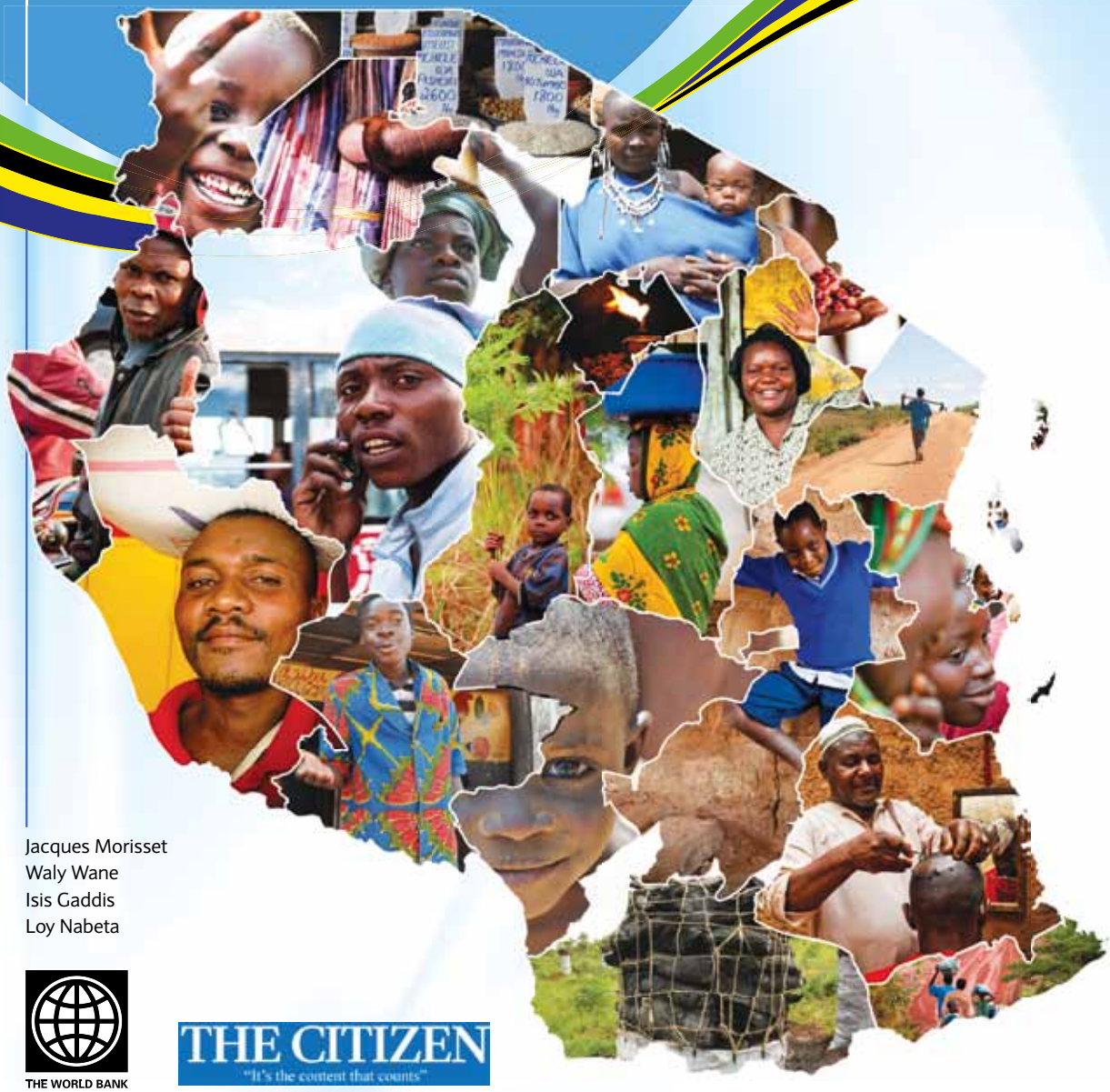
Tanzania

Let's Think Together



Jacques Morisset
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THE WORLD BANK

THE CITIZEN
"It's the content that counts"

About this booklet

Every Sunday, since July 2012, the PREM team of the World Bank country office in Tanzania, in collaboration with The Citizen newspaper, has published a column entitled, 'Tanzania: Let's Think Together'. The goal of the column was to share little-known but pertinent data from recent official surveys on a variety of topics and so stimulate a broad based debate among stakeholders in Tanzania.

These topics have span across all areas of the development dialogue – agriculture, environment, governance, taxation, natural resources, etc.

With the success of the series as illustrated by the number of readers who responded to the column in the newspaper and the close to 200,000 visitors to the World Bank Chief Economist's blog (http://blogs.worldbank.org/africacan/) where it was also posted, it was felt that a booklet could be compiled and published in both Kiswahili and English in order to make the information more easily accessible to those who may not have kept up with the column or the blog.

A selection of readers' responses is also published alongside some of the pieces.

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This publication is a product of the Poverty Reduction and Economic Monitoring (PREM) team of the World Bank Tanzania country office

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Contents

Foreword

The idea of the 'Tanzania Let's Think Together' series emerged in the World Bank offices in Dar es Salaam. My colleagues Jacques Morisset and Waly Wane were engaged in an animated debate about the results of a household survey that had just been released by the National Bureau of Statistics. They eventually took the discussion to email in order to involve other colleagues who are concerned with Tanzania's quest for development. Thus, the first piece in the series was born in April 2012.

Readers instantly jumped into the debate in the Citizen newspaper which we partnered with to publish the series locally and on the blog supervised by Shanta Devarajan, the World Bank Chief Economist for Africa at the time. Since then, the series has been published almost every week for about 15 months and it has been read by more 200,000 people on the internet. It was also circulated internally through email and often drew spirited reactions from its readers there as well.

One of the main reasons many of us found the 'Let's Think Together' series decidedly easy to follow and engage with was its very simple format which entailed plain reporting of statistics that had hitherto not been publicized concerning a specific sector in Tanzania, for example, health, education or water. A brief but illuminating storyline would then be developed, drawing on comparisons with other contexts, both local and international, before a set of questions was posed to the reader in the interactive spirit of platform.

The selected issues were not just topical but also close to ordinary people's preoccupations – from school attendance to household consumption to access to roads. Readers could easily relate to these and contribute earnestly to the discussion. The sample of comments received that you will find in the booklet illustrates the richness of opinion on these issues which they consider near and dear.

This booklet consists of 50 pieces that have been published to date and it offers readers a handy and convenient reference on some of the most important issues that are shaping or that will shape Tanzania's economic development. The readers will be able to reflect on the complexity of the development challenges that the country still has to confront. They will also get to appreciate the aspects on which Tanzania has been doing well over the past decade, such as the expansion of the exports sector and the use of mobile phones and to reflect on the opportunities that such developments still present.

At the World Bank, we understand that beyond providing financial assistance to countries, we need also to share information and analyses that can promote debate over policy with a wide range of stakeholders. These debates which also help to improve the quality of our own analyses also enhance the environment in the country to ensure better implementation of reforms over time. Thus the contribution of platforms such as the 'Let's think Together' series is definitely a step in the right direction.

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Acknowledgements

While working on the Let's Think Together series over the past year we received useful feedback from many of our colleagues which was always of tremendous help in improving the series. We are particularly grateful to Sanjeev Ahluwalia, Dominic Haazen and David Rohrbach, who often challenged our views and compelled us to refine our arguments. We also thank Kristoffer Welsien and Janneke Hartvig Blomberg for co-authoring two pieces in the series. Philippe Dongier, the Country Director for Tanzania, Uganda and Burundi has been extremely supportive throughout with thoughtful questions and advice both on content and format.

It would not have been possible to develop the Let's Think Together into a platform of engagement without Shanta Devarajan, the former Chief Economist for the Africa Region, who gave us the opportunity to publish the series on the 'Africa Can' blog thereby reaching out to a much wider audience. Mapi Buitano also provided invaluable editorial assistance when she was posting the pieces on the web.

In putting together this booklet, Agnes Mganga provided excellent administrative support. We also thank Rosalie Ferrao for coordinating with the Citizen and Josaphat Kweka for supporting us with the Kiswahili translation.

Last but not least we would like to thank Costantine Sebastian, the Citizen Weekend Editor, for making this collaboration possible.

Economic Growth / Poverty / Policy

1 A well-kept secret: Tanzania's export performance

Outward looking strategies have been used by most countries that have succeeded in their transition toward emergence. East Asian tigers and dragons have witnessed a tremendous and sustained boom in their exports, as have emerging countries like Chile, Tunisia, Botswana, and Mauritius.

Even fast-growing 'big' countries such as Brazil and China have relied on world markets.

What might surprise some though is that Tanzania's export performance in fact exceeded that of Brazil, Tunisia, Mauritius, Malaysia, Korea, and Thailand between 2000 and 2012. Among countries that did better were China and Uganda.

Tanzania's total merchandise export grew five-fold reaching US$5.2 billion in 2012. This rapid growth has been driven by:

- Higher prices for Tanzanian's products on world markets, accounting respectively for two-thirds of the increase in traditional agricultural products (coffee, tobacco, sisal, etc.).
- The emergence of gold – rising from US$383 million in 2002 to over US$2 billion in 2012.
- Higher manufacturing exports – growing from seven per cent of total merchandise exports in 2002 to 20 per cent in 2012, albeit with a peak of 26 per cent in 2010.
- Diversification of markets away from EU (from approximately 50 to 30 per cent of total exports) toward Asia (i.e. from 23 per cent to almost 30 per cent) and, above all, African countries (from approximately less than 10 per cent to over 30 per cent) between 2000 and 2011.

The fast expansion of Tanzania's exports is good news for those who believe in outward-looking strategies for sustainable economic development. Local firms are able to complement the limited domestic demand by selling their goods to consumers abroad. In the process, they get to learn new things from their foreign supply and marketing networks.

Foreign competition can also generate a healthy dynamism because exporting firms have to adjust to survive. However, Tanzania's export performance also needs to be qualified on three counts. First, the rapid annual growth rate of 15 per cent observed between 2000 and 2012 has come from a very low starting point (the share of goods and services exports in the GDP was only around 13 per cent in Tanzania against over 60 per cent in Malaysia, Thailand, and Mauritius).

Secondly, exports remain concentrated as gold now counts for over 40 percent of total merchandise exports. As a result, a sudden drop in world gold prices by 30 per cent would reduce Tanzania's total merchandise exports by almost 15 per cent – a serious impact.

Finally, the vast majority of merchandise exports are low value-added products such as minerals and unprocessed agriculture goods which have minimal direct impacts on jobs and technology development in the domestic economy. These figures raise a number of questions at the core of the theories on using exports as a driver of growth in Tanzania:

- Should the promotion of exports be a national priority for Tanzania?
- How can Tanzania further promote expansion of its export sector? Should specific products or markets be targeted?
- What are the most critical barriers to exporting by local firms?
- What are the risks associated with an outward-looking strategy?

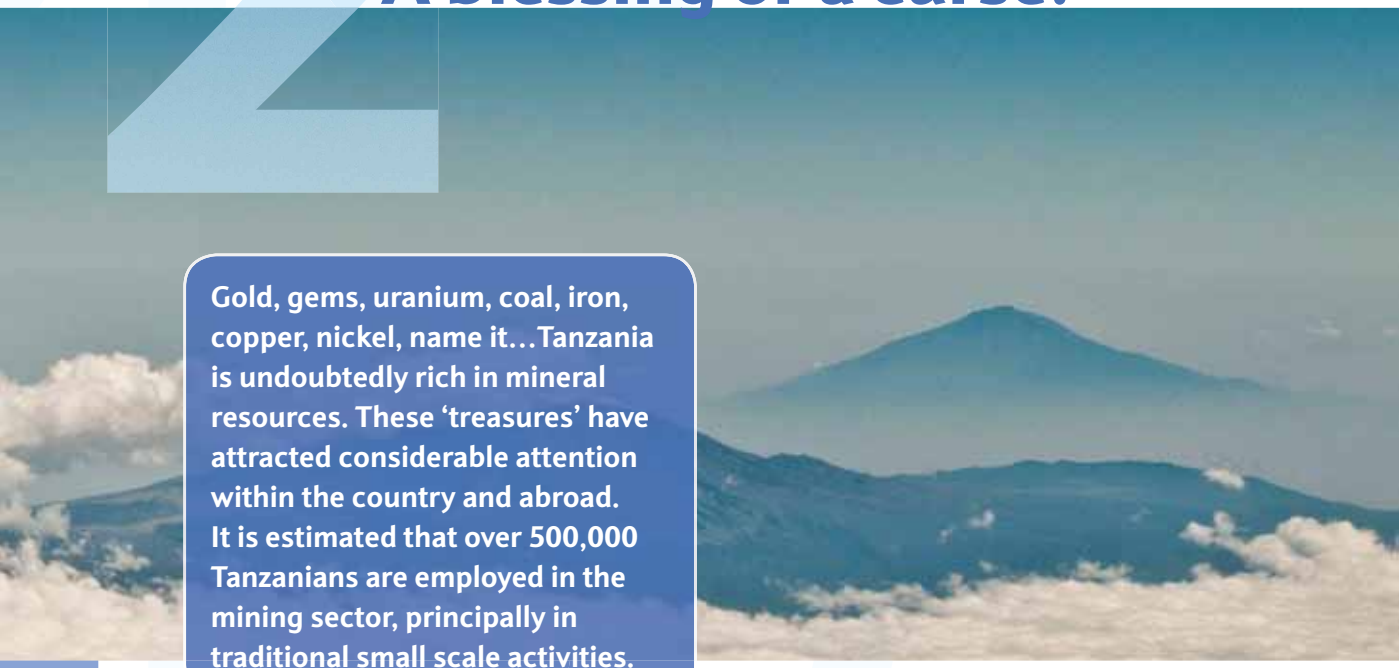
Source: *The World Bank's World Development Indicators and Bank of Tanzania's statistics. All are publicly available.*

READER COMMENTS

Now is the time to set up commercial offices, invest in research and development, and engage in marketing to develop a global brand. Tanzania's boom should not be a high point rather, it should be a stepping stone into the global market place of value added goods.

The export of raw materials discourages the development of industries, which is as good as slavery. A country cannot prosper unless agriculture and industries develop to become self-sufficient and export manufactured goods.

2 Mountains of gold: A blessing or a curse?



Gold, gems, uranium, coal, iron, copper, nickel, name it…Tanzania is undoubtedly rich in mineral resources. These 'treasures' have attracted considerable attention within the country and abroad. It is estimated that over 500,000 Tanzanians are employed in the mining sector, principally in traditional small scale activities.

The sector has also attracted enormous foreign direct investment. As a result, mining has been one of the driving forces of the Tanzanian economy over several years as illustrated by the following statistics:

- GDP growth of the mining (and quarrying) sector has averaged 10.2 per cent per year between 2000 and 2012, making it one of the fastest growing sectors in the country.
- Mining has become the main source of foreign exchange for Tanzania, accounting for almost 50 per cent of total merchandise exports which is equivalent to over US$ 2.4 billion in 2011. This is an increase from US$ 1 billion in 2007.
- The accumulated Foreign Direct Investment in the mining sector was over US$ 500 million between 2000 and 2007.
- Today Tanzania is the third largest producer of gold in Sub-Saharan Africa.

The expansion of the mining sector has contributed to higher economic growth and increased exports as well as capital inflows in Tanzania over the years. Those factors are key to successful economic development although they might not be entirely sufficient as experienced elsewhere.

The mining sector is expected to further contribute to the development of the national

economy by second-level effects that include: tax and non-tax payments; the development of joint infrastructure; and the emergence of linkages with local businesses.

In the past year, one of the most debated issues in Tanzania has been the amount of fiscal revenue contributed by the large mining companies. The Extractive Industry Transparence Initiative (EITI) estimates their total fiscal contribution at Sh337 billion in 2009/10, equivalent to seven per cent of total Government revenues collected in that year. The same report indicates that an operator like Anglo-Gold Ashanti (owning the Geita gold mine) paid in tax and non-taxes (principally royalties) only five per cent of its total production. In Ghana, the same company (with two gold mines there) paid the equivalent to 12 per cent of its total production in 2009 – more than twice its contribution in Tanzania.

Other issues in the discussion include whether the roads built by these companies for their own use have contributed to local community development by, for instance, reducing transport costs and connecting communities to new markets.

Furthermore, while the large mining companies have been (net) consumers of energy this might have been at the expense of other local firms and households. And as far as generating local employment is concerned, the large mining operations are not seen as good catalysts as they tend to be very capital-intensive and utilize technical expertise that is generally not sourced locally. The only positive effect on employment, it is argued, is usually seen during the construction phase which this is short-lived.

- Do you think that the contribution of the mining sector to the Tanzanian economy is too low?
- Should mining companies pay more in taxes even if higher rates could discourage future investment?
- To what extent do the mining companies have a corporate responsibility to contribute to local development? Why, and if yes, how?
- How should the impact of mining companies on the environment be dealt with?
- Should the Government focus on maximizing the development of joint infrastructure rather than collecting more revenues?

Note: *The above statistics were sourced from the ministry of Minerals and Energy (httt://www.mem.go.tz/mineral-sector-overview), the ministry of Finance, the Bank of Tanzania and EITI reports.*

READER COMMENTS

It amazing the country is the third largest producer of gold in Africa yet its people do not feel the benefits of this blessing, especially those in the regions where these resources are extracted from, such as Mara. Tanzania is repeating the same mistake in gas as it did with mining. There are still no descent training centers for the jobs that are going to be created and the SMEs aren't competitive. Is that the miners' fault or ours?

The mining sector, like tourism and other related economic sectors would be more visible to Tanzanian economy if there was transparency. As far as things stand currently, processes – especially contracts and taxation – are opaque. Only a few top individuals know the reality of the transactions.

The question is not so much as to whether the mining companies should pay more or less in taxes; the fundamental issues are the management of and accountability for the revenues from these resources and the contribution of the mining entities to the local communities.

3 Is Tanzania attracting enough tourists?

Tourism is among the world's most lucrative industries. The latest figures from 2009 show that the industry generated US$852 billion in export earnings worldwide, accommodated more than 800 million travelers, and accounted for more than 255 million jobs or nearly 11 per cent of the global workforce in that year.

It is no surprise then that this industry is considered a major driver for employment, growth and development. As a country that is enormously endowed with marvels such as the Ngorongoro Crater and the Great Migration; the many beautiful beaches and the magnificent game reserves and national parks that host scores of unique wildlife, and as the home of the Kilimanjaro, the roof of Africa, which thrones at above 5,880 meters, Tanzania couldn't have been better placed to be a formidable player in the tourist industry.

This is also in addition to the fact that the country has enjoyed enduring political stability and relatively low crime rates. No wonder The New York Times awarded Tanzania 7th position out of 45 must-visit destinations in 2012. Yet, the numbers tell a different story.

- With an estimated 714,000 and 782,000 visitors in 2009 and 2010, Tanzania attracted less tourists than Uganda (806,658; 945,899

and 1,151,356 in 2009, 2010 and 2011) and Kenya (952,481 in 2009 and 1,095,945 in 2010 up from 729,000 in 2008 just after the political violence).

- Mara, the Kenyan side of the Serengeti which occupies only a tenth of its total size attracts 10 times more visitors than the Serengeti National Park in Tanzania.
- Tourism generates around 250,000 (direct and indirect) jobs in Tanzania or less than two per cent of the labor force, while in Kenya the industry accounts for 483,000 jobs.
- In 2008 Tanzania received 0.017 visitors per inhabitant, the 17th lowest out of 147 countries.Average bed occupancy rate in Tanzanian hotels was estimated at only 47 percent in 2010.

Tanzania's lackluster performance in tourism compared to its neighbors seems partly attributable to its being a relatively more expensive destination. Safari hotels in Kenya are on average US$300 cheaper per night than those in Tanzania. Even within Tanzania, hotels in safari areas are more than three times more expensive than beach hotels.

