



Economic Review

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The Green Economy: Opportunities and Challenges for Lesotho

Economic prosperity should not be attained at the expense of growing environmental risks, ecological scarcities and social disparities.....

Introduction

The concept of 'green economy' which is sometimes also referred to as green growth is mainly about attaining sustainable development. It advocates for the reduction of environmental risks and ecological degradation while improving human well being and social equity as well as promoting economic growth and development. It also calls for the healing of the environmental impacts of economic growth. The green economy concept turns environmental imperatives into viable economic activities and by so doing it reconciles the need for growth

and development now and the need to ensure that the geological environment remains conducive for continued growth into the future. Future generations should not be made worse off by the environmental impacts of today's growth and development.

This article provides an overview of possible benefits of adopting the green economy in Lesotho. It further proposes strategies that could be followed to promote green growth in Lesotho.

Green Economy Opportunities and Benefits

Today's economic development and accumulation of physical and human capital is being achieved at the expense of excessive depletion and degradation of natural capital and this is putting sustainability of economic development at risk, with adverse implications for the well being of future generations. Thus moving to a green economy facilitates sustainable development. In addition to promoting sustainable development, a transition to the green economy presents a number of potential benefits for the

economies of the world and Lesotho, in particular.

Transition to the green economy presents a direct benefit of reviving the degraded environment and ecology and mitigating climate change. The depreciation of **ecosystems** due to misuse or overuse is one of the constraints to sustainable development. It is estimated that 39.6 million tonnes of soil in Lesotho is lost through soil erosion

every year, causing deep gullies in the lowlands and exposed rock in the mountain areas. This soil erosion hampers agricultural production, aggravating the problems of food shortage and poverty. Amongst other factors, soil erosion is caused by expansion of soil cultivation to marginal and sensitive land including mountain slopes and wetlands, even though this is forbidden by the law; rapid depletion of vegetation, including trees, shrubs and crop residues that are used as fuel, particularly by rural households; loss of bio-diversity resulting in changes in flora and fauna as well as loss or decline of habitats such as grass lands, marshes, bogs and reed meadows, which in turn results in decline in bio-mass fuel, plants of medicinal value and depleted quality of rangelands.

The improvement of the quality of soil would increase productivity of the soil and alleviate the problem of food shortage and poverty. As rangelands recover their diversity and quality, so would productivity of livestock, which would in turn result in higher income for livestock farmers.

Agriculture is an important sector and employs the majority of the working population in Lesotho. The poor in Lesotho rely heavily on farming and as such are being adversely affected by the unfavourable weather conditions, related to climate change, that negatively affect food security, water availability, ecosystem stability and human health. The agricultural sector in Lesotho is of a subsistence nature and though it is the largest employer in the economy, it is making a minimal contribution to poverty reduction because so far it does not adequately meet the food requirements of households. In addition, workers in this sector earn zero or at best very low wages.

Greening the agricultural sector means promoting production of ample food without depleting the earth's resources or polluting the environment. It involves the use of location specific organic resource inputs and natural biological processes to restore and improve soil fertility. This could make food production more sustainable, improve food security and reduce poverty. This presents an opportunity for Lesotho to commercialise agriculture and move away from subsistence farming. It promotes small holder and family farms. Sustainable agriculture has the potential to create attractive employment opportunities for unskilled, semi-skilled and highly skilled workers in farming operations, pre- and post-harvest operations, supply chains and market access infrastructure. Green agriculture transition would be accompanied by rural job creation as organic and other environmentally sustainable farming practices often generate more returns on labour than conventional methods. This would help alleviate income poverty for poor subsistence farmers in Lesotho. In addition, green agriculture would reduce imports of agri-chemical inputs as it promotes increased use of locally sourced farm inputs.

There is a high global demand for organic agricultural products due to increased awareness of their health benefits compared to conventional products and genetically modified foods. They also have higher price premia compared with the conventional products. Greening the agricultural sector could make Lesotho a competitive producer of organic foods. The agricultural sector could thus become an important contributor of foreign exchange and export earnings.

