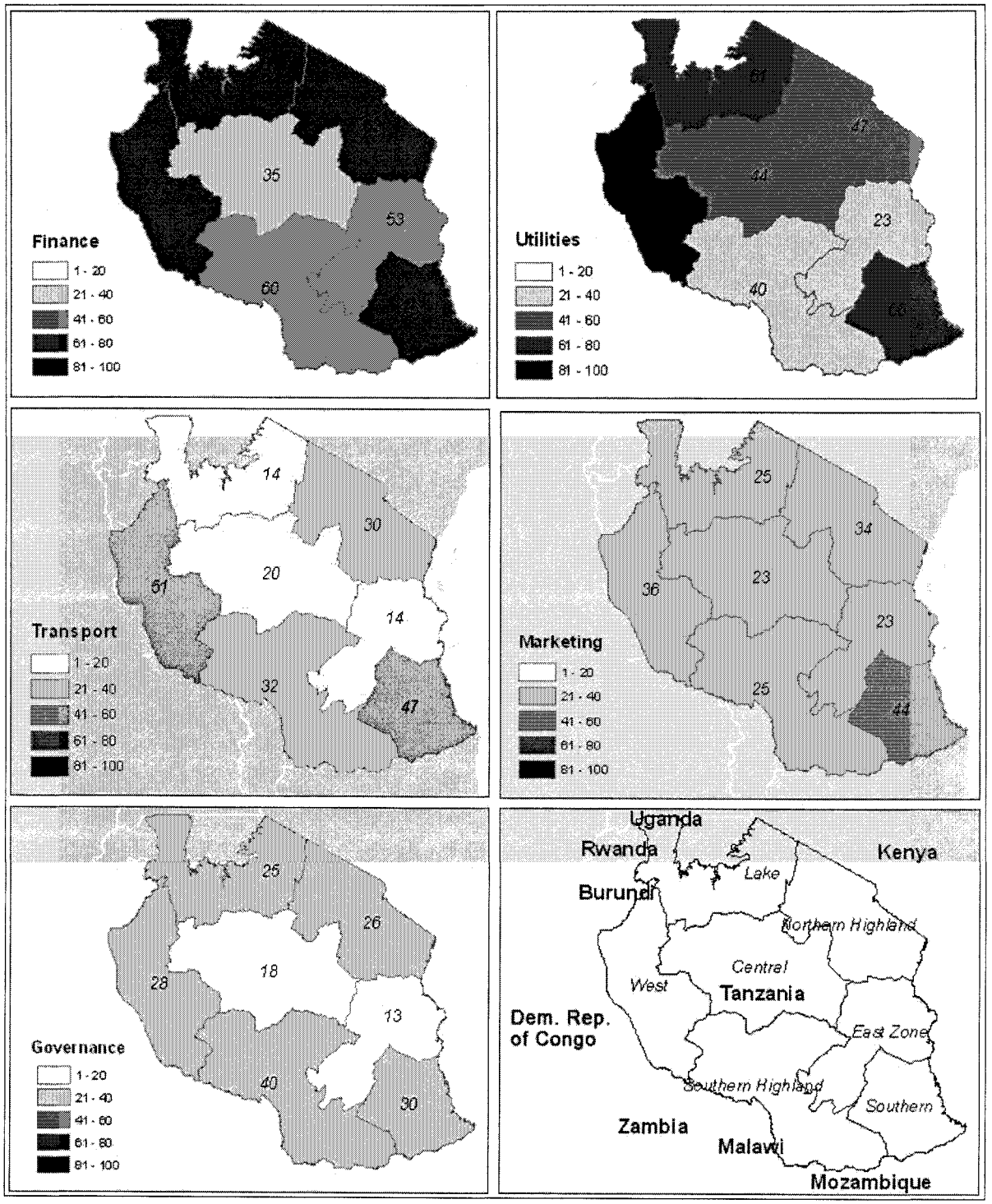
Regional differences

Factors that constrain enterprise productivity and growth differ by geographic zone. Map 3. plots the top five business constraints identified by rural entrepreneurs — finance, public utilities, transport, marketing, and governance. Three key findings emerge from the visualization.

First, finance, utilities, and transport infrastructure clearly emerge as the main factors that impede business operations and growth, but there are large regional differences. Financing constraints are perceived as particularly severe in the Lake region, Northern

Highlands and Southern zones. Access to public utilities and transport infrastructure is perceived as a major and severe constraint in the Western zone. Finally, the map clearly indicates that Tabora is the only zone that scores better in three aspects of the rural investment climate (finance, transport infrastructure, and governance). With the exception of rural finance, it is rarely the region with the lowest level of business constraints. However, it is the only zone that scores relatively better in *all* of these areas.

Map 3: Major and Severe Business Constraints by Geographical Zone, 2005



Source: 2005 Tanzania RICS

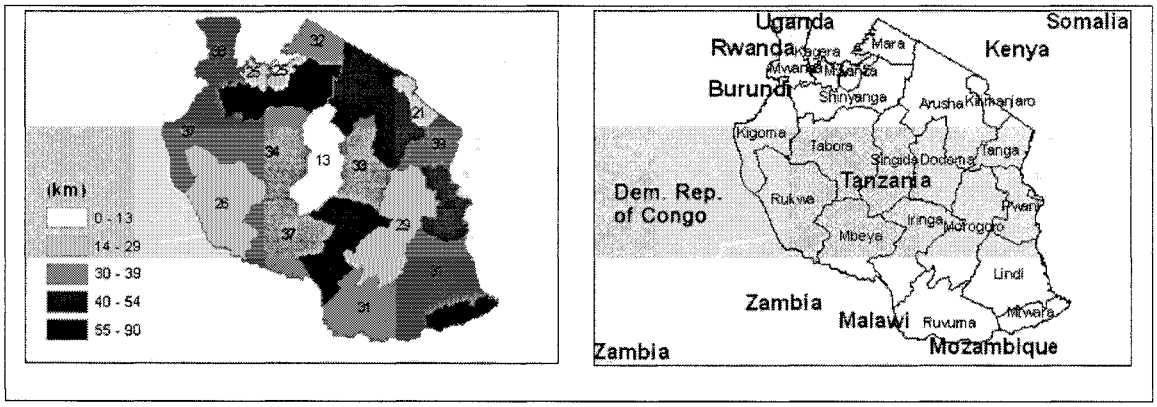
Note: Business constraints for geographical zones are approximate. Morogoro, Kilimanjaro, Tabora, Kagera, Kigoma, Mtwara and Mbeya represent the East, Northern Highland, Central, Lake Victoria, West, Southern and Southern Highland zones, respectively.

Limited access to financial services

Access to *formal* financial services for individual enterprises is extremely limited. The average distance to the nearest money-lending institution is 30 kilometers. About 58 percent of the surveyed communities claim to have access to financial services, predominantly through *informal* channels.

More than one-half of the financial institutions are either cooperatives or other community-based establishments, one-third are government-owned institutions or private banks, and the remaining sources of rural finance are private moneylenders or other sources. In about two-thirds of these communities, however, households can access loans for non-farm investment purposes. Community-level data therefore strongly support the claim from entrepreneurs that access to rural finance is insufficient. Regionally, access to rural financial institutions is particularly poor in the northern and southern parts of the country, but better in Tabora (Map 3).[22]

Map 4: Mean Distance To Rural Financial Institutions, 2001



Source: 2000/2001 HBS

Road and transport infrastructure

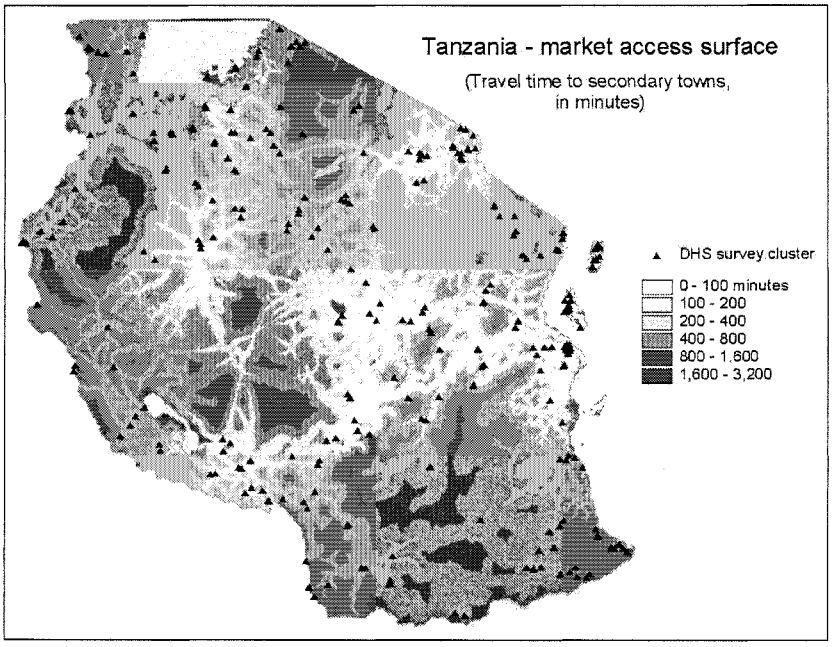
Community-level data supports perceived constraints from entrepreneurs that business activities suffer from poor road infrastructure. About 17 percent of the surveyed communities do not have a main road connection. Of those communities that have road access, about 40 percent are isolated during the rainy season because the roads are seasonal (

Table 7). The available means of transportation are also limited. Only 28 percent of communities have public transport services. Bicycles or pack animals are the main means of transportation for about 8 percent of rural households.

[22] The Central zone encompasses Tabora, Dodoma, Singida regions. It is the driest zone in the country with an annual rainfall of less than 500 mm. The major crops are millet and sorghum.

As a consequence of poor road infrastructure, the time to travel to markets is high. For rural households, it takes on average more than 80 minutes to travel to the next city, and more than 40 minutes to travel to the next market Map 5 displays spatial patterns of access to rural market towns). Travel time is slightly lower for enterprise households than for non-enterprise households. The difference is statistically significant and underlines the importance of infrastructure for rural enterprises. Transportation costs for rural non-farm enterprises to the next market are high — the travel costs to the next market are about Tsh. 90 per kilometer. This suggests that, on average, a rural non-farm enterprise pays approximately US$ 3 to travel to the next market.

Map 5: Estimated Travel Time to Rural Market Towns



Source: Minot et al. (2006)

Table 7: Road Types Within and Outside Communities, 2005

Type of road	Within community (%)	Outside community (%)
Mud	73	52
Concrete	19	30
Asphalt	3	13
Gravel	3	4
Other	2	2

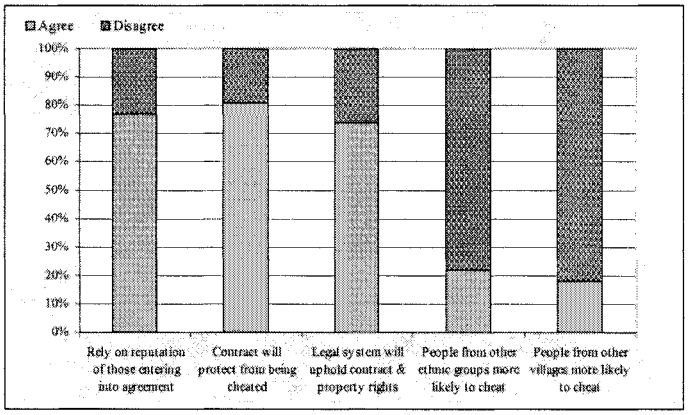
Source: 2005 Tanzania RICS

Electricity and telecommunications

Only 40 percent of communities are electrified. Not only do most of the surveyed communities lack access to electricity, but even in electrified communities most households do not have access to power. As few as 30 percent of households in electrified communities use electricity.[23] In those communities that have access to electricity, responding community leaders report that getting a power connection for new businesses took more than 140 days (three times longer than in urban areas as measured by the urban ICA). The public electricity supply is not very reliable. It was interrupted on average 71 times during 2004. Consequently, 73 percent of rural non-farm enterprises could not use national grid power for productive purposes (Temesgen, 2005b). Development of electricity and telecommunication infrastructure often goes hand in hand, so most entrepreneurs do not have access to basic means of communication.

Only 13 percent of rural entrepreneurs own a fixed line or cell phone. These number change slightly when disaggregated by rural areas (8 percent) and rural towns (19 percent). Poor telecommunication also implies that many entrepreneurs have limited timely access to market information.

Figure 24: Confidence in Conflict Resolution and Legal Environment by Communities, 2005



Source: 2005 Tanzania RICS

Local governance and conflict resolution

The evidence describing local governance is somewhat uneven. About two-thirds of the surveyed communities do not report conflicts with local authorities that negatively affect the business environment, but the other one-third does. A large majority of communities report confidence in local dispute resolution and contract enforcement mechanisms (Figure 24). When conflict occurs, it is mainly because of disputes over land holdings. About 60 percent of these conflicts were resolved through local networks (Temesgen, 2005a). Within the past five years, more than 75 percent of communities claim to have taken action to improve the local business environment. According to community leaders, a large majority of households participate in a variety of small projects that aim to improve physical or social infrastructure. Local initiatives that have helped to develop non-farm businesses conditions include improved market facilities, telecommunication, or electrification.

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[23] This is still higher than in the 2001 HBS where only some 11 percent of the communities were collected to the grid.

SIMULATING GAINS FROM A BETTER INVESTMENT CLIMATE

Enterprises are mainly supply-side constrained

Empirical analysis undertaken as part of this report suggests that non-farm enterprises could benefit substantially from an improved rural investment climate. Among the main supply-side constraints are infrastructure, finance, and telecommunications. Demand-side constraints that are linked to the performance of the agricultural economy rank fourth. The analysis confirms much of the earlier descriptive evidence. Moreover, business constraints perceived by rural entrepreneurs are broadly consistent with objective measurements at the community level. They also have a quantifiable effect on enterprise growth.