High costs could reflect Government's strategy to concentrate on the luxury range of tourism activities in order to compensate low numbers with higher expenses per visitor. Indeed, the average tourist in Tanzania stayed an average of 11 days and spent US$1,600, which is higher than in Uganda where the average tourist spends US$700. This is however lower compared to Seychelles where the average visitor who stayed 10 days spent US$2,200.

Notably, in Tanzania, tourism is concentrated in the Arusha and Zanzibar with more than 90 percent of visitors spending most of their time in these two regions.

This raises a number of questions:

- Should Tanzania attempt to attract more tourists than Kenya or Uganda in order to create more jobs locally?
- Is Tanzania adequately marketing itself to the outside world?
- Why is safari tourism in Tanzania so much more expensive than Kenya?
- Should government promote low-cost tourism in regions that are not visited by tourists?
- Should government invest more in infrastructure and in the quality of services?
- Are upscale international hotel chains capturing too much of the gains from tourism? How can quality services be delivered by local agents?
- How can Tanzania control the attendant negative, environmental and social effects of a successful tourism industry?

Note: *The statistics used here are extracted from the Economic Surveys, the World Travel and Tourism Council, the World Bank Kenya Report 2010, The Uganda 2012 tourism Statistical Abstract, and the National Bureau of Economic Research working paper # 17902. All are publicly available.*

READER COMMENTS

I remember a German tourist I was guiding in a group of 24 asking me why our embassy over there is not doing enough to sell the nation's natural endowments. "Instead of waiting for us to come here, why aren't you marketing to us in Germany?" he asked.

We need to improve infrastructure, particularly our airports. They are getting greater numbers of tourists in the Northern Zone because of Kilimanjaro International and Kisongo airports. Hopefully, when the airport in Mbeya goes live the Southern attractions will also be much more marketable.

4 Raising tax revenues

The overall tax burden in a country is largely determined by the role that citizens expect the State to play in the economy. People are paying more taxes in France than in the US, not because the French are richer but because they expect more public services from their government. For this reason, no single 'optimal' tax burden can be applied uniformly.

Tanzania's tax revenues were equivalent to 15.7 per cent of GDP in 2011/12. This was higher than Uganda (12 per cent) but lower than Zambia (16.5 per cent) and Kenya (19.5 per cent). However, tax-to-GDP ratios are not fully comparable across countries because some states might benefit from significant non-tax revenues, e.g. from natural resources, or raise a greater proportion of their revenues through local taxes.

The question that needs to be answered is whether the current tax revenue level corresponds to the aspirations of Tanzanian citizens in terms of what they expect from the State. Is the Government able to deliver sufficient public services and infrastructure with the current level of tax revenues?

The simple answer is no. The gap between tax revenues and public spending has averaged about 12 per cent of GDP over the past three years. This gap has been filled by official aid and, increasingly, by commercial borrowing.

However, official aid should only be a temporary financing source to help the country in a transition towards economic emergence while commercial borrowing has to be repaid by taxpayers sooner or later. For these reasons, there seems to be a consensus in Tanzania that without further increases in tax revenues, necessary investments in education, health and infrastructure will be increasingly difficult to finance on a sustainable basis.

Looking ahead, fiscal revenues from natural gas production should help. But this will not happen before seven to 10 years. A close look at the current reality suggests that Tanzania has not yet tapped its full potential to raise taxes and could pursue three complementary actions:

- Tanzania grants a vast array of corporate tax exemptions, which favor certain companies and industries, but reduce tax proceeds. Official estimates place these annual revenue losses at approximately 4 per cent of GDP in 2011/12.
- Tax revenue is generated by just a handful of firms. While there are more than 800,000

registered taxpayers today, payments are mostly generated from a few companies. Similarly, about three quarters of revenues are collected from the Dar es Salaam region alone.

- Tax evasion is widespread, even with indirect taxes such as the Value Added Tax (VAT), which should be easier to collect. While in principle the VAT should be collected on every shilling spent for consumption purposes, the current ratio is below 40 per cent in Tanzania against 45 per cent in Uganda, 54.6 per cent in Zambia and 57.6 per cent in Kenya.

All of this raises the following questions:

- Are Tanzanians paying too much, too little or the right amount of taxes today?
- Is the current level of taxes sufficient to finance the country's needs in terms of public services and infrastructure?
- To what extent are people reluctant to pay more taxes because of the State's failure to deliver quality services with their revenues?
- What should be the priority for the Government in its effort to mobilize more fiscal revenues? Raising actual rates? Fighting against evasion? Simplifying tax procedures?
- Should tax policy favor strategic groups through the use of exemptions or should it be uniformly applied to all taxpayers?

Note: *The statistics above are from the Ministry of Finance, IMF and World Bank databases. All are publicly available.*

READER COMMENTS

Tanzanians maybe paying too little. But the right question to ask is how that little is spent. People need to see that Government is spending taxpayers' money wisely.

Reducing tax exemptions is generally a good idea. It will increase tax revenues, while spreading the tax burden more equally and reducing administrative costs for both the firms and the tax authorities. Spreading the tax burden more equally will raise the perception that the system is fair and thus improve tax morale and compliance.

Personally, I think that taxing micro/informal sector firms should be attempted only if significant non-tax benefits are to be expected (i.e. firms are credit constraint and access to financial intermediation is conditional upon tax registration). Otherwise, the administrative costs of taxing small firms are likely to exceed the benefits in terms of increased tax revenue.

Tax exemptions are the fine tool used by the rich and TRA officials to evade taxes paid under the guise of being investors.

5 Aid… how much, who, where?

Tanzania has been receiving a lot of financial assistance from development partners over the past decade. The cumulated aid inflows received by the country reached $21 billion between 2000 and 2010, the fourth largest amount for Sub-Saharan Africa, after Nigeria, Ethiopia and the Democratic Republic of Congo.

The importance of official aid inflows to Tanzania's economy is emphasized in the following comparisons:

- Total aid accounted for 12 per cent of Tanzania's GDP over the 2000-2010 period – at par with Uganda, higher than Senegal and Ghana (approx. nine per cent) and Kenya (four per cent) but lower than Mozambique (24 per cent).
- Each dollar of aid was equivalent to 50 per cent of total investment in the country.
- Total aid represented almost half of the government's expenditures every year.
- If aid were equally distributed, each Tanzanian or each household would have received $50 or $250 respectively per year.

For Tanzania, the top five contributors in 2009-2010 were the World Bank (22 per cent), the United States (12 per cent), the United Kingdom (7.7 per cent), the African Development Bank (6.5 per cent), and the International Monetary Fund (5.7 per cent). While approximately 40 per cent of total aid is unallocated, the privileged sectors have been Health and Education (around one third) and Infrastructure (10 percent).

However, signs of a slowdown in aid inflows are becoming visible. The aid was down by $1 billion in 2010 compared to its highest levels in 2006, 2008 and 2009. The share of aid inflows in Tanzania's economic activity also decreased from 16 per cent to 12 per cent of GDP during the past five years. And Tanzania is getting less assistance compared to other African countries (6.8 per cent of total aid flows to the region in 2009-2010 against 8.9 per cent in 2000-2001).

These figures raise a number of questions that go to the heart of Tanzania's development process:

- To what extent have aid inflows helped Tanzania's economy over the past decade?
- In what sectors have development partners helped Tanzania the most? And the least?
- Is Tanzania too dependent on aid?
- Is the apparent decline in aid inflows a concern or simply the logical result of the rapid expansion of the Tanzanian economy?
- Will official aid eventually be replaced by non-traditional financial flows from emerging countries and/or the private sector?

Note: *The figures above were obtained from OECD aid statistics (http://www.oecd.org/dac/aidstatistics/) and the World Bank's World Development Indicators. Data from these surveys is publicly available and can be readily consulted.*

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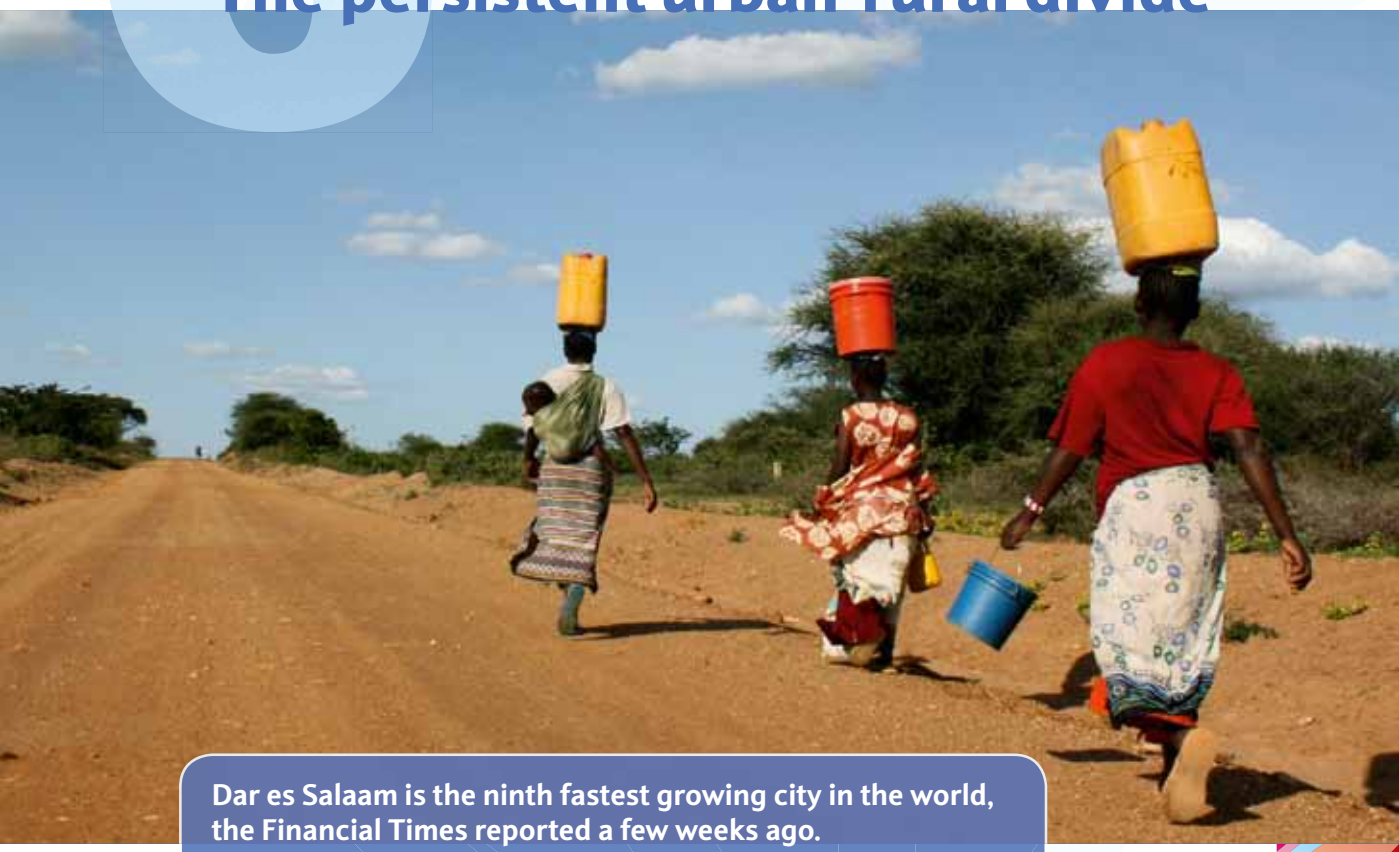
6 The persistent urban-rural divide



Dar es Salaam is the ninth fastest growing city in the world, the Financial Times reported a few weeks ago.
The news report is based on new data provided by 'City of Mayors' (www.citymayors.com/statistics/urban_growth1.html).

At the current pace, Tanzania will not be a predominantly rural country at the beginning of next decade. Rapid urbanization is not surprising as moving to an urban center is certainly the most direct way to escape poverty and gain access basic services.

Today, the urban/rural divide is large in Tanzania. On average, a urban household has:

- 13 times more chances to get access to electricity
- 2.7 times more chances to access piped water
- 5.4 times more chances to have a banking account
- 4.4 times more chances to use an improved pit latrine
- 3.4 km closer to a health facility
- 10 times more chances to complete secondary or higher education.

Rural migration provides an enormous opportunity for a country to develop new engines of growth. Urbanization can facilitate the exchange of goods, services and ideas. But the rapid flow of migrants can also generate congestion and pollution as well as reduce access to basic services such as education, health and housing.

- Should the Government (and donors) increasingly focus their interventions in urban areas?
- How can urban services and infrastructure cope with the wave of migrants?
- Is there a risk to go from rural to urban misery?
- How can agglomeration effects be magnified and help create firms and jobs?
- Should housing projects be considered? Roads built? Where to find the money?
- What are the social and political implications of people moving to urban centers?

Note: *The statistics above are computed using data from the 2010 Demographic and Health Survey. Data from this survey are publicly available and results can be readily replicated.*

7 Life in a rural household in 2010

It looks like Tanzania has been frozen in time as the following statistics would have been just the same 50 years ago.

- No electricity (96.6 per cent of total rural population)
- No refrigerator (99.2 per cent)
- No television (96.4 per cent)
- No motor vehicle (96 per cent)
- No bank account (92.8 per cent)
- No concrete floor (80.5 per cent), no concrete walls (94.2 per cent)

Almost all rural households seem to live just like their parents or even their grand parents. At the same time, phone companies have been doing something right!

How many rural household have access a cell phone? Forty per cent.

Almost half of rural households own today a phone that gives them the opportunity not only to communicate with family and friends but increasingly to receive money,and access information.

- Will this lead to a change in Tanzania's countryside?
- Will this open up new opportunities for business development?
- Will this increase accountability as more informed people are likely to ask for more or better?
- Will this lead to better service delivery with the development of innovative models for delivering services?

Note: All the statistics presented are computed using the Tanzania Panel Survey (2010). This survey is publicly available and all statistics can be readily replicated.

8 Countering the threat of crime

Many Tanzanians live in constant fear of falling victim to crime - especially those living in urban areas. The fear of crime negatively affects the quality of life as it makes one feel insecure and vulnerable while going about otherwise normal activities.

A few facts:

- In 2010/11 about 390,000 households (four per cent) reported they had been severely affected by hijacking, robbery, burglary or assault (over the previous year).
- Residents of urban areas are about three times more likely than those in rural areas to be victims of these crimes. However, crimes such as cattle rustling are rampant in rural areas.
- Experiencing crime often has a lasting negative psychological impact on the victims: Six out of 10 households affected by crime over the past five years considered this to be among the two most devastating shocks that they had experienced.

Unfortunately, the lack of reliable international crime statistics makes it difficult to compare prevalence rates across countries. However, the Afrobarometer offers interesting insights into perceptions of crime across the continent:

- In 2012, 41 per cent of adult Tanzanians reported that they (or someone in their family) had feared crime in their home over the previous year. This is comparable to Kenya and Malawi but higher than in Uganda (33 per cent) and lower than in South Africa (54 per cent).

If not reined in, crime can have serious economic implications for Tanzania as it presents a threat to tourism, it diverts scarce public resources away from productive investments towards heightened law enforcement and increases the cost of doing business, thereby negatively impacting on productivity.

Crime and violence have multiple causes, and no easy solutions. However, providing employment opportunities for youth, building a reliable police and judicial system are key. Unfortunately, Tanzanians who fall victims to crime seem not to go to the police:

- In 2008/09, almost 85 per cent of crime (and attempted crime) incidents that households experienced were not reported to the police.
- Despite this fact, households reported a loss of Sh220 billion, amounting to almost one per cent of total GDP.
- When crime incidents have been reported to the Police it typically leads to a dead-end. 80 per cent of households reporting an offense claim that the Police was unable to interview or arrest any suspects.

All of this raises the following questions:

- Is crime a major problem in Tanzania? For families? For business?
- What is the most effective response to crime? Increased effective law enforcement? Preventive measures, such as community campaigns and support to youth at risk?
- Why are most crimes not reported to the police? Lack of confidence? Perceptions of corruption?
- Does the police have the necessary human and financial resources to fight crime?

Note: *The statistics above are based on the 2008/09 and 2010/11 National Panel Surveys and Afrobarometer reports. Data from these sources is publicly available and results can be replicated.*

READER COMMENTS

If crimes can cost Tanzania as much as the stated percentage of GDP, it is a cause for concern.

Why report crime when the police will likely succumb to the allure of lucrative bribes? We have a culture that tolerates this behaviour and culprits are often well-known. Perhaps if we found our young boys and girls, especially the at-risk youths, something productive to do the rates would fall.

9 Corruption is a concern for Tanzanians

Fighting or eradicating corruption is a recurrent theme for politicians all over the world. The need for such efforts unfortunately exist almost everywhere.

However, too few countries have implemented sufficient and policies/actions to effectively fight corruption. In Tanzania, the government has taken a number of important steps in this direction, and there have been open discussions about doing more.

Several oversight institutions were created over the years and perform important and useful roles. More recently, six Ministers were ousted in May 2012, and the Board of the Tanzania Ports Authority was fired on suspicion of corruption in early 2013. Such developments are welcome since the vast majority of Tanzanians perceive corruption as a major issue and as a widespread practice in public institutions. It is also perceived by most as a key bottleneck in the country's quest for accelerated and equitable growth.

The 2009 National Governance and Corruption Survey reveals that:

- Corruption is perceived as a major issue by 88 per cent of respondents, almost at the same level as the high cost of living (91 per cent), and of higher significance than unemployment (85 per cent) and the cost of health services (76 per cent).
- The most important perceived forms of corruption are the demand for illegal financial transactions (94 per cent) followed by demand for sex (43 per cent) and abuse of power (33 per cent).
- About 40 per cent of surveyed households report to have paid a bribe to a civil servant at one point or other.

The survey also provides a ranking of the most corrupt public services as perceived by Tanzanian households. The three top offenders are alleged to be:

- The police force and traffic force (as perceived by 88.7 and 85. 6 per cent of respondents)
- The Judiciary (86.3 per cent)
- The Health sector (84.9 percent)

Corruption is not only pervasive in public services; it also affects the quality of services and the public's trust in the Law of the Land. For 95 and 91 per cent of households, the police force and courts are seen to be delivering poor services. And almost two out of three citizens report that corruption makes them less inclined to follow the law.

These statistics raise a number of questions:

- Do you think that corruption is increasing or decreasing in Tanzania?
- Is corruption caused by economic motives and/or ethical issues?
- Should honesty be taught at home? In school?
- Can corruption be reduced without sanctions?
- Does corruption reflect other issues such as low public wages or excessive regulations?
- What is the role of Government, partners, civil Society in the fight against corruption?

Source: *2009 National Governance and Corruption Survey*

10 Who are your political leaders?

There are many levels of political leadership in Tanzania including district, village and ward chairpersons, councillors, executives, etc. They all have considerable powers and responsibilities in the decentralized delivery of basic social services such as education, health, and water.

In addition to these, they also play a key role in land management since large tracts of land still fall under the responsibility of villages in Tanzania.

So who are the local political leaders? In 2010/11, it was found that local political leaders, on average, are:

- About 45 years old, which is much older than the rest of the population (averaging 25 years).
- Three times more likely to have attained a secondary school education (40 against 12 per cent for the national average).
- More likely to be men, with only one out of 10 local politicians being a woman. Elected women are on average younger, more educated, and more likely to be affiliated to an opposition party.
- Local politicians are also more likely to show signs of wealth than the rest of the population. About 60 per cent of them report owning a bank account against only 14 per cent for the national average. Another difference is related to the quantity of land owned by local political leaders. On average they were reported to own 275 hectares vs. two hectares for the national average.

