

CHAPTER 3 SUB-REGIONAL PROJECTS IN SADC: THE NEED FOR DEVELOPMENT FINANCE

Introduction

- 3.01 As already observed, ‘development finance’ is difficult to define in hard and fast terms. Its contours vary across countries/regions, over time, and are shaped by the development paradigm governing economic and financial systems in which it is applied. The previous two chapters discussed the notion of development finance, and its context-specificity, by outlining factors influencing its contours. They highlighted the complementarity between development finance and other types of finance. Using the framework developed in those chapters to determine *sub-regional development finance needs in SADC* it is important to have a clear notion of what role development finance plays (and should play) in that region’s particular circumstances. It is equally important to have clear notions about what *regional projects* in SADC are supposed to be. This is necessary because the case for establishing a DFI to serve SADC rests heavily on the presumption that there are many such projects queuing up to be financed in the region, and that their needs can only be properly met by a sub-regional financial institution.
- 3.02 The notion of a ‘regional project’ appears to have emerged through an insufficiently clear understanding of the characteristics that such projects supposedly have (in SADC and other regions). Like many common-sense ideas that are accepted as intuitively obvious, the notion of a regional project eludes precise or rigorous definition. But it would be unsatisfactory for the purposes of this study to work with such lack of clarity. This chapter therefore attempts to define *regional projects* in the context of SADC by analysing: (i) the practice and experience of sub-regional development banks (SRDBs) in financing regional projects in other regions; and (ii) the recommendations of the study on the *Rationalisation and Review of the SADC Programme of Action*. Based on those analyses, it identifies criteria for defining regional projects and explores whether such projects have characteristics and financial requirements that are distinct from other types of projects; especially at the national level. The chapter goes on to evaluate current estimates of sub-regional investment needs in SADC by sector and how such needs are being met. It concludes by estimating future development finance needs at the sub-regional level.

Defining a Regional Project

- 3.03 A study (Beale & Snijders: 1994) that analysed the purposes, objectives and functions of various SRDBs in Africa and other regions suggests some general features of projects that are ostensibly regional. The accompanying analysis of lending by SRDBs in various regions and its contribution to regionalisation, however, cast doubt about how *regional* the projects financed by SRDBs actually were. The main finding of the study was that African SRDBs were created without sufficient or credible attempts being made to determine development finance needs in their respective sub-regions. There was no clear *a priori* appreciation of what the business of these institutions was supposed to be or how distinct that business was from that of national DFIs. The study concluded that the desirability and feasibility of a SRDB depended on the political economy of the region and required a clear understanding of what predicated the need for *sub-regional* development finance. In the absence of such an understanding the cart was invariably put before the horse i.e. an institution was set up to provide development finance without the presumption that it was needed being put to the test.
- 3.04 Another study (Muzorewa: 1997) came closer to identifying criteria for defining regional projects embracing those of a physical nature (e.g. infrastructure or industrial projects) as well

as non-physical investment. The latter included, for example, technical assistance for economic integration, research into the impact of economic integration, and the identification, preparation and appraisal of integration projects. The Muzorewa study relied on two sets of definitions of regional projects, one developed by UNCTAD (1984) and the other by Fuentes-Mohr (1975).

3.05 The UNCTAD criteria resulted in grouping integration projects into three categories:

- Participation in the capital stock of an inter-country project and lines of credit.
- Project financing involving two or more recipients.
- Project financing involving one recipient but with coordinated sub-projects involving more than one recipient.

3.06 From the perspective of lending by MDBs for regional projects, Fuentes-Mohr identified five categories of such projects:

- ‘Institutions’ that are seen as ‘projects’ by MDBs lending to them. They would include public or private financial intermediaries (DFIs) whose exclusive or main objective is to support multinational projects in contiguous countries.
- Multinational projects physically located in or between two or more countries from which the countries benefit directly. They can represent a joint investment, e.g. an international bridge, a gas-pipeline, a hydroelectric plant that uses water, which is subject to an international regime, or a joint investment in a technical institute or an office for the promotion of multinational tourism or exports.
- Multinational projects comprising co-ordinated national sub-projects linked to operate across borders although they have a distinct identity and represent separate investments. Such projects have integration characteristics, but are not regional in that they are not joint investments nor do they involve joint management, e.g. a national road network that connects to those of neighbouring countries, a telecommunication system, or an inter-connected electric power grid.
- Projects located in a single country, but which entail the use of inputs and the provision of goods or services of interest to two or more countries, e.g. a basic industry or a port in which case the investment may be multinational or national.
- Counter-balancing projects located in a single country and primarily of interest to that country, but created to maintain a balance in the benefits derived from an integration scheme and which also promote and accelerate the integration process. Such projects would include, for example, infrastructure projects, industrial and agricultural development and technical institutes. Such projects can be regarded as integrative if they are based on the comparative advantages of the country and contribute to its productive capacity.