The **energy** sector has ample potential for the economy of Lesotho, especially

given growing demand in its neighbour, South Africa (SA). Renewable energy can improve energy security, and facilitate improved economic activity. Although Lesotho is not a large per capita emitter of carbon dioxide (CO₂), it is quite advanced when it comes to hydro power initiatives. The Lesotho Highlands Water Project (LHWP) has enabled Lesotho to generate hydropower as the main source of its electricity. 75.0 per cent of Lesotho's electricity is derived from renewable energy sources. Initiatives are being undertaken to further advance in this direction. Arrangements are underway to undertake another large renewable energy project in Lesotho. The Lesotho Highlands Power Project (LHPP), which is estimated to cost \$15 billion, is envisaged to generate 6,000 mega watts (MW) of wind power and 4,000 MW of hydropower. This project is expected to make Lesotho a net exporter of energy to SA. This project is projected to create 25,000 jobs over a period of 15 years.

The use of solar energy in Lesotho is not very high but is significant considering the size and development of the country. It is mainly used on water heating than house lighting and warming as well as food cooking. The reasons why solar energy use has not increased significantly over time include that due to lack of skills, mistakes are made in their installations, hence their poor reliability. Another related issue is that there is lack of maintenance services.

Water plays a fundamental role in food production, industrial production and energy generation. Access to clean water and sanitation services is critical for the future of households and for sustainable development. Water scarcity is a hindrance to economic and social prosperity.

There is a general acknowledgement that Lesotho has water in abundance. Lesotho harvests a lot of water through the Katse Dam, which was constructed as part of the LHWP to supply water to SA and generate hydropower for Lesotho. Though this project is not making any significant contribution towards improved water availability in the country, it has brought a number of benefits including a steady inflow of royalties from the SA government to that of Lesotho. These funds reinforce the Lesotho Government's capacity to provide essential services to the public.

Lesotho has made considerable progress in increasing access to water in the rural areas through the Department of Rural Water Supply. According to the Lesotho Poverty Reduction Strategy (PRS) 62.0 per cent of the rural population are able to access water within 150 meters of their homes.

The urban areas have sophisticated water supply systems both for domestic and industrial purposes. However, there is a shortage of water in the urban lowland areas of Lesotho, attributable to the rapid growth of the textiles and clothing manufacturing sector and related increase in urban migration. Initiatives are being undertaken to meet the increasing demand for water. In October 2011, the Metolong Dam and Water Supply Programme was launched. The main objective of the programme was to embark on a project that would ensure sustainable supply of clean water for domestic and industrial purposes to Maseru and the towns of Roma, Mazenod, Morija and Teyateyaneng. The project comprises construction of the Metolong Dam, water treatment plant and a downstream conveyance system. This project and others like it that may come in the future could present a number of benefits, including employment during

construction and post construction by sectors that would open up or expand when access to water would have increased. The expected end result would be increased economic prosperity.

Sanitation remains a problem in Lesotho. Only a small percentage of the

population is connected to the central sewer line. Spillage from septic tanks and the high concentration of latrines may contaminate groundwater resources upon which many poor households depend through the use of hand pumps.

Promoting the Green Economy in Lesotho

Lesotho is not a significant emitter of CO₂ and polluter of the environment. This is directly linked to the low level of development and industrialisation of this country. Unlike some industrial and emerging market economies, Lesotho has so far not made any huge capital investments in brown economy ventures that it would need to transition to the green economy. This could be viewed as an advantage because Lesotho does not need to come up with strong mitigation plans to reduce CO₂ emissions but rather with strategies to conserve the environment and bio-diversity as well as to ensure that as the economy develops, industrializes and grows, it does so taking care to avoid excessive depletion and degradation of the natural capital.

Lesotho is, to some extent already moving in this direction, particularly in the use of renewable energy. Considerable progress has also been made in improving access to clean water and further attempts are underway. A lot of work still remains to be done in stopping and reversing land degradation and conserving biodiversity, improving agricultural production and sanitation. In addition, the necessary conditions would need to be put in place to facilitate a greener industrial development.

To prevent land degradation and conserve the environment, efforts should be made to enforce the relevant laws

such as the laws that make the expansion of cultivation to marginal and sensitive lands illegal. Through the relevant departments, government should continue to increase tree cultivation and ensuring balance between the indigenous and exotic plant species. Public awareness and environmental education should be intensified, including incorporating it into the school curriculum, to inculcate the critical importance of taking care of the environment in the minds of all Basotho.