These characteristics of local leaders raise a number of questions:

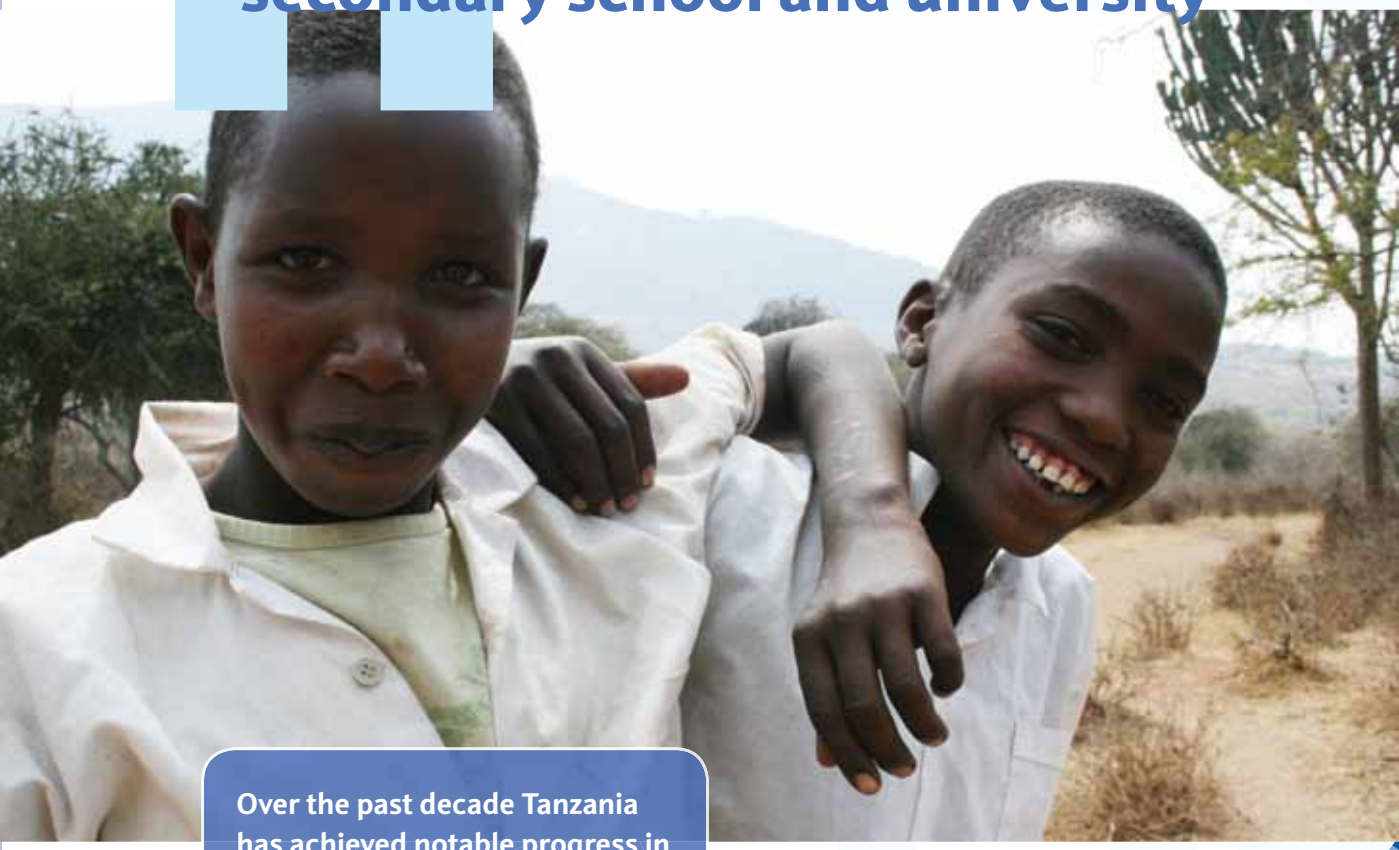
- Is experience or age an asset for local politicians?
- What can be done to reduce the gender bias against women in local politics?
- Is land ownership a cause or a consequence of political power?
- To what extent does the financial wealth associated with most local politicians influence policy-making, notably in land management?

Note: *The statistics above are computed using data from the 2010/11 National Panel Survey. Data from this survey are publicly available and results can be readily replicated.*

Labor / Private Sector / Financial Services

THE WORLD BANK

11 Getting more children into secondary school and university



Over the past decade Tanzania has achieved notable progress in increasing access to post-primary education with the number of enrolled students at secondary level increasing ten-fold from 210,000 to 2.1 million between 1995 and 2011.

Yet, despite this accomplishment, secondary, and especially tertiary education, remain beyond the reach of most Tanzanians, and enrollment rates still lag behind other countries:

- Tanzania's gross secondary enrollment rate of 33 per cent in 2011 is below the sub-Saharan average of 39 per cent and even further behind Asian countries such as India (67 per cent), Indonesia (79 per cent) or China (81 per cent).
- Only a handful of students in Tanzania continue their education at the University level: Gross tertiary enrollment was just three per cent in 2011, behind Uganda (9 per cent) and Ghana (12 per cent) and much lower than in China (26 per cent).

The comparatively small number of enrollments in secondary schools and universities shows that access to post-primary education continues to be very unequal, favoring children, particularly boys, from wealthier families living in urban areas:

- While the two poorest population quintiles contributed 42 per cent of total primary enrollments, they accounted for only 20 per cent of lower secondary and 13 per cent of upper secondary enrollments in 2010/11. There were virtually no university enrollments from poor families.
- Children in urban areas are twice as likely to attend secondary school as children living in rural areas.
- Girls are disadvantaged: In 2009, only 37 per cent of girls who completed the final primary school grade entered secondary school the following year, compared to 45 per cent of boys.

Low and unequal access to post-primary education undermines Tanzania's plans to develop a skilled workforce, raise salaries and productivity as well as achieve economic diversification.

Equally worrisome is the fact that secondary learning outcomes have been deteriorating over time. Student performance in the Certificate of Secondary Education Examinations (CSEE) at the end of Form IV has declined significantly, with pass rates in mathematics falling from 18 to 9 per cent between 2009 and 2012, and in science from 52 to 33 per cent.

This casts doubt over whether secondary schools are equipping their students with the skills they need to attain quality jobs and to drive innovation and entrepreneurship.

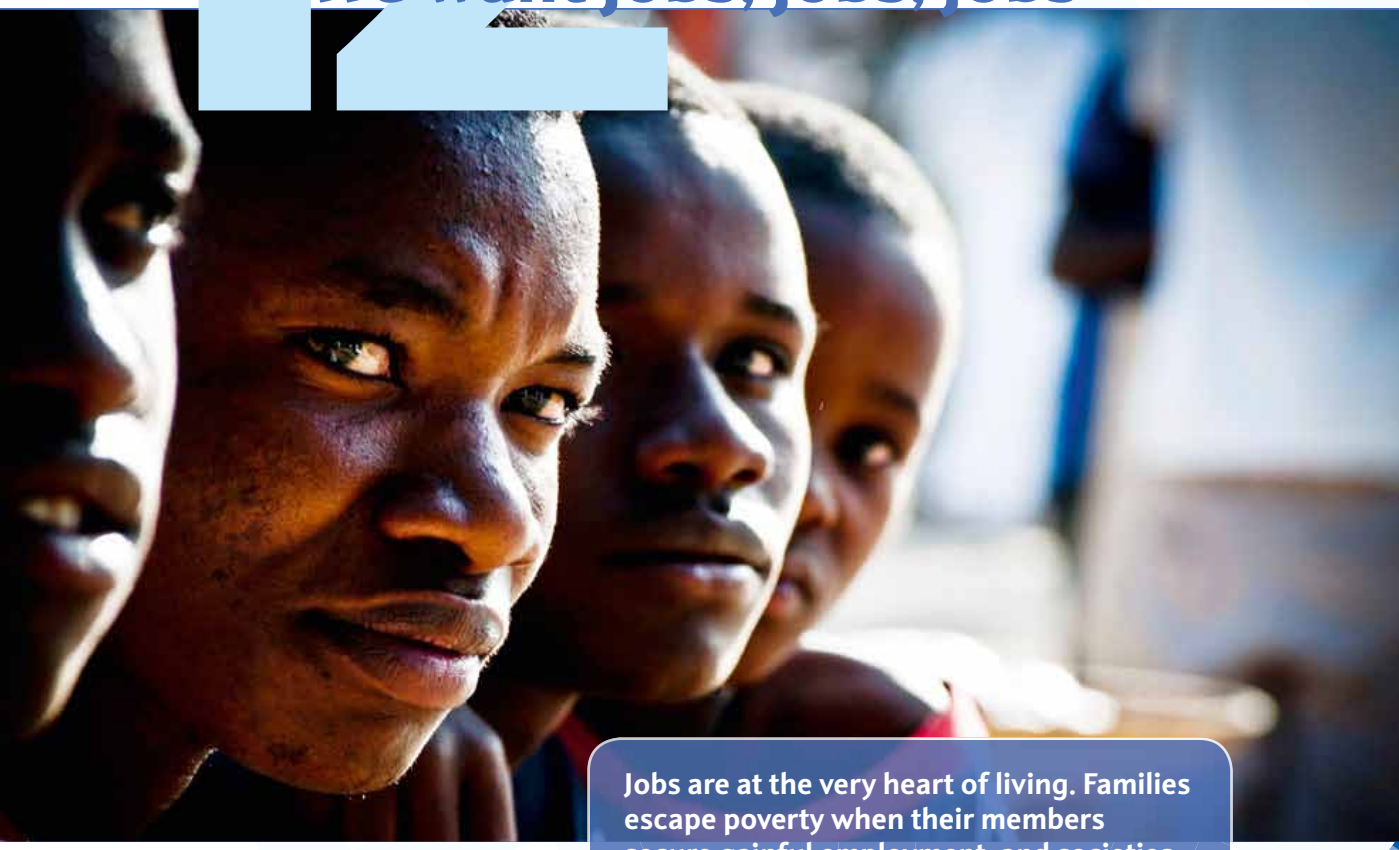
All of this raises a number of questions:

- What are the main factors preventing poor families from enrolling children in secondary school? Poor accessibility? Fees and other costs? Lack of awareness?
- Why are boys more likely to attend secondary schools than girls?
- Should the Government undertake initiatives to drive up tertiary enrollments? Or should the emphasis be on the primary and secondary education sub-sectors?
- How do you explain the poor learning outcomes at the secondary level? What can be done about it?

Note: *The statistics above are based on the 2010/11 Tanzania National Panel Survey (NPS), the World Development Indicators (WDI), the World Bank Education Statistics Database, and examination results of the National Examinations Council of Tanzania (NECTA). All data are publicly available.*

THE WORLD BANK

12 We want jobs, jobs, jobs



Jobs are at the very heart of living. Families escape poverty when their members secure gainful employment, and societies flourish when labor markets offer a wide range of job opportunities to citizens. And there is more to jobs than just monetary benefits. Not having a job or working under unfavorable conditions is often associated with low individual life satisfaction.

Youth unemployment, in particular, can undermine the foundations of social cohesion, especially in fragile countries with a legacy of civil unrest and conflict.

As with most of sub-Saharan Africa, Tanzania has high male and female labor force participation.

- For instance, 97 percent of men and 92 percent of women aged 25 to 59 years are economically active. Tanzania thus ranks as one of the countries with the highest female labor force participation worldwide.
- Open unemployment is low, at just one percent of the labor force.

These aggregate employment statistics mean that almost all Tanzanian adults do work, while in developed countries only 82 percent of adults are economically active. In Tanzania, like in other developing countries, most people cannot afford not to work. There is no unemployment insurance and sources of income are minimal. As a result, most Tanzanians do any job even if it does not pay enough to make ends meet.

The following statistics emphasize that many workers are only employed part-time or are confined in non-wage informal activities, and there are still large disparities between men and women:

- Underemployment is pervasive in rural areas as people spend on average only 27 hours per week on farm work which is the main activity for 80 percent of them.
- People with tertiary education are twice and seven times more likely to receive a salary than those with secondary education and primary education respectively.
- Men are more than twice as likely to be wage workers as women, while women are almost twice as likely to be hired as unpaid family workers.
- There are also wide earnings disparities – with a median wage of Sh30,000 per week, men earn twice as much as women (Sh15,000 per week).

The youth seem to be hardest hit by the lack of employment especially in urban areas. In Dar-es-Salaam, 57,000 youth between 15 and 24 years are unemployed, corresponding to an unemployment rate of 16 percent. Across the country, 183,000 youth are without a job.

Of course, the reality is more complex than suggested by these simple statistics. The rural population is migrating to benefit from the emerging labor market opportunities in cities and towns. Women may prefer self-employment to wage work because it gives them flexibility to combine economic activity with caring for children. And there is nothing wrong with the notion that education determines access to well-paying jobs, as long as the education system itself is merit-based and inclusive.

Yet, the evidence above suggests that labor market opportunities for many Tanzanians are limited, and so are their chances to lift themselves out of poverty and to increase their living conditions.

- Is it true that most Tanzanians are underemployed especially in rural areas?
- What skills and qualifications do Tanzanians need to access non-agricultural jobs? Is the education system geared up for this challenge?
- Should government directly hire or provide incentive to firms to promote the employment of youth?
- Should government support the private sector to create more jobs? How so?
- Are women discriminated in the labor market or are they making voluntary choices? What is the impact of traditional gender roles regarding care-giving and domestic chores?
- Should Tanzania build its development strategy around economic growth or around employment creation?

Note: *The statistics above are based on the 2010/11 National Panel Survey and the ILO's Economically Active Population, Estimates and Projections database. All sources are publicly available.*

READER COMMENTS

We need thinking outside the box: Education should be free, but at the same time not everyone is entitled to go to a university. Children who are not smart enough or are just not interested in book-learning should be taught trades early on so they can go on to vocational schools.

I seriously think that what should engage the attention of Africans is what type of education we want and not whether or not it should be free. Why do we have so many unemployed graduates? One major reason is that most of the graduates do not possess the skills required by industry; in fact, the colonial educational philosophy has not been changed.

13 Youth: a growing uneducated labor force

In Africa, the number of youths (aged 14 to 25 years) has grown significantly over the past decade. An old adage calls on us to recognize that 'the youth of today are the leaders of tomorrow.' Indeed, countries do well when they invest in a strong, healthy, well educated, dynamic and innovative youth.

Below is a portrait of youth in Tanzania:

- Youth represent roughly 18 per cent of the total population and this share remained stable between 1990 and 2010. These figures are comparable for Uganda and Senegal but above the trends in emerging and developed countries where the share of youth declined from 15 per cent in 1990 to 12 per cent in 2010.
- In absolute numbers, Tanzania's youth population almost doubled from 4.4 million in 1990 to 8.1 million in 2010. It is expected to swell to 11 million by 2020 and 15 million by 2030.
- Young people accounted for 28 per cent of the labor force in 2010 – constituting a formidable presence compared to developed countries.
- About two out of three youths in Tanzania were active in the labor market in 2010/11, similar to the rate in Uganda.
- Notably, the youth unemployment rate is fairly low in Tanzania, having decreased from 8.7 per cent in 2000/01 to 8.2 per cent in 2006 and standing at just 4.7 per cent in 2010/11.

Consequently, Tanzania would appear less likely to suffer the risks related to the youth unemployment 'time bomb' faced by many European countries.

For example, youth unemployment reached 44.4 percent, 46.4 percent, 29.1 percent, and 22.9 per cent in Greece, Spain, Italy and France respectively in 2011.

Although youth unemployment in Tanzania is low on average, employed youth usually hold only precarious jobs in the agricultural sector, without any formal contracts or benefits. They are also more prone to unemployment in urban areas, and paradoxically, when they are more educated.

- About 75 per cent of employed youths are active in the agriculture sector, and only 6.7 per cent hold public sector wage jobs.
- A youth in Dar es Salaam is more than six times (13 per cent) more likely to be unemployed than a rural youth (two per cent).
- More than 20 per cent of youths with secondary education in Dar es Salaam are unemployed while this figure stood at a staggering 56 per cent for Zanzibar.

The poor quality of jobs held by Tanzanian youth are to a large extent determined by a low level of education attainment.

Of the approximately 900,000 youths (15 - 24-years) that entered the labor market in 2010/11: 14 per cent did not complete primary school; 44 per cent finished their primary but did not continue to secondary; an additional 38 per cent went to secondary but did not reach or finish Form IV, and a mere 4 per cent went

beyond O-level. Many of these are unlikely to find a good paying job as they did not acquire the necessary skills to create and grow a successful enterprise.

All these facts raise a number of questions:

- Does the high unemployment rate of the urban and educated youth constitute a risk to Tanzania's social stability?
- Is the prevalent lack of education among the youth a time bomb for Tanzania?
- Should firms hire more youth? Should apprenticeships be encouraged?
- Should the government invest more in secondary and higher education?
- Do schools provide the skills needed by the labor force? Should more emphasis be given to technical and vocational training schools?

Note: *The statistics above are based on the 2010/11 National Panel Survey, Demographic and Health Surveys for different countries, and Eurostat. All are publicly available.*

READER COMMENTS

Idle, dissatisfied, educated, urbanized youth are the fuel which fed the flame of the Arab Spring. The breakdown of the social compact is the first casualty of rising aspirations. The much anticipated gas economy will greatly enhance this problem. A related problem is escapism through the increased use of drugs and increased crime rate. This vicious cycle can only be broken by increasing the number of desirable, formal sector, productive jobs through meaningful growth.

Possibly it is also time to moderate the 'youth bulge' by (i) mobilizing socially to increase the age at which girls get married; (ii) advocate that small families are happy families and (iii) enlarge the access to and quality of education and health service delivery by encouraging non-state providers.

The nation should have straight forward priorities which would create jobs. For sure sustainable agriculture would end unemployment to the serious society as there is a ready market for agricultural produces worldwide. Government should be more careful when investing in education. It is better to have few schools (600 schools) which are well equipped with modern equipment, superb infrastructure and renowned and committed teachers than having more than 3,000 overcrowded secondary schools with dilapidated infrastructure with very few frustrated teachers.

14 Across the universe of firms

In industrial countries, small and medium firms are the vectors of economic innovation and job creation. In the USA, small-businesses account for almost two-thirds of all net new job creation.

They also contribute disproportionately to innovation, generating 13 times as many patents, per employee, as large companies do. Small business owners are also in general more educated and wealthier than the rest of the active population. The reality is different in Tanzania. The vast majority of firms are very small and predominantly confined to self-employment. They are also highly concentrated in agriculture and trading activities:

- In 2010/11, there were approximately 11 million family-owned businesses operating in Tanzania, including farms. This is equivalent to a rate of entrepreneurship of 40 percent, which is about the rate reported in Uganda and Ghana, but three and 10 times higher, respectively, than in the United States and France.
- Half of the firms operating in Tanzania have only one employee, typically the owner; while an additional 40 percent report less than five employees. Firms with more than 10 workers represent only 0.6 per cent of the firms' universe (still almost 70,000).
- About 55 percent of firms are involved in agriculture, followed by trading (30 percent), and manufacturing (5.5 per cent). Businesses operating in specialized sectors, such as information and technology or professional services, account for only 1 per cent of total firms.

The breakdown between farms and other firms provides a more precise picture of the business reality in Tanzania as of 2010/11. Farms are in general bigger, older, and more likely to use non-family workers.

By contrast, non-farm enterprises are more likely to be located in urban areas, young, family-oriented, and operating on non-fulltime basis as reported in the statistics below.

- Urban: Almost half of non-farm enterprises (excluding mining) are located in urban areas. Out of these urban businesses, one third is in Dar es Salaam while the remaining two thirds are in other cities and towns.
- Young: A quarter of non-farm enterprises report to be younger than one year and two-thirds of them are less than five years old.
- Family business: Approximately 90 per cent of non-farm enterprises use exclusively household workers.
- No full-time: On average, non-farm enterprises are operating eight months per year. Partial activities are especially visible with trade and transports.

