

policy briefing

briefing number 2 | January 2008

BUILDING BRIDGES OUT OF POVERTY

How can infrastructure development strengthen regional integration to overcome poverty in southern Africa?

Summary

This policy brief looks at the potential of southern Africa's regional infrastructure interventions to achieve the overall objective to provide support to regional integration and contribute to poverty eradication. It also identifies knowledge and policy gaps that may exist with a view to recommend interventions to address them. The brief examines the transport, energy, water, and financing components of the regional infrastructure interventions.

Regional cross-border infrastructure, in particular transport, energy and water, has the potential to facilitate intra-regional trade and investment, unlock national and regional comparative advantages, and address the special needs of landlocked countries to access to the rest of the world.

However, most infrastructure projects whether in transport, energy or water tend to bypass the poor especially in the rural countryside. For infrastructure to promote inclusive growth and development and to contribute to poverty eradication, it must facilitate access to opportunities by the poor and enable the private sector to create employment, especially in remote areas where the rural poor are concentrated.

The major constraint in road transport remains lack of adequate physical infrastructure, especially rural access roads. Better transport services resulting from improved roads provide the rural and urban poor with the possibility to participate in development opportunities, particularly access to jobs, markets, social services, educational and health facilities. New roads bring

new economic activities with them, thereby contributing to the spatial spreading of development. A rural road, if complemented by other investments, can result in an increase in agricultural productivity and employment and therefore rural income.

The development corridor approach that the southern African Development Committee (SADC) has adopted has the potential to reduce poverty because it opens a variety of development opportunities along the corridor especially if feeder roads are developed.

However, the biggest constraint to effective implementation is the lack of integrated corridor development planning. This includes a comprehensive transport policy that provides integration between and within the different modes of transport, competition between providers, and the optimal utilisation of different modes of transport. Weak internal coordination capacity within the SADC Secretariat and the absence of a strategic framework that informs which corridor developments are prioritised further complicates the situation.

SADC is also intensifying its efforts to make energy services affordable to rural communities as a basic right through household electrification, provision of energy services to key public facilities such as schools and clinics to help meet the Millennium Development Goals (MDGs), and promotion of sustainable access to cleaner cooking and heating fuels.

However, investment in additional generation and transmission capacity is imperative given the dropping surplus power generation capacity as a result of demand outstripping supply. South Africa is already experiencing power outages predicted by the southern African Power Pool (SAPP) which are likely to increase unless investment in expansion and rehabilitation of generation capacity is prioritised and fast tracked.

Furthermore biomass such as fuelwood and cowdung remain the primary source of basic energy for up to 80% of total energy consumption for families and informal businesses especially in rural areas in most southern African countries. The SADC Biomass Energy Conservation Programme promotes innovative and comprehensive solutions including use of energy efficient devices, profitable production and marketing of these devices, efficient wood fuel use and kitchen management, and substitution with alternative renewable energy sources to address the energy demands of the poor.

Water resource management and development is another area central to sustainable growth and poverty eradication. Most of the economies of SADC countries are overly dependent on rain-fed agriculture and inadequate water control infrastructure constitutes one of the important limiting factors for productivity and competitiveness of agriculture. Southern Africa's food production is often adversely affected by floods and droughts indicating lack of investment in water harvesting, storage and distribution infrastructure.

However, evidence is also emerging of looming water shortages by 2025 in southern Africa particularly in South Africa, Malawi, and Zimbabwe. If no immediate remedial measures are implemented these countries will progressively move into a water barrier situation in which water will be rationed.

One of the approaches to address the looming water shortage is up-scaling investment in water harvesting, storage and distribution infrastructure in the short to medium term.

In the long-term the solution may include investment in inter-basin water transfers from abundant water resources in the northern parts of the SADC region (DRC, Zambia and Angola) to the water scarce in the South Western parts (Botswana, Namibia and South Africa). Another potential solution is investment in desalination technology. Desalination is an attractive option for water scarce countries with dense population centers near the coast like South Africa.

However, SADC has not succeeded in developing innovative financing mechanisms for regional infrastructure development. It is important to identify more creative and innovative approaches to address the gap in the financing of regional cross-border infrastructure.

A SADC bond market initiative can be one of many possibilities which will enable better use of regional savings for investment purposes. Leveraging private sector investment through public-private partnerships is another avenue to address the financing gap in regional infrastructure development. Also tapping into the potential of development finance institutions at multilateral, regional and national levels can play an important role.

One of the stumbling blocks to resource mobilisation for regional cross-border infrastructure projects is the absence of an appropriate regional institutional and legal capacity in SADC to harness the full potential of the development finance institutions, private sector and international community to finance regional infrastructure in a way that is beneficial to the people of the region, especially the poor.

The SADC Secretariat has neither legal borrowing authority nor creditworthiness enabling it to borrow from domestic and/or international markets.