3.07 What is of interest to SADC from these attempts to define regional projects is that:

- SRDBs in Africa have not found it easy to identify or finance regional projects. Genuine regional projects were difficult to promote. This was due to legal problems involved in making loans to joint borrowers; inadequate capacity for regional project identification and analysis; inadequate focus on private sector projects and programmes vis-à-vis public sector projects; and political difficulties regarding the sharing of costs and benefits among member states. Regional projects were generally concentrated in the infrastructure sectors during the 1970s.

- Most SRDBs operated without a clear definition of what a regional project was. Specific guidelines on identification, preparation and appraisal of these projects did not exist in some sub-regional or regional development banks, (S)RDBs. Even when regional projects were financed, their impact on economic integration was neither adequately conceptualised nor quantified.
- For projects located in a single country, entailing the use of inputs and the provision of goods or services of interest to two or more countries, it is essential to establish benchmarks for the share of output sold and inputs purchased. It is also essential to measure whether such a project would result in 'significant' linkage effects between the economies of two or more countries. In the case of one RDB, the benchmark for 'significant' is when at least 20% of a project's output value is intra-regionally traded and when at least 15% of a project's inputs (physical, technical or financial) originate in other regional countries.
- SRDB's lack of 'soft' resources discouraged efforts to carry out essential detailed studies on the proper identification and preparation of regional projects.
- SRDBs concentrated on public sector projects to the neglect of cross-border private sector projects. The latter were more productive, likely to have a higher share of imported inputs from, and exported outputs to the region. They were also more likely to generate dynamic forces conducive to integration. Emphasis on promoting integration through the private sector (as is being done by the EIB in Europe) is becoming more feasible in Africa (and SADC) with the increasing commitment of government to the privatisation of both production and infrastructure in the mid-1990s. However, these commitments still have to be translated into action.
- Reviews of the kind alluded to above are useful in providing indications and guidelines for defining regional projects in a generic sense. But, for operational and practical purposes, a more precise definition needs to be derived in a region-specific context. It depends on a particular region's integration vision, objectives, principles and strategies, as well as clearly defined needs. The *Review & Rationalisation of the SADC Programme of Action* (SADC: 1997b) develops criteria for regional projects against the background of SADC's vision, objectives and principles (Annexure A). These revolve around two broad standards:
 - * **Content:** This measures the degree to which the project matches the stated goals and objectives of the SADC regional intergovernmental agreement. In this context, a regional project in the infrastructure and natural resource area would address regional problems and SADC objectives of increasing intraregional flows of goods, services and factors of production, while enhancing the region's capacity to participate in global economic activity through attracting foreign investment and increasing trade.
 - * **Feasibility:** This criterion measures whether the project is viable and sustainable in terms of traditional project modules and which usually include financial, economic, institutional, social, technical and environmental dimensions.

3.08 Criteria¹ for measuring *content* and the respective benchmarks for project identification and appraisal include the following seven dimensions:

- **Regional development and economic growth:** i.e. the degree to which the project directly or indirectly facilitates economic growth in the region. Benchmarks are its: contribution to

¹ Some rearrangement of criteria between the two sets has been done for coherency's sake.

the achievement of SADC aims and objectives; success in addressing problems of regional magnitude; being part of a coherent regional programme; impact on the regional economy; compliance with sectoral priorities; and contribution to regional infrastructure development.