This snapshot of the operating enterprises in Tanzania raises a set of strategic questions:

- Can small, young, and non-specialized firms create enough (decent) employment for Tanzanians?
- Does the high entrepreneurships rate reflect the lack of employment opportunities in the formal labor market?
- To what extent can urbanization help generate more dynamic and productive firms?
- Does the importance of family/household business represent an obstacle to innovation and experimentation?

Source: *National Panel Survey, 2010/11 and http://www.internationalentrepreneurship.com/total-entrepreneurial-activity. All are publicly available.*

15 What do we know about wages?

How much a worker earns for her or his labor is important for different reasons. First, it matters with regard to poverty since labor income counts usually for an important share of household revenue. Secondly, it influences firms' competitiveness, especially for labor intensive activities such as manufacturing and agriculture. Thirdly, it is relevant for equity as anybody should expect a fair remuneration for his efforts.

It is therefore not surprising that wages have attracted a lot of attention from economists and policy makers across the world over the years.

In Tanzania, only one third of workers report earning a wage for their labor. However, this number is growing relatively fast, especially in urban areas. A look at the statistics collected from the Tanzanian private sector highlights three interesting results:

- The average wage in the private sector was about Sh78,000 per month (or US$ 45) in 2011, which was barely above the subsistence level
- Between 2000 and 2011, labor earnings multiplied by approximately 60 percent, after adjusting for inflation
- Real wages declined by almost 10 per cent from 2008 to 2011, possibly reflecting a slowdown in demand for labor by private firms.

The situation of wage workers in the private sector can be compared to that of civil servants. This comparison reveals that public employees not only earned on average 3.4 times more than private employees in 2011 but they have also not witnessed a decline in their real wages during the recent years.

On the contrary, real public wages have risen by 32 per cent between 2008 and 2011.

If the wage premium in favor of public employees reflects their higher level of education, it is more difficult to explain why the gap between private and public wages doubled from 1.7 in 2000 to 3.3 in 2011.

These statistical observations point to the following questions:

- Is the average private wage sufficient to lift Tanzanian households out of poverty?
- Do low private wages reflect the low productivity or an excess of supply of workers (fueled by the rapid population growth)?
- Should wages be automatically adjusted in line with the inflation rate?
- Are public employees paid too much compared to private workers even if they are more educated (two thirds of them report having secondary education against 12 per cent for the rest of the population)?
- To what extent do the recent increases in real public wages reflect higher bargaining ability or productivity gains?

Note: *The statistics above are based on the 2008/9 and 2010/11 National Panel Survey, the 2000 Household Budget Survey the 2006 Integrated Labor Force Survey, and the IMF's World Economic Outlook Database (October 2012 version). Data from these sources are publicly available and results can be readily replicated.*

READER COMMENTS

It's absolutely true that most Tanzanians are underemployed particularly in rural areas. The government should make it easier to do business so investors can come in and create jobs. We should also focus on agriculture and agro processing.

The public and the private sector should form an honest alliance to build the capacity of the rural poor to invest in commodity value chains. Then each partner should work hard to connect commodity value chain producers and processors to reliable markets.

16 Where in the world are they?

Moving abroad is often motivated by the prospect of better education, employment and other opportunities. In turn, migrants contribute to the development of their home country by sending remittances or by returning and putting their improved knowledge and skills to effective use.

Thanks to the increasing number of migrants and lower transactions costs, total remittances received by countries in sub-Saharan Africa reached US$325 billion in 2010. This is equivalent to the total amount of official aid received annually by those countries.

Tanzania appears to be the outlier in this picture. On average, Tanzanians are five times less likely than other sub-Saharan Africans to migrate to a foreign country.

This can be seen, for instance, in the remittances in 2010 by Tanzanians abroad which amounted to US$17 million or 0.08 percent of total remittances on the continent in that year. Uganda and Kenya received in that same year US$773 million and US$1,758 respectively as remittances from their citizens abroad.

If Tanzanians are not migrating abroad, they are moving within the country.

Yet, international and domestic migrations differ in important ways as shown in the statistics below:

- 1.2 per cent of Tanzanian households have one of their members living in a foreign country.
- About 40 per cent of households have one member living in another community within the country.
- Only 40 per cent of migrants send remittances irrespective of their location.
- Domestic migrants sent on average Sh21,500 against Sh41,000 for international migrants in 2010
- The number of international migrants with tertiary education is proportionally 10 times higher than for domestic migrants.

Why are Tanzanians less likely to live outside their country than the average Sub-Sahara African? Why does the average Tanzanian migrant send 20 times less money than other sub-Saharan African migrants?

- Could it be due to difficulty in getting a passport?
- Do most households lack financial resources to finance a trip abroad?
- Is international migration constrained by the lack of education? Is the low English proficiency an obstacle?
- Is patriotism or appreciation of life in Tanzania preventing people from living abroad?
- Are most Tanzanian migrants engaged in low-paying jobs from which they do not earn enough to send more remittances more regularly?

Source: *National Panel Survey 2008-09 and 2011 Migrations and Remittances Factbook*

READER COMMENTS

Many of those Tanzanians that received state-sponsored education during socialism felt a sense of loyalty to their country that is why many came back home after completing their studies abroad. This sense of patriotism still pervades daily life and it could explain why Tanzanians are less likely to settle outside their country than other sub-Saharan nationals

17 Is this a woman's world?

Tanzanian families have been doing things differently of late. More of them have been sending their daughters to primary school and more women have become heads of households with increasing financial responsibilities. Increasingly too, more women are involved in the political arena today.

These trends can also be found in most countries around the world but they are especially visible in Tanzania as reflected by these recent statistics.

- Girl's primary school attendance increased from 60 per cent to over 83 per cent between 2000/2001 and 2010/2011.
- Women today own 47 per cent of non-agricultural household enterprises in the country.
- More than a third of Parliamentary seats are occupied by women – at par with Uganda (35 per cent) and far ahead of Kenya (9.8 per cent.)
- Women count for 35 per cent of wage employment in the country.

This is good news because women's empowerment is beneficial for a country's quest for prosperity.
Indeed, when women have a say in household and political decisions, have better access to education, and have access to better earning opportunities this generally results in healthier and better educated children

Yet, many Tanzanian women still suffer from discrimination and its effects compared to men:

- While about 41 per cent of girls transition to secondary school education, only 3 per cent complete the cycle.
- Salaries paid to women are on average 63 per cent lower than those paid to men.
- When women own businesses, they make 2.4 times less profit than men.
- Women represent only 10 per cent of the political elite from the district level and below.
- In 2010, 33 per cent of Tanzanian women reported they had been subjected to physical domestic violence (in the previous 12 months) compared to 25.1 per cent in Kenya and 14.5 per cent in Malawi.

The fate of women in Tanzania raises some questions:

- Should promoting gender equality be a priority for the Tanzanian government?
- Should specific programmes be implemented to support businesses owned by women?
- What is contributing to the high incidence of gender violence in Tanzania?
- Should policies to encourage girls' secondary school enrolment be put in place, for example, providing financial incentives to families?
- What can be done to increase the participation of women in local politics?

Note: *The statistics are extracted from the National Panel Surveys (2008/2009 and 2010/2011), the 2010 Demographic and Health Survey, the Uwezo 2011 report and the World's Women 2010 report. All are publicly available.*

READER COMMENTS

Before deciding on what to invest in for more gender equity, the Government needs to investigate the factors affecting girls' education, women's enterprises, etc.

18 The power of commercial lending: Myth or reality?

Banks play a critical role in economic development, as success stories are difficult to find without a big increase in commercial lending over time. Countries like Korea, Malaysia and China saw their credit to GDP ratio surge by 40 percentage points during the 1990s. On the African continent, similar stories are emerging in Cape Verde, Senegal and Nigeria, though arguably at a lower rate than in Asia.

Tanzania's financial sector has been growing rapidly over the past few years, almost doubling size between 2006 and 2012. As a result of the good performance of the national economy and the gradual liberalization of the financial sector, there are today 45 commercial banks, local- and foreign-owned, competing for costumers. This growth has translated into higher lending activities as reflected in the following statistics:

- Total banking credit surged from 11.3 per cent of GDP in 2006 to over 24 per cent in 2011. This last ratio is still below the regional average of approximately 45 per cent of GDP and far from the level achieved by Kenya (52 per cent).
- The recent increase in lending activities is partly the result of higher borrowing by the Government, which grew by 5.5 percent of GDP between 2006 and 2011, and now accounts for almost 20 percent of total credit in the economy.
- Private credit expanded from 12.9 per cent of GDP in 2006 to 20.3 per cent in 2011.

Domestic banks almost doubled their lending to public non-financial institutions between 2008 and 2012. By contrast, the credit allocated by the domestic financial system to the central and local governments has remained modest at only 1.2 percent of total credits at the end of 2012.

At the sector level, the allocation of total credit reveals that:

- Trade, personal services, and manufacturing counted for almost two-thirds of total domestic lending by commercial banks at the end of 2012.
- The share of agriculture and construction of total lending was only 15.5 per cent in December 2012, significantly lower than their contribution to national GDP (almost 30 per cent).
- Commercial loans to the electricity as well as education and health sectors increased by 103 and 80 per cent between 2011 and 2012 (but represented only 6.5 per cent of total lending at end-December 2012).

The following questions may help inform the policy debate about the role of commercial banks in Tanzania's quest for economic emergence:

- To what extent can commercial banks contribute to economic development in Tanzania?
- Will the growing competition between commercial lenders benefit customers?
- Can the rapid expansion of commercial lending endanger the stability of the domestic financial system?
- Is there a risk that a rapid increase in public borrowing could crowd out private lending?

Source: *Bank of Tanzania and World Bank's World Development indicators.*

THE WORLD BANK

19 Who is being served by a bank?

Access to credit for businesses is critical for private sector development, employment and ultimately economic growth. Individuals seek credit could to set up new enterprises or increase the performance of existing ones by, for example, buying new equipment or hiring more people.

In Tanzania, there has been a notable but unequal increase in access to banking services and/or credit over the past decade. With more than 30 banks operating in the country today, there is a higher likelihood than before of a household in Magomeni or a business in Ilala owning a bank account.

On the other hand, it remains very unlikely for a member of a poor household in rural Rukwa to have signed a bank slip of any kind in her lifetime.

More precisely:

- The share of households with a bank account increased from 8 percent in 2004 to 15 percent in 2010.
- Access to a bank account was very unequal with only 4 percent of the rural population owning one versus 21 percent of the urban population in 2004.
- This increase in bank accounts benefitted almost exclusively the urban population, owning who had 39 percent of the bank accounts in 2010 against only 7 percent of the rural population.
- The poor remain excluded since only 0.1 percent of the poorest 60 percent of the population reported owning a bank account in 2004. This figure went up to only 1.1 percent in 2010.

Having a bank account does not necessarily mean access to credit. In 2009, only 9 percent of Tanzanian households were able to get a loan and less than 30 percent of these loans were provided by commercial banks.

The poor have to rely on their friends, relatives, and micro-finance institutions. Yet, the poor are as likely as the non-poor to use their loan for investing in their business.

Indeed 36 percent of the poor purchase agricultural or other business inputs with their loans versus 41 percent for the non-poor.

- If the poor had more access to loans would they invest more and create new businesses?
- Should commercial banks take more risks and lend to the poor?
- How can banks be commercially viable in remote areas?
- Should the State take on the responsibility of creating its own bank or should it rather find market-based mechanisms to fill the gap in poor areas?
- Are micro-finance institutions the way for the future?
- Will mobile phone companies take over and lend to the poor?

Note: *The statistics above are computed using the 2004 and 2010 Demographic and Health Surveys and the 2008/09 Tanzania National Panel Survey. Data from these surveys are publicly available and results can be readily replicated.*

THE WORLD BANK

20 A bank in the pocket

The mobile phone is a truly novel device. Whether we need to communicate about the serious things or to chat about the simpler things, it always comes in handy. Mobiles are not only being used as radios and flashlights but they are also delivering banking and financial services to those who urgently need them.

Increasingly, people around the world, especially in Africa, are paying their school fees, healthcare and utility bills using mobile phones today.

Businesses use mobile money phones to pay their staff and suppliers. Poor people who have never entered a bank are using mobile services to send or receive remittances and to save their money.

'Mobile money', as it has been dubbed, is growing at an amazing pace on the continent and at an even faster rate in East Africa as shown by the following statistics for Tanzania:

- The total number of registered mobile customers surged from 14,000 in June 2008, to 19.4 million in November 2011, to 20.4 million in November 2012.
- Money stored in mobile accounts increased from Sh3 billion in June 2009 to Sh157.8 billion in November 2012.
- The number of monthly transactions increased from 1.9 million in 2010 to 48 million in September 2012.
- The value of transactions increased from Sh1.4 million in 2007 to Sh1.8 billion in 2010, to Sh1.7 trillion in 2012. For the month of September 2012 alone, the value of mobile money transactions in Tanzania was about 14 percent of total deposits held by commercial banks.

Mobile money was used by one out of four households in Tanzania in 2011. This is much lower than in Kenya (73 percent) but significantly higher than middle-income countries like Brazil and Argentina (only 1 percent).

However, its use varies according to certain household characteristics.

- Those in the richest quintile are 15 times more likely to have used mobile money than those in the poorest quintile
- A person who has completed secondary education school is 15 times more likely to have used mobile money than someone without primary education.
- Business owners and wage earners are five times more likely to have used mobile money than subsistence farmers.
- Mobile money users are five times more likely to have a bank account.

The fantastic growth of mobile money has been attracting many investors. 'Big' communication companies and commercial banks are jumping on this bandwagon, sometimes entering into strategic alliances in order to get make the most out of it. At the other end of the spectrum, small innovators have also been coming up with new products, targeting new consumers or developing new ways to do business.

All these developments raise a number of questions:

- Do you agree that mobile phones provide a revolutionary form of banking in Tanzania? Are they a threat or a complement to traditional banking?
- To what extent does the rapid rise of mobile banking present risks, say with regard to increased money laundering, identity theft, consumer vulnerability and/or other ways?
- Will mobile money help reduce the gap between the rich and the poor?
- Should mobile money transfers cross borders? Will it help deepen regional integration?
- Should mobile money be more tightly regulated? Would over-regulation slow or halt the mobile revolution and hurt economic growth?

Note: *The statistics above are based on the Bank of Tanzania's monetary policy statements, the 2010/11 National Panel Survey, and a 2012 UNTCAD report. All are publicly available.*

READER COMMENTS

The use of mobile money enables users to save time. This is especially so if you consider that formal banks are still available in fewer areas than would be ideal and these tend to have long queues that discourage potential clients.

It will take you more than half an hour to send money in formal banks, in addition to some paperwork that maybe required, while you can do the same in a minute through the phone and from anywhere.

Agriculture / Food / Rural / Environment

Plenty of fertile land but low agricultural productivity

Eight out of 10 Tanzanians live in a household whose primary activity is agriculture. But according to the Food and Agriculture Organization (FAO), their average productivity (as measured by maize yield – the staple crop) is 5.4 times lower than in Argentina or 2.8 times lower than in Vietnam. Perhaps more surprising, it is almost half of the yield currently reported by Mali and Zambia.

Many Tanzanian households are still using hand hoes to till their land; only 3.2 per cent of land is irrigated; and the use of tractors (3 per cent) or other inputs such as high yield variety seeds (17 per cent), chemical fertilizers (7 per cent), pesticides (9 per cent) remains marginal (source: Agricultural Census 2007/8).

As a country blessed with large tracts of land, fertile soils, good rains and diverse agro-climatic conditions, Tanzania should be able to get more from its agricultural sector – the most direct way to reduce rural poverty and to improve food security.

Some regions and farmers have however shown that it's possible to get to higher productivity levels. In Muheza and Tarime districts, for instance, the maize yields are more than twice as high as the national average or close to levels reported in Vietnam, and Malaysia.

Are those farmers doing something right or are they simply benefiting from exceptional climatic conditions?

- Are they using more and better inputs?
- Do they receive vouchers and subsidies?
- Are they better connected by roads to markets?
- Are they able to commercialize their harvest?
- Do they export?

Note: *All the statistics presented are computed using international and national official sources such as from FAO and the 2007/8 Tanzania Agricultural Sample Census Report. Those are publicly available and all statistics can be readily replicated.*

THE WORLD BANK

22 Land of opportunity: Is large-scale farming the way to go?

Like most developing countries, more than 80 percent of the poor in Tanzania are to be found in rural areas. Nearly all of them are active in the agriculture sector as laborers or owners of a small piece of land that they cultivate for a living.

In this context, land is a vital asset for food security and survival. In parallel, global population growth, rapid urbanization, and increases in incomes have resulted in a sharp increase in demand for agricultural products worldwide, leading to an expansion of cultivated area and leading investors to go out in search of new farmland.

The global search for farmland has intensified in sub-Saharan Africa, including Tanzania.

Tanzania appears to offer good prospects for the expansion of the size of farming operations as illustrated by the following statistics:

- Only about 33 per cent of arable land in this country is cultivated compared to over 95 per cent for Malawi and Rwanda. Similarly, Ghana, Uganda and Ethiopia have used more than 80 per cent of their arable land.
- There is comparably limited land pressure on Tanzanian farmers since their average plot size remained constant at around 2.5 ha between 2003 and 2008. This is in sharp contrast with Uganda where average landholding has diminished by 40 per cent largely as the result of demographic pressures.
- Approximately 10 per cent of the farmland remains unused largely because of technological constraints and lack of human and financial capacity. For instance, in 2008 only 18.6 per cent of farms used an ox, 3.1 per cent a tractor, and 1.5 per cent a thresher.
- There are already quite a few medium to large farms in Tanzania: about 20 per cent of farm households report owning more than 5 ha of land compared to only 3 and 4 per cent in India and Uganda respectively.

These facts raise a number of questions:

- Should the government encourage farmers to obtain larger land holdings?
- Through which channels should big farms help smallholder farmers? Joint infrastructure? Technology transfers? Jobs?
- Is the Tanzanian government, including local authorities, equipped to negotiate and handle the needs of larger farmers?
- Will new large farms help resolve rising unemployment in rural areas and improve food security?

Note: *The statistics above are derived from the Tanzania Agricultural Sample Censuses (2002/03 and 2007/08). World Development Indicators and a 2011 World Bank Report on Farmland. All are publicly available.*

READER COMMENTS

Why should large farms be better than small farms and why should a higher cultivation rate, as measured by occupied arable land, be preferable?

The linkages are not as straightforward as the text makes them to be. And wouldn't it be more appropriate to focus discussions be on empowering farmers in small farms rather than on industrial size farms?

THE WORLD BANK

23

Land ownership and rights in Tanzania

For many families in Tanzania land is their single most important productive asset and main livelihood. Three out of four households in the country are engaged in agriculture, directly living off the produce of their land. And whereas other productive assets, such as higher education and capital, are strongly concentrated in the hands of the better-off, agricultural land is more evenly distributed:

- Of the 12 million plots used for agriculture production in 2010/11, some 87 per cent were owned by the farming households, significantly more than in Kenya (72 per cent in 2005/06) or Uganda (77 per cent in 2010/11).
- Around nine per cent of farm households in Tanzania do not own any land themselves, though most of these families have access to land they can use for free. Only 3 percent of farm households rely entirely on rented land.
- The poorest 40 per cent of households own approximately 46 per cent of cultivated land, compared to 28 per cent for the richest two quintiles (excluding commercial estates and plots rented out).

Within families, there are clear gender patterns and women are evidently disadvantaged with respect to land ownership:

- Only about 15 percent of cultivated land is under sole female ownership against 47 per cent that is under male ownership and 38 per cent under joint ownership, typically husband and wife.
- Women own just 23 per cent of cultivated plots. These tend to be smaller than those owned by men (1.6 acres vs. 3.3 acres).