To promote green agriculture, public investment is necessary for enhancing and expanding 'supply-side capacities' through training of farmers, provision of extension services and development of demonstration projects on green farming practices that are appropriate for specific local conditions. Government should also invest in appropriate and relevant research and development on issues of achieving and maintaining soil fertility, crop and livestock diversity, pest control and management and post harvest loss reduction, amongst other things. Organic farming systems require considerable commitment over many years to rebuild soil quality, establish water harvesting systems and plant trees. Secure land tenure system would promote such commitment. The 2010 Land Act has been a move in this direction. Nonetheless, more still needs to be done to promote increased private investment

in agriculture production and related activities in Lesotho.

Lesotho has limited arable land. But even the available land is not utilised to its full capacity as fields lie fallow from year to year. One of the reasons for this is lack of financial resources to finance agricultural activities. Over the years, government and donor agencies have intervened by providing subsidies. Nonetheless, these interventions have not revived agricultural production in the country but have instead created a

dependency syndrome. Even the most recent attempts to promote block farming through government guaranteed loans do not seem to have increased production.

This calls for involvement of the financial sector to devise appropriate financial instruments that could be used to extend credit to farmers. Clear and viable recovery strategies would need to be developed and Government involvement would have to be minimised as history has taught us that it does not result in expected returns.

The Implications of Communications Sector Development for Lesotho's Economy

A well-developed telecommunications sector can be an engine of economic growth, conducive for poverty alleviation.....

Background

The role played by the communications sector in any economy, global, regional or national, cannot be underestimated. According to the March 2009 Report of the Lesotho Communications Authority (LCA)¹, Information and Communications Technology (ICT) activities and products have been found to be fundamental catalysts of economic growth and development. ICT services, goods and activities also create opportunities for investment, enabling the expansion of commerce and boosting development in other spheres of life. Given these benefits, many countries around the world have put ICT policy on the top of their development agenda and national policies.

As part of the global village, Lesotho has not been left behind in this regard. Lesotho's communications sector has

developed significantly over the years. A body that regulates the communications sector in Lesotho, the LCA was established in the year 2000 through the Lesotho Telecommunications Authority Act No.5 of 2000.

Since its inception, the LCA has been facilitating development in the telecommunications sector. This has seen tele-density (a measurement of how many telephones are available, expressed as the number of telephone lines for every 100 people in a country) increasing from below 2.0 per cent in 2000 to approximately 28.0 per cent in 2008.

¹ "The State of Communications Sector and ICT Indicators, 1st Edition- March 2009".

The Role of Communications Sector in Economic Growth

The role of technological progress on economic growth has been at the centre of modern economic theory. Technological progress includes new discoveries in ICT. ICT has acted as a catalyst of economic growth in many advanced as well as developing countries. ICT infrastructure enables communications to run smoothly and affect economic growth positively through a number of channels.

First, investment in telecommunications infrastructure could improve the country's stock of capital formation and lead to economic growth and hence development. Investments in telecommunications include tower networks, telegraphs, telephones, and teleprinters, radio and microwave communications, as well as fiber optics and their associated electronics, plus the use of satellites and the internet.

Second, construction, installation and building of communications infrastructure could affect economic growth through increased employment. This is because all of these processes require skilled labour, semi-skilled and unskilled labour.

The telephone booths and centers operated by licensed providers at all corners of towns and even in villages at the remotest rural areas, which are meant to increase access to a telephone could also contribute to employment. Another channel through which telecommunications sector development could affect economic growth is through facilitating increased firm-level and national productivity. Efficient communication enabled by appropriate and sound infrastructure could promote economical exchange of information necessary to facilitate trade, thus production.

Fourth, the need to have telecommunications infrastructure in place calls for increased investment in other areas of development like electricity, roads and water. The expansion of the telecommunications sector goes hand in hand with growth of the electricity sector. For communications sector-led growth, there should be enough electrification throughout the country. This multiplier effect further expands employment in other sectors triggering higher economic growth rates.

Market Structure and Performance of the Communications Sector in Lesotho

The Lesotho communications sector has two major market players, namely, Vodacom Lesotho (VCL) and Econet Telecom Lesotho (ETL), which is a consolidation of Telecom Lesotho that formerly provided fixed network services and Econet Ezi-cel Lesotho, a mobile network provider. Other market players are Internet Service Providers (ISPs) and broadcasters, including Internet cafes. The performance of the communications sector has been commendable since the

establishment of the LCA in 2000. Table 1 below provides a summary of the number of licensed service providers since 2000 and other telecommunications development indicators. During 2001-2009, there has been no change in terms of the number of fixed line network operators and mobile network providers, which stood at 1 and 2, respectively.