- **Promotion of intra-regional trade and investment flows:** i.e. the degree to which the project facilitates cross-border trade and investment flows across the region. Benchmarks include: clearly articulated and substantiated impact on intra-regional trade; indications that the needs of a substantial portion of SADC member states will be met by the project's output; demonstration of the project's value added; and the extent to which the project leads to private sector investment.
- **Intra-regional dependence and regional capacity:** i.e. the degree to which the project leads to a reduction in dependence on foreign expertise and the extent of regional capacity development. Benchmarks include: measurable increase in intra-regional linkages and cooperation; demonstrable, positive impact on regional capacity building; and contribution to interaction at cross-sectoral level.
- **Co-ordination and co-operation in respect of solutions:** i.e. the extent to which countries in the region collaborate on the project. Benchmarks include: co-operation by national governments in finding appropriate technology; degree of building on earlier regional work; involvement of more than three countries; and co-ordination of objectives and sharing of results within a strategic regional framework.
- **Degree of multiple/mutual benefits:** i.e. the number of SADC countries that stand to benefit directly or indirectly from the project. Benchmarks include: equitable sharing of benefits by participating member states; clear impact on related services and/or sectors; and benefits accruing to more than three member states.
- **Macro-economic implications:** i.e. the multiplier effect, promotion of collective economic self-reliance, impact of value-addition on the regional economy, etc. Benchmarks include a positive impact on: macro-economic indicators; regional competitive advantage; secondary/dynamic effects; import substitution and/or export generation; and improved linkages within the regional economy.
- **Funding sources and streams:** i.e. funding sources for the project and its reliance on aid. Benchmarks include: financial viability of the project; plans for phasing out donor financing; measures to recover costs; the financial burdens on SADC created by the project; conditions applied by donors in their funding; and degree to which a project utilises the economies of scale afforded by the SADC regional market.

3.09 Criteria for measuring *feasibility* and the respective benchmarks to be applied for project identification and appraisal include a further seven dimensions:

- **Economic and financial attractiveness of project:** measured by net present value or rate of return ratios, payback ratios, or standard accounting ratios. Benchmarks include: an acceptable rate of return; high output/input ratios; and a viable business plan being in place.
- **Implementation and participation features:** i.e. the provisions made in the project's business plan for operating the project once it has been completed. Benchmarks include the degree to which: institutions in SADC will be involved in operations and implementation; technology available in SADC is being used; the private sector is involved; and operating expenses are provided for in the project's financial and business plans. They also include the cost-effectiveness of technical and institutional implementation arrangements.

- **Job creation and productive employment:** i.e. whether the project will lead to the creation of sustainable (i.e. long-term) employment. Benchmarks include: job creation during project construction and in the longer term; and stimulation of SME activities through sub-contracting and other linkages.
- **Human resource development and knowledge transfer:** i.e. to what extent the project plan caters for the development of local skills and the transfer of knowledge. Benchmarks include: provisions for training and building human capital in the region; provisions for longer-term manpower development costs; and the degree to which regional institutions are involved in training.
- **Environmental sustainability of solutions:** i.e. the potential impact of the project on the environment and the provisions made to reduce and manage any adverse impact. Benchmarks are: the quantification of local environmental impact and sustainable management of environmental risk during the project's lifetime.
- **Deployment, transfer and mastery of appropriate technology:** i.e. whether the project employs the best available technology and provides for local staff to become familiar with its application. Benchmarks include: utilisation of appropriate technology suited to local conditions; and the measures put in place to transfer technology to local institutions/partners.
- **Improved quality of life for local communities:** i.e. whether the project contributes directly or indirectly to better living conditions for local communities, and is sensitive to poverty alleviation, gender equality etc. Benchmarks include: whether the project will lead to an improved quality of life for local communities; whether the project addresses the perceived needs of people in the region; and whether the project is gender sensitive in its implementation and operation.

3.10 These *feasibility* criteria are as applicable to national projects as to sub-regional projects. In contrast, the set of *content* criteria provides a better indication of what might qualify as 'sub-regional' projects because they emphasise features such as their impact on:

- regional economic growth and improvements in the region's competitiveness;
- cross-border economic interaction within the region; and
- joint management and financing by a number of regional players, due to either its financial magnitude or its physical multinational nature.

3.11 For a more precise definition of regional projects these benchmarks should meet certain quantitative tests. Without quantitative cut-offs and dimensions any productive project, which sources inputs and sells outputs within the sub-regional market, could technically be 'regional', but then the adjective would lose any useful operational meaning.