Gender inequality in land ownership not only weakens women's standing within the family and the economy, but can also affect investment patterns and undermine productivity. In addition, as in many other parts of Sub-Saharan Africa, most Tanzanian farmers generally do not have legal recognition of their landholdings as most plots are held under customary tenure.

- Families claim to have a title for 12 per cent of the plots they own, similar to Uganda (14 per cent), but significantly less than in Kenya (39 per cent).

- However, only about one third of these are officially recognized titles, such as Certificates of Customary Rights of Occupancy (CCROs) or Granted Rights of Occupancy (GRO). The others are semi-formal documents, such as inheritance letters or letters of allocation from the village government, which do not provide full tenure security.
- The poor are disproportionately affected by lack of land rights: only 2.7 per cent of plots owned by the poorest quintile of households have a CCRO or a GRO, compared to 4.8 percent for the richest quintile.

The high prevalence of customary tenure undermines farmers' ability to buy and sell land, and to use their land as collateral for credit. And while there is little evidence to date that customary arrangements go hand in hand with a heightened sense of tenure insecurity, this could easily change as population growth increases overall land pressure.

All of this raises the following questions:

- How important is the issuance of CCROs for land security and for stimulating land investment? Should banks accept CCROs as collateral?
- Should there be efforts to develop a rural land market? If so, how can this be done while assuring protection of household land rights.
- How can women's land rights be strengthened? Through mandated issuance of spousal co-ownership? Community awareness programs? Better representation of women in land governing bodies?
- How should the grazing rights of pastoralist communities be protected in the context of the stricter declaration and enforcement of individual property rights?

Note: *The statics above are based on the 2010/11 Tanzania and Uganda National Panel Surveys and the 2005/06 Kenya Integrated Household Budget Survey.*

24 Why farmers aren't selling their produce

About three out of four households report to have agriculture as their main activity. Some urban households too are involved in crop production.

Indeed, agriculture is an important sector for Tanzania, contributing up to 26 per cent of GDP. Typically, farmers produce to feed their families but they also expect to gain revenues by selling their output. When farmers make more income from the sale of their produce this leads to more development in the rural areas which impacts positively on the overall economy. This is what has been surmised from the success stories of predominantly agricultural countries, such as Malaysia and Vietnam.

In Tanzania, this kind of impact has not yet been felt – at least not on a tangible scale. Agricultural commercialization remains marginal in the country as shown by the following statistics from 2011:

- 26 per cent of all farmers did not sell any of their crop produce as they were not connected to markets.
- Only 25 per cent of farmers sold more than half of their produce.
- More than two thirds of maize farmers did not sell any of their harvest and only 25 per cent of total maize production is marketed.
- Uganda and Kenya have similar statistics. On the other hand, Vietnam moved from 48 per cent of crop production being marketed in 1993 to 87 per cent in 2008.

The livestock sector is even less commercialized than the crop sector. Up to 52 per cent of livestock owners did not get any cash income out of their animals in 2011.

Only less than 10 per cent of the overall country livestock value is marketed.

The low rate of commercialization may be explained by many factors such as remoteness, low production, low farm-gate prices, high marketing margins, lack of information, or simply farmers' unwillingness to participate in the market.

Indeed, less than a third of Tanzanian villages have a daily or weekly market where farmers get to sell their produce. For the typical farmer, the closest market is 18 kilometers away from the village center and more often than not there is seldom any road and/or public transportation service to reach that market.

Farm-gate prices received by farmers are a small share of the wholesale price of crops which averaged around 60 per cent and 45 per cent for maize and paddy respectively in 2011.

The lack in agricultural commercialization raises the following questions:

- Should the government invest more in infrastructure such as roads, village markets, etc., to improve farmers' connectivity?

- Should there be price controls to ensure farmers receive a minimum price from their produce?
- Should taxes on agricultural produce be reduced or abolished altogether?
- Can farmers be directly linked to supermarkets, agribusiness firms and processors bypassing marketing middlemen?
- Should the emergence and development of contract farming with large farms be encouraged?
- Will the SACGOT initiative help smallholder farmers increase production and get more cash income out of their produce?
- How can the mobile revolution help improve agricultural commercialization?

Note: *The statistics above are computed using the 2010/11 Tanzania National Panel Survey, and the crop wholesale prices from the Ministry of Industry Trade and Marketing. Data from these sources are publicly available and can be readily replicated*

READER COMMENTS

The government should not ban the export of cereal especially maize without having any statistics to back up its case on the shortage of maize in the country. In Rukwa, for example, we saw this ban enforced even as people were stuck with their maize with nowhere to sell it, hence subjecting them to enormous post-harvest losses. Government also needs to focus on irrigation projects to reduce the farmers' dependence on rain which is often unreliable in areas like Rukwa.

Helping smallholder farmers understand the need to sell what they produce cannot be done just by training the individual farmers, as they may not retain what they are taught and may sometimes consider the training a distraction from their productive work. Efforts attempting to help the farmers do business need to define the product or commodity and match it with any demand gaps that the consumer markets may be facing.

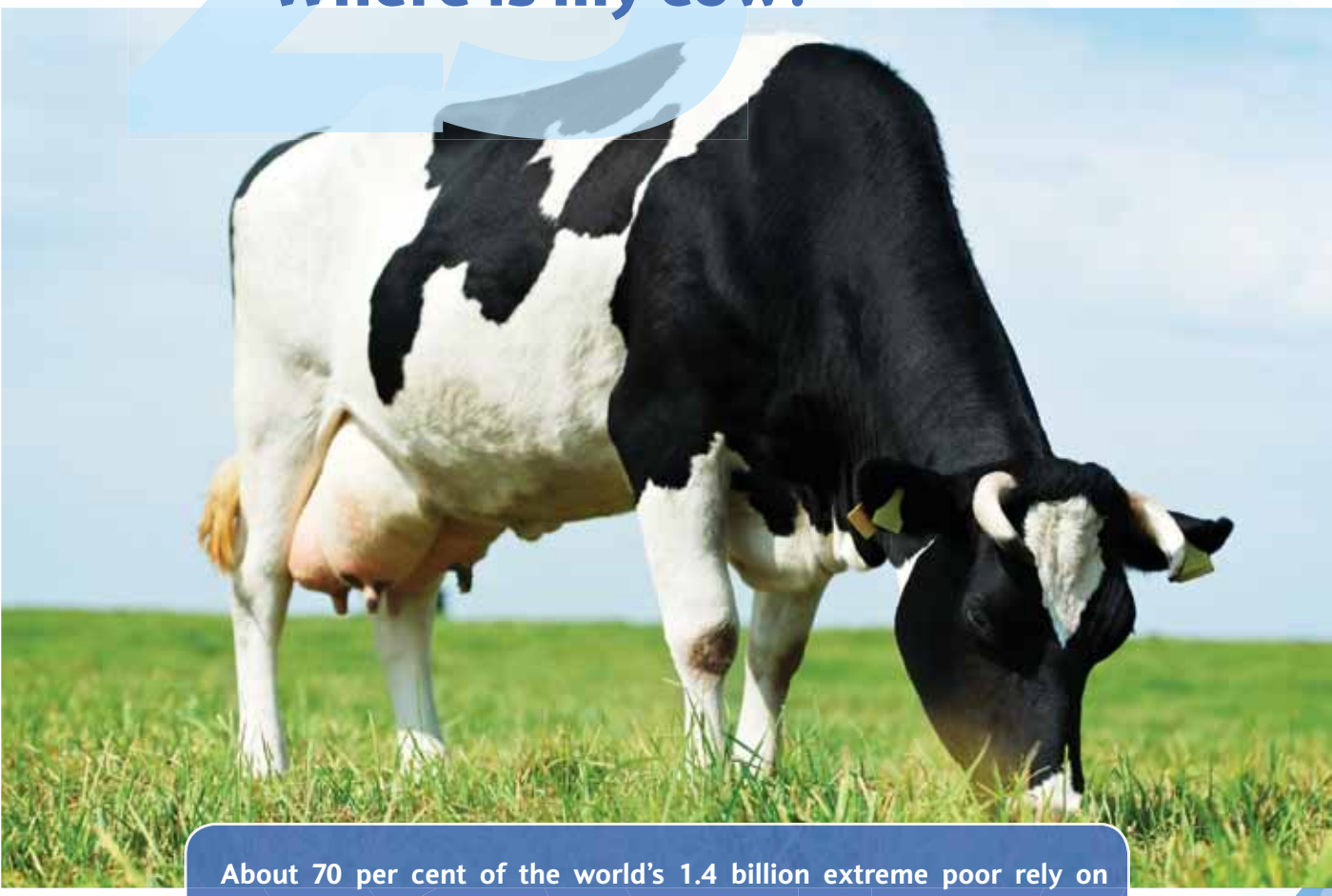
Rural smallholder farmer does not have any knowledge other than predicting when the rains fall and then planting to get a good harvest. Once the harvest comes, the challenge of storage and pests arrives but the poor farmer will again simply blame the evil one...

The SAGCOT initiative is certainly encouraging given its potential to link farmers to processors, to input markets, etc., but complementary policies will also be important to ensure that the benefits from SAGCOT are spread more widely beyond a narrow section of already successful commercial farmers. The combination of proper roads and inexpensive mobile telephones should give farmers greater access to buyers in local and global markets. The government should also promote contract farming – it will allow small holders to take advantage of the market opportunities available to large scale commercial enterprises. Price controls will not be useful. We also need to stop taxing farm products.

THE WORLD BANK

25

Where is my cow?



About 70 per cent of the world's 1.4 billion extreme poor rely on livestock to sustain their livelihood, according to the Food and Agricultural Organization. Not only does livestock provide meat and milk for consumption, it also helps increase agricultural productivity through manure which is an organic fertilizer and draft power.

Because it can be readily marketed to generate income, livestock also reduces the vulnerability of poor households to external shocks. But this crucial resource is also susceptible to many risks including drought, disease, and theft.

In Tanzania, as of October 2010, there were more than 17 million heads of large livestock (bulls, cows, heifers, steers), more than 21 million of medium-sized livestock (sheep and goats or shoats), close to two million pigs, and over 50 million heads of poultry.

As a result, about 5 million Tanzanian households, or close to 58 per cent of them, reported owning at least one kind of livestock, with the larger proportion of them in rural areas (three out of four households) than in urban areas (one out of four).

Approximately, 25 per cent of rural households owned a large livestock compared to less than four per cent of urban households.
Unfortunately, many Tanzanian households cannot fully benefit from their livestock because most of them are exposed to disease and theft. With less than 30 per cent of owners reporting having vaccinated their livestock over the previous 12 months, morbidity rates in 2010/11 were as high as 42, 29, 20 and 58 per cent for cattle, goats, pigs and poultry respectively.

In 2010/11, the toll on livestock from disease and theft was staggering:

- Diseases claimed more than 1.4 million cattle and 3.4 million shoats.
- More than 80,000 heads of cattle and half a million shoats were stolen.
- Poultry were even more exposed to diseases and theft with a loss of more than 30 million.

The total loss from disease and theft for all livestock was estimated at Sh649 billion of which Sh572 billion was just from disease. This amount is equivalent to about two per cent of GDP and 8.3 per cent of agricultural GDP. These two plagues hit poor rural households harder with more than 55 per cent of them having experienced loss compared to 37 per cent of households in the richest quintile. Livestock theft and disease cost more than six per cent of average total household consumption. In addition, 8.5 per cent of the poor in 2010/11 were pushed into poverty by the loss of livestock, adding more than 800,000 people into these ranks.

This raises a number of questions:

- What prevents farmers from investing more in the protection of their livestock, especially through vaccination programs? Should government invest more in veterinary services to tackle livestock disease?
- Should investment in new technologies, such as GPS, be considered to help track stolen livestock as experimented in Kenya? Or does this just require stronger law enforcement?
- What role can insurance products play in strengthening the livestock sub-sector?
- Should government subsidize livestock insurance or vaccination programs?

Note: *These statistics are extracted from the 2009 FAO State of Food and Agriculture report and the Tanzania National Panel Survey 2010/11. Both are publicly available and can be readily replicated.*

READER COMMENTS

Why invest in vaccination if the animal gets stolen? It's property rights – and the rule of here, you see!

THE WORLD BANK

26 Consumption patterns: Food but almost nothing else

For many Tanzanian families, it is a daily struggle to make ends meet with their meager resources. As in many other developing countries, they have money to eat but little else for other needs, such as paying the fees for education or health.

In 2010/11, food – particularly maize (1.7 kg per person per week), rice and cassava (half a kg per person per week each) – accounted for approximately three quarters of household consumption, excluding rent. The largest single non-food spending category were utilities, which accounted on average for 4.5 per cent of total household consumption, followed by transport (4.2 per cent), health (3.7 per cent), education (3.4 per cent) and communication (3 per cent).

Of course, these average consumption patterns mask significant differences between population groups. In reality, there are large variations between urban and rural consumers, reflecting different lifestyles as well as access to a greater variety of goods.

- Urban households spend a larger proportion of their total budget on non-food items than rural households (33 per cent vs. 21 per cent of household consumption), a large part of which goes to transport and communication.

- But even in terms of food consumption, there are clear disparities. Urban households are much more likely to consume meals outside the home. This accounts for 27 per cent of total food consumption in urban areas compared to only 10 per cent in rural areas.

Another major trend relates to the differences in incomes, which are a major driver of observed consumption patterns.

- The food share of the budget declines as families get richer - from 81 per cent for the poorest quintile to 65 per cent for the wealthiest quintile.

- Better-off households spend a larger proportion of their budget on non-food items, particularly transport and communication. An exception is health spending, where the budget share for the poorest and wealthiest quintile are remarkably similar (3.7 and 3.6 per cent).

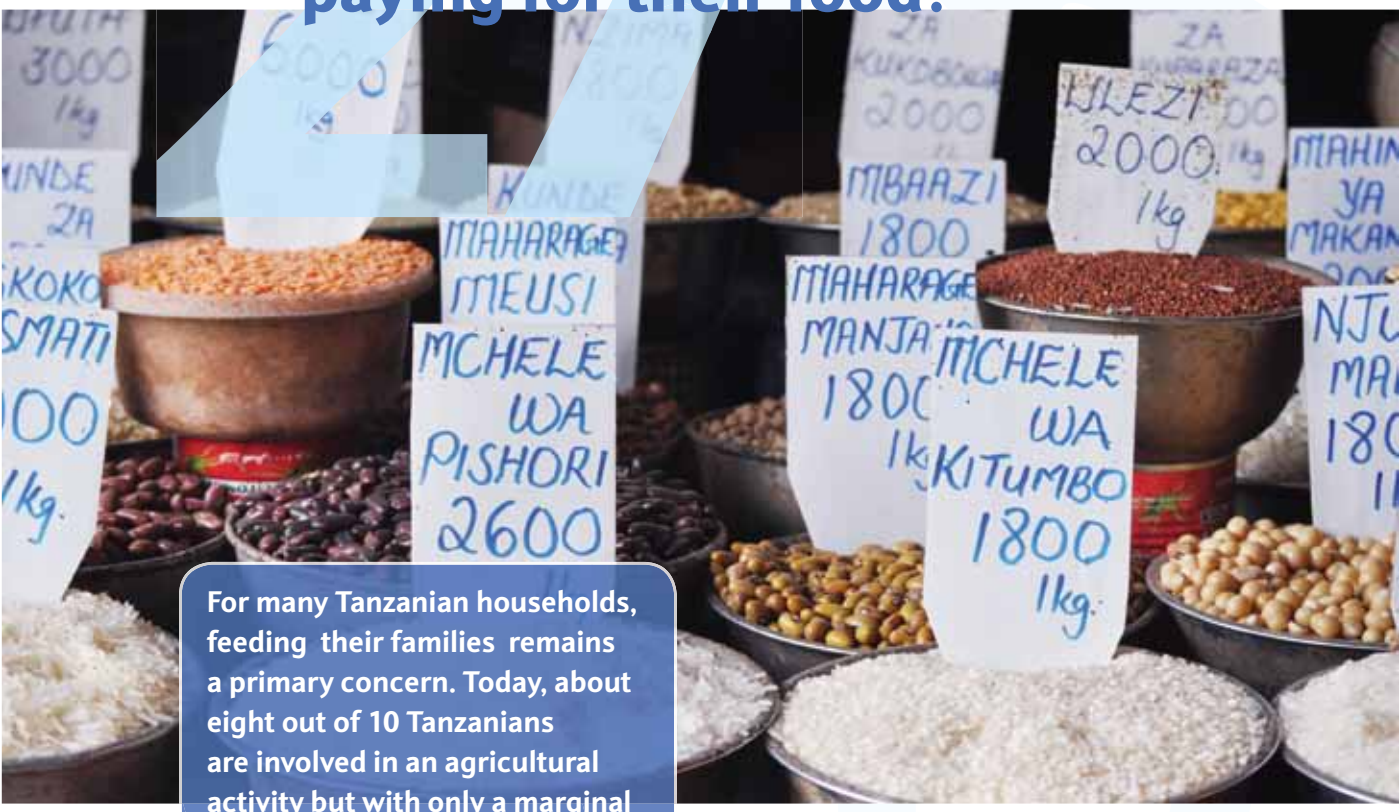
These statistics raise the following questions:

- Should the Government scale up cash transfers to assist low-income families in meeting basic household needs?
- To what extent should basic services (health, education, etc) be provided free-of charge for poor families given their budgetary implications?
- Is the accelerated urbanization process changing the consumption patterns in Tanzania?
- Apart from food, in what spending categories should Tanzanians be spending their money?

Note: The statistics above are based on the 2010/11 Tanzania National Panel Survey (NPS). Total consumption in the NPS includes food and most regular non-food expenditures, but excludes rent and consumer durables. This data source is publicly available.

THE WORLD BANK

27 How much are Tanzanians paying for their food?



For many Tanzanian households, feeding their families remains a primary concern. Today, about eight out of 10 Tanzanians are involved in an agricultural activity but with only a marginal fraction of this production being commercialized.

When households are engaged in something else, they generally earn just enough money to cover their food expenses. Other purchasing categories, such as housing and basic durable goods come a distant second, except for a few privileged households.

The importance of food for most Tanzanian households is highlighted by the following statistics:

- In 2007, food counted on average for 62 per cent of the household's consumption basket in Tanzania, while it was only 51 per cent in Ghana, 35 per cent in Botswana, 20 per cent in Brazil, and 18 per cent in Japan.
- The budget share of food was inversely related to the household's wealth, declining from 66 per cent for the poorest to 50 per cent for the wealthiest. It was also lower in urban centers (53 per cent) than in rural areas (65 per cent).

- The average share of food in total consumption declined marginally from 69.5 per cent to 66.6 per cent, between 2001 and 2007, reflecting the small decline in the poverty level during this period.

Consequently, food matters a lot for most Tanzanians households. Fortunately, food is expected to be relatively cheap in Tanzania thanks to its abundant domestic agricultural production and relatively easy access to global markets.

As of October 2012, the price of maize (one of the main items in the food basket) was lower in Tanzania than in Kenya and Uganda by 20 and 51 per cent respectively.

The price of rice was also lower by 52 and 26 per cent respectively. But these comparisons do not hold with other developing countries such as Ethiopia (where the maize price was 10 per cent lower than in Tanzania) or Vietnam (where rice was 42 per cent cheaper).

Perhaps the most intriguing element about food prices in Tanzania is that local consumer prices for maize and rice have increased by 39 per cent and 11 per cent respectively over the past 12 months, in sharp contrast with the trends observed in neighboring and world markets.

Local and international prices have diverged significantly. Today, the price of one kilogram of rice is almost twice as high as in Vietnam, while both were approximately equal in mid-2008.

At the current per capita level of income, the average Tanzanian is able to purchase approximately 500 kilograms of rice per year compared to over 2,000 kilograms in Vietnam.