Simulations were conducted on the determinants of objective investment climate constraints on enterprise employment growth. The simulations are helpful to *visualize* the impact of potential gains if such improvements could be made, but should be read with caution. They rely on empirical data and methods that are subject to measurement error, do not fully consider some of the interactions that encompass the rural investment climate, do not address causality issues, and provide little guidance on how to achieve the selected improvements.

Figure 25 also illustrates that the estimated impact on employment growth sometimes has a large margin of error.

The simulations are based on a regression analysis of the determinants of enterprise employment growth. Key determinants were enterprise size and age, and a number of objectively measurable investment climate constraints at the community level. Parameters that significantly affect employment growth include transport infrastructure, access to finance, access to cell phone communication, registration with a government office, a reduction in registration days, and reductions in violent social conflicts. Interestingly, and contrary to the perceptions of entrepreneurs, *access* to electricity does not turn out to significantly affect employment growth. But for those rural entrepreneurs who do use electricity, *reliability* matters. A decrease in interruptions could stimulate growth. Because most entrepreneurs are traders, these findings appear plausible.

Infrastructure, finance, and cell phone communication are key

Removing the constraints of inadequate road infrastructure and finance would have the strongest effect on employment growth. The simulations assumed a 50 percent improvement of selected investment climate indicators.[24] The ranking of a constraint's impact on growth does not change with different assumptions.

Figure 25 shows that improved access to markets would have the strongest effect on employment growth, followed by access to rural finance. Interestingly, rural cell phone communication ranks third. Demand-side factors such as higher rural wages due to productivity increase in agriculture or other factors, rank fourth. For those rural entrepreneurs who do use electricity, a decrease in interruptions could stimulate growth. Also legal registration and lower registration costs could boost growth. Finally, reduced conflicts could potentially benefit growth.

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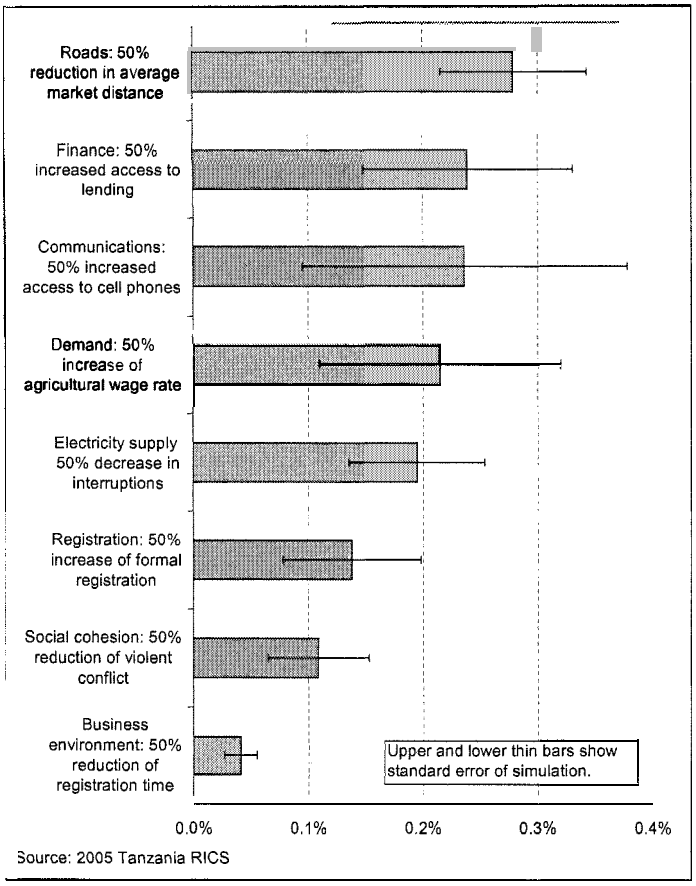
[24] For example, mean distance to the next market was assumed to decrease from 17 to 11 kilometers.

Figure 25: Improving the Rural Investment Climate: Estimated Gains on Enterprise Employment Growth

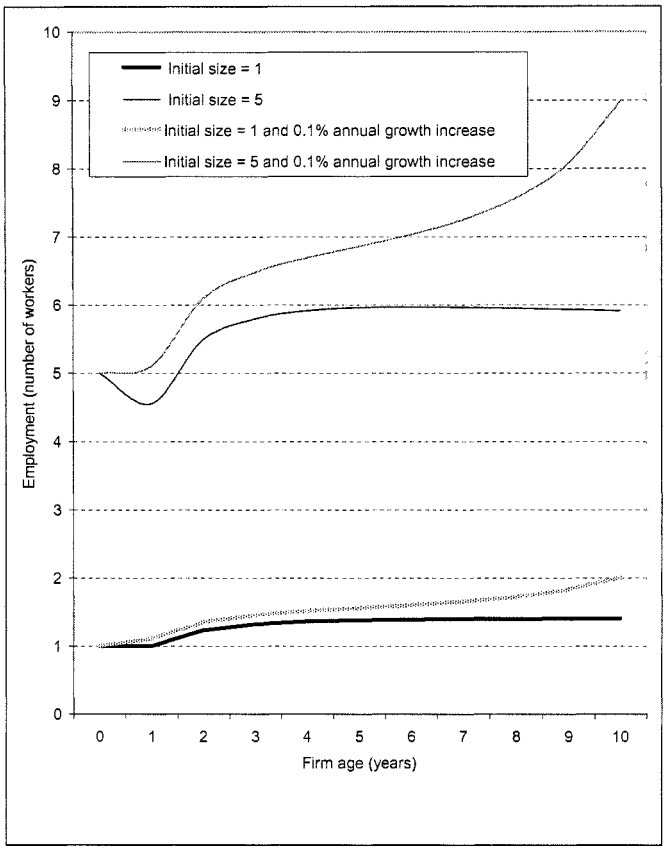


Marginal improvements in the investment climate matter for growth

The simulations show that the estimated effect of selected measures of the investment climate would range from less than 0.1 up to about 0.3 percent on annual employment growth. How big is this for a typical enterprise at start-up? Over the medium term, even a marginal improvement in the rural investment climate could be significant and lift the rural economy out of stagnation. Figure 26 builds on the simulations and plots the stylized enterprise employment growth process. The scattered lines assume that a broad improvement of the rural investment climate would result in a 0.1 percent increase in employment growth (much lower than the estimated impact of individual constraints ranging from 0.04 up to almost 0.3 percent, respectively).

Even a marginal improvement of the investment climate could provide quite substantial gains for the rural economy. Over a 10-year period, a one-person enterprise would reach the two-worker category and experience continued growth. After an initial period of stagnation, a five-person enterprise would generate on average up to four additional workers. Overall, this is in line with the findings presented in the previous chapter. In relative terms, smaller rural enterprises would benefit most from an improved investment climate. Over a 10-year horizon, a one-person start-up firm could double while a five-person start-up enterprise could grow by 80 percent.

Figure 26: Visualization of Business Constraints' Impact on Employment Growth over 10 Year-horizon



Source: 2005 Tanzania RICS

Box 8: Productivity Analysis of Tanzania's Rural Non-farm Enterprise Sector

Also a detailed analysis of the determinants of entry, investment, and productivity of non-farm enterprises suggests significant potential gains from improvements in the rural investment climate. The study, which was undertaken for this report, assesses the impact of entrepreneur perceptions and objective investment climate constraints at the community level via multiple regression analysis.

It finds that elimination of major business constraints could:

- Increase participation in non-farm entrepreneurial activity by about 8-12 percent,
- Expand new enterprise investments by about 20 percent, and
- Boost total factor productivity by about 28 percent.

Access to markets and roads mainly affects total factor productivity. By contrast, financial constraints impact more on entry into entrepreneurial activity, and on new investments. Small rural enterprises suffer more from poor investment climate constraints than bigger firms, which are often able to overcome constraints.

Source: Adapted from Sundaram-Stukel, Deininger and Jin (2007). For details see the Appendix

Finally, careful collection of information on inputs, outputs, and inventories for different enterprise types allows analysis of the effect of specific constraints on total factor productivity. Doing so, this study find strong evidence of infrastructure-related constraints being critical for the rural non-farm sector to expand and be most productive. With few exceptions, the productivity of small enterprises is more severely affected by investment climate constraints than that of large ones who are in a much better position to take action to avert such constraints. This suggests that, in the case of Tanzania, policies to try and remove constraints of this nature would be a very important strategy to facilitate pro-poor growth.

5. REFLECTIONS FOR POLICY AND FUTURE ANALYSIS

The rural non-farm economy in Tanzania has grown too big for policymakers to ignore. Tanzania encompasses more than one million rural microenterprises. Results of this pilot survey suggest that some 20 percent of rural households have at least one family member working in a rural non-farm enterprise. Evidence regularly suggests that rural nonfarm enterprise activity is a key source for income growth and diversification for the rural poor in Tanzania (World Bank 2006c, Lanjouw et al. 2001, and Ellis 2003).

This pilot assessment describes a rural microenterprise sector struggling to compete in a difficult business environment. About one third of rural enterprises are growing. A number of factors need to be addressed if the full potential of private sector-led growth in rural areas is to be unleashed. A central finding of the report is that even marginal improvements of the rural investment climate matter. Perceived constraints and constraints measured with objective data at the community-level are similar, suggesting some robustness of the empirical results. Moreover, major findings of this assessment also compare favorably with earlier empirical work on rural microenterprises for nine African countries in the 1990s (Liedholm and Mead, 1999).

However, it is important to emphasize that the assessment and recommendations are based on a pilot approach and data collection exercise. This Rural Investment Climate Assessment is the first of its kind in Tanzania, and only a few of these assessments have been completed elsewhere by the Bank.[25] Acknowledging the regional dimension and heterogeneity of rural enterprises is important. Overall, this calls for a careful evaluation of the following reflections. These are thought to stimulate dialogue and future analysis. Much remains to be learned about the rural investment climate and its impact on non-farm enterprises.

AGRICULTURE AND RURAL TRADE

Policies and investment for agriculture

Policies and investments to meet the Government's agricultural growth targets, as described in the Agricultural Sector Development Strategy, are fundamental for the non-farm rural enterprise sector. Most rural enterprises in Tanzania are highly dependant on the performance of agriculture. Increases in agricultural incomes generate local demand for goods and services, and agricultural savings to invest in the start-up and expansion of non-farm rural enterprises. The improved performance of agriculture since the mid 1990s has induced an increase in non-farm enterprise growth. Operationalizing the strategy through the recently developed Agricultural Sector Development Program therefore remains priority.

The emphasis on agriculture aligns with the finding that, in the survey year 2005, supply-side constraints are more important than demand-side constraints. Demand exists for more rural non-farm economic activity due to the relatively rapid agricultural growth in Tanzania in recent years. Potential entrepreneurs are now constrained in their response to this increased demand. However, over the long run, sustained agricultural growth is the basis for the development of the rural non-farm sector in Tanzania. Similarly, in resource-poor areas and in regions with unexploited potential, restarting agricultural growth will remain a priority. However, where a more buoyant economic base exists, efforts are needed to promote non-farm activities.

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[25] Only the Sri Lanka Rural and Urban Investment Climate Assessment has been disseminated. Draft analysis of the RICS has also been undertaken for Nicaragua and Indonesia but still has to be completed.

Public investments and policies could benefit both agricultural and non-agricultural growth. While an agricultural-led rural growth strategy does require specific investments, for example agricultural extension and research, many other investments or interventions actually lie outside agriculture. Both agricultural as well as rural non-farm activities would benefit from these investments or interventions.

Internal trade policies

As almost 60 percent of rural non-farm enterprises are trading enterprises, trade policies are of utmost importance in determining enterprise performance. Revenues of these enterprises come mainly from local sales. Therefore, internal trade policies set by both local government authorities and line ministries should be revisited. In particular, local taxation of trade across district boundaries should be avoided. There have been recent improvements in these policies and associated regulations. The Government re-issued a notice in 2003 to remove physical controls on crop movements within and across Tanzania's borders. The number of taxes has been reduced, including removal of the double tax (at point of transit and original sale) for crops that moved through formal market channels. Continued enforcement of these recent changes should be a priority, particularly local level tax compliance with the Public Finance Act.

FINANCE, INFRASTRUCTURE AND INSTITUTIONS

Access to rural finance

Access to finance is perceived to be the biggest constraint to business start-up and expansion, more so than interest rates. But interpretation of this finding is complex. Microcredit could offer a tool for promoting rural non-farm activity. However, interventions should pay sufficient attention to the performance of the agricultural economy. In stagnant rural markets, injections of microcredit may increase the number of start-ups – but not increase enterprise growth. Microcredit in stagnant rural areas could therefore merely "redistribute poverty" as new entrants divide a fixed pie into ever-smaller increments. In buoyant rural markets, where ongoing agricultural income growth drives demand for non-farm goods and services, injections of credit can play a role in enabling non-farm entrepreneurs to participate in growing market niches.

Promoting rural saving schemes could be a priority. Over seventy percent of start-up capital for rural enterprises comes from own savings with about 25 percent from friends or family and informal sources. Only 1 percent is from private moneylenders and 1 percent from Bank Loans.

Greater linkages between commercial banks, SACCOs, and MFIs could be made to improve access to credit. Each has their own advantages, the deeper outreach and low cost structure of SACCOs, more rigorous credit assessments, monitoring and enforcement mechanisms of MFIs, and more financial resources of commercial banks. Fiscal incentives for rural banking facilities could be established.

Private sector guarantee schemes to offset risks could be promoted. Also, enhancing the capacity of rural institutions through training may equally be important. These options could form part of the activities under the Second Generation Finanical Sector Deepening Program.