Introduction

The Southern African Development Community's (SADC) Regional Indicative Strategic Development Plan (RISDP) identifies poverty eradication as the overarching priority of its regional integration project. The ultimate objective of the RISDP is to deepen integration within SADC with a view to accelerate poverty eradication and attain other development goals. One of the priority intervention areas of the RISDP is infrastructure and services which includes energy, water, transport, and communications infrastructure. The RISDP considers the overall goal of its infrastructure and services intervention to be the availability of an integrated and cost-effective infrastructure system to provide services that will support regional integration and contribute to poverty eradication. SADC has clustered the energy, water, transport and communications sectors into one directorate in its secretariat because of the issues they share, the commonalities in policy approaches and the complementarity of their impacts on regional integration, poverty eradication and development.

The development of infrastructure and services is important for promoting and sustaining regional development. In particular, regional cross-border infrastructure in transport, energy and water has the potential to facilitate intra-regional trade and investment, unlock national and regional comparative advantages, and address the special needs of landlocked countries to access to the rest of the world. However, most infrastructure projects whether in transport, energy or water tend to bypass the poor especially in the rural countryside. In order for regional cross-border infrastructure to promote inclusive growth and development that contributes to poverty eradication, it must facilitate access to opportunities by the poor and enable the private sector to create employment, especially in remote areas where the rural poor are concentrated. In addition, the direct contribution of infrastructure development to poverty eradication can be through job creation in the construction, operation and maintenance of infrastructure facilities, and when local suppliers are contracted to provide services. Regional cross-border infrastructure, especially roads and bridges, connects the poor in remote areas to the main networks if community access roads are provided. In order to achieve this, regional cross-border infrastructure projects must be linked to national development strategies and plans and aligned with sectoral investments.

This policy brief looks at the potential of the RISDP infrastructure intervention to achieve its overall objective to provide support to regional integration and contribute to poverty eradication in SADC. It also identifies knowledge and policy gaps that may exist with a view to recommend interventions to address them. The brief examines the components of the RISDP infrastructure interventions: transport, energy, water, and financing of such infrastructure development.

Transport Infrastructure and Services

The general objective of the SADC transport initiative as contained in the SADC Protocol on Transport, Communications and Meteorology and the RISDP is to establish a multi-modal transport system which provides efficient, cost effective and fully integrated infrastructure and operations, which best meet the needs of customers and promote economic and inclusive social development while being environmentally and economically sustainable. The operational objective of the RISDP transport intervention is to provide adequate, integrated, safe and efficient transport infrastructure and services in road, railway, aviation, inland waterways and maritime transport.

SADC promotes multi-modal transport infrastructure but the most common mode with direct impact on poverty is road transport. The RISDP contains a target by 2008 for SADC to have opened up regional transport markets as well as harmonised transport rules, standards and policies. In pursuit of these goals, there are three variables in the development of road transport in support of regional integration:

- i Easier access to national markets for carriers of international road freight;
- ii The introduction of mechanisms to regulate cross border road transport; and
- iii Harmonisation of road traffic legislation across the region.

Implementation of these measures will not impact directly on poverty in the short and medium terms but will promote connectivity and facilitate cross border movement of people, goods and services, and improve economic growth opportunities. The facilitation of greater regional transport is an important component of improving the efficiency of the transport system in southern Africa which contributes to lower transport costs and the competitiveness of the region. SADC's transport interventions currently focus on the soft issues such as transport and transit facilitation at the expense of the hard issue of building physical infrastructure. However, the major constraint remains lack of adequate physical infrastructure, especially rural access roads. In addition, SADC must pay attention to the expansion of physical transport infrastructure which has hitherto not been a priority to make inroads towards poverty eradication.

Better transport services resulting from improved roads provide the rural and urban poor with the possibility to participate in development opportunities, particularly access to jobs, markets, social services, educational and health facilities. New roads bring new economic activities with them, thereby contributing to the spatial spreading of development. A rural road, if complemented by other investments, can result in an increase in agricultural productivity and employment and therefore rural income.

Like in many other SADC countries, according to the Transport Cost Study conducted by Jacobs Consultancy (2005), in Mozambique agricultural product distribution by small traders relies on head loading and bicycle transport from farms to roadsides and secondary markets which implies nonexistence of access roads to farms. Traders move from place to place looking for products on roadsides using whatever transport is available. Products are then transported by 1 or 5-tonne vehicles from secondary markets to main markets in provincial cities, and 6-axle vehicles from provincial markets to the capital. Access roads are in bad condition even in popular markets like Xipamanine in Maputo and secondary markets like Minconta outside Nampula.

Fig. 1: Bicycle Transport (DRC)



Source: SADC, 2007 (*Action on Infrastructure*)

The construction of most rural roads is generally labour-intensive which provides short-term employment opportunities to the poor. In this regard, transport services contribute directly to the reduction of poverty. The construction of rural feeder roads is not given the priority it deserves, especially considering that the SADC population is mainly rural with agriculture being the dominant sector of most of the region's national economies.