All of this raises the following set of questions:

- Is food by far the most important consumption category for most households in Tanzania?
- According to the 2007 Household survey, an adult needs to consume the equivalent of Tsh20,000 per month to survive above the poverty level. At current prices, this could purchase approximately 10 kilograms of rice or 20 kilograms of maize. Are those quantities realistic?
- Why have food prices continued to increase in Tanzania when they have declined or grown much slower in neighboring and world markets over the past 12 months?
- If consumers are hurt by high food prices, producers may lose incentives with too low prices. What is the tradeoff and what should the Government do, if anything, about this?
- Should international food trade be promoted to reduce divergence between local and world food prices?

Note: *The statistics cited here are based on national and international price statistics compiled by the World Bank and FAO (http// www.foodsecurityportal.org/api/), and 2007 Household Survey. All are publicly available.*

READER COMMENTS

The reality in African countries is still very hard and incomes are mostly enough to cover only basic needs. Food prices that are rising constantly only compound an already difficult situation.

There is only one way to reign in the rising food prices: Control what gets exported.

28 Use, don't abuse Tanzania's forests

Globally, forests are disappearing at an increasing rate. Since 1990 alone, half of the world's rainforests have vanished.

Tanzania has also been severely affected by deforestation as illustrated by the following statistics:

- Forest area as a share of total land area declined from 50 per cent to 43 per cent to 37 per cent from 1938, to 1987 and 2010 respectively.
- Between 1990 and 2010, mainland Tanzania lost eight million hectares or 19 per cent of its forest cover. Equivalent to an average annual loss of about 400,000 hectares, this represents a deforestation rate of one per cent.
- Miombo woodlands (savannah woodlands of much of southwestern Tanzania) have shrunk by 13 per cent between 1990 and 2000, while it is estimated that more than 70 per cent of the Usambara forest (North-East of Tanzania) had been cleared by 1995.
- Forest cover around Dar es Salaam declined from 2,000 ha in 1990 to 385 ha in 2007.

Forests are burned down to give space to new agricultural activities. Wood also is a direct source of revenue, accounting for approximately 10 per cent of Tanzania's total legal exports.

- Agricultural expansion alone is estimated to account for an annual deforestation rate of more than 300,000 ha of forest and woodland.
- Between 1997 and 2005 Tanzania's legal timber export market increased by almost 1,400 per cent in value.
- Wood, in the form of charcoal and firewood, is the primary source of household energy for more than 97 per cent of Tanzanian households. This rate is similar to that of Uganda (95 per cent) but much higher than Kenya and Senegal (at 81 and 64 per cent, respectively).
- In urban areas, charcoal is more heavily used. In 2011, 71 per cent of households in Dar es Salaam were using charcoal as their primary source of energy, with an additional 5 per cent dependent on firewood.
- Approximately half of Tanzania's annual consumption of charcoal takes place in Dar es Salaam, amounting to approximately 500,000 tons.

The short-term monetary benefits associated with deforestation are counterbalanced by well-known costs. Deforestation strongly contributes to increased poverty, as the rural poor heavily depend on forests for their livelihoods.

Deforestation negatively affects water quality, and contributes to flooding during the wet season and reduced stream flow during the dry

season. It also leads to significant soil erosion, with deforested areas frequently degrading into wasteland. As a matter of fact, realizing the danger, the coastal forests of East Africa have been placed among the top 10 on Conservation International's list of most endangered forests around the world.

The severe and ongoing deforestation of Tanzania raises the following questions:

- Should the government declare deforestation a national emergency?
- Is it enough to identify protected areas or should the government enact a strong national tree planting program?
- How should the use of alternative energy sources instead of charcoal and firewood be promoted? Will the newly discovered gas resources help?
- To what extent should the extension of agricultural land be limited with regard to areas with forests?
- Should the international community contribute more (including financially) to the protection of Tanzanian forests?

Note: *The statistics above are computed using Senegal, Kenya, and Uganda Demographic and Health Surveys, the 2010/11 Tanzania National Panel Survey, FAO Statistics. Data from these surveys are publicly available and results can be readily replicated.*

READER COMMENTS

As charcoal is currently the cheapest source of fuel for cooking in urban areas the only way forest destruction can be reduced is by subsidising kerosene as used to be the case. Other measures are unlikely to be successful unless stricter penalties for forest reserve destruction are enforced.

The Government introduced Village Forest Reserves. There are now around 4 million ha of these, and good, solid empirical work has shown that productivity is higher in these reserves, biodiversity is richer, and benefits to communities from these are greater than in areas where these are not in place.

Natural gas should be subsidized so that it reaches every Tanzanian and discourages the use of charcoal.

Social Services

29

Better not to be sick

Many African countries are registering a steep decline in child mortality. Tanzania has seen a decline from 137 children out of 1,000 live births that did not live through their fifth birthday in 1996 to only 81 in 2010. The success in child health is largely associated with the implementation of large 'free of charge' public health programs including malaria control, immunization and nutrition.

These programs are sponsored by large NGOs and external donors, and do not necessarily depend on the general provision of health services in the country.

Unfortunately, progress has been more disappointing in maternal heath and it is impossible to detect a significant decline here between 2004 and 2010. The slower fall in maternal mortality mirrors a similarly slow fall in the share of assisted deliveries – the latter improved by just six percentage points between 1999 and 2010. Today only half of pregnant women in Tanzania give birth in a health facility assisted by skilled personnel.

Visualize the current disarray in healthcare services in Tanzania, with the following statistics (source: 2010 service delivery indicators study):

First, you are unlikely to find good basic infrastructure: Only one out five primary health facilities report having combined access to electricity, clean water and sanitation facilities.

This ratio falls to five percent in rural areas. However, about 80 per cent of them will use basic health equipment such as thermometers, stethoscopes, and weighing scales.

Second, you are unlikely to find health workers in the facility, and if you do, they are unlikely to spend much time with you. Their absenteeism rate is about 20 per cent and they spend on average only 30 minutes per day counseling patients.

Third, and perhaps most disturbing; doctors will reach the correct diagnosis in only 57 per cent of the cases. Therefore, it is better not to be sick, except if you have pneumonia and tuberculosis. Here are the stats showing the proportion of clinicians who would get an ailment right is:

- 27 percent if you suffer from malaria with anemia;
- 29 percent if you have diarrhea with severe dehydration;
- 84 percent if you have pneumonia;
- 66 percent in case of a pelvic inflamatory disease;
- 73 percent if you contracted tuberculosis.

How about medicine? If you manage to be seen by a clinician, get the right diagnosis, and receive a prescription, there is a 25 per cent chance that you will not be able to get the prescribed medicine in the facility because of frequent stock-outs. Of course, we have assumed that you have enough money to pay for those services.

- What would you do to improve the quality of healthcare services in Tanzania? Invest in private or in public facilities?

- Why are absenteeism rates so high? Too low salaries for health workers; lack of administrative controls; or inability by patients to pay for services?

- Why are diagnoses so frequently wrong? Is it the lack of training; or lack of motivation?

- Why are there so few heath care workers per inhabitant? The average number of doctors per 1,000 inhabitants in Tanzania is 20 and 175 times lower than the sub-Saharan and global average. For mid-wives and nurses, those numbers are respectively 3.3 and 11.5 times lower. What should the Government do about it? Should donors finance more training programs?

Note: *The statistics above are computed using data from the Demographic and Health Survey, and the Service Delivery Indicator survey all done in 2010. Data from these surveys are publicly available and results can be readily replicated.*

READER COMMENTS

The current public health system is obviously not working. There is need to invest in private facilities. The general psychology of Tanzania (public health) workers is characterized by this need to find alternative sources of income, which at the end of the day affects their productivity.
There is a serious lack of human resources which totally discourages doctors. Even a machine that is overused is bound to get exhausted.

30 Perilous pregnancies

Pregnancy and childbirth can be a tremendously exciting time for a family if the expectant mother and her unborn child benefit from quality medical services and the baby is delivered in a safe environment.

However, it is as terrible tragedy if the mother loses her life during childbirth or if the newborn is sick or dies.

Unfortunately, many women are lost during child birth as illustrated by the following statistics:

- Tanzania's maternal mortality ratio is estimated at 460 deaths per 100,000 live births (in 2010). 8,500 women are dying every year because of pregnancy or childbirth.
- Maternal mortality has declined since 2005 (from around 610 deaths per 100,000 live births), but progress has been much slower than with child mortality.
- Tanzania's maternal mortality ratio also appears high compared to other countries, such as India (200), Kenya (360), Ethiopia (350) or Senegal (370).

The broader problems caused by poor reproductive health are far greater than what is suggested by these mortality statistics.

For every maternal death, many more women suffer from pregnancy- or childbirth-related impairments, often with long-term negative impacts on their health and labor force participation. And of course, maternal health is closely linked to the wellbeing of the newborn children.

A major factor behind the high levels of maternal mortality in Tanzania is the insufficient utilization of reproductive healthcare services:

- While the World Health Organization recommends that pregnant women (without complications) should have at least four visits to an antenatal care provider, 57 per cent of Tanzanian women had fewer visits in 2010.
- 56 per cent of rural and 17 per cent of urban births were delivered at home, rendering advanced medical intervention difficult to access in case of complications. In the poorest quintile almost two-thirds of births occurred at home.
- In 2010 alone, around 900,000 births (49 per cent) were not attended by a skilled provider: 15 per cent of births were attended only by a traditional birth attendant, 29 per cent were attended only by relatives or friends and just above 3 per cent of births (more than 60,000) were delivered without any assistance.

This underutilization of reproductive health services is related to poor accessibility and the costs associated with seeking care.

Another yet related reason is the poor quality of reproductive health services. In 2010, only around half of the women (53 per cent) who received antenatal care were informed about potential pregnancy complications.

Unlike healthcare needs of children, which are often addressed through large-scale immunization campaigns and other 'vertical' programs, reproductive healthcare needs are addressed through the general healthcare system, which suffers from the well-known problems of weak staff incentives, poor accountability and inadequate service delivery.

All of this raises the following questions:

- What are the most important factors deterring women from seeking antenatal care and delivering their babies at hospitals? Long distances? poor road infrastructure? High costs? Poor quality of service?
- Can better education for girls reduce maternal mortality? Or would it be more effective to offer expectant mothers financial incentive to seek pre- and post-natal care?
- How can the quality of maternal health services be improved? Through incentive-based pay for healthcare personnel? Better equipped facilities?
- Is maternal health mainly the responsibility of the women alone? What is the role of the men?
- Should Government step up family planning programs to further reduce fertility and the risk of mothers dying during childbirth?

Note: *The statistics above are based on the 2010 Demographic and Health Survey and the World Bank's Gender Statistics Database. Data from these sources are publicly available and results can be replicated.*

READER COMMENTS

Over half of expectant women deliver at home and not at health facilities and as such may not be attended by skilled personnel or have access to Emergency Obstetrics Care.

The impact of any health intervention can only be improved if you have corresponding investments in education, housing, nutrition, access to water, and the like. The problem though is with the silo approach of these interventions.

We need to offer better education and to put vigorous family planning programs into action. We should also compensate committed, professional health workers fair, incentives-based wages and provide a decent, well-equipped working environment for them. It ultimately comes down to having efficient, responsible management in place.

31

HIV/Aids still claiming too many lives

HIV/Aids remains one of the deadliest diseases in sub-Saharan Africa, causing misery and suffering to millions of affected people and their families. But there are also signs of hope, as new infections and the number of Aids-related deaths have come down significantly since the mid-2000s.

Similar to the broader trend in the region, Tanzania has achieved some success in reducing HIV/Aids:

- HIV prevalence among adults declined from its peak in 1996 (8.4 per cent of those aged 15-49 years) to 5.8 per cent in 2007, though it has stagnated since then.
- The number of people dying from AIDS has fallen by about one third, from 130,000 in 2001 to 84,000 in 2011.

The overall HIV prevalence in Tanzania (5.8 per cent in 2011) is lower, for example, than in Zambia (12.5 per cent), Malawi (10 per cent) or Uganda (7.2 per cent).

And yet, further reductions in HIV infections could well be more difficult to achieve, as most transmissions occur through unprotected sex while policy has a limited capacity to change the underlying behavior patterns.

What is more critical, however, is that Tanzania is falling behind other countries in the region in reducing Aids-related deaths:

- Between 2001 and 2011, Zambia managed to reduce the number of people dying from HIV/Aids by 57 per cent; Zimbabwe by 61 per cent and Kenya by 52 per cent (compared to Tanzania's 35 per cent).
- Tanzania currently ranks fourth in the world in terms of the total number of Aids-related deaths (after South Africa, Nigeria and India)
- An estimated 1.3 million children in Tanzania have lost at least one of their parents to the epidemic and are growing up as orphans.

The fact that so many Tanzanians still die from Aids, despite the existence of treatment, signals that the country's health system does not reach those in need of HIV testing and therapy, and that antiretroviral (ARV) drugs are not accessible to the majority of the population:

- Only 40 per cent of the population with advanced HIV infection are on ARV medication.
- This ARV coverage is much lower than in Zambia (82 per cent), Kenya (72 per cent), Malawi (67 per cent) and Uganda (54 per cent), and far below the MDG target of universal access to ARV treatment by 2010.
- In addition, routine discoveries of counterfeit ARV drugs raise concerns about the quality of treatment available to those in need.

All of this raises the following questions:

- What is the reason for the low ARV coverage in Tanzania? Lack of access? Stigmatization? Poor quality of HIV/Aids counseling?
- Should the Government prioritize funding for HIV/Aids-related health services? Even at the expense of other health sector programs?
- Does the Tanzania Foods and Drugs Authority have enough resources to monitor the quality and safety of drugs for the treatment of HIV/Aids?
- What is the role of Tanzanians themselves in limiting the spread of HIV/Aids?

Note: The statistics above are derived from the World Bank Development Indicators, UNAIDS data and the CIA World Fact book. All are publicly available.

READER COMMENTS

If we look at the countries which have made major strides in expanding access to antiretroviral therapy (ART) there are several key measures they have taken. They have i) mobilized political support at the highest levels of government; ii) decentralized service delivery and adopted a nurse-driven model of care, gradually integrating Aids treatment into chronic care;(iii) introduced a policy of providing highly subsidized or free ARV drugs, which are primarily funded by donors; and iv) supported actions to ensure adherence to care, minimizing the risk of drop out (e.g. buddy system, peer educators, community worker support).

Let me be a bit provocative in addressing the questions you raise. In my view, the debate of the early 2000s about whether countries should or should not initiate Aids treatment programs is over, as many have demonstrated it is feasible, doable, and desirable. Two main challenges remain today. The first relates to the need to ensure that efforts to scale up access to ART are accompanied by measures to curtail new infections, so that we do not win the battle and lose the war against Aids. The second and probably biggest challenge which remains is how to sustain the financing of Aids treatment programs, because even though the cost of drugs has dropped dramatically since the early 2000s they still remain well out of reach of the majority of the poor in Africa. While most countries in sub-Saharan Africa remain highly dependent on donor funding there is a growing effort by governments to assume some financial responsibility.

It is disturbing how diseases are like trends - after a while people stop paying attention. But these diseases don't just disappear if you stop thinking about them. As time goes on more and more people should be doing their part to help find a cure. Reading this really opened my eyes.

Tanzania's fight against malaria

With an estimated 10 million malaria cases in 2010, the World Health Organization considers Tanzania to be one of the four countries with the highest malaria prevalence in Africa, along with Nigeria, DRC and Uganda. And yet there are signs that efforts to fight the disease are bearing fruit:

- Data from Rapid Diagnostic Tests shows that malaria prevalence in children aged 6 months to 5 years fell by half from 18 per cent in 2007/08 to 9 per cent in 2011/12.
- Reported malaria deaths declined from around 20,000 per year in 2004-06 to below 12,000 in 2011. While there is a possibility that the malaria deaths are underreported, the trend signals substantial improvement.

Tanzania's recent success in reducing malaria-related morbidity and mortality can be linked to a significant scale up of interventions aimed at preventing transmission of the malaria parasite, controlling mosquito populations, and improving treatment:

- In 2011/12, 78 per cent of children under the age of five slept under a mosquito net, a more than two-fold increase from 2007/08 (36 per cent). Most nets were distributed through public health campaigns in 2009-11 and were funded by development partners.
- There was a significant increase in households that had been sprayed with insecticides over a 12-month period, from four per cent in 2007/08 to 14 per cent in 2011/12. Most indoor residual spraying was undertaken around Lake Victoria and in Zanzibar.

Nevertheless, there has been less progress in increasing timely access to antimalarial medications for expectant mothers and young children – the two groups particularly vulnerable to the disease:

- In 2011/12, only 33 per cent of women who had previously given birth had received the recommended 2+ doses of SP/Fansidar during pregnancy, marginally up from 31 per cent in 2007/08.
- In 2011/12, the proportion of under-fives with fever who started their treatment on the same or next day following the onset of fever stood at only about 60 per cent (amongst those who medicate), a negligible improvement from 2007/08. Since malaria can rapidly progress to severe levels, the delay in treatment for the remaining 40 per

cent partly explains why malaria continues to be a leading cause of death amongst young children.

It is striking that many cases of fever are treated presumptively for malaria without confirmatory tests. In 2011/12, just 25 per cent of under–fives with fever had any blood sample taken for testing. This tendency not only contributes to the delayed diagnosis of non-malarial diseases, protracted illness and unnecessary side-effects, but it also raises public and private healthcare costs and increases the risk of drug resistance.

All of this raises the following questions:

- What could explain the fact that many children receive delayed treatment for malaria? Could it be the lack of access to health facilities? Insufficient knowledge about malaria? High cost of drugs?
- How can malaria diagnosis be improved? Through better laboratory facilities? Greater use of Rapid Diagnostic Tests (RDTs)? Better training of healthcare personnel?
- Why are few pregnant women receiving the recommended doses of preventive malaria treatment?
- What can be done to maintain the current high coverage of mosquito nets given that nets typically last 3-5 years and the last distribution campaign ended about two years ago?

Note: *Data are from the WHO's World Malaria Report 2012 and the 2007/08 and 2011/12 Tanzania HIV/Aids and Malaria Indicator Surveys (THMIS). All are publicly available.*

The 2007/08 and 2011/12 THMIS used slightly different malaria tests, which could have an impact on reported malaria prevalence amongst children.

READER COMMENTS

Just returned from the Comoros Islands where a Chinese team treated one island population with artemesimine and piperaqine (in short artequik) except pregnant women who were treated with piperaqine only.

The theory is that treatment is prevention and if no person is infected then the vector cannot transmit the anopheles. The baseline malaria prevalence prior to this massive treatment campaign was 24% and dropped after three months to 0.02%. However WHO is not approving or recommending this strategy. How efficacious and sustainable this strategy is in the medium term is not known today

33 Investing in the future through nutrition

Malnutrition has detrimental effects on a child's physical growth (stunting); it can also result in irreversible damage to their brain and mental development, and it increases their risk for illness and death. The biggest impact of malnutrition is seen in the first 1,000 days of life of a child's life - from the time of conception to the time they reach their second birthday.

For women, malnutrition increases risk during pregnancy and the delivery of low birth weight babies. Malnutrition is a serious issue in Tanzania as shown by the following statistics:

- In 2010, more than three million (42 per cent) of Tanzanian children under five years of age were physically stunted.
- Between 2004/05 and 2010 stunting in children under five years of age only marginally declined only from 44.3 per cent to 42 per cent.
- 59 per cent of children are anaemic – a significant proportion inherited it from their mothers who suffered from iron deficiency during pregnancy.
- 40 per cent of women of childbearing age are anaemic compared to just 17 per cent in

Rwanda, 19 per cent in Burundi and 29 per cent in Kenya.