Bottlenecks in road infrastructure

The road network is important to reduce transactions costs. Priority areas are maintenance and rehabilitation of the existing road network. Differing regional impacts should be considered in

resource allocation for rural infrastructure, particularly if rural employment growth is a key objective. This should be considered in both national level expenditure prioritization and the local government formula base allocations. Prioritization should be based on the expected rates of return to infrastructure and poverty impacts. Private sector participation would require a strengthening of regulatory institutions and ensuring their independence.

Options for better cell phone communication

Cell phone telecommunications reduce transaction costs, by improving information flows. The analysis shows that this contributes significantly to the development of rural non-farm enterprises. Advances in technology, as well as card phones and mobile phones, are contributing to rapidly expanding networks, lower costs and more affordable telephone systems. Phones themselves often create small businesses with landlines and mobile phones 'rented' to occasional callers. However, in Tanzania, tariffs remain high and teledensity is one of the lowest in the region. Poor telecommunications access has been the norm for most rural communities in Tanzania.

Explore options for better telecommunications via private sector cell phone nodes. This includes the adoption of a new Electronic Communications Bill, the implementation of the new licensing framework, and the review of policies and regulations to generate fair competition and reduce communication and operational costs. In addition, capacity building and the continued use of global experiences to enhance the efficiency of the telecoms sector would be important.

Costs of doing business

The large share of informal rural non-farm enterprises can be explained by the fact that being formal is costly. Transaction costs and taxes for formal non-farm enterprises remain very high. These are estimated at about 30 percent of gross sales at the time of the 2005 survey. While local government 'nuisance' taxes were abolished in 2004, the overall tax rate remains high. However, the abolition of licensing, registration and permit costs could increase enterprise revenues, and reduce welfare losses that stem from the lack of access to formal credit.

Continuation of business registration reform and effective implementation at the local level remains a high priority. There has been progress in reducing business registration costs since 2004 with the abolition of licensing fees for small enterprises and the removal of annual licensing requirements. However, it will be important for the Bill on Business Activities Registration to address adequately all fees on business registration. The Bill – submitted to Parliament in 2005 – simplifies start-up procedures for businesses and eliminates the multiplicity of regional and national licenses by introducing a single registration certificate. It also eliminates the necessity to renew licenses on an annual basis as well as activity specific fee schedules.

FUTURE ANALYTICAL WORK

Role of larger firms and their economic linkages

This assessment shows that assistance aimed at small and younger firms may be worthwhile. The identification of this enterprise segment is a powerful finding for those concerned with job creation in rural Tanzania. However, further validation may be worthwhile for two aspects.

First, the smallest firms in certain sectors may not be the best places to start given that there is ample evidence that small firms are often engaged in survival activities and are thus less likely to

graduate into higher size categories (Liedholm and Mead, 1999). Second, larger firms frequently shape opportunities for smaller enterprises. Because of these economic linkages, assisting larger rural enterprise development in small rural market towns may be important to unleashing growth opportunities.

Entry barriers into non-farm sector

Future work could identify entry or mobility barriers to high-return niches within the dynamic part of the non-farm economy. Tanzania's heterogeneous rural non-farm sector offers opportunities for the rural poor as well as the rich. Poor rural households could seek economic refuge through distress diversification into low-skill nonfarm activities. Simultaneously, the more affluent households could participate in more sophisticated, high-productivity activities. These entry barriers may have the potential to limit the access for a subpopulation of relatively well-endowed households.

Subsector and supply chain analysis

Future work could help identify a handful of specific subsectors, and supply chains within them, that hold the potential for growth and participation by the rural poor. With more detailed analysis, identification of a limited number of key missing ingredients offers prospects for cost-effective intervention. Concentration on a single trade or industry group likewise serves to focus strategic injections in ways that can open up growth opportunities.

Available diagnostic tools used elsewhere in Sub-Saharan Africa provide techniques for evaluating current supply chain structure, dynamics and opportunities for expanding output and income for many like firms at once. This leverage, focused on supply chains where the poor participate, will be instrumental in forging cost-effective, equity-enhancing interventions to promote non-farm enterprise activities in rural Tanzania.

APPENDICES

APPENDIX 1: SUMMARY TABLES

Table 8: Enterprises Reporting Major and Severe Constraints to Growth and Operations, 2005 (in percent)

Constraints	Finance	Utilities	Transportation	Marketing	Governance	Business Registration	Taxation	Land Policy	Labor Policy	Other Policy
Region										
Kilimanjaro	63	47	30	34	26	17	15	14	7	30
Morogoro	53	23	14	23	13	14	10	3	2	10
Mtwara	76	66	47	44	30	27	26	12	12	34
Mbeya	60	40	32	25	40	18	22	19	4	21
Tabora	35	44	20	23	18	12	10	4	4	14
Kigoma	77	85	51	36	28	29	24	19	5	20
Kagera	62	61	14	25	25	14	17	20	4	27
Industries										
Production	65	49	35	30	21	19	16	11	5	22
Service	67	52	35	28	28	17	14	12	4	20
Trade	59	50	28	31	27	19	20	12	5	21
Location										
Rural towns	56	35	18	23	28	16	19	12	4	19
Rural areas	65	61	39	34	25	21	18	13	6	24
Enterprise Age										
Less than 3 yrs	58	50	26	28	28	17	18	10	7	20
3-5 yrs	60	46	30	30	24	21	17	14	6	22
6-10 yrs	60	49	33	31	30	18	24	13	6	23
More than 10 yrs	64	50	29	28	25	18	15	14	4	21
Size										
1 laborer	65	47	30	29	28	17	17	12	5	23
2 laborers	62	51	35	37	23	24	21	15	7	24
3 laborers	72	67	38	39	38	24	21	19	4	37
4 laborers	59	50	20	18	23	14	16	23	7	14
5+ laborers	70	51	21	18	28	16	22	18	4	18

Source: 2005 Tanzania RICS

Table 9: Top five Major or Severe Constraints Preventing Households from Starting a Non-farm Enterprise (percentages among households without non-farm enterprise)

Region	Finance	Utilities	Transport	Marketing	Governance	Other
Kilimanjaro	49	29	7	4	6	5
Morogoro	48	24	11	8	4	6
Mtwara	46	26	10	10	2	8
Mbeya	73	8	10	2	2	5
Tabora	39	19	14	8	13	7
Kigoma	57	10	17	5	1	11
Kagera	51	22	17	6	4	1

Source: 2005 Tanzania RICS

Table 10: Top five Major or Severe Constraints Causing Households to Close Their Non-farm Enterprise (percentages among households with closed non-farm enterprise)

Region	Finance	Utilities	Transport	Marketing	Governance	Other
Kilimanjaro	14	43	7	18	7	11
Morogoro	37	36	7	7	4	7
Mtwara	53	18	7	15	2	5
Mbeya	61	12	5	13	2	6
Tabora	28	24	22	13	9	3
Kigoma	45	19	17	11	0	8
Kagera	28	31	25	9	3	3

Source: 2005 Tanzania RICS

Table 11: Basic Enterprise and Community Characteristics by Region, 2005 [a/]

Characteristics	Total	Kilimanjaro	Morogoro	Mtwara	Mbeya	Tabora	Kigoma	Kagera
Staffing								
Average number of laborers (including	2.2	2.7	3.1	1.5	1.6	2.7	1.9	2.2
1 laborer (%)	47	66	65	65	22	45	63	47
2 laborers (%)	28	12	26	26	49	34	16	28
3 laborers (%)	14	4	6	5	7	12	4	14
4 laborers (%)	4	3	1	2	14	4	10	4
5+ laborers (%)	6	15	2	3	7	6	7	6
Average number of household laborers	1.6	1.4	1.3	1.3	1.2	1.6	1.2	1.3
Average number of hired laborers	0.7	1.2	1.1	0.1	0.3	1.0	0.3	1.0
Average owner's experience (yrs)	4.9	5.7	5.2	4.7	3.8	4.8	6.4	5.4
Managers/Owners w/ primary education	80	76	84	84	80	67	94	70
Managers/Owners w/ secondary	17	22	12	14	17	26	6	27
Managers/Owners w/ tertiary education	3	3	3	2	3	7	0	3
Male manager (%)	77	78	64	84	79	87	87	62
Age and Sector								
Age < 3years (%)	20	17	21	27	16	15	13	29
Age 3-5 years (%)	26	25	31	22	31	19	25	25
Age 6-10 years (%)	23	19	17	26	26	22	28	24
Age >10 years (%)	31	39	31	25	27	44	35	22
Industry (%)	22	41	44	30	7	33	57	14
Services (%)	21	23	25	22	32	30	38	24
Trade (%)	57	58	58	61	72	61	70	80
Ownership and Formality								
Sole proprietorship (%)	92	89	86	95	95	92	89	96
Registered (%)	19	21	14	14	19	28	18	26
Median registration fee (US$)	30	18	64	17	47	17	28	28
Median license fee (US$)	23	30	30	16	23	23	18	46
Median federal & local tax & levy fee	46	29	46	39	46	134	30	54
Sales and Assets								
Median value added (US$)	113	119	46	64	188	321	188	20
Median value added per worker (US$)	83	73	28	46	138	115	135	18
Seasonal sales (%)	75	74	73	68	76	55	98	84
Average local market share (%)	20	37	25	29	12	26	35	34
Median net assets (total assets – total	230	387	157	134	189	272	420	786
Median value of all fixed assets (US$)	193	367	152	73	165	230	384	551
Median investment in fixed assets (US$)	9	9	51	7	0	0	142	6
Infrastructure (community level)								
Average time to nearest city (minutes)	84	59	87	93	61	110	122	76
Average distance to nearest city (km)	20	14	21	19	15	36	14	18
Main road connecting community to city	83	85	96	80	77	70	93	85
Distance to nearest market (km)	9	8	11	10	9	13	4	6
Average distance to nearest financial	16	13	21	15	15	14	19	19
Access to financial services in	83	95	83	60	100	74	73	81
Education of government official (yrs)	7	8	7	6	8	7	8	8
Time current government in power	30	34	29	16	22	39	24	48
Electricity within the community (%)	40	60	42	20	67	35	13	20

Source: 2005 Tanzania RICS

a/ Median values used in place of mean to correct for outliers in select indicators

Table 12: National Real Prices for Goods and Services in Rural Communities, 2002-2004 (averages)

Goods and Services	2004	Annual Growth Rate 2002-2004 (in %)	Statistically Significant Change from 2002-2004 (10% level)
Petroleum (US$/Liter)	0.62	2.0	No
Fertilizer (US$/20kg bag)	6.52	3.3	No
Cement (US$/50kg bag)	8.57	9.7	Yes
Galvanized steel sheet for roofing (US$/3 meters)	5.34	3.6	Yes
Electricity - less than 100 Kwh consumption (US$/Kwh)	0.06	-11.1	No
Electricity - more than 100 Kwh consumption (US$/Kwh)	0.11	-2.8	No
Telephone call to nearby region (US$/Minute)	0.35	1.0	No
Cell phone call to nearby region (US$/Minute)	0.37	-2.8	Yes
Commodity transport to nearby district (US$/Mt)	18.00	-2.6	No
Male daily casual laborer wage rate in agriculture (US$/Acre) [a/]	19.31	6.5	Yes
Male daily casual laborer wage rate in agriculture (US$/Day) [a/]	1.07	5.5	No
Male daily casual laborer wage rate in construction (US$/Day) [a/]	1.82	14.7	Yes
Male daily casual laborer wage rate in public works (US$/Day) [a/]	1.40	4.1	No
Female daily casual laborer wage rate in agriculture (US$/Acre)	14.53	5.1	No
Female daily casual laborer wage rate in agriculture (US$/Day)	1.27	7.0	No
Female daily casual laborer wage rate in construction (US$/Day)	1.70	7.4	Yes
Female daily casual laborer wage rate in public works (US$/Day)	1.11	7.5	Yes

a/ Male wages are significantly different than female wages (10 percent level)

Table 13: Basic Infrastructure Use of Enterprises by Region, 2005

Infrastructure category			Nation	Region							Rural Location	
				Kilimanja	Morogoro	Mtwara	Mbeya	Tabora	Kigoma	Kagera	Areas	Towns
Own fixed line or mobile telephone			13	20	8	4	20	11	6	24	8	18
Use fax communication (%)			0.6	0	1	0	1	0	1	2	0	1
Use computer technology (%)			0.5	1	1	0	0	1	0	1	0	0
Own means of transportation (%)			68	63	63	79	59	87	75	75	74	65
Primary means of transportation	pay-per-use	Bicycle (%)	48	29	49	68	44	58	36	40	54	40
		Truck (%)	19	22	23	15	16	20	34	4	19	20
		Car (%)	15	21	8	11	22	6	14	22	14	16
		Bus (%)	13	19	16	2	11	13	15	22	9	18
		Other (%)	5	9	4	4	7	3	1	12	4	6
	owned	Bicycle (%)	74	51	82	75	81	67	82	63	79	67
		Truck (%)	8	8	6	9	6	20	6	2	7	11
		Car (%)	8	14	8	8	6	7	7	11	7	10
		Motorcycle	4	15	2	1	2	3	1	13	5	4
		Other (%)	6	12	2	7	5	3	4	11	2	8
Use of electricity (%)			27	40	31	15	26	21	26	35	19	36
Sources for electricity	Grid (%)		45	42	43	0	81	55	3	51	25	58
	Generator (%)		15	2	6	47	1	28	54	7	12	17
	Alternative energy (%)		18	24	24	50	5	10	23	2	35	8
	Other (%)		21	32	27	3	13	7	20	40	28	17
Power grid interruptions	Number per month		6	10	5	0	4	12	0	4	9	5
	Times per day		5	5	11	0	4	3	0	5	6	5
	Minutes per incidence		39	32	37	0	46	35	0	32	38	40
	Annual cost (US$)		146	89	26	0	51	53	0	502	443	55
	Cost/Sales ratio		0.14	0.09	0.03	0.00	0.05	0.05	0.00	0.49	0.43	0.05

Source: 2005 Tanzania RICS

APPENDIX 2: REGRESSION ANALYSIS

Determinants of rural non-farm enterprise employment growth

This appendix presents results from an analysis of the impact of investment climate constraints on rural non-farm enterprise *employment* growth.[26] Following Evans (1987), the basic empirical model is a general growth function g in size and age:

$$G = \frac{S_{t'}}{S_t} = g(S_t, A_t)$$

where $S_{t'}$ and S_t are the size of a firm for the period t' and in period t, respectively, and A_t is the age of the firm in period t. In accordance with the main arguments of this report, this functional relationship can be moderated through a set of investment climate variables IC:

$$G = g(S_t, A_t)e^{bIC}$$

The equation thus suggests the following regression framework:

$$\frac{\ln(S_{t'}) - \ln(S_t)}{d} = const + a_1 \ln(S_t) + a_2 \ln(A_t) + a_3 \ln(S_t) \times \ln(A_t) + \sum_{i=1}^{n} b_i IC + \varepsilon_t$$

where the dependent variable corresponds to the average annual growth rate, d stands for the number of years over which the growth rate is measured, and a and b are the coefficient vectors.