Fig. 2 Women carrying agricultural products on their heads

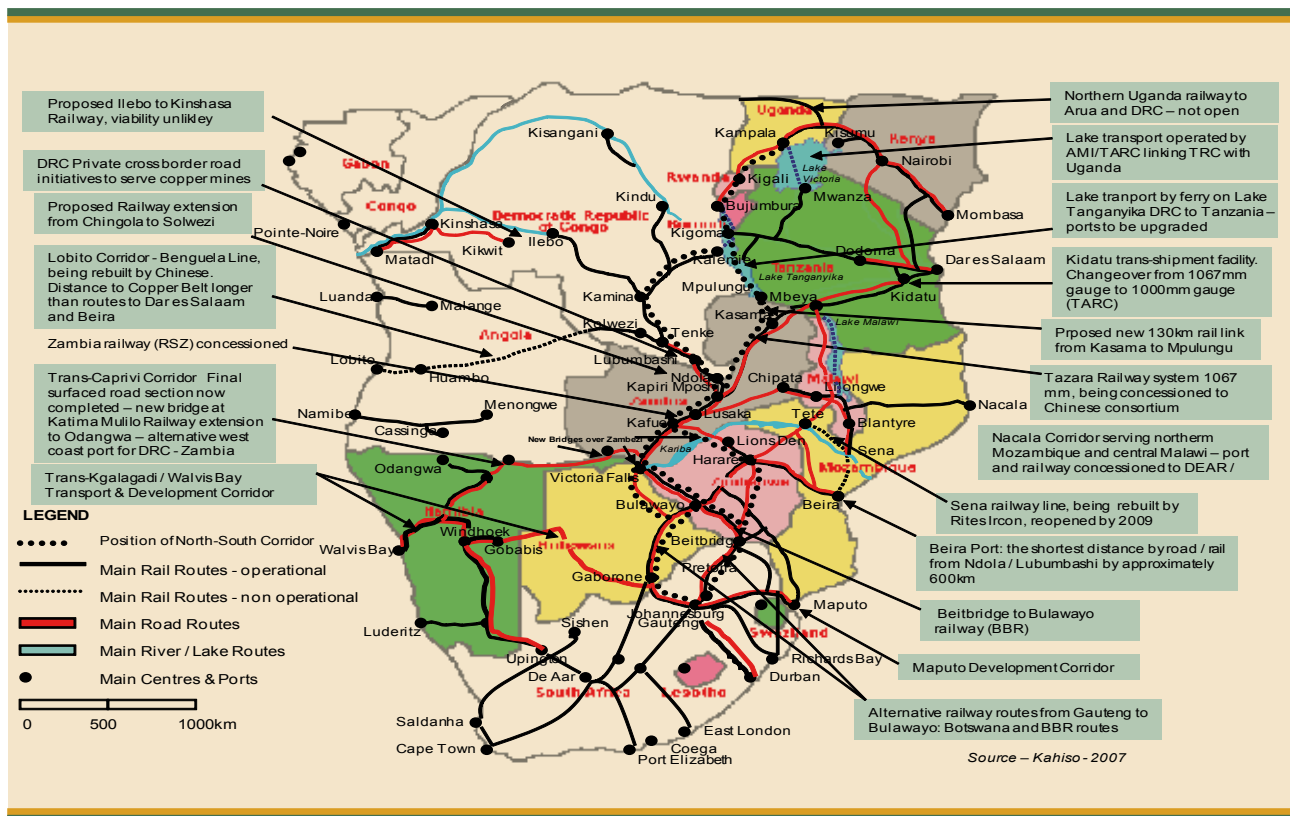


Source: World Resources Institute, 2005

The development corridor approach in the transport infrastructure development that SADC has adopted recognises the need for an integrated transport system and an integrated transport policy framework to achieve regional integration. This approach has the potential to reduce poverty because it opens a variety of development opportunities along the corridor.

However, the biggest constraint to implementation is the lack of integrated corridor development planning. This must include a comprehensive transport policy that provides integration between and within the different modes of transport, competition between providers, and the optimal utilisation of different modes of transport. Other potential economic development activities along the corridor should also be integrated. Weak internal coordination capacity within the SADC Secretariat and the absence of a strategic framework that informs which corridor developments are prioritised, further complicates the situation.

Fig. 3 Southern and Eastern African Transport corridors and ports



In the immediate term, SADC is focusing on the development of key physical infrastructure along regional corridors such as the Lobito and Nacala corridors. The Lobito Corridor (Fig. 3) provides a strategic outlet to the sea for much of the Democratic Republic of Congo and Zambia. On the other side, Milange-Mocuba and Quelimane Road along the Nacala Corridor provides a link between Malawi and the Ports of Quelimane and Nacala of Mozambique and opens a shorter outlet to the sea for Malawi. The development of a network of feeder roads linking the surrounding areas to the main corridor roads and other infrastructure must be an integral part of the corridor development strategy.