- 42 per cent of households consume inadequately iodised or non-iodised salt which puts unborn children at risk of significant irreversible brain damage whereas this is only the case in two per cent of Kenyan households and four per cent of Ugandan households.
- What and how much we eat is partly determined by our income and education levels. Tanzania children in the poorest quintile are 80 per cent more likely to be stunted than children in the richest quintile. A child whose mother has secondary education is twice less likely to be stunted than one whose mother has no education.

Nevertheless, wealth and education are no guarantee against malnutrition. One out of four children from the wealthiest families are stunted and children whose mothers have secondary education are just as likely to be anemic as children from the poorest households or whose mothers received no education.

A child may end up malnourished despite eating 'enough' at every meal every day. This is especially so if the child frequently falls ill e.g. with diarrhea, malaria or pneumonia; if the young infant was given other foods or liquids instead of breast milk before the age of six months, if the infant or young child only eats three or fewer times a day or if the meals do not contain enough nutrient rich foods like fruits, vegetables and animal products such as meat, fish, milk and eggs. Children may also end up malnourished if their mothers were not well fed during pregnancy, were anaemic, ill or did not get enough rest.

Other factors that influence a child's risk for malnutrition include poor access to health services, poor hygiene practices, household food insecurity, and poor access to clean water. Although a decline in poverty levels and improved education outcomes could reduce malnutrition to some extent, these factors will take time and are unlikely to be sufficient.

The good news is that malnutrition can be prevented through simple interventions targeted towards women of child bearing age and children within the first two years of life. Even better news is that investments in nutrition, such as the national fortification programme in Tanzania, have proven to have high economic returns at the national level.

- Are you surprised by the extent of malnutrition in Tanzania which is a predominantly agricultural country with plenty of foods, including fish and livestock?
- Can malnutrition be reduced without targeted programs?
- Are Tanzanians sufficiently informed about the consequences of their eating habits? Why do households consume poorly iodised salt?
- Should public policies to create a more enabling environment for good nutritional practices be enacted and enforced?
- Who should take the lead? The Government? Households? Communities? Partners?

Note: The statistics used here are extracted from the 2010 World Population Prospectus and various issues of the Demographic and Health Surveys for Tanzania, Kenya, Uganda and Rwanda. All are publicly available.

34 When old means vulnerable

Over the past two centuries, life expectancy in Western Europe increased from 32 (in 1800) to over 80 years in 2011. This unprecedented leap in human history came as the combination of technological advances in medicine, improved living conditions, and better nutrition, among other factors.

However, old age is also often accompanied by a general deterioration in physical capacities, proneness to disease and sickness, and the inability to engage in economic activity. This heightens the risk of poverty and insecurity thereby requiring societies to find mechanisms to support their elderly population.

In line with universal trends, life expectancy in Tanzania grew from 43 in 1960 to 58 years in 2011. Today, there are roughly 2.7 million Tanzanians – the equivalent of six per cent of the total population – aged 60 and above.

This rapidly expanding group is also unfortunately more vulnerable than the rest of the population. Not only are they poorer (by about 7 per cent) but they are also more prone to disability (15.5 per cent compared to 2.4 percent for those aged between 20 and 59).

What is also striking about aging in Tanzania is that women appear significantly more vulnerable than men.

Consider the following statistics:

- 56.6 per cent of elderly women are widowed compared to 7.2 per cent for males.
- 19.3 per cent of elderly women claim disability compared to 10.3 per cent for males.
- 17 per cent of elderly women live in one of their children's household compared to three per cent for males.
- 38 per cent of households headed by elderly women rely on remittances vs. 20 percent for males.
- Elderly female-headed households have a 7 percent higher risk of poverty than those headed by elderly males.

Tanzania's elderly cannot count on 'formal' social security schemes or free medical services. Approximately one out of 100 elderly Tanzanians was entitled to social security coverage in 2006. Only 11 per cent of them had access to healthcare fees exemption at a health facility in 2011.

As a result, they have to rely on informal safety nets – mainly family to survive. Elders for instance are three times more likely than the national average to receive money transfers.

Ultimately, the vast majority of elders have no choice but to continue to work, especially in agriculture-related activities. In 2011, 70 percent of elders (aged more than 65) were still active on the labor market in Tanzania, against 55 percent in Kenya; 30 percent in Korea and less than two percent in France.

This warrants a few questions:

- Should the welfare of the elderly be a priority for the Government given that the number of old people will increase in the years to come?
- Are traditional social safety nets (family, religious groups, friends) sufficient to protect old people?
- Should incentives be provided to families so that they are in a better position to provide support to their elderly relatives?
- To what extent should social programs target old women given they are on average more vulnerable than old men?
- Is it realistic to offer access to free healthcare to all people aged 60 and over?

Note: *The statistics above are based on the 2010/11 National Panel Survey, the 2006 Integrated Labour Force Survey, World Development Indicators, and ILO statistics. All are publicly available.*

Can Tanzania afford 100 million citizens in 2035?

Tanzania has experienced an exceptionally high population growth – from 11 million in 1963 to over 45 million in 2012. Among the factors that have contributed to this increase – one of the fastest in the world– is the falling mortality rate. Life expectancy in Tanzania has increased over the past two decades from 50 to 58 years.

In addition, Tanzanian women have continued to have many children (5.4 per woman in 2010), which is higher than Kenya and Rwanda (4.6) as well as other sub-Saharan countries with the exception of Uganda. Since 1991, this rate has only declined by 13 percent in Tanzania against 26 and 31 percent in Rwanda and Kenya, respectively. Several other factors have also contributed to the high population growth rate that Tanzania is experiencing:

- Infant mortality has halved over the last 25 years.
- Early marriage: the median age at first marriage in 2010 was 18.8 years in Tanzania compared to 20.0 in Kenya and 21.4 in Rwanda.
- Early motherhood: 44 percent of Tanzanian women are either pregnant or are mothers by the age of 19.
- Insufficient education: Reaching secondary education considerably delays the age at first marriage and girls with secondary education wed at about 23 years in Tanzania, Kenya and Rwanda.

In 2010, women who had no education had twice as many children as those who had attained secondary education.

- The average desired number of children for Tanzanian women remains high at 5.3 per woman.
- Timid family planning programs; The use of contraceptives has stalled with only 27 percent of women using modern contraceptives in 2010 compared with 39 percent and 26 percent in Kenya and Rwanda respectively in the same year.

With the current fertility and mortality rates, Tanzania's population is projected to reach 100 million in 2035 and 200 million by the end of this century. These projections raise a number of questions:

- Will there be enough food to feed 100 million people in 2035?
- How can enough jobs be created for the mounting youthful population?
- Will there be enough resources to provide high-quality education, infrastructure and other basic services for the coming generation?
- Will economic development and urbanization be sufficient to reduce population growth over time?
- Should the Government promote family planning programs like Ethiopia and Rwanda have done?
- How can more men be encouraged to participate in family planning programs?
- Should targeted education programs be implemented to encourage girls to remain in schools?
- What should the role of development partners, communities, civil society and religious leaders be?

Note: *The statistics used here are extracted from the 2010 World Population Prospects and various issues of Demographic and Health Surveys for Tanzania, Kenya, Uganda and Rwanda. All are publicly available.*

READER COMMENTS

Did Tanzania implement a family planning programme? Ghana has had a family planning programme from 1971 and as a result, her population has not grown so rapidly.

Clearly this population growth does pose risks, but aren't there any conditions under which you see an opportunity? Might we not see a demographic dividend, for example, whereby a larger proportion of the population is working and economic growth is thus given a lift as we saw in Asia three decades ago?

Several programs are being undertaken to control population growth in Tanzania. At least one or two secondary schools have been established in every ward in order to reduce early motherhood among girls; and the use of oral contraceptives is being encouraged, with men starting to participate in this.

There has also been an increase family planning education campaigns. If these measures continue to be implemented with seriousness, it is possible that the population growth will be contained gradually.

Because of population growth, the standard of living of most Tanzanians has hardly improved. All the extra resources made available through the growth go into building and running new basic facilities for the expanding population – new schools, new teacher training colleges, new health centers, etc.

Are all children really going to school?

Over the past decade, Tanzania has been close to reaching its universal primary education targets according to official statistics.

However, when Tanzanian households were asked directly in recent surveys, they reported:

- 17 per cent of their seven to 13-year-olds were not attending school
- 30 per cent of the seven or eight-year-olds in rural areas were not attending school and this proportion went up to 45 per cent for those in the poorest quintile
- About one third (400,000) of the 1.2 million seven-year-olds are out of school, with rural boys less likely to go to school than girls.

Those responses warrant a number of questions:

- Are government education statistics real? Are children officially registered but not attending school?
- Does the discrepancy between official and survey statistics reflect quality issues in the education system? Indeed, according to surveys that tested Tanzanian children, results for standard four students show that only 47 per cent could read a standard two-level Kiswahili story and a mere 15 per cent could divide 75 by 5.
- Why are children not going to school when they reach seven years of age?
- Why are so many Tanzanian children not learning?

Note: *The statistics above are computed using data from the Demographic and Health Survey, the Uwezo survey, and the Service Delivery Indicator survey all done in 2010. Data from these surveys are publicly available and results can be readily replicated.*

READER COMMENTS

It is not possible for a poor country like Tanzania to have all its children attending school.

I believe that as Tanzanians, we have done our level best to eradicate illiteracy at the family level, though poverty is still a major challenge.

37 High quality education for all?

Education is key. As foundations go, there is none more important than this one – in bringing about progress and in sustaining it.

Since the introduction of free primary education in 2001, Tanzania has achieved significant progress in improving access to basic education.

Primary school attendance of children aged seven to 13 years increased from 54 percent in 1999 to almost 80 percent in 2010.

Yet Tanzania also still has one of the lowest primary-to-secondary transition rates in Sub-Saharan Africa (at just 41 percent in 2009), with girls being particularly disadvantaged.

In addition, standardized assessments have revealed that the quality of education is insufficient to provide students with the most basic numeracy and literacy skills.

In 2011, Tanzania scored much lower than Kenya or Uganda in these assessments. Not only does Tanzania still lag in terms of educational outcomes compared to neighboring countries but also the quality of education varies tremendously depending on where you live in the country:

- The best performing schools are found in the urban centers, such as Iringa Mjini, Bukoba Urban and Arusha. In these districts, students in Standard Seven scored on average 97-98 per cent in math, 88-91 per cent in English and 97-98 per cent in Kiswahili when tested with a Standard Two exam.
- In contrast, schools in Chunya, Kibondo and Tunduru reported math scores ranging from 50 per cent (Chunya) to 78 per cent (Kibondo, Tunduru), and only obtained a dismal 44-47 per cent in English, and 75-83 per cent in Kiswahili. Many Standard Seven students in these districts hence have not grasped even the Standard Two curriculum.
- Disparities in learning outcomes emerge from the very beginning of the education cycle: Already in Standard Three, students in Iringa Mjini perform twice as well in math as those in Kibondo (82 per cent vs. 40 per cent – again, based on a Standard Two exam), almost five times as well in English (61 per cent vs. 13 per cent) and more than 2.5 times as well in Kiswahili (83 per cent vs. 33 per cent). These children may only be a day's drive from each other, but they are worlds apart in terms of the quality of education they receive.

- And inequalities are not confined to primary education. The share of children who passed the 2011 Certificate of Secondary Education Examination (CSEE) is between just two per cent (e.g. Simanjiro and Mbulu districts) and 24 per cent (Makete) (see http://developmentseed.org/tanzania-bank/#performance for further details).

What could explain these variations in learning outcomes? A major explanation is found in the current distribution of resources across districts and schools. As expected, districts with more resources and teachers (per student) are also more likely to deliver better education services and therefore outcomes. However, there is some limit to this logic since one additional teacher in an already well-served district will likely have a lesser impact on service delivery than one more teacher in an under-served district.

But money alone cannot explain cross-district variations in school performance. The districts of Ruangwa and Kilombero, for example, report approximately the same level of public (recurrent) spending per capita on primary education yet exam results in 2011 are much better in Kilombero than in Ruangwa (with an eight percentage points difference in test scores of students in Standard Seven). Other factors are obviously at play. These include:

- The quality of financial management in the local education system and/or the school.
- Teacher productivity. Teacher absenteeism is a widespread phenomenon, with 20 per cent of teachers in rural schools and 36 per cent of teachers in urban schools reported missing during an unannounced visit.
- Family involvement in the children's education. This too is a very important determinant of success or failure in school.

These huge variations in school performances within Tanzania raise several questions:

- Why do schools in some districts appear to be doing so much better than others, even with the same resources? What are the key ingredients of success for these schools? School-level management? Teachers' work ethics?
- Should the government increase teacher salaries depending on school performance?
- To what extent are variations in education outcomes explained by factors outside the school system, such as poor nutrition and health?
- Are parents discriminating against their daughters in access to secondary education? If so, why?

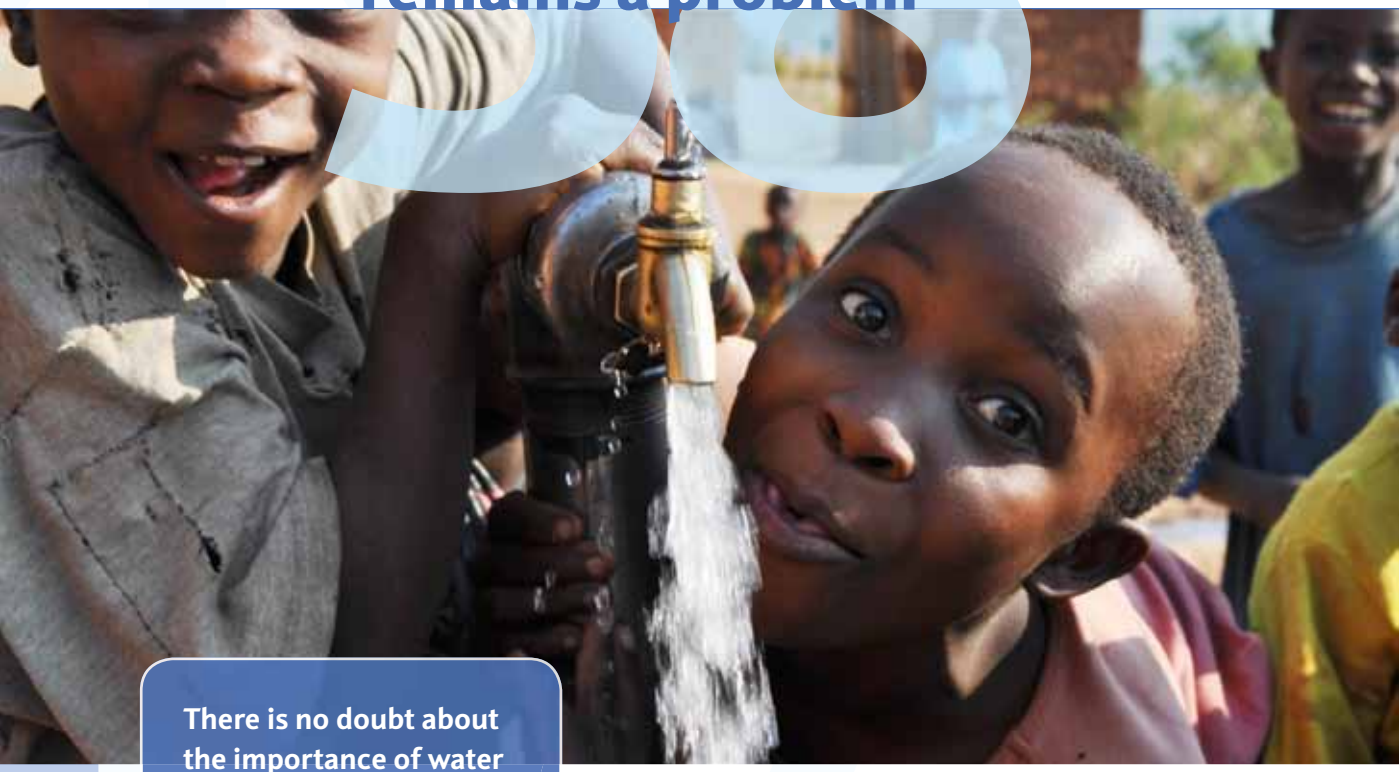
Note: *The statistics above are based on the 1999 Reproductive and Child Health Survey, the 2010 Demographic and Health Survey, the 2011 UWEZO Learning Assessment, the World Bank's Education Statistics Database, the National Examination Council of Tanzania (NECTA) and the World Bank's 2011 report, 'Service Delivery Indicators: Pilot in Education and Health Care in Africa'. Data from these sources are publicly available and results can be replicated.*

READER COMMENTS

Is it an omission that the entire brief makes no mention of school fees or issue of the (parent's) ability to pay?

Infrastructure

Water is life, but access remains a problem



There is no doubt about the importance of water to human existence. People need clean water to survive and stay healthy. Lack of clean water contributes to the high mortality rates in children around the world.

Water is also critical to a country's development as it is needed not only for agricultural productivity but also for industrial production. Yet access to water remains a major challenge in many countries. Tanzania has been blessed, both on the surface and below ground, with three times more renewable water resources than Kenya and 37 per cent more than Uganda.

Despite the vast amounts of fresh water available, many Tanzanians are still faced with water shortages due to insufficient capacity to access and store it both in rural and urban areas. Few households have access to clean

drinking water from a piped source. Only a small fraction of rural households can access water to irrigate their farms. The following statistics illustrate the magnitude of the problem:

- Access to water from a piped source all but stagnated over the past two decades. In 1991/92, 33.5 per cent of the population had such access; this figure was 33.1 per cent in 2010. Despite this, Tanzania is doing better than Uganda (15.3 per cent in 2006), at par with Kenya (34.3 per cent in 2008-09) but far behind Senegal (68.7 per cent in 2010);
- Urban areas witnessed a sharp deterioration in access to water from 77.8 per cent to 58.6 per cent. On the other hand, - rural areas experienced a slight improvement from 19.2 percent to 24.1 per cent during the same period;
- A large majority of rural households (more than 70 per cent) were more than 15 minutes away from their main water source in 2010;
- Only 3 per cent of total cultivated area in Tanzania was under irrigation in 2010.

Improving access to water requires a combination of actions on hard infrastructure and systems. There is need to build pipes, irrigation systems and pumps in both urban and rural areas. Fortunately, the Government has started to take action and has significantly increased public resources to the water sector, from Sh183 billion in 2007/8 to Sh575 billion in 2011/12. Maintenance of existing systems, however, has been neglected as well as the development of new delivery mechanisms, such as partnerships with private operators and communities. There is also a need to rethink the distribution of responsibilities between the central and local governments and to be clearer on who will pay for water use.

- Should water consumption be free in Tanzania? Should there be a ceiling per household that can be subsidized?
- Who should pay for water? Should different payment systems be implemented depending on what the water is used for? Should the profile of users matter?
- Can the Government alone close the infrastructure deficit in the water sector in Tanzania?
- Should Tanzania focus on providing water to urban or rural populations? Should it favour agriculture or domestic use?
- What should be the role of local governments in the provision of water? How about local communities, donors and private firms?