The partial derivates of growth with respect to size and age allow testing for alternative theories of firm growth. Learning models of firm growth such as Jovanovic (1982) suggest that these should be negative. In line with Evans (1987), higher order expansions of the logarithmic expression for firm size and age, and an interaction term between size and age are included in the regression. The basic framework also incorporates six regional dummies and a dummy for enterprise participation in the formal sector.

A basic regression is run without investment climate constraints on average real sales and employment growth as a first step. If measurement error were not a problem, defining growth in terms of sales or profits might be preferable to a labor-based measure. However, the Tanzania RICS data rely on a retrospective technique. Since most proprietors do not keep records, they can only estimate their sales or profits, even at the present time. It is likely that measurement errors of sales growth make the regression to perform poorly (Table 14). The key basis for the following growth estimate is therefore the number of working days. Changes in working days are a more robust measure of enterprise growth in rural areas (McPherson, 1996). For rural entrepreneurs that do no keep books or records, a measurement is easy to remember.

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[26] Prepared by Josef Loening. Approaches that analyze microenterprise growth in Africa, using size and age as main explanatory variables for employment growth, are Sleuwaegen and Goedhuys (2002) and McPherson (1996).

Table 14: Determinants of Employment and Sales Growth, 2000-2004

Explanatory variables	Dependent growth variable: Annual growth of labor days 2000-2004	Annual growth of sales 2002-2004
	(1)	(2)
ln age	0.400*	0.057
	(2.22)	(0.62)
ln age squared	-0.156*	-0.047
	(-2.18)	(-1.07)
ln age cubic	0.020*	0.008
	(2.19)	(1.03)
ln size	-0.329**	-0.990**
	(-19.6)	(-3.65)
ln size squared	0.228**	0.179**
	(19.5)	(3.54)
ln size cubic	-0.037**	-0.011**
	(-16.3)	(-3.51)
ln size x ln age	-0.021**	0.005
	(-3.42)	(0.42)
Formally registred	0.009	0.009
	(1.70)	(0.47)
Constant	-0.119	1.871**
	(-0.82)	(3.93)
Regional dummies	YES	YES
Observations	722	828
Adjusted R-squared	0.65	0.18

Robust t statistics in parentheses
* significant at 5%; ** significant at 1%

Source: 2005 Tanzania RICS

Table 14 shows that the regression on employment growth performs relatively well. The regression reports robust t-statistics to correct for heteroskedasticity. The relationship between size and age on growth is nonlinear. The results are stable in the sense that using average instead of initial size in the regressions to address the problem of transitory fluctuations of enterprises (Mazumdar and Mazaheri, 2003) does not significantly change the sign or significance of the coefficients. In addition, sample censoring does not seem to bias the results significantly. The functional relationship is therefore considered robust.

Figure 18 (main text) predicts enterprise growth as a function of size and age, which facilitates interpretation of the coefficients. The results suggest an important role for small and young firms. The analysis shows that after start-up, an average one-person rural enterprise in Tanzania will only grow during the first four years and then remain stagnant. The average enterprise size is about 1.4 employees, a number that coincides with descriptive survey data for one-person enterprises.

Table 15: Community-level Investment Climate Constraints and Employment Growth, 2000-2005

Explanatory variables	Coefficients: Statistically significant	Coefficients: Statistically insignificant	N	Adj. R^2
Finance				
Access any non-farm financial service		-0.003	589	0.61
		(-0.53)		
Access to rural private bank a/		-0.009	537	0.66
		(-0.86)		
Access to urban private bank a/		0.014	537	0.66
		(1.39)		
Access to cooperative bank a/		-0.005	537	0.66
		(-0.83)		
Access to community group bank a/		-0.012	537	0.66
		(-1.10)		
Access to money lender a/	0.016**		537	0.66
	(2.62)			
Access to other financial sources a/		-0.004	537	0.66
		(-0.55)		
Access to government bank a/		-0.001	537	0.66
		(-0.12)		
Infrastructure				
Roadside location	0.029*		627	0.64
	(2.49)			
Distance to next market or city (x10 in km)	-0.005**		560	0.66
	(-4.22)			
Access to cellular phone service	0.008*		560	0.66
	(2.08)			
Access to electricity		0.003	627	0.63
		(0.56)		
Electricity interuptions (number/month)	-0.001**		257	0.52
	(-3.35)			
Average duration of interuptions (hours)	-0.002*		257	0.52
	(-2.71)			
Market demand				
Agricultural wage rate (x1000 in TSh/day)	0.003*		604	0.62
	(2.06)			
Construction wage rate (x1000 TSh/day)		0.001	594	0.61
		(1.01)		
Public works wage rate (x1000 Tsh/day)		0.002	563	0.61
		(0.35)		
Business environment				
Number of days to register (x100)	-0.005*		578	0.60
	(-2.75)			
Social violence in community	-0.011*		602	0.61
	(-2.48)			
Number of thefts in community (x100)		-0.013	510	0.61
		(-1.86)		

Robust t statistics in parentheses. a/ Specific finance constraints are regressed jointly.
* significant at 5%; ** significant at 1%.

Source: 2005 Tanzania RICS

By contrast, a bigger enterprise with an initial start-up size of five employees contracts slightly during the first year, but grows relatively fast for the five subsequent years. Thereafter, employment growth declines and the firm eventually contracts. This "stylized" growth process also sheds light on the distribution patterns of employment growth in Figure 16 (main text). Employment generated by rural enterprises is low and occurs in a minority of small and relatively young enterprises. However, employment generation by these small enterprises will never grow substantially unless other growth obstacles are considered.

Investment climate constraints are included into the employment growth regression as a second step.[27] The results are displayed in Table 16. Objective measurements (community constraints) are preferred to subjective measurements (perceived business constraints). In the case of the Tanzania RICS, subjective measurements either have an insignificant impact on employment growth, or the wrong sign. Potential constraints are regressed individually on growth because of multicollinearity, unclear causalities and the complicated interaction process among business constraints (Ayyagari et al., 2006; Bigsten and Söderbom 2005). For example, some constraints may affect firm growth only indirectly through their influence on other obstacles. In addition, if multiple investment climate variables were included simultaneously, many observations are being lost.[28]

Finally, an econometric simulation is conducted to facilitate the interpretation of the investment climate coefficients. The simulations should be taken with some caution. They rely on empirical data from two RICS modules that proved challenging to merge, use econometric methods that are subject to measurement error, and do not address causality issues. Finally, it is also evident from the table that the estimated investment constraints have a large margin of error. Nevertheless, the simulations are useful in comparing the magnitude of individual investment climate variables with respect to their impact on growth.

The simulation is done with a macro for the Stata statistics package (King et al., 2000). It uses a Monte Carlo simulation technique that can produce standard errors of the parameters. The simulations assume a 50 percent reduction or improvement of those variables that are statistically significant in the regressions (for instance, mean distance to the next market was assumed to decrease from currently 17.1 to 11.4 kilometers). It is important to note that the main purpose of the simulations is to *visualize* the magnitude and then *rank* the respective impact of constraints on enterprise growth. Assuming an improvement of, for instance, 10 percent would change the magnitude of the coefficients but does not affect the respective ranking of the investment climate variable.

Improved access to road infrastructure and rural finance impact significantly on employment growth. Figure 25 (main text) shows that improved access to markets would have the strongest impact on employment growth, followed by access to rural finance. Interestingly, rural cell phone communication ranks third. Demand-side factors such as higher rural wages due to productivity increases in agriculture or other factors, ranks fourth. For those rural entrepreneurs who do use electricity, an increase in interruptions could stimulate growth. In addition, legal registration and

[27] The RICS contains numerous investment climate variables that could impact on rural enterprise growth. To facilitate selection, business constraints were first correlated with sales and employment growth, and only those variables that showed a sufficient degree of correlation were selected for the regressions.

[28] A similar approach has been done in the Tanzania Urban ICA (World Bank, 2004b).

lower registration costs could boost growth. Finally, a reduction in violent conflicts could potentially benefit growth.[29]

Table 16: Simulation Results of Business Constraints Impact on Employment Growth

Community-level constraint	Mean impact on annual employment growth	Standard errors
Business environment: 50% reduction of registration time	0.041%	0.014
Social cohesion: 50% reduction of violent conflict	0.109%	0.044
Registration: 50% increase of formal registration	0.138%	0.060
Electricity supply: 50% decrease in interruptions	0.195%	0.059
Demand: 50% increase of agricultural wage rate	0.215%	0.105
Communications: 50% increased access to cell phones	0.236%	0.141
Finance: 50% increased access to lending	0.239%	0.091
Roads: 50% reduction in average market distance	0.279%	0.063

Source: 2005 Tanzania RICS

Determinants of formal registration

The standard approach to study the determinants of formality (firm is registered by any government office) is a probit regression framework (Bigsten et al., 2004). The parameters of the coefficients can be estimated using maximum likelihood procedures. The results of the analysis are presented in Table 17. Firm size has the strongest impact on registration. Increasing annual sales revenue by only 1,000 Tsh (US$ 0.77) increases the probability of being registered by 2.6 percent.

Other factors that strongly affect registration are secondary and tertiary education, and the location of the enterprise. Female entrepreneurs are less likely to register. It may be that the opportunity costs are higher for women given their household responsibilities. Registration costs have a negative impact on firm registration. For example, a 5 percent reduction in of the share of registration costs in sales could boost registration by 11 percent.[30]

[29] The ranking of business constraints identified through the regressions is considered robust. Using spatial econometrics to assess the determinants of rural wage labor in Tanzania, also Mduma and Wobst (2005) identify similar constraints.

[30] The usual caveat of causality issues apply. For example, registration could lead to higher sales but also higher sales (more productive enterprises) to higher productivity.

Table 17: Probability of Being Registered, 2005

Explanatory variables	Dependent variable: Enterprise is formally registred	
	(1)	(2)
Age of enterprise (years)	0.009*	0.015**
	(-2.30)	(-2.84)
Age squared	-0.001**	-0.001**
	(-2.94)	(-2.89)
Sales (x1000 in Tsh)	0.026**	0.018*
	(-4.65)	(-2.28)
Managers work experience (years)	0.003	0.002
	(-1.75)	(-0.95)
Manager has secondary education (base = primary)	0.097**	0.114*
	(-3.01)	(-2.50)
Manager has tertiary education	0.193*	0.212*
	(-2.55)	(-2.33)
Household owns firm	0.100*	0.124*
	(-2.50)	(-2.51)
Male manager	0.119**	0.130**
	(-4.29)	(-3.68)
Rural area (base = rural town)	-0.083**	...
	(-3.49)	
Location on main road (base = other)	...	0.197**
		(-3.06)
Share of average registration cost in sales	...	-0.022*
		(-2.14)
Regional and sectoral dummies	YES	YES
Observations	1094	590
Pseudo R-squared	0.13	0.18

Reports marginal changes; robust z statistics in parentheses
* significant at 5%; ** significant at 1%

Source: 2005 Tanzania RICS

Determinants of enterprise participation

Inclusion of a sample of households without enterprises in the data allows estimating determinants for participation in the rural non-farm sector.[31] Given the positive welfare impact of enterprise ownership, determining whether entry barriers exist, and how they may be overcome, is of great interest. To do so, households were indexed by *i* and communities (GNs) by *j* to estimate a probit equation for operation of an enterprise that is of the form

$$Z_i = \alpha_0 + \alpha_1 (H_i) + \alpha_2 (C_j) + \alpha_3 (IC_j) + \alpha_4 (D_j) + \varepsilon_i$$

where Z_i is a dummy variable equaling one if household *i* operated a non-farm enterprise and zero otherwise, H_i, C_j, IC_j are vectors of households' physical and human capital endowment; access to infrastructure and the regulatory environment governing enterprise operation, respectively, D_j is a set of provincial dummies, α_1 to α_4 are coefficient vectors to be estimated, and ε_i is an *iid* error term. Variables included in H_i are household size, land endowments, the household head's age

[31] This section draws from Sundaram-Stukel, Deininger and Jin (2007).

and education, a dummy for whether the head's parents operated a non-farm enterprise. C_j includes dummy for electrification, distance to city, dummy for existence of public transportation to market, dummy for mud road, and distance to the nearest bank, IC_j includes the number of days required to register an enterprise and average tax rates in the community.