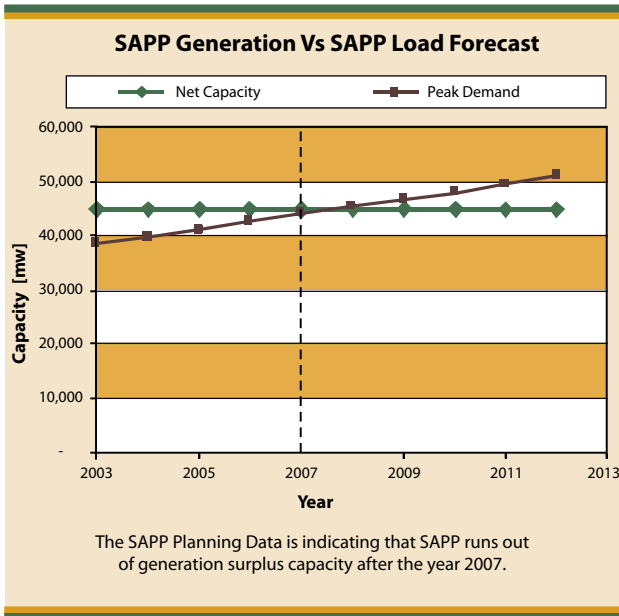
Energy Infrastructure and Services

The goal of the energy infrastructure intervention is the provision of reliable and sustainable energy at the lowest cost for economic and social development as a major contributor to the eradication of poverty. The operational objective is the development of energy infrastructure that will deliver lowest-cost power to enhance regional economic and inclusive social development with minimal adverse impacts on the environment. The RISDP further emphasizes the challenge facing SADC in the energy sector: to help eradicate poverty by providing affordable energy services to rural communities as a basic right through increased access to

modern energy technologies, including renewable energy sources and more efficient use of traditional fuels. The main sub-sectors of the initiative are in electricity; coal, petroleum and natural gas; and cross cutting issues which include traditional and renewable sources of energy. The cross cutting issues are particularly important for the poor because they focus on improving access to affordable energy services to rural communities through rural electrification and the development of new and renewable energy sources.

This relates well with the World Bank's Sub-Saharan Africa Energy Scale-up Plan which seeks to intensify programmes for household electrification including grid networks and off-grid solutions; additional generation and transmission capacity to lower energy costs and improve Africa's energy competitiveness; provision of energy services for key public facilities such as schools and clinics to help meet the Millennium Development Goals; and promotion of sustainable access to cleaner cooking and heating fuels. However, SADC countries are struggling to address lack of investment in energy infrastructure and therefore the objective of providing affordable energy services to rural communities as a basic right through increased access to modern energy technologies remains only a distant hope. Why is investment in upstream generation and transmission capacity necessary?

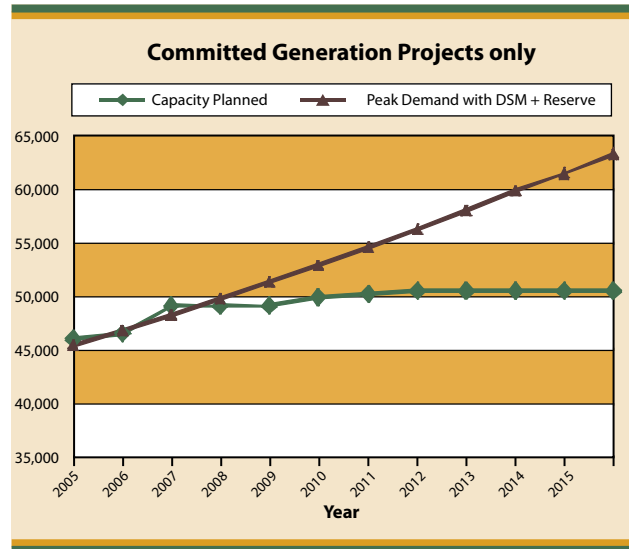
Fig. 4: SAPP Power Generation versus Load Forecast



Source: Southern Africa Power Pool (SAPP) presentation, 2004

SADC needs to increase investment in both generation and transmission infrastructure in order to cope with increasing demand and to meet its regional development objectives. This is in the light of the observed diminishing power generation surplus capacity in the region as a result of power demand outstripping supply (Fig. 4). It is important to maintain appropriate levels of surplus generation capacity in order to provide for unplanned outages including unscheduled maintenance of equipment. The Southern Africa Power Pool (SAPP) warned SADC Member States in 1999 that the demand for power in southern Africa is increasing at the rate of about 3% per annum due to increased economic activities and up-scaling of electrification programmes while investment into both power generation and transmission infrastructure remained stagnant. SAPP provided different scenarios of its projections taking into account committed generation and rehabilitation projects (Fig. 5 & 6) to indicate that unless immediate action is taken brownouts and blackouts are imminent. South Africa is already experiencing power outages predicted by SAPP and they are likely to increase unless investment in expansion and rehabilitation of generation capacity is prioritised and fast tracked. South Africa's ESKOM has publicly acknowledged that the generation reserve margins are unlikely to improve in the next 7 years (ESKOM Chairman, SABC-3, 09 November 2007).