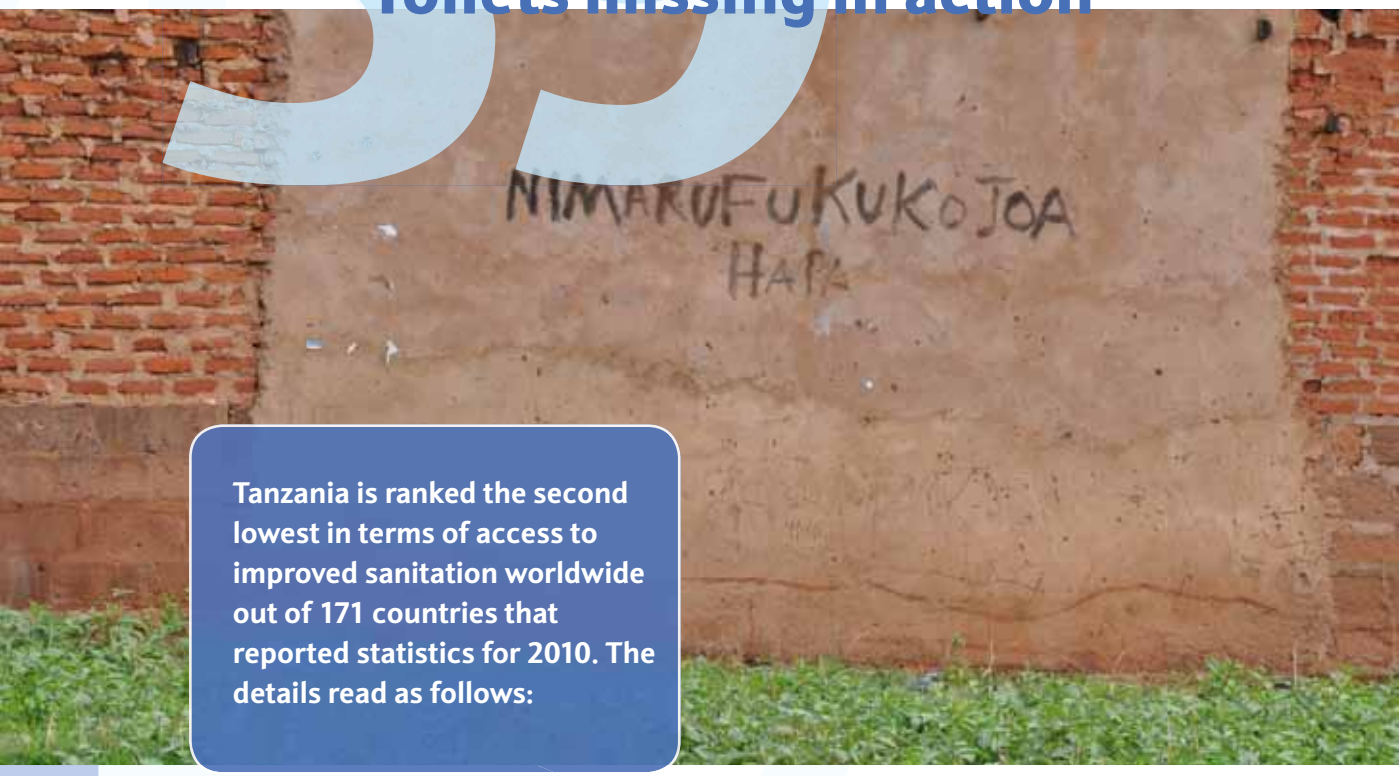
Note: *The statistics are extracted from the Demographic and Health Surveys (1991/92, 2010), the National Panel Survey 2010/11, the CIA Factbook, and the Water and Sanitation Program 2011 report. All are publicly available.*

READER COMMENTS

We need to provide proper incentives that will allow private enterprise to invest in the infrastructure needed to provide water.

Central and local governments need to invest a lot more in water purification technologies, the protection of wells for rural communities, etc.

39 Toilets missing in action



Tanzania is ranked the second lowest in terms of access to improved sanitation worldwide out of 171 countries that reported statistics for 2010. The details read as follows:

- Only 1 in 10 Tanzanians has access to an improved sanitation facility, such as a flush toilet connected to a sewage system or septic tank or a covered pit latrine not shared with other households.
- This rate (10 per cent) is well below the average for sub-Saharan Africa (31 percent), and also much lower than in Kenya (32 per cent), Uganda (34 per cent) and Malawi (51 per cent).
- Urban residents are three times more likely to use an improved toilet facility than their rural counterparts (20 per cent vs. 7 per cent).
- A staggering 5.4 million Tanzanians do not have access to any toilet facility, and answer nature's call in the open. This burden falls most heavily on the poorest quintile.

This lack of improved toilet facilities has a range of social and economic consequences.

Sanitation is vital for public health as it limits

the spread of diarrhea and other infectious disease and reduces malnutrition, morbidity and mortality.

Economically, insufficient access to sanitation results in premature deaths, in an increased burden on health care systems, and in time and productivity losses.

Other adverse effects on society are less tangible but nonetheless important: Women and girls are afraid of sexual harassment when using public toilets, especially at nighttime.

And open defecation, in particular, is associated with feelings of shame, loss of dignity and privacy.

Despite a general appreciation of these negative impacts there is still very little investment in sanitation: -

- Current investment in sanitation stands at less than 0.1 per cent of GDP, which is inadequate to significantly improve access.
- Most public resources are geared towards urban sewage systems. Private spending on sanitation is also heavily concentrated amongst urban neighborhoods.
- While urban access to improved sanitation increased from 10 to 20 per cent over the last two decades, there was no corresponding progress in rural areas (where access to improved sanitation stagnated at 6-7 per cent over the period 1990-2010).

An important lesson learned from sanitation interventions in Tanzania and around the world is that health and economic benefits only accrue if household spending on latrines is accompanied by efforts to improve hygiene practices, especially hand-washing. Improving sanitation and hygiene may be more about effective awareness raising and social marketing to promote behavior change than it is about traditional public investment.

And access to toilet facilities alone is not enough to improve sanitation and hygiene. Just as important is the safe disposal and treatment of human waste, especially in urban areas.

All of this raises the following questions:

- Should there be more public investment in sanitation? Or would it be more effective to promote private spending on toilet facilities through community awareness campaigns and hygiene education?
- Should the Government subsidize latrine construction in rural areas where access to improved sanitation is lowest? Or should public investment focus on densely populated urban areas?
- How should communities be engaged more effectively in emptying latrines and maintaining the existing infrastructure?

Note: *The statistics above are based on the World Development Indicators (WDI) and a 2012 desk study on the Economic Impacts of Poor Sanitation in Africa by the Water and Sanitation Program (WSP). All are publicly available.*

READER COMMENTS

Better hygiene and sanitation can be achieved through community awareness campaigns, hygiene education, and organizing the villagers into contributing and playing their part, as well as encouraging public investment in building latrines and maintenance of the facilities in urban areas. We can learn a lot from projects carried out in northern India.

The use of government subsidies in India for building improved toilets resulted in people storing their grain in the 'improved toilet' since this provided the best shelter for their precious grain.

40 Got a road?

Reducing the distance between people, markets, services and knowledge – or simply 'getting people connected' – is a crucial part of what economic growth is all about.

Although virtual connectivity has become increasingly important today with the emergence of new communication avenues, a good and reliable transport network remains vital.

There is a very strong positive correlation between a country's economic development and the quality of its road network. Yet, by 2011, Tanzania was still lagging behind Uganda and Kenya in terms of the development of its road network as seen in the following facts:

- The road network in Tanzania is three times less dense, as given by the number of kilometers of road per 1,000 sq km - of land mass, than in Uganda and Kenya.
- There are 7.5 km of paved road per 1,000 sq km of land mass in Tanzania,

while this ratio is 82 and 19.7 for Uganda and Kenya respectively.

- Only 5.8 per cent of the national roads network is considered in good and reliable condition in Tanzania as opposed to 20.7 and 11.0 per cent in Uganda and Kenya respectively.

Not only is the road coverage in Tanzania insufficient, but where they do exist they are either in poor condition or are totally impassable especially during the rainy season. As a result, households, especially those in remote areas, experience difficulties transporting their goods, travelling from one point to another within the country or even catching up on new developments.

This lack of mobility is illustrated by the fact that only one household out of five was within 2 kilometers of or had access to a paved road in the Kilimanjaro region as recently as 2009. And in the poorer Ruvuma region, access to a paved road was as low as 5.6 percent.

The Government has nevertheless made significant efforts to improve the road situation as seen in the increased amounts allocated to the sector over the past few years. The total budget for roads increased from Sh491 billion in 2007/8 to over Sh2.1 trillion in 2011/12. This latest figure is equivalent to the amount spent on Education and twice as much as the Health budget.

- Should the Government spend more on roads - even at the expense of the Education and Health sectors?
- What kind of roads should the country prioritize – paved or feeder roads?
- Should Tanzania invest in rural or urban transport? In which priority regions?
- In view of the massive financing needs, should alternative funding mechanisms be considered, for example, private sector partnerships for large roads or international corridors; or community driven initiatives for feeder roads? Should users pay for roads?
- To what extent can other transport modes such as water or rail be alternatives to road transport?

Note: *The statistics are extracted from the Kilimanjaro and Ruvuma Panel Surveys (2003 and 2009) and the CIA Factbook. Both are publicly available.*

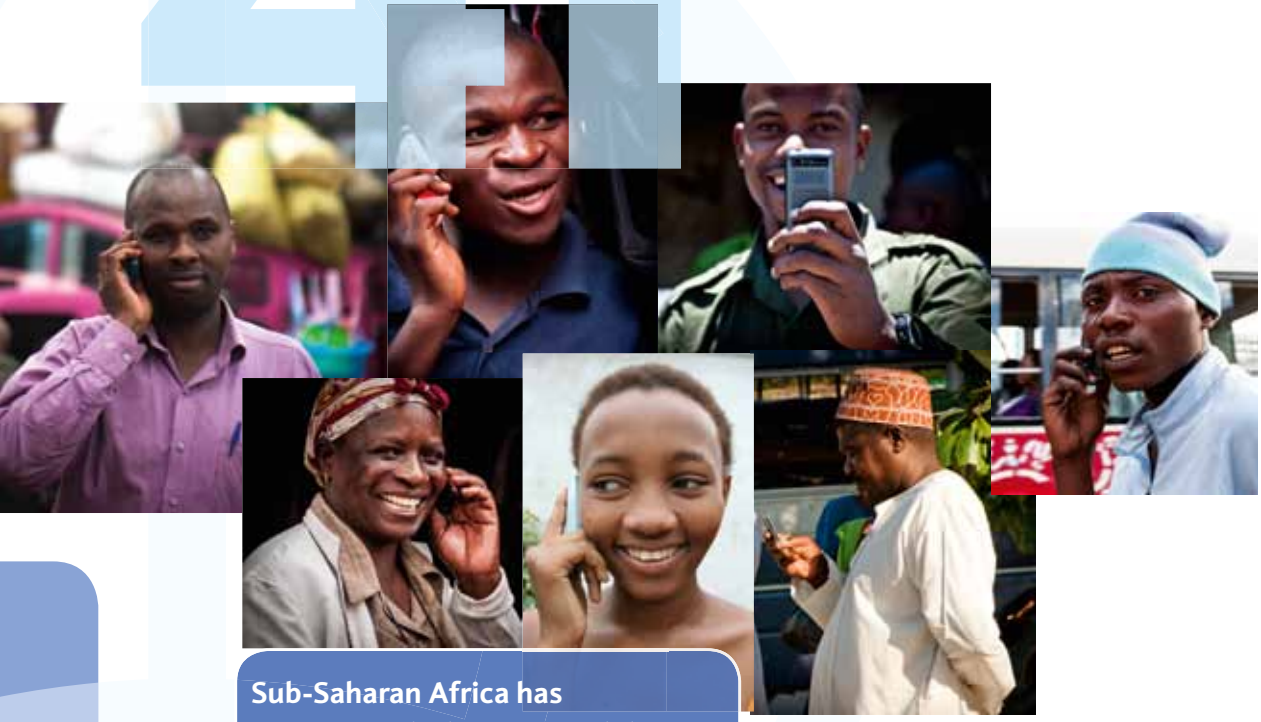
READER COMMENTS

Roads are really important despite the fact that education also plays a major role in the country's economy. Yet to construct the road, it means cutting down on investments in education and health, an opportunity cost we should not have to be subjected to. My suggestion therefore is that we maintain a balance in all three sectors.

I don't see that health and roads are mutually exclusive. In fact, there are many studies linking the benefits of good transportation systems and health. What good is a modern health system without access?

We need to focus on a system that works together; i.e. where roads are just as important for connecting the system as education is for the system. Transport is the backbone of any social and economic development. If 80 percent of Tanzanians live in rural areas it makes sense to invest in rural roads. It's the only way to mitigate rural-urban migration as it allows the youth to engage in productive activities right at their rural base.

How can the mobile revolution lift up Tanzania's poor?



Sub-Saharan Africa has experienced a boom in mobile phone use over the past decade. The total number of cell phone subscriptions on the continent increased from just over 11 million in 2000 to 463 million in 2011 and is expected to grow even further. This technology not only affects day-to-day life and communication, but has the potential to boost economic development directly and indirectly.

In creating jobs, for instance, mobile phone technology has contributed towards the reduction of poverty. But more important are its indirect effects on the economy such as the increased connectivity of firms and micro-enterprises which increases their access to information and facilitates the movement of money through mobile transfers. This contributes to increased productivity and encourages diversification into new activities which are all good for an economy.

The following statistics show that Tanzania has seen an impressive increase in mobile phone use over the last few years:

- In 2011, Tanzania had 56 mobile phone subscriptions per 100 inhabitants. This is an almost threefold increase within four years.
- Mobile phone access in Tanzania lags behind Senegal (73 subscriptions per 100 people) and Kenya (65), but is higher than Mozambique (33) and Malawi (25), and just above the sub-Saharan Africa average (53).
- Other developing regions do have higher mobile phone penetration, with 69 and 80 subscriptions per 100 people in South Asia and East Asia, respectively, but the rapid growth in Tanzania suggests that it will soon catch up.

What is even more encouraging is that mobile phones are no longer confined to urban areas, but have reached remote or hitherto forgotten rural areas and are providing them with much needed virtual connectivity. Yet the mobile can help in further reducing inequality if more is done to, for instance, reduce costs especially for the poorest:

- In 2010 more than one third of rural households owned a cell phone, up from a mere 17 percent in 2007.
- This brought first-time connectivity to more than five million individuals including at least two million poor.
- Yet in 2010 only three percent of the poorest quintile owned a phone compared to 96 percent in the richest quintile.
- Indeed, for a poor family, getting a mobile phone involves financial sacrifice. Handsets are expensive while airtime and transaction cost are about 10-15 percent higher in Tanzania than in Kenya, even though they are still lower than in Uganda. In fact, in 2010-11, average household spending on communication was higher than on health care.

The good news is that with about half of subscribers using their phone to send or receive money, Tanzanians have been among the fastest users of mobile money services in the world, just behind Kenya. In agriculture, a growing number of agricultural information providers offer technical advice and market information to farmers through bulk sms, call centers or specialized apps. In the health sector, mobile phones have opened up opportunities for remote diagnosis so that health workers in remote facilities are supported to treat their patients by medical experts further away via telephone. This can potentially improve service delivery in light of the understaffing in rural health centers.

While this virtual connectivity opens new possibilities, it needs to be accompanied by more policy actions since access to information or money by themselves are not enough to transform lives. For instance, even with information in their possession, farmers cannot easily exploit price differences between markets if rural roads are in a poor condition and transportation costs remain prohibitive. Whether the poor can take advantage of mobile phone based services also depends on the education system, which needs to provide students with adequate literacy and life skills. Even remote diagnosis can only succeed in improving rural health outcomes if primary facilities are stocked with essential drugs and medical equipment, and if patients have access to referral facilities for cases that require higher-level care or face-to-face medical consultations.

- Do you believe that access to mobile phones is changing or will change the lives of Tanzanians, including the poorest?
- Are mobile phones reducing or exacerbating inequality in Tanzania?

- How can mobile phones best help Tanzanians to work more productively? Through information exchanges? Money transfers?
- How can the mobile revolution be harnessed to improve service delivery in education, health or water supply?
- Should the Government subsidize poor households to access mobile phones or rather help them get better education and health?

Note: *The statistics above are based on the World Development Indicators (WDI), 2007 and 2010 Demographic and Health Surveys (DHS), and the 2010-2011 National Panel Survey. These sources are publicly available.*

READER COMMENTS

Most small food farmers and other food producers can grow healthy and affordable food with the relevant knowledge and skills which can be easily acquired from qualified providers and not from expensive communication toys.

I think the possibility to make payments through the mobile phone will boost the trade at for example rural markets. This could yield more young entrepreneurs as well as rural businesses. I believe that the mobile phone has a tremendous positive effect on rural poor people.In Bangladesh there are 90 million mobile phone users (out of a population of 150 million). Almost every rural household has access to a mobile connection. As a result, the economic activities of rural Bangladesh have been greatly diversified as a result, with women as the main beneficiaries.

A good example of how Government is using the mobile phone networks to reach remote citizens is the Wazazi Nipendeni free informative SMS service. It offers free information to on healthy pregnancy and good early childcare for pregnant women, mothers and their families. Within three days of the launch on 20 November 2012 over 10,000 mobile users subscribed to the service. Giving a phone "to access markets" for products which poor don't have would be of no use. We should focus on the means to create wealth first then the transformation will follow.

Otherwise, what we are doing is tackling poverty at a secondary level rather than the primary level. This is wrong. Mobile phones will only lead the poor to waste more of their time thinking about communicating with relatives instead of doing productive work.

THE WORLD BANK

42 (Not) on the move: road transport in Tanzania

Easy access to markets, public services, and jobs is indispensable for citizens to take advantage of economic opportunities and achieve progress.

In Tanzania, as in most other countries in the region, roads are the predominant mode of transport for people and goods. However, insufficient transportation facilities and limited mobility are an everyday reality:

- In 2010, only 1.8 per cent of Tanzanian households owned a car; significantly less than in Kenya (5.6 per cent in 2008/09) or Uganda (3.2 per cent in 2011).

- Motorbike ownership is also not common – only 2.9 per cent of households on Mainland claimed ownership of this vehicle in 2010. The situation in Zanzibar though was different with one in ten households owning a motorcycle or scooter.
- Affordable public transport remains elusive for many Tanzanians: In 2010, more than 40 per cent of women who recently gave birth at home cited distance and lack of transport as the factors that prevented them from delivering at a health facility.

The absence of motorized transportation and the resulting isolation is more typical of rural areas, where public facilities remain few and far between:

- Only 0.6 per cent of rural households in 2010 reported owning a car while 2.3 per cent claimed motorbike ownership.
- More than 40 percent of rural households are at least four km from a health facility (2010). Only nine per cent of these families use public or private motorized transport when in need for health care, while others walk (58 per cent) or rely on bicycles (33 per cent).
- Only 16 percent of farmers who transport some of their crops for sale use motorized transport (2010/11). Eighteen per cent use animal transport and a staggering 68 per cent transport their produce by foot or by bicycle.

On the other hand, urban households can chose from a wider variety of transport options though private cars remain scarce with only 5.4 percent of households claiming such ownership. The rising urban population and economic growth also put significant pressure on the existing infrastructure, resulting in delays and congestions especially in large cities:

- Case studies at Dar es Salaam's Ubungo bus terminal show that the average travel time for journeys of mostly below 15 km exceeds 90 minutes. This calculation is for one-way, including waiting time, and is equivalent to travel speeds of 10-12 km/h during peak hours.
- Approximately 160,000 children in Dar es Salaam go to school by bus each day, with an average commute lasting more than 1.5 hours for the round-trip in 2010/11. This is about twice as long as in other urban areas.

All of this raises the following questions:

- How can traffic congestion be reduced in urban areas? Through more inner-city roads? Quality bus services? Commuter trains? Ring roads?
- What can be done to improve accessibility for rural areas? Should communities be more engaged in road maintenance and construction?
- What is the appropriate investment balance between urban and rural transportation infrastructure?
- Besides roads, what other transport infrastructure should receive priority? Railways? Air transport? Ports? Waterways?

Note: *Ubungo commuter times are cited in the Second Central Transport Corridor Project's Appraisal Document (World Bank 2008). Other statistics are based on Demographic and Health Surveys for Tanzania (2010), Uganda (2011) and Kenya (2008/09), and the 2010/11 Tanzania National Panel Survey. All are publicly available.*

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