Table 18: Determinants for Non-farm Sector Participation

	Specification		
	(1)	(2)	(3)
Household characteristics			
Household Size	0.024***	0.024***	0.025***
	(3.48)	(3.43)	(3.52)
Head's age (log)	2.058**	2.049**	2.093**
	(2.17)	(2.16)	(2.21)
Head's age squared	-0.294**	-0.293**	-0.299**
	(2.31)	(2.30)	(2.35)
Head's years of education	0.023***	0.023***	0.023***
	(5.23)	(5.22)	(5.27)
Years of education of head's father	0.008*	0.008*	0.008*
	(1.88)	(1.88)	(1.81)
Head's parents operated business	0.114**	0.111**	0.116***
	(2.55)	(2.46)	(2.58)
Dummy for female head	-0.161***	-0.162***	-0.165***
	(3.84)	(3.85)	(3.92)
Land endowment	-0.045**	-0.046**	-0.045**
	(2.05)	(2.08)	(2.05)
Investment climate variables			
Dummy for Electrification	0.121***	0.126***	0.104***
	(3.43)	(3.55)	(2.77)
Distance to city	-0.001**	-0.001**	-0.001***
	(2.48)	(2.57)	(2.70)
Public transport to market available	0.083*	0.083*	0.089*
	(1.79)	(1.79)	(1.89)
Dummy for mud road only	0.031	0.030	0.035
Distance to the nearest bank		0.001	0.052
		(1.04)	(1.43)
Days required to complete a registration process			-0.000
			(0.03)
Average tax rate in the community			0.023
			(0.28)
No. of observations	1593	1593	1593

Robust z statistics in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%

Results from regressions for household's participation in non-farm employment (Table 18), highlight that, in addition to household characteristics, access to infrastructure and services are key to facilitate participation in the rural non-farm sector.[32] Households with higher levels of education, more family labor, a male head, and parents who had experience in the non-farm sector, are more likely to do so with estimates suggesting that an additional year of schooling by the head increases the probability of participation by 2.3 percentage points, that this likelihood peaks at an age of 34 years and reduced by 16 percentage points by having a female head. Parental education and involvement in the non-farm sector both increases the probability of participation, by 11 points, consistent with what was found in China (Mohapatra *et al.* 2004).

A second set of findings relates to the importance of infrastructure access and investment climate. Living in an electrified village is estimated to increase the probability of non-farm participation by 12 points, an effect that is equivalent to more than the estimated difference between households with and without parents in the non-farm sector or an increase in the head's level of education by almost 5 years. Though only marginally significant, a similarly large impact is found for availability of public transport, estimated to increase the probability of enterprise startup by 8.3 percentage points.

It is of interest to compare this to the coefficient on distance to the next city in which, while highly significant, is small, implying that for everybody located up to about 80 km from a town, public transport would more than compensate for the impact of distance. The coefficient on the distance to the next bank remains insignificant, thus providing little support to the hypothesis that improving financial services would provide the basis for a significant increase in enterprise startups. This is contrary to what is expected given the overriding importance of financial constraints in subjective assessments and suggests that use of subjective constraints in this way may indeed mix different concepts. Finally, tax and other regulatory policies which have emerged as key constraints in urban surveys emerge as having little relevance for operation of rural enterprises, presumably because the concerned enterprises are small and informal anyway.

Determinants of new investments

Restricting the sample to only existing enterprises only allows exploring factors affecting enterprise expansion and productivity. As investment is a different measure of firm growth than the size of the labor force, firms firms were indexed by k and estimate a Probit or obit regression of the form

$$Z_k = \alpha_0 + \alpha_1 (E_k) + \alpha_2 (C_j) + \alpha_3 S_k (C_j) + \alpha_4 (D_j) + \varepsilon_k$$

where Z_k is a dummy that equals 1 if firm k invested within a given period for Probit regressions or the value of such investment in Tobit regressions, E_k is a vector of enterprise characteristics including dummies for size, sector, and age of the enterprise, the value of fixed assets and number of workers, education and experience of the top manager, the magnitude of the firm's informal credit line as explained earlier, C_j is a vector of investment climate constraints (access to infrastructure variables) as discussed above, S_k. is an indicator of enterprise size that equals one for enterprises with more than 2 full-time workers,[33] D_j denotes regional dummies, α_0 through α_4 are scalars or vectors of coefficients to be estimated and ε_k is an *iid* error term. For any constraint in the vector C_j, the corresponding element of α_2 or $\alpha_2 + \alpha_4$ then denote the estimated impact on

[32] Note that what is reported in the table are the marginal effects from the Probit regression.
[33] Splitting the sample (1085 existing enterprises) along this dimension yields 942 small (enterprises with 1 or 2 full time workers) and 143 large enterprises (those with more than two full time workers).

investment by small and large firms, respectively so that significance of α_4 highlights whether this constraint affects large firms more or less than small ones and a t-test of $\alpha_2 + \alpha_4 = 0$ allows to determine whether large firms are affected by a given constraint.

Results from Probit and Tobit regressions for new investment are reported in Table 19 with and without the interaction of investment climate variables with enterprise size. In both specifications, there is convergence of asset stocks as enterprise assets are predicted to increase investment at a decreasing rate with a peak at 54,598 Tsh. for the Probit and 57,957 for the Tobit. Enterprises with more workers are more likely to invest and to have higher levels of investment. The high elasticity (>1) in the Tobit specification points towards disproportionate increases of capital intensity, i.e. a doubling of workers would more than double of investment. At the same time, for existing firms, the owner's experience is more important for investment than formal education. Enterprise age is insignificant or even negative. Surprisingly, sector dummies are insignificant, suggesting that, with these factors accounted for, small manufacturing enterprises do not invest more than those in other sectors.

The large magnitude and high level of significance of most of the objective investment climate variables allows three main conclusions. First, higher levels of public infrastructure provision have considerable potential to lead to complementary investment by the private sector; electrification at the community level is predicted to increase the propensity of investment by 10 percent and almost double investment by existing enterprises; having public transport to the nearest market has an even bigger impact with an estimated 20 percent increase in the propensity of investment and 60 percent increase in the amount of new investment for those who invested. A large impact of public infrastructure on rural small business' investment is also implied by the negative and highly significant coefficient on dirt roads which suggest that small non-farm enterprises in villages that are accessible only by dirt road will be 10 percent less likely to invest and, even if they invest, have significantly lower amounts of investment (by 88-99 percent).

Furthermore, and consistent with findings from the participation regression, access to finance is of greater relevance for expansion of existing enterprises than the establishment of new ones; while the estimated impact of both informal borrowing capacity and distance to banks on the probability of investment is very small and barely significant, both have a major impact in the Tobit equation. This can to some extent help reconcile the seeming contradiction between the frequent mention of finance as a key constraint by existing firms and its lack of significance in the startup regression. Inclusion of an interaction between firm size and infrastructure variables in columns 2 and 4 suggests that small enterprises suffer disproportionately from infrastructure-related constraints.

In fact, conducting χ^2 tests to assess whether infrastructure-related constraints have a significant impact on new investment or the size of such investment by large enterprises, results for which are reported in the bottom of table 5, suggest that, while all of them are highly significant for small enterprises, none of them is significant for large ones. This suggests that expansion of infrastructure investment could lead to a significant increase in startup and expansion of small enterprises in the rural non-farm sector. Of course, infrastructure-related constraints could still reduce productivity of different types of enterprises.

Table 19: Determinants of New Investment

		Occurrence of investment Probit		Size of investment Tobit	
Enterprise characteristics					
Total assets in 2003 (log)		0.096***	0.097***	0.544***	0.553***
		(4.86)	(4.87)	(3.29)	(3.35)
Log of total assets in 2003 squared		-0.012***	-0.012***	-0.067***	-0.068***
		(4.49)	(4.50)	(3.10)	(3.12)
Number of workers (log)		0.097***	0.120**	1.002***	1.390***
		(2.64)	(2.19)	(3.86)	(3.48)
Enterprise age		-0.029	-0.028	-0.335*	-0.312*
		(1.33)	(1.28)	(1.86)	(1.73)
Service sector dummy		0.022	0.024	0.623	0.651
		(0.34)	(0.38)	(1.27)	(1.31)
Trade sector dummy		0.007	0.002	0.403	0.340
		(0.12)	(0.03)	(0.96)	(0.80)
Manager's Education		0.025	0.024	0.155	0.140
		(0.65)	(0.61)	(0.46)	(0.42)
Owner's prior experience (years)		0.006**	0.006**	0.059**	0.063***
		(1.96)	(2.06)	(2.50)	(2.63)
Investment climate variables					
Dummy for electrification	(α)	0.104**	0.101**	0.974**	1.066**
		(2.24)	(2.08)	(2.48)	(2.57)
Public transportation to market	(β)	0.192***	0.207***	1.621***	1.752***
		(3.18)	(3.18)	(3.44)	(3.37)
Log of Informal borrowing capacity	(γ)	0.010*	0.011*	0.133**	0.156***
		(1.68)	(1.93)	(2.56)	(2.90)
Distance to bank	(δ)	-0.021	-0.028*	-0.316***	-0.352***
		(1.53)	(1.85)	(2.75)	(2.87)
Mud road only	(η)	-0.095**	-0.105**	-0.882**	-0.986***
		(2.20)	(2.29)	(2.55)	(2.60)
Electrification*size dummy	(α_1)		0.071		-0.268
			(0.54)		(0.28)
Public transport. *size dummy	(β_1)		-0.072		-0.326
			(0.50)		(0.31)
Borrowing capacity*size dummy	(γ_1)		-0.021		-0.157
			(1.54)		(1.49)
Distance to bank*size dummy	(δ_1)		0.055		0.315
			(1.45)		(1.06)
Mud road*size dummy	(η_1)		0.077		0.837
			(0.65)		(0.92)
Test for size effects:					
	$\alpha+\alpha 1=0$		0.172		0.798
			(1.90)		(0.74)
	$\beta+\beta 1=0$		0.135		1.426
			(1.15)		(2.27)
	$\gamma+\gamma 1=0$		-0.010		-0.001
			(0.49)		(0.00)
	$\delta+\delta 1=0$		-0.027		-0.037
			(0.59)		(0.02)
	$\eta+\eta 1=0$		-0.028		-0.149
			(0.06)		(0.03)
Observations		1085	1085	1085	1085

Robust z statistics in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%

Determinants of total factor productivity

The most important issue from a policy perspective is to obtain the impact of exogenous constraints on total factor productivity (TFP). The approach taken in most of the literature (Söderbom and Teal 2004, Lee *et al.* 2005, Guasch and Escribano 2005, Dollar *et al.* 2006) is to regress the residual from a standard value-added production function (μ_k) on a vector of such characteristics $\boldsymbol{C}_j$. With technology represented by a Cobb-Douglas production function with sector-specific coefficients, this would imply estimating

$$\ln Y_k = \gamma_0 + \gamma_1 * T_k^1 + \gamma_2 (\ln L_k) * T_k^f + \gamma_3 (\ln K_k) * T_k^f + \gamma_4 (E_k) + \gamma_5 (D_j) + \mu_k$$

where Y_k is value added, L_k is the number of workers, K_k the value of fixed assets, E_k a vector of enterprise characteristics such as type and age, D_j a set of provincial dummies, and T_k^f (f =1,2) is a dummy for trade and service sectors, respectively. Assuming that observable inputs are properly accounted for, the residual μ_k can be interpreted as a measure of total factor productivity such that regressing it on the vector of investment climate variables $\boldsymbol{C}_j$ will provide an estimate of the impact of these on TFP. Alternatively, direct inclusion of $\boldsymbol{C}_j$ in (3) will allow estimation in a single equation which will be more efficient.[34] As discussed above, interact coefficients on $\boldsymbol{C}_j$ with an indicator of firm size to allow for the impact of exogenous constraints to differ across firms of different size.

Results for determinants of total factor productivity are reported in Table 20 with labor and capital variables interacted with sector dummies to allow elasticities to differ across sectors.[35] In line with expectations, the marginal return to labor is higher for trade than for services (with an elasticity of 0.55-0.69 and 0.39-0.55 depending on the specifications), with opposite patterns for capital (0.14-0.15 and 0.32-0.33 respectively). Although only marginally significant, the estimated coefficients point towards lower productivity in services as compared to trade sector and that most other enterprise characteristics or not do not appear to have much effect on total factor productivity.

Consistent with what was the case for investment, enterprises TFP is significantly affected by the level and quality of local infrastructure access. Availability of public transport, a variable which, at least to the extent that such transport is provided by the public sector, will not be independent from the estimated total factor productivity; providing such transport for firms that are currently constrained would be expected to increase TFP by 70 percent. Interestingly, once this is accounted for, having a link to a dirt road only does no longer have any significant impact. The second most important constraint, according to the estimates, is availability of electricity; providing access to the approximately 50 percent of enterprises located in villages without electricity connection could increase their productivity by 44-49 percent. Compared to these, doubling formal borrowing capacity would imply 10 percent increase in TFP.

Taking these two factors together could have a large impact; eliminating electricity and public transport constraints, which currently affect 15 and 38 percent of the sample, would be predicted to enhance productivity by around 28 percent.

Exploring whether the impact of investment climate variables differs by enterprise size reveals a pattern that is more differentiated, suggesting that public infrastructure investment will be more

[34] Not surprisingly, results obtained by the two approaches are very similar.

[35] Due to negative value-added by many production enterprises, the analysis focuses on the trade and service sectors only which comprise about 80 percent of the total enterprise sample.

important for small enterprises in almost all the categories. Differentiating by enterprise size (col. 2) suggests that providing electricity and public transport will be more critical for small enterprises compared to big enterprises. In fact, the coefficient of access to electricity is not significant for large firms any more. Although the coefficient for availability of public transport has similar magnitude of impact on both the small and large enterprises, it is much more significant for small enterprises than for small ones (at 1 percent significant level for small ones and only 10 percent for large ones). It is also interesting that, while the informal borrowing capacity only affects the TFP of small enterprises, the distance to commercial banks is more significant for large than for small ones.