Table 1: Licensed and Registered Communications Service Providers from 2001-2009

	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10
Fixed line Network	1	1	1	1	1	1	1	1	1
Mobile Network	2	2	2	2	2	2	2	2	2
Data Communications	3	3	3	3	3	3	3	3	2
Television Broadcasters	2	2	2	2	2	2	2	2	2
Sound Broadcasters	6	7	7	8	9	10	10	12	12
ISPs	3	3	4	5	6	6	6	6	5
Two-Way Radios	-	-	8	14	16	20	59	67	70
Teledensity (subscribers per 100 inhabitants)	2.2%	3.9%	5.9%	8.5%	11.8%	16.0%	23.0%	28.2%	34.0%

Source: LCA Annual Report 2009/10

Television broadcasters have also not changed while radio broadcasters increased from 6 in 2001 to 12 in 2009 and 2010. Nonetheless, developments were only realized in the expansion of footprint of individual broadcasters. Other developments include the decline of ISPs from 6 to 5 between 2008 and 2011. There were further changes in land mobile radios, radio amateurs and landing rights for satellite based devices and aviation.

Other telecommunications and ICT indicators show that the sector has grown since the establishment of LCA in 2000. While the subscriber base for fixed line network has declined from around 41,190 in 2009 to around 38,612 as at March 2010, the number of mobile subscribers has increased by 190, 388 at the end of March 2010 from 593,216 in the same period in the previous year. This movement is seen as a global phenomenon.

Moreover, the tele-density-measured as access to fixed line and mobile network per 100 persons, gradually grew over the review period. It has increased from 1.0 per cent in 2000 to 44.0 per cent as at March 2010. A detailed look at the sectoral performance shows that fixed tele-density has remained relatively flat while mobile tele-density has grown exponentially. The fixed tele-density has increased from 1.0 per cent in 2000 to 2.0 per cent in 2010 while for the mobile, it has increased from 1.0 per cent to 43.0 per cent during the same period.

Finally, the Government of Lesotho through LCA has drafted several policies and communications Bill intend to address the backlogs or challenges facing the communications sector. The coming into operation of the Bill will facilitate introduction and innovation of new products and services in the market, inter alia.

Implications for Lesotho's Economy

The development of the communications sector through efficient legislative framework and innovation as well as introduction of new products has several implications for Lesotho's economy.

First, development of the communications sector has created employment directly and indirectly. The communications companies have employed people of different disciplines to ensure the smooth running of their operations and to ensure that they are able to meet the demands of their clients. The indirect contribution has come through its role as facilitator of businesses and activities of other sectors.

Second, the emergence and introduction of new services in the sector is expected to boost income of a significant number of Basotho, from small, informal business

operators to medium businesses and large scale corporations. The growth of the sector has enabled many Basotho to engage in small money making activities including selling airtime and even charging a small fee to recharge cell phone batteries by those who have electricity in their houses for those who do not.

Finally, the advancement of the communications sector is expected to have reduced operating costs of different types of businesses by reducing the transaction costs of obtaining information, placing and receiving orders. This should have boosted output of individual businesses and firms, hence overall economic output. It should also have contributed to the increase in Lesotho's international trade.

Table 2: Selected Monetary and Financial Indicators (July – September 2011)

	July	Aug	Sept
1. Interest rates (Percent Per Annum)			
1.1 Prime Lending rate	10.50	10.50	10.50
1.2 Prime Lending rate in RSA	9.00	9.00	9.00
1.3 Savings Deposit Rate	1.21	1.21	1.15
1.4 Interest rate Margin (1.1 – 1.3)	9.29	9.29	9.35
1.5 Treasury Bill Yield (91-day)	5.36	5.36	5.36
2. Monetary Indicators (Million Maloti)			
2.1 Broad Money (M2)	6395.196	6615.158	7077.921
2.2 Net Claims on Government by the Banking System	-3021.994	-2635.380	-2116.297
2.3 Net Foreign Assets – Banking System	9844.037	9862.158	10445.998
2.4 CBL Net Foreign Assets	6636.458	6488.632	6650.409
2.5 Domestic Credit	-431.601	-112.660	514.689
2.6 Reserve Money	920.110	961.910	985.420
3. Spot Loti/US\$ Exchange Rate (monthly average)	6.7953	7.0754	7.5575