Fig. 5: Planned Generation Capacity versus Peak Demand



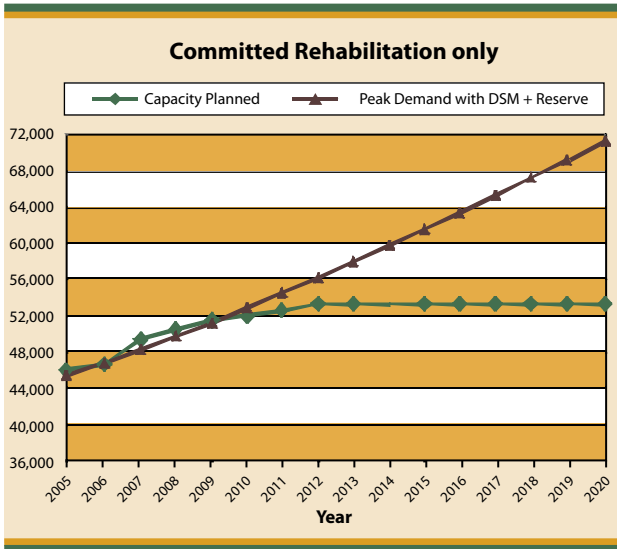
Source: SAPP Executive Committee Statement, 2005

SAPP further warned that “the continued diminishing generation surplus capacity in the SADC region would have a negative impact on the economies of the region and potential investors would be frightened.” (SAPP Executive Committee Statement: Status of the SAPP Generation Surplus Capacity, July 2004).

According to the World Bank Policy Research Report on Reforming Infrastructure (2004), when this happened in Philippines in 1992 “Of 512 international firms that had or planned to open their Asian headquarters in Manila, 123 closed their operations and 226 cancelled their registrations.”

SADC countries are working hard to attract investments but this may undermine their efforts. SADC countries must therefore prioritise investments in generation and transmission capacity in order to ensure regional energy security. The major investment projects in the pipeline include the Inga hydro-electric system in the Democratic Republic of Congo and the Western Corridor Transmission which links Inga to other SADC countries in particular Angola, Botswana, Namibia and South Africa.

Fig. 6: Planned Rehabilitation versus Peak Demand



Source: SAPP Executive Committee Statement, 2005

In order for the poor to benefit directly from energy infrastructure development, SADC needs to also prioritise investment in the distribution of electricity especially to rural areas. Further action may be necessary in the area of policy reforms to open up the regional electricity market to the private sector to fill the gap that public utilities are unable to.

Fig. 7: Transmission Pole: Namibia



Source: SADC 2007 (Action on Infrastructure)

Although SADC priorities in the energy sector remain increased access to modern energy especially in rural communities, biomass such as fuelwood and cowdung remain the primary source of basic energy for up to 80% of total energy consumption for families and informal businesses in most southern African countries. Informal economic activities are substantial in most countries and SADC aims to ensure that the available energy is used in an environmentally sound and socially responsible way. The SADC Biomass Energy Conservation Programme promotes innovative and comprehensive solutions including use of energy efficient devices, profitable production and marketing of these devices, efficient wood fuel use and kitchen management, and substitution with alternative renewable energy sources to address the energy demands of the poor. The programme provides multiple long-lasting environmental, economic, and social benefits at various levels. At local level, families and informal businesses have access to energy; at national level, countries benefit from saving foreign exchange from energy imports; and at global level the use of biofuels instead of fossil fuels reduces net carbon emissions.

The secondary benefits of the programme are additional jobs created in the informal sector through the production and marketing of improved technologies. Women are primarily targeted in training and extension services, which promotes gender equity and empowers women. Smoke reduction through biomass energy conservation measures reduces respiratory diseases which contribute to the reduction of child mortality. Reduced work burden in poorer households and better energy supply for better food production and preparation will help combat HIV/AIDS. Also, integration of HIV/AIDS awareness as part of all infrastructure interventions will enhance the fight against the HIV/AIDS pandemic. Reducing wood fuel consumption saves forest areas and the use of energy efficient technologies reduces carbon emissions. This will directly contribute to environmental sustainability and to the International Convention to Combat Desertification.

Water Resource Management and Development

Southern Africa's food production is often adversely affected by floods and droughts, particularly over the last two decades. Most of the economies of SADC countries are overly dependent on rain-fed agriculture.