Table 20: Determinants of Total Factor Productivity

		(1)	(2)
Log of number of workers*service sector		0.391*	0.547*
		(1.69)	(1.92)
Log of number of workers*trade sector		0.552***	0.692***
		(3.60)	(3.33)
Log of total assets*service sector		0.322***	0.332***
		(3.18)	(3.25)
Log of total assets*trade sector		0.139**	0.146***
		(2.52)	(2.61)
Dummy for zero assets*service sector		2.129***	2.218***
		(3.25)	(3.37)
Dummy for zero assets*trade sector		0.987**	1.037***
		(2.56)	(2.64)
Dummy for home-based enterprises		-0.087	-0.086
		(0.57)	(0.57)
Dummy for service sector		-1.042*	-1.064*
		(1.65)	(1.67)
Dummy for age 2-5 years		-0.061	-0.055
		(0.29)	(0.26)
Dummy for age 5-10 years		0.198	0.213
		(0.94)	(1.00)
Dummy for age > 10 years		0.083	0.092
		(0.38)	(0.42)
Manager's experience (years)		0.013	0.018
		(0.56)	(0.80)
Owner's prior experience (years)		-0.006	-0.012
		(0.28)	(0.54)
Electrification dummy	(α)	0.444***	0.493***
		(2.59)	(2.74)
Public transport dummy	(β)	0.702***	0.734***
		(3.17)	(2.93)
Informal borrowing capacity (log)	(γ)	0.096*	0.102**
		(1.92)	(2.03)
Distance to formal bank (km)	(δ)	-0.084*	-0.057
		(1.70)	(1.08)
Mud external road	(η)	0.133	0.063
		(0.84)	(0.36)
Electrification dummy *size	(α_1)		-0.309
			(0.68)
Transport dummy *size	(β_1)		0.000
			(0.00)
Inf. borrowing capacity (log)*size	(γ_1)		0.003
			(0.06)
Distance to bank*size	(δ_1)		-0.170
			(1.21)
Mud road*size	(η_1)		0.595
			(1.63)
Observations		917	917
R^2		0.15	0.15
Tests for size effects			
$\alpha+\alpha_1$			0.184
			(0.42)
$\beta+\beta_1=0$			0.734*
			(1.88)
$\gamma+\gamma_1=0$			0.105
			(1.64)
$\delta+\delta_1=0$			-0.227
			(1.73)
$\eta+\eta_1=0$			0.685**
			(1.96)

Robust t statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

APPENDIX 3: SURVEY METHODOLOGY

Definition of non-farm enterprises

For the purposes of the survey, a rural non-farm enterprise was defined as any self-employment (or standalone) income generating activity (trade, production or services) located in rural areas not related to primary production of crops, livestock or fisheries undertaken either within the household or in any non-housing units. Any value addition (processing) to primary production is considered a rural non-farm activity. Households primarily engaged in the production of goods and services for home consumption are excluded.

Survey instruments

The final survey instrument for the Tanzania RICS consisted of three modules: (i) household, (ii) enterprise, and (iii) community. The data were collected during the months of January and March of 2005, by face-to-face interviews of members of selected households, owners/managers of rural non-farm enterprises and community leaders.

The household module collected information on household demographics, sources of income, and levels of education. The questionnaire for this module was administered to select non-farm enterprises that were physically located within households (home based) and physically located outside households (stand-alone) as well as selected households that did not engage in rural non-farm enterprises. For households non-engaged in non-farm enterprise activities this module also collected data on factors preventing participation in non-farm enterprises.

The enterprise module collected basic information on enterprise sector of operation, start-up, income and employment generation, formality, seasonality, competition, and constraints to growth. The questionnaire was completed for each rural non-farm enterprise selected for the survey. The manager or most knowledgeable person about the firm was interviewed.

The community module was used to develop community profiles and identify community level characteristics that are important in determining the rural investment climate. This questionnaire was completed by interviewing various community leaders such as village head, local government officials, principal of a school, etc. A community questionnaire was administered in each of the selected communities. A price component to the module gathered price data on key consumer commodities and services prevailing in the main local market in each community.

Sampling approach

To ensure that the different geographic and climatic zones are well represented in the sample and to provide high efficiency in the estimators, Mainland Tanzania was stratified into seven zones (East, Northern Highland, Southern Highland, Central, Lake, West, and Southern zones). The zones were created based on climatic and agro-ecological characteristics, as well as cropping patterns and other geographic characteristics. Each zone has three or four regions (for a total of 26 regions), each of which are made up of several districts, which in turn group are comprised of towns and villages. The Tanzanian National Bureau of Statistics defines an Enumeration Area (EA) as a geographical area or community with a population size of 300 to 900 individuals. The survey distinguished between rural and urban EAs. Urban EAs are located within a predominantly rural area and usually contain 300-500 individuals, and usually have their own markets and social service providers (schools, health centers) that serve the surrounding vicinity. Rural EAs lack these amenities.

Separate sample frames were used for households, businesses and communities. Based on experience and information gathered from the RICS in other countries and the specifics of the geographical distribution of households and non-farm enterprises in Tanzania that was available from the 2002 Population and Housing Census, the National Bureau of Statistics set sampling targets of 1620 households, 1500 non-farm enterprises and 150 communities. Since the National Bureau of Statistics considers the regions within each zone to be highly similar, this stratification is often used when drawing a representative sample. As a result, one region from each zone was selected using stratified random sampling. Then, out of the 26 regions of Tanzania, seven were included in the final survey, one from each agro-ecological region.

After selecting these seven regions, simple random cumulative selection was used to choose the appropriate number of EAs from the regions. The probability of selection depends on the size of the population in each district, even when attempts were made to ensure that all districts in the selected regions were covered. A total of 150 EAs were selected. Table 21 gives EA population and sample numbers by region.

Table 21: Names of Selected Regions and Zones and Number of Enumeration Areas

Zones	Regions	Districts	Regional population	Total enumeration areas	Total rural enumeration areas	Selected enumeration areas
East zone	Morogoro	6	1,753,362	3,086	1,629	24
Northern Highland	Kilimanjaro	6	1,376,702	2,309	1,753	20
Central	Tabora	6	1,710,465	2,190	1,407	21
Lake	Kagera	6	2,028,157	2,387	2,104	20
West	Kigoma	4	1,674,047	1,762	1,730	15
Southern	Mtwara	5	1,124,481	2,078	1,273	20
Southern Highland	Mbeya	8	2,063,328	3,048	2,289	30
Total	7	41	11,730,542	16,860	12,185	150

Source: 2002 Population and Housing Census

Once the communities to be included into the sample were selected, listing of the households and all non-farm establishments in each selected enumeration area was undertaken. Listing of the households in those communities included information about whether any household member owns or operates a non-farm business. Samples of about 10 households – both with and with out non-farm businesses – were then drawn from the list prepared in each selected enumeration area.

Non-farm enterprises in each selected enumeration areas were listed by major economic activity. At least 11 non–farm enterprises were then randomly selected from each enumeration area depending on the availability of such enterprises. Because the low probability of selection, manufacturing enterprises were over-sampled to ensure sufficient observations. Table 22 and Table 23 summarize the distribution of planned and actual sample size for the household, enterprise and community surveys by region and zone.

As evidenced in the above tables, the TRICS data collection process achieved high response rates for all the three modules. The non-response rates, though relatively low given the informality of these non-farm activities, were mainly caused by enterprise owner absenteeism during visit times. It is also true that some of non-farm enterprises could not be located and that a few of the enterprises enumerated did not qualify as non-farm. Survey weights were found to overestimate

significantly and were consequently unusable for this report. Efforts are underway to adjust the weights for use in future analysis.

Table 22: Original Sample Sizes for Enterprises, Household and Community Survey

Zones	Regions	Enterprises	Households	Communities
East zone	Morogoro	240	240	24
Northern Highland	Kilimanjaro	200	201	20
Central	Tabora	210	291	21
Lake	Kagera	210	240	20
West	Kigoma	150	150	15
Southern	Mtwara	200	200	20
Southern Highland	Mbeya	290	298	30
Total	7	1,500	1,620	150

Table 23: Number of Respondents for Enterprises, Household and Community Survey

Zones	Regions	Enterprises	Households	Communities
East zone	Morogoro	238	236	24
Northern Highland	Kilimanjaro	114	201	20
Central	Tabora	142	291	21
Lake	Kagera	123	239	20
West	Kigoma	138	149	15
Southern	Mtwara	199	200	20
Southern Highland	Mbeya	285	294	30
Total	7	1,239	1,610	150

Comparison of the Tanzania RICS Household Module with HBS

Means for standard indicators are compared between the 2005 RICS and 2001 Household Budget Survey (HBS). Comparisons are made in attempt to crudely evaluate sample population validity. As land ownership, household size and age are fairly static variables over a three-year time horizon, these are the comparators chosen. Average household land ownership across households shows a slight reduction from the HBS estimated 5.8 acres per household to the RICS estimate of 5.3. Average household size measures at 4.87 in the HBS and 4.97 for the RICS. Finally, average household age is 22.5 years as reported for the HBS and found at 23.4 years of age in the RICS.

Because of spatial and temporal differences between surveys, differences are expected. Concern would be validated if these indicators proved significantly misaligned with trend expectations. No evidence of sampling or survey error is found with the chosen indicators.

APPENDIX 4: RURAL FINANCE

Rural finance is the main supply-side constraint of Tanzania's non-farm enterprise sector. Despite financial sector reforms set in motion a decade ago, access to rural financial services by large segments of rural enterprises remains stunted. Most Microfinance institutions are located in Dar es Salaam, and only few have a countrywide network that services rural areas. The principal providers of rural microfinance are Savings and Credit Cooperatives (SACCOs) and foreign-assisted NGOs. In rural areas, there is a large unmet demand for credit. Rural enterprises typically obtain small amount of loans and pay high interest rates when they do access credit. Enterprises use their own funds to meet their start-up need, which shows evidence of a savings culture. Rural entrepreneurs are concerned about access and costs of credit, and often a lack of collateral. Microfinance institutions do not meet the demand for rural credit because of high transactions costs and risks, infrastructure and lack of labor to manage rural loan portfolios.[36]

Historical and Institutional Background

A long history of reform of the rural financial system

The attempt to foster rural finance in Tanzania is not a recent phenomenon. The importance of finance was recognized as early as the late 1960s. Specialized investment and development banking institutions developed to channel finance into neglected sectors of the economy, including the rural sector. The Tanzania Rural Development Bank (TRDB) was established to specialize in the financing of the rural sector in February 1971. The Tanzania Housing Bank (THB) started in 1973 and specialized in the financing of rural and urban residential, offices and commercial buildings. Through the Central Bank of Tanzania (BOT) established the Rural Finance Fund to finance rural development. However, these institutions failed to deliver (Economic and Social Research Foundation, 2004).

Most of the banks and non-banking financial institutions geared towards financing the rural sector were restructured during the financial sector reforms of the 1990s as part of broader market oriented reforms. The financial sector reforms started in 1991 aimed to create an effective and efficient financial system. The restructuring included liberalization of interest rates, elimination of administrative credit allocations, privatization of state owned banks, strengthening the BOT's regulatory and supervisory role, and allowing the entry of privately owned financial institutions. In 1996, public awareness initiatives about microfinance started and helped develop financial institutions with wider outreach. Recognizing the importance of microfinance in the national economy, the National Microfinance Policy (NMP) was launched in February 2001. The policy was intended to integrate microfinance into the broader financial sector.

Reforms did not reach local communities

In 2005, the Government approved the Microfinance Companies and Microcredit Activities Regulations and Financial Cooperative Societies (FICOS) and regulations to ensure a level playing field for both regulated and unregulated microfinance service providers. The regulations stipulate that all Microfinance Institutions (MFIs) follow a best practice regulatory framework. They are also intended to help MFIs and Savings and Credit Cooperative Societies (SACCOS)

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[36] A limitation of the empirical analysis is small sample size. The data are based on 111 enterprises that applied for a formal loan in the past five years. To overcome this constraint, the chapter selectively includes information on rural lending from the household module of the Tanzania RICS.

transition into licensed financial institutions and attract private capital to support their operations (Rubambey, 2005).

While the reforms improved efficiency and competition, they did not improve access to financial services by the low-income segment of the population, especially in rural areas. Credit as a share of GDP has declined dramatically from about 35 percent to GDP in 1993 to only nine percent in 2004. Credit to the private sector contracted from about 15 percent of GDP to only three percent in 1996. However, since then it has steadily recovered and stands now at nine percent of GDP (World Bank, 2006c).

Commercial banks continued to focus on corporate clients and high-income households in urban areas, thus widening the gap between urban and rural populations and their access to financial services. It remains to be seen whether Tanzanian financial reforms will help to overcome the inherent imperfections in rural credit markets, as well as meeting the financial service needs of rural enterprises. Imperfections in rural credit markets result from shortage of realizable collateral, lack of ancillary institutions, high covariant risk among borrowers, and severe problems of enforcing repayments of loan contracts (Economic and Social Research Foundation, 2004).

Limited Access to Rural Finance

Large unmet demand for rural credit

There is a large unmet demand for formal rural credit in Tanzania. According to the TRICS, 61 percent of rural enterprises believe that access to credit is the major constraint to enterprise startup and growth. This is very similar to the estimates made among enterprises in Sub-Saharan Africa (Liedholm, 2002; Bigsten and Söderbom, 2005).

Tanzanian enterprises that list access to finance as one of the top constraints claim they could, on an average, increase their sales revenue by 43 percent if this constraint was removed. Only 19 percent of all the enterprises indicated that they wanted to apply for a formal loan for working capital or investment in a non-farm enterprise in the preceding five years. Only 45 percent of these end up applying for a formal loan. Of the enterprises that actually applied for a loan, few applicants are successful, and only 6 percent of the all enterprises have access to formal credit. This suggests a large unmet demand for credit in rural Tanzania (Table 24).

Table 24: Access to Formal Loans by Enterprises and Households, 2005 (in percent)

Category	Total enterprises	Total households
Enterprises/households that	19.4	9.6
Applied for a loan	8.7	7.2
Got the loan approved	5.8	5.6

In addition, the household survey supports the finding that access to credit rather than costs is the major issue. About 12 percent of households identify lack of access to formal credit as the major obstacle for their non-farm businesses, which was also the top issue that prevents households from starting a non-farm business. Among households who apply only 6 percent are successful. This highlights the extremely limited access to formal credit of rural households and the likely demand (Table 25).

Table 25: Access to Credit by Formal and Informal Enterprises, 2005 (in percent)

	Registered?		Total
Category	Yes	No	
Did not apply	84	93	91
Applied but rejected	5	3	3
Applied and approved	12	5	6
Total	100	100	100

Source: 2005 Tanzania RICS

A significant proportion of the initial capital for rural enterprises in Tanzania comes from personal savings. Expansion of enterprises is mainly financed from internally generated funds. This situation has frequently led to the argument that rural enterprises do not exhibit a high demand for external sources of finance. The initial capital required in establishing a small enterprise may appear meager, but these amounts may account for a substantial proportion of the gross annual family income. This implies that personal savings alone is unlikely to meet the demand for finance by the enterprises. The situation is exacerbated in remote rural areas.

Box 9: Snapshot of Microfinance Institutions in Tanzania

Institutions that provide financial services to low-income businesses and rural households in Tanzania include licensed providers, savings and credit cooperative societies, and NGOs. Most bank branches are located in Dar es Salaam, and only few have a countrywide network that services rural areas. The principal providers of microfinance are therefore Savings and Credit Cooperatives (SACCOs) and foreign-assisted NGOs.

Commercial Banks

Three commercial banks have products and services targeted to low-income businesses: the National Microfinance Bank, the Cooperative and Rural Development Bank, and Akiba Commercial Bank.

National Microfinance Bank (NMB) was created in 1997 as part of the restructuring of the National Bank of Commerce (NBC). The Government divested part of the NMB and Rabobank of the Netherlands acquired a 49 percent stake in 2005. It is the leading bank in Tanzania, with a countrywide network of 104 branches and agencies and a presence in almost every district and regional center. Rabobank currently provides management and technical assistance. The bank started offering rural credit products mainly in the form of micro-loans. It is expected that Rabobank will provide its expertise in rural lending and play a long-term role in rural development in Tanzania.

The Cooperative and Rural Development Bank (CRDB) was restructured and re-capitalized out of the former government owned Cooperative and Rural Development Bank. It a private bank and has a network of 30 branches, of which eight are in Dar es Salaam. Although no longer a cooperative institution, the cooperative is still a significant stakeholder. Through its newly formed subsidiary Microfinance Company (MFC) Limited, the bank offers loans to intermediary microfinance institutions formed by individuals such as Savings and Credit Cooperative Societies (SACCOS), Savings and Credit Associations (SACAS), financial NGOs, and community banks. The beneficiary MFIs in turn provide financial services to their customers. The strategic mission of the subsidiary is to identify and develop banking relationships with a wide range of MFIs and provide intermediary microfinance services. With this indirect approach, CRDB expects to reduce transaction costs and reduce the credit risk of offering loans directly to individuals.

Akiba Commercial Bank began operations in 1997 as an initiative of more than 300 Tanzanian entrepreneurs who were inspired to move into microfinance. Akiba's operations are predominantly focused in the capital city with five branches in Dar es Salaam, 1 branch in Arusha and marketing offices in Moshi, Tanga, Mbeya, Zanzibar, and Pemba. Akiba currently offers microfinance loan products under both the traditional group and individual loan methodologies. Other products offered by Akiba are consumer loans and corporate loans and overdrafts.

Financial Cooperative Societies

The cooperative sector has a four-tier structure: i) Primary cooperatives at the community level, for instance the Savings and Credit Cooperative Societies (SACCOS); ii) Cooperative unions at the district or regional levels, for instance the Kilimanjaro Native Cooperative Union; iii) Apex organizations based on activity specialization, e.g. the Savings and Credit Cooperative League of Tanzania (SCCULT); iv) The Tanzania Federation of Cooperatives (TFC), which is the national-level umbrella organization for all kinds and tiers of cooperative societies. A recent survey revealed that individuals operating at all levels tend not to have managerial and financial expertise, a problem that needs to address if these institutions are to be effectively run and services expanded. The Cooperative Societies Act of 1991 provided the basis for the development of SACCOS as privately owned and organized equity-based institutions. Their outreach, resources from members in terms of share capital and savings, and the volume of loans to members far exceed those of microfinance NGOs (Randhawa and Gallardo, 2003). There are about 1,870 SACCOS in Tanzania whose members constitute 0.7 percent of the Tanzania population. A number of reforms were undertaken in other areas, including the insurance sector where deregulation has been introduced, and in the provident government pension fund where several restructurings have occurred.

Financial NGOs

(MFIs) play an important role in providing small loans to rural businesses. The leading MFIs in Tanzania are PRIDE, MEDA, and FINCA. PRIDE uses a "modified Grameen" methodology and provides loans to groups of five. It has operations in 17 of the 21 regions of mainland Tanzania. FINCA provides group-based loans to poor businesses and households in seven regions. MEDA operates micro-credit programs in Mbeya and Dar es Salaam. In addition, MEDA manages an umbrella credit program to assist other micro-credit organizations like SACCOS. The mission of these MFIs is to provide financial services to the poor so that they can create new jobs, raise household income, and improve their standard of living. Finally, credit by traders and marketing organization also plays an important role in agriculture, with interest rates significantly higher than commercial lending rates.

Table 26: Institutional Providers of Microfinance Services

Type/name of institution	Microfinance products offered	Market/area of operation	Legal status	Main source of funds
Financial NGOs				
Solidarity/group-based microfinance loans, such as Presidential Trust Fund, Povertv Africa. YOSEFO.	Mandatory savings (except a few) & group–based loans	Urban and peri-urban areas: selected rural areas	Societies Act: Trust	Donor funds
Individual Microfinance loans, such as: SIDO, Tanzania Gatsby Trust, Mennonite Economic Development Association, Poverty Africa	Mandatory savings (except those marked) & individual loans	Urban and peri-urban areas	Societies Act: Trust	Donor funds
Village savings and credit associations (SACAs)	Individual savings & group-based loans	Rural villages	Societies Act, Ministry of Home Affairs	Donor grants
Savings and Credit Cooperative Societies				
Urban SACCOS	Member loans only	Urban areas	Cooperative Societies Act	Share capital, loans, grants
Rural SACCOS	Member savings deposits and loans	Rural areas	Cooperative Societies Act	Share capital, loans, grants
Other (savings-based) SACCOS	Voluntary savings and withdrawals only	Rural and Urban areas	Cooperative Societies Act	Share capital, loans, grants
Regulated and licensed providers of microfinance services				
Commercial banks				
National Microfinance Bank	Savings deposits & micro-loans	Nationwide	Act of parliament	Deposits/capital
Akiba commercial Bank	Savings deposits: Group and individual micro-enterprise loans	Nationwide	Companies' Act:	Deposits/capital
CRDB bank	Newly-organized microfinance dept.	Nationwide	Companies' Act:	DANIDA
Tanzania Postal Bank (licensed as NBFI)	Savings/fixed deposits	Nationwide	Act of Parliament	Deposits/capital
Regional banks				
Kilimanjaro Cooperative Bank	Savings deposits and micro-loans	Kilimanjaro Region	Companies' Act: BOT	Deposits/capital from regional SACCO union and SACCOS
Community banks				
Mufindi Community Bank	Savings deposits and micro-loans	Mufindi District, Iringa Region	Companies' Act: BOT	Deposits/capital
Mwanga Rural Community Bank	Savings deposits and micro loans	Pare District, Kilimanjaro	Companies' Act: BOT	Deposits/capital

Source: Adapted from Randhawa and Gallardo (2003)

Access to credit for rural microenterprises

Credit constraints differ among enterprises in rural areas compared to rural towns. But in rural areas, no particular type of business is more successful than any other at obtaining credit, and there are no major variations when revenue level of rural enterprises was examined. Enterprises in Tabora, however, are less constrained by rural finance. Informal enterprises may not be able to expand for a variety of reasons. One of the most important reasons is their inability to obtain formal credit because commercial banks prefer to provide loans to formal enterprises (Ramaswamy, 2006).

Table 27: Distribution of Enterprises with Financial Statements by Sales, 2005

Sales category in 2004 ('000 Tsh.)	Enterprises that assemble a financial statement (%)	Enterprises that prepare audited financial statements (%)
0-500	16.1	0.1
>500-1,000	17.0	0.8
>100-2,000	21.2	0.9
>2,000	23.4	3.5
All enterprises	17.6	0.8

Source: 2005 Tanzania RICS

Among smaller enterprises, loan applications are less common and loan approval rates lower than for larger enterprises. Lenders tend to be biased towards bigger enterprise customers making access to credit that much more difficult for smaller enterprises (Table 27 and Table 28). In almost all regions, over 90 percent of enterprises have no access to formal credit. Urban enterprises in Tanzania are better off compared to rural enterprises, with 19.9 percent obtaining loans from financial institutions (World Bank, 2004b).

Table 28: Access to Formal Loans by Enterprises in Different by Sales, 2005

Category	Percent of enterprises in sales categories based on 2004 sales ('000 Tsh.)				
Category	0-500	>500-1,000	>1,000-2,000	>2,000	Total (%)
Did not apply	93.8	91.2	86.7	83.6	91.4
Applied and did not receive	2.4	2.9	2.7	5.0	2.8
Applied and received	3.8	5.9	10.6	11.4	5.8

Source: 2005 Tanzania RICS

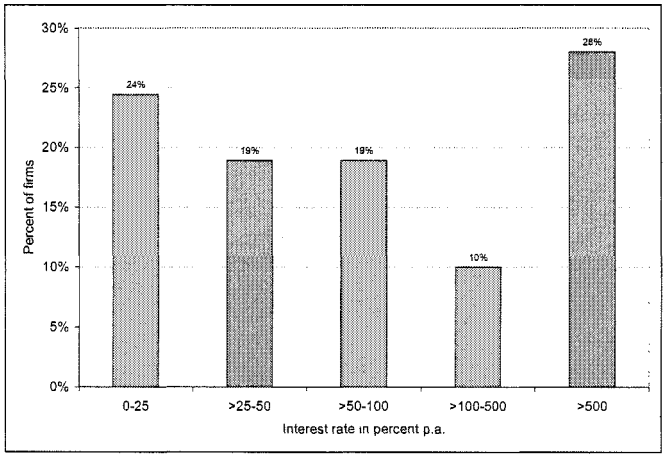
Reasons for not applying for credit

More than 80 percent of the enterprises did not apply for a loan for variety of reasons. About 21 percent reported, "non-availability of a nearby bank" followed by "the interest rate would be too high" (20 percent) as the major reasons for not applying. Disaggregating this information by area, *rural area* enterprises cited "non-availability of a nearby bank" (27 percent) and "duration would be too short" (16 percent) as the major reasons for not applying, while enterprises in *rural towns* said "interest rate would be too high" (28 percent) and "insufficient collateral" (20 percent) were the major constraints to access of formal credit. These findings show that there is a large unmet demand in rural areas for credit.

Rural Lending Practices and Obstacles For Lenders

Financial providers have historically had a limited role in rural finance. Only 2 percent of enterprises purchase inputs or goods for resale on credit from suppliers (Economic and Social Research Foundation, 2004). An estimated one percent of enterprises that received formal loans and were therefore seen as "credit-worthy" reported that they purchased inputs on credit. Only four percent of the enterprises in rural Tanzania have an overdraft or line of credit with banks. The median value of such overdraft facilities is Tsh. 500,000.

Figure 27: Distribution of Approved Loans by Annual Interest Rate, 2004



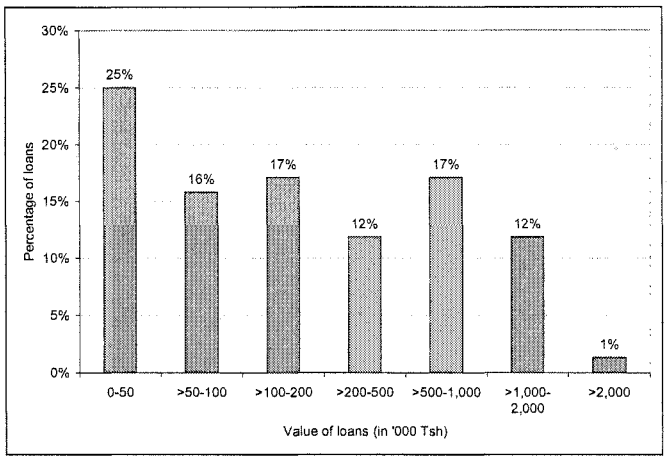
Source: 2005 Tanzania RICS

Similarly, previous research highlight that from 1968 to 1976, about 95 percent of small businesses in Tanzania used capital from personal savings (Satta, 2002). The amount of rural loans approved by the two major banks in Tanzania, National Bank of Commerce (NBC) and Cooperative and Rural Development Bank (CRDB) was less than 4 percent of their total credit volume between 1986 and 1991. The rural lending situation in the country has not much changed in the last three decades. The following sections describe the existing lending system.

Loans are small, interest rates are high

Rural microenterprises obtain loans at very high interest rates mainly from informal sources. For example, 8 percent of the enterprises in the survey region obtained loans from moneylenders at least once during the preceding five years. The median annual interest rate paid by such enterprises to lenders is 125 percent, much higher than the interest rates charged by formal financial institutions in Tanzania. PRIDE, the largest microfinance NGO in Tanzania, provides loans with annual interest rates between 24 and 30 percent per annum. Rural enterprises prefer moneylenders because of the flexibility they offer, shorter processing time, and no insistence on savings. PRIDE lends only to those entrepreneurs who are willing to save 25 percent of the loan value before the loan is granted.