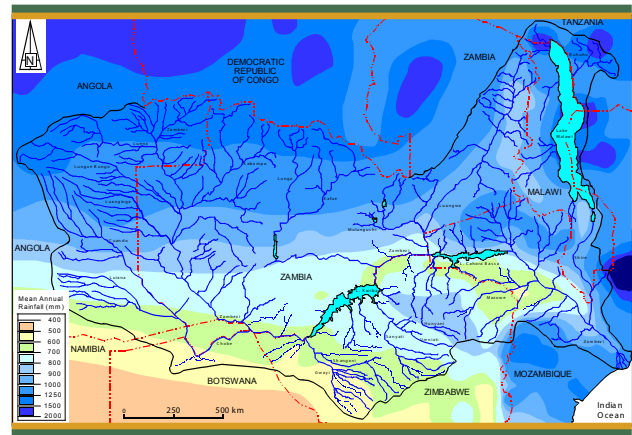
Inadequate water control infrastructure constitutes one of the important limiting factors for productivity and competitiveness of agriculture. Food and Agriculture Organization (FAO) statistics indicate that Sub-Saharan Africa as a whole is the region where irrigated agriculture is least developed. Just 3.5% of its cultivated area is irrigated, against 42.2% in South Asia and 33.6% in the Near East & North Africa region (FAO AQUASTAT Programme, 2007).

Southern Africa like the rest of Sub-Saharan Africa therefore needs to invest in the management and development of water resources including irrigation infrastructure technologies and efficient use of limited water resources. SADC has identified water resource management and development as central to sustainable growth and poverty eradication and has made progress in the implementation of the Regional Integrated Water Resource Management Programme. This has enabled SADC to create a solid foundation for coordination and arbitration for cross-boundary water resources and to improve water resource governance. The shortcoming has been on water resource development through such interventions as building physical infrastructure such as dams and inter-basin transfers in socially and environmentally responsible ways, which provide the backbone infrastructure for addressing local, national, and regional water requirements.

Development of strategic water infrastructure includes the rehabilitation and expansion of existing facilities, creation of new facilities, the implementation of a regional programme for water supply and sanitation, and the development of various water management facilities such as water storage and inter-basin transfers; irrigation; flood control and drought mitigation. Water infrastructure includes any system for the collection, storage, delivery and utilisation of water for the maintenance of humankind, the natural environment, social and economic activity. This encompasses a range of water development facilities ranging from rainwater harvesting, to small dams for local crop farming, to community water supply boreholes, to large hydropower, irrigation and water supply dams and regional water transfer systems. Why is water infrastructure necessary?

SADC countries must develop major networks of water storage and distribution infrastructure in order to maintain regular supply of water between seasons and to mitigate flood risks. Artificial storage is a necessity particularly in countries with high variability and trans-boundary waters to enable them to minimize flooding and supply risks. Also imbalances between supply and demand for water resources further motivates for investment in water supply security. Areas of highest water demand happen to be in the water scarce semi-arid zones of SADC. Fig. 8 shows for example, that there are abundant water resources in the northern parts of the SADC region (DRC, Zambia and Angola) but these are also areas of least water demand currently. Southern and South Western areas (Botswana, Namibia and South Africa) experience highest water demand currently. Investments in storage dams, inter-basin transfers and large scale water distribution networks are needed in such circumstances to ensure water security to meet the growing demand.

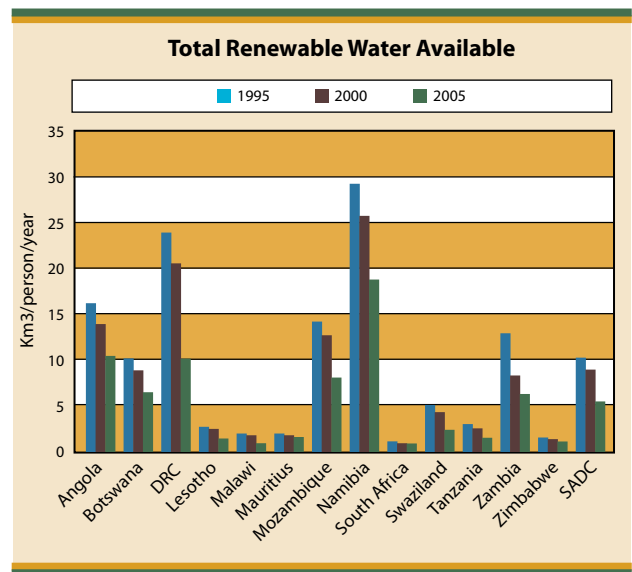
Fig. 8: Distribution showing mean annual rainfall



Source: Government of Namibia: Desk Study on the Utilisation of the Water Resources of the Congo River Basin, 2002

According to FAO (2007), Africa is, after Oceania, the driest continent in the world but it uses few of its renewable water resources: 5.5% against 20.4% in Asia. Sub-Saharan Africa is even worse: it uses only 2.9% of its renewable water resources, against 62.5% in the Near East & North Africa region and 52.1% in South Asia. A southern African Research and Documentation Centre report (2002) indicates that water pressure is building up in southern Africa particularly in South Africa, Malawi, and Zimbabwe. Fig. 9 and Table 1 show that if no immediate remedial measures are implemented these countries will progressively move to category 5 which indicates a water barrier to experience the same shortages as with electricity.

Fig. 9: Total Renewable Water Available per country in SADC



One of the approaches to address the looming water shortages is inter-basin transfers. In Africa inter-basin transfers are limited to southern Africa. Transfers into the Orange/Vaal basin from adjacent basins within South Africa and from Lesotho and Swaziland feed the industrial heartland of South Africa and have necessitated a set of transboundary water sharing agreements. Proposals for inter-basin transfers out of the Congo system into drier southern Africa basins are at pre-feasibility stage. Another potential solution is investment in desalination technology. Desalination is an attractive option for water scarce countries with dense population centers near the coast like South Africa. The technology may still be sensitive to energy costs especially in the light of soaring global oil prices.

Table 1: SADC water scarcity index

Country	1995	2000	2025
Angola	1	1	2
Botswana	1	2	2
DRC	1	1	2
Lesotho	2	2	3
Malawi	2	2	4
Mauritius	2	2	3
Mozambique	1	1	2
Namibia	1	1	1
South Africa	3	3	4
Swaziland	2	2	2
Tanzania	2	2	3
Zambia	1	1	2
Zimbabwe	2	3	3
SADC	1	2	3

Source: SARDC, 2002:

Index: 1 adequate, 2 quality and dry season problems, 3 water stress, 4 absolute scarcity, 5 water barrier. Madagascar not included.

As the World Bank (2007) report indicates, Middle East and North Africa (MENA) countries in particular Saudi Arabia and Israel have taken the lead in desalination technology investments. These countries are increasingly producing water for municipal and industrial use by removing salt from sea or brackish water. SADC countries can draw useful lessons from this experience especially since desalination technology may prove less costly than inter-basin transfers and artificial storages such as large dams. However, the environmental sustainability of these technologies may need further investigation.

One of the RISDP priorities for the management and development of water resources is the development of strategic water infrastructure. In order to operationalise this objective, SADC has developed a

regional programme for water infrastructure development, the Regional Strategic Water Infrastructure Development Programme (RSWIDP). The operational objectives of the programme are:

- i To identify and develop water infrastructure projects that will improve the quantity, quality and reliability of the supply of potable water throughout SADC with special emphasis on those areas that are subject to drought or which have been impacted by the effects of civil strife;
- ii To identify and implement water infrastructure projects that will employ modern but sustainable technologies to improve crop production in order to address SADC's food insecurity; and
- iii To identify and become involved in the execution of hydropower projects that will deliver lowest-cost electricity to enhance regional economic and social development with minimal adverse impacts on the water resources of the environment.

The RSWIDP must incorporate poverty-targeted water resource interventions designed to improve catchment quality and provide livelihoods for the poor as an important policy approach. And notwithstanding the competing and conflicting uses of water in the region, irrigated agriculture is still inadequate when considering its potential, given available water and land resources. According to SARDC (2002), South Africa has the largest irrigation infrastructure in SADC yet only 1% of the agricultural land is irrigated. Therefore the potential for increasing irrigation still exists in southern Africa. Irrigation is important for increasing agriculture production, productivity and rural incomes which can contribute to improving livelihood opportunities for the rural poor.

If SADC proceeds with the decision of its Extraordinary Summit on Food Security to increase the agricultural land under irrigation, then one of the immediate options should be investing in the water storage infrastructure. However, if dam construction is envisaged, then one should not only consider whether this is a technically feasible option, but also whether this is an economically viable, socially acceptable and, above all, an environmentally sustainable option. Also SADC needs to develop practical strategies for the implementation of manageable irrigation schemes and adopt common approaches to increase food production through the introduction of irrigation farming across southern Africa.

Small-scale irrigation initiatives, if complemented by other policy interventions, can bring direct benefits and improved livelihoods to a broader and spatially dispersed section of the rural population.

Small-scale irrigation development could include small scale informal irrigation for private, peri-urban, and horticulture use. Civil society organisations that operate at a local community level have the potential to influence the adoption of small scale irrigation technology by communal and small scale farmers.

Financing of Infrastructure Development

There are many ideas on regional infrastructure development in SADC which is evident from the new initiative on the development of the SADC Regional Infrastructure Development Master Plan. The ideas are solid but they have been in existence for a while and the progress on their implementation is poor because of the financing gap. The lack of financial capacity to invest in construction, rehabilitation and maintenance of regional infrastructure in SADC was echoed during the 2007 SADC summit in Lusaka. The summit deliberated on measures to address the financing of regional infrastructure development including a call to the private sector and the international community to support and complement regional efforts for infrastructure development.