Figure 28: Distribution of Approved Loans by Value, 2004



Source: 2005 Tanzania RICS

Rural businesses pay much higher interest rates for formal loans than the average rates charged by commercial banks to urban enterprises. The median annual interest rate paid by rural enterprises is 69 percent, much higher than the average short-term (up to 1 year) interest rate of 16 percent charged by commercial banks in 2004. Similarly, households in rural Tanzania pay very high interest rates (median of 80 percent). Formal loans granted to rural enterprises are small, with about 60 percent below Tsh. 200,000 (US$ 184). However, a significant number of loans are much greater, with an average loan size of Tsh. 487,066 (US$ 447). The median loan value for households is Tsh. 200,000 (US$ 154).

Table 29: Interest Rates Charged by Different Lenders, 2004 [a/]

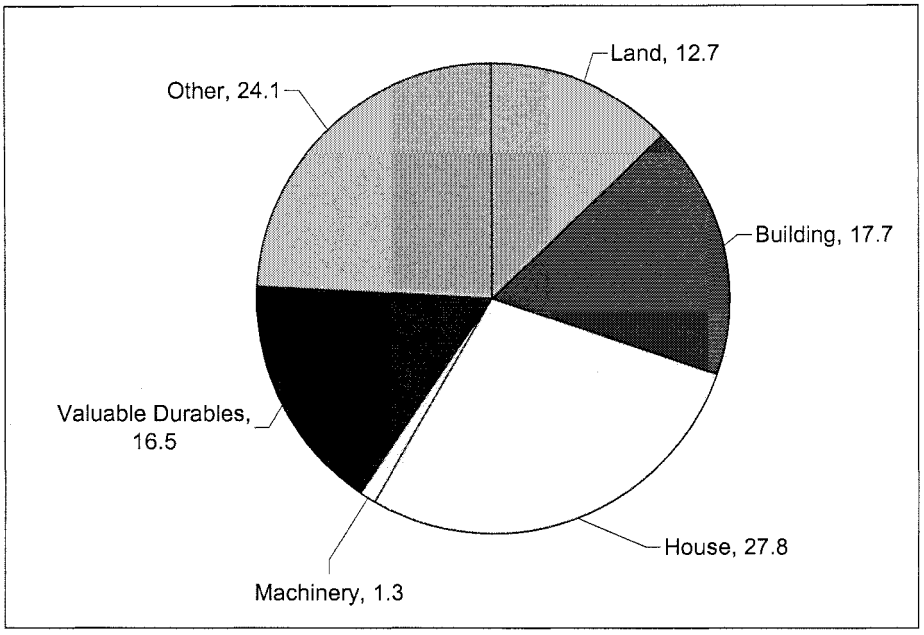
Category	Average (%)	Median (%)
Moneylenders	-	125
By different institutions for enterprise loans	-	69
By different financial institutions for household loans		80
MFIs	36	-
Commercial banks	16	-

Source: 2005 Tanzania RICS and Ramaswamy (2006).

a/ Interest rates charged for short term up loans (up to one year)

Enterprises use their own funds to meet their start-up capital needs, which show evidence of a savings culture. Money from the entrepreneur's agricultural production contributes 55 percent (Figure 14). Bank loans contribute only one percent and moneylenders one percent of start-up capital needs. Commercial banks are not attracted to rural lending, a situation that lowers the amount of capital available directly to enterprises or to microfinance institutions that lend to enterprises. Restructuring and privatization of state banks that came with Tanzanian financial sector reforms led to a closure of 78 branches in the country, mostly in rural areas (Satta, 1999). In 2001, only 4 percent of rural households participated in savings or banking activities. This went down from 13 percent in 1991 (Tanzania National Bureau of Statistics, 2002).

Figure 29: Collateral Requirements, 2004



Source: 2005 Tanzania RICS

Most loans require collateral

Most formal loans require collateral, a requirement that is problematic in rural areas. In the survey area, 81 percent of formal loans required collateral. This is because rural entrepreneurs are viewed as high-risk borrowers thus increasing the importance of collateral security. Yet MFIs approve a significant proportion (33 percent) of the loans without collateral. PRIDE also provides loans up to Tsh. 1,000,000 on group guarantee without collateral, but the 25 percent savings deposit made by borrowers before obtaining a loan serves as partial collateral.

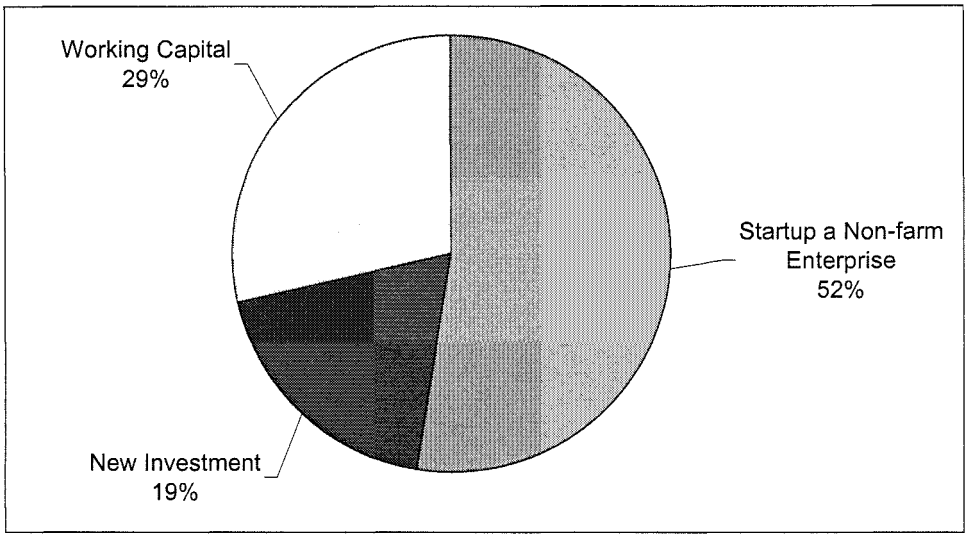
The value of collateral obtained by formal financial institutions for rural lending is usually very high compared to the loan value. The median value is 2.5 times the loan value while the average is 6 times the loan value. Different forms of collateral are used by businesses. The survey finds that households mostly use houses as collateral to obtain loans. With about 13 percent land plays a relatively minor role. This could be explained by the fact that only 9 percent of the total land in the survey region is titled. Interestingly, this contrasts with frequent claims of the role of land as important collateral (Economic and Social Research Foundation, 2004). Land titling may therefore not solve the entire problem because difficulty in finding markets for rural land may discourage banks from providing loans with land as collateral.

High repayment rates and short-term financing model

Formal loans have an average duration of 11 months. This is longer than the average duration of 5 months for loans provided by moneylenders. PRIDE and FINCA provide loans that are usually paid back in six weeks. This short repayment period suggests that clients are more likely to be small borrowers. However, it could also be attributed to the tendency of moneylenders to restrict loans to customers that can repay quickly and whose financial viability has been established over the years. Short-term loans limit long-term investments but can also be useful to businesses that

have seasonal cash flows. PRIDE and FINCA claim that their business model is successful, with more than 90 percent repayment rate and over 90 percent of payments being made on time (Ramaswamy, 2006). This could demonstrate the low risk level associated with the joint liability, rigid repayment schedules, and short-term finance models.

Figure 30: Purpose of Loans, 2004



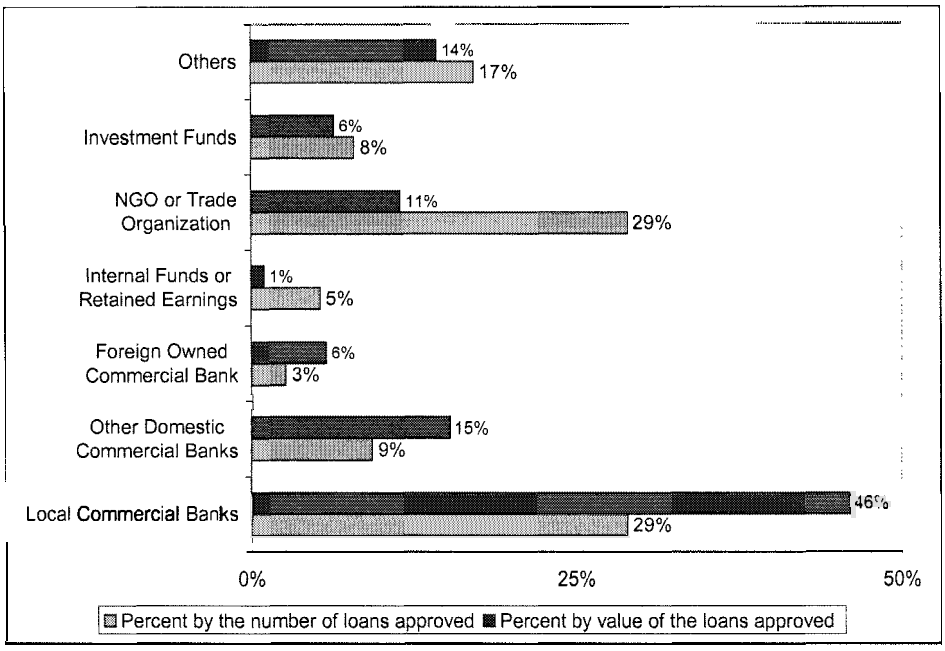
Source: 2005 Tanzania RICS

Most formal loans were approved for start-up of non-farm enterprises, both in terms of numbers and value.[37] Fifty-two percent of the loans were for start-up of a new enterprise, 29 percent for new investment in existing enterprises, and 19 percent for working capital (Ramaswamy, 2006). In terms of value, 43 percent of the loans were for start-ups, 33 percent for new investment in existing enterprises, and 24 percent for working capital. The pattern is similar in both rural areas and towns with most loans approved for start-up of enterprises (Ramaswamy, 2006).

Most formal loans are approved by local commercial banks and MFIs (Figure 31). However, in terms of total value, local commercial banks approved 46 percent of the loans followed by MFIs (11 percent). The average size of a loan approved by a local commercial bank is US$ 710 and that approved by an MFI is US$ 177. MFIs play a vital role in meeting the smaller credit demands of enterprises in rural Tanzania. The median value of formal loans in rural Tanzania is Tsh. 200,000 (US$ 154). MFIs approved 39 percent of the loans below this amount. Local commercial banks approved only 4 percent. About 59 percent of the enterprises were not provided with an explanation, 19 percent were denied for insufficient collateral, and 11 percent for not having a co-signer. Financial institutions usually do not provide an explanation when loans are not approved. Financial institutions disburse loans that are substantially smaller than what the enterprises request. On average, financial institutions approve two thirds of the applied loan amount.

[37] This suggests that improved access to finance in Tanzania would stimulate mainly the entry of new enterprises.

Figure 31: Sources of Loans, 2005



Source: 2005 Tanzania RICS

Perceived constraints by MFIs

A combination of factors leads to increased transaction costs and risks for commercial banks wanting to serve rural clients. Even though commercial banks have nation-wide operations, their rural loan portfolio is only about 5 percent of their total business. For commercial banks operating in rural areas, most of the collected savings are transferred to Dar es Salaam to be invested in assets that have a more attractive return risk profile than rural investment opportunities (World Bank, 2006c). Some of the constraints as perceived by the financial institutions are discussed below (Economic and Social Research Foundation, 2004).

Overall structural weaknesses of the financial system. These include the environment for contract enforcement, and the efficiency of the legal, judicial, and information framework. Also a low concentration in the banking system (the average loan to deposit ratio is low at only 34 percent) and high spreads between bank lending and deposit rates remain a problem. A large part of the spread can be explained by high-risk premium charged by the banks for rural credit risk, weak market infrastructure, and difficulties in enforcement of creditor rights.

High transaction costs and risks. Financial institutions avoid rural loans because of transaction costs and repayment risk. The top three external constraints according to financial institutions when attempting to expand their rural lending are (i) unreliability of land and property title deeds, (ii) key aspects of land act provision, and (iii) long and unreliable legal system for loan enforcement.

High transaction costs are often attributed to the low loan sizes and values and fragmented nature of rural financial markets. Likewise, the low household savings, geographical dispersion of potential clients, seasonality of agricultural production and its susceptibility to natural disasters increase transaction costs. Insurance markets and hedging instruments are virtually non-existent,

resulting in exposure of lenders to high default risks. A weak legal system and the lack of a developed credit information system make it difficult for financial institutions to satisfy rural credit demands and operate on a commercially viable basis.

In addition, only 18 percent of the enterprises in rural Tanzania create any financial statement and less than one percent prepares audited financial statements of their operations. Unreliable financial records make credit risk assessment difficult. Even in the case of a successful record of accomplishment, the lack of any financial statements puts enterprises at a disadvantage when presenting a business proposition to financial institutions in order to obtain credit. Financial institutions often need to have a basic understanding of these enterprises. However, it appears though those financial institutions that serve rural Tanzanian businesses seem to acknowledge these conditions. About 70 percent of formal loans are to businesses that do not have a financial statement.

Inadequate infrastructure. Poor physical and communication infrastructure (including rural roads, electricity, and telecommunication) appears to be another major reason for the inaccessibility of rural areas and the lack of information on credit worthiness of potential borrowers. Inadequate infrastructure is also reported by enterprises as the second major constraint (next to finance) affecting their growth. This is likely to depress both the demand for financial services and the development of efficient rural financial markets.

Lack of expertise in rural lending. Most rural lending institutions do not have the skilled labor to manage rural loan portfolios efficiently. The major financial institutions cite their (i) strategic focus on corporate and urban customers, (ii) lack of expertise in microfinance, and (iii) lack of trained labor to ensure needed credit assessment as their top three institutional constraints.

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