SADC has not succeeded in developing innovative financing mechanisms for regional infrastructure development. The creation of various funds such as the SADC Development Fund, SADC Project Preparatory and Development Facility, SADC Regional HIV and AIDS Fund, SADC Culture Fund, etc does not address the critical issue of how these funds will be capitalised and sustained beyond donor support. SADC needs to identify more creative and innovative approaches to address the gap in the financing of regional cross-border infrastructure. The SADC Protocol on Finance and Investment provides an enabling legal framework for creative and innovative regional infrastructure financing initiatives.

A SADC bond market initiative can be one of many possibilities. It can contribute to the development of a regional capital market which will enable better use of regional savings for investment purposes. SADC can draw some useful experience from the Association of South East Asian Nations which faced similar problems and responded by creating the Asian Bond Markets Initiative to promote savings for investments.

Leveraging private sector investment is another avenue to address the financing gap in regional infrastructure development. Public-private partnerships (PPPs) is one way of leveraging private sector finance involving a range of options including management contracts, various build-operate-transfer schemes, leases and concessions. An example has been set in the financing of a regional project using the public-private partnership option in the design, financing and construction of the new SADC Head Office in Gaborone, Botswana. SADC needs to build on this experience by investing in the development of capacity in public-private partnerships at regional and national levels. A public-private partnership unit at the SADC Secretariat and corresponding capacity

at country level will give a strong signal to the private sector and international community that SADC is serious about leveraging private sector financing of regional infrastructure projects. The SADC PPP Capacity Building Programme of the SADC Banking Association through the Banking Association of South Africa is a step in the right direction. The programme seeks to enhance public-private partnerships in infrastructure through creating an enabling institutional and legal framework. Use of various investment guarantee instruments to reduce the risk and enhance credit on long-term contracts may be another way of leveraging private sector finance. The use of guarantee instruments enables government to share risk to encourage private investment and reduce the overall investment costs to the public sector.

Multilateral development finance institutions can play a crucial role in facilitating and financing of regional infrastructure development initiatives. The African Development Bank already invests in physical infrastructure development at regional and national levels throughout Africa. The World Bank does the same but its mandate goes beyond Africa. National development finance institutions can also contribute to resource mobilisation for financing regional cross-border infrastructure projects. The Industrial Development Corporation of South Africa and the Development Bank of Southern Africa which are owned by the South African government, are gradually making inroads into financing of cross-border development projects. Bilateral development finance institutions such as the German Development Bank (KfW) and the French Development Agency (AFD) also finance regional and national infrastructure development in SADC.

One of the stumbling blocks to resource mobilisation for regional cross-border infrastructure projects is the absence of an appropriate regional institutional and legal capacity in SADC to harness the full potential of the development finance institutions, private sector and international community to finance regional infrastructure in a way that is beneficial to the people of the region, especially the poor. The SADC Secretariat has neither legal borrowing authority nor creditworthiness enabling it to borrow from the domestic and/or international markets.

This policy gap can and must be addressed either by empowering creditworthy national development finance institutions, establishing a regional development finance institution, or sovereign empowering and strengthening of the balance sheet of the SADC Secretariat.

Conclusion

Infrastructure development has the potential to contribute significantly to achieving the SADC objectives of regional integration and poverty eradication especially transport, energy and water infrastructure. The development corridor approach has the potential to impact on poverty because it opens a variety of development opportunities along a corridor. In particular, regional cross-border infrastructure in the transport, communications, energy, and water sectors can facilitate intra-regional trade and investment, unlock national and regional comparative advantages, and address the special needs of landlocked countries with regard to access to the rest of the world.

There is a need to fully implement the proposed SADC Regional Infrastructure Development Master Plan and its key components including the Road Trunk Route Network (RTRN), the Southern African Power Pool (SAPP), and the Regional Strategic Water Infrastructure Development Programme (RSWIDP). There is also a need to manage the contribution of infrastructure to poverty eradication by prioritising rural access roads, connectivity of the poor to electricity including rural electrification, access to water and sanitation by the poor, and increasing agricultural productivity through irrigation to improve food security for the poor.

However, the financing of regional infrastructure development remains a key constraint to realising that potential. In order to make meaningful progress SADC needs to identify more creative and innovative approaches to address the gap in the financing of regional cross-border infrastructure. Harnessing the potential of the development finance institutions is one option and leveraging private sector resources through public-private partnerships is another. In the long-term, the development of a regional capital market holds the key to the financing of regional capital investments. A SADC bond market initiative could contribute substantially to mobilising regional savings and unlocking the investment resources.

This policy brief focused on infrastructure development. While all of these infrastructure development initiatives are necessary and helpful contributions to the ultimate goal of poverty eradication, they are not sufficient on their own. Many other complimentary poverty focused initiatives are necessary to overcome poverty.

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