SADC's Regional Project Portfolio

3.12 The SADC portfolio of projects listed in the *Review & Rationalisation of the SADC Programme of Action* (Annexure B) consists of 472 'projects' and represents a collection of 'hard' (involving physical investments) and 'soft' projects at various stages of preparation. The latter include studies, training, research, seminars, computer modelling, planning, coordination and institutional capacity building measures. These 'soft' projects are regional in the sense of supporting institutional capacity building in the region. They include training programmes in particular sectors or for specific sector co-ordinating agencies, establishing data

banks, improving information and monitoring systems, undertaking feasibility or hydrological studies, improving sector co-ordination through more general programmes of action, etc.

3.13 Of the 370 projects listed, just over a third (135) were ‘hard’ projects. They included:

- Fifty (50) infrastructure projects e.g. road/rail networks, telecommunications links, power transmission lines and oil/gas/water pipelines that were *regional* in nature. These were estimated to cost US\$1.8 billion over the next 10 years.
- Eighty-five (85) *national* infrastructure projects (e.g. involving the rehabilitation of ports, airports, roads, power stations, transmission lines, telecommunications exchanges/networks, and railways within individual countries), which entailed using inputs from or providing services to two or more countries. However, the regional linkage effects of these projects, either on the input or output (provision of services) side, were not always readily apparent.
- Only 17 of the 135 projects (many needing ‘reworking’ of content to qualify as SADC projects) required finance of US\$50 million or more, thus being beyond the capacity of smaller national DFIs to finance. Very few were therefore of a scale that would require joint financing at the regional level.

Identifying Sub-Regional Development Finance Requirements

3.14 The SADC portfolio does not convey a proper indication of real regional investment needs. Most of the projects listed are of a ‘soft’ nature, concentrating on policy and planning studies, along with needs and resource analyses, required to lay the groundwork for ‘hard’ projects to be developed. Nor is the SADC project portfolio aligned with its broader agenda for trade integration, policy harmonisation and sectoral co-operation which began evolving after 1992. SADC’s sector plans, policies and strategies actually provide more information on potential regional investment needs than does the project portfolio.

3.15 A sector-by-sector review aimed at building up to an assessment of regional investment and development finance needs requires detailed understanding of:

- Region-wide fiscal constraints that circumscribe the availability of public finance and require it to be augmented by private finance and/or development finance;
- Needs and resource requirements of each sector on a national and aggregate regional level along with the functional dynamics, opportunities and constraints operating in each sector constraining the availability of funding;
- The various non-financial, institutional and technical ‘inputs’ required for the development of each sector. For example, in the case of small business these would range from information and advice, legal and regulatory issues, marketing and procurement, financing, targeted assistance packages, business infrastructure and premises, capacity building, training and technology, joint ventures, to labour management issues.
- The roles and responsibilities of various public and private institutions and players in the economic system at national and supranational levels (e.g. for policy and planning; implementation, provision and dissemination; mobilisation and allocation of finance)
- The vision, objectives and principles of the SADC Treaty and Protocols as well as of national development programmes.

3.16 A detailed sector-by-sector analysis along these lines is beyond the scope of this study. The study has instead resorted to examining secondary information in SADC Sector Annual Reports, and special studies done for SADC and member states in order to form impressions about SADC's investment and development finance needs.² Taking into account the 'content criteria' for regional projects enumerated above, and the guidelines on development finance set out in Chapter 1, the investment and development finance needs of some sectors are suggested below on a qualitative, illustrative, and impressionistic basis to compensate for the absence of reliable quantification.

3.17 Taking the *transport sector* as the first example:

- SADC has a fairly extensive regional trunk **road network**. Only a few connections (roads and bridges) are needed to complete it³. However, inadequate attention to road maintenance, exacerbated by prolonged periods of civil strife, has left the road network in four countries in poor condition. The other eight countries have more-or-less kept their paved roads in fair condition, but have not adequately maintained unpaved roads. Backlogs in road maintenance expenditures (for SADC excluding Angola) were estimated at US\$3.8 billion in 1996 (SADC: 1997c).
- Public finance is the most appropriate type of finance for road construction and maintenance, except where roads can be tolled. Adequate cost recovery is, in turn, dependent, *inter alia*, on the volume of road traffic. Outside of South Africa and a few trunk roads in the region, traffic volumes are generally low - under 500 vehicles per day on paved roads and under 100 vehicles per day on most unpaved roads. This makes it difficult for financially viable 'hard' projects to be developed by the private sector and suggests a possible role for development finance.
- In the case of a viable 'hard' road project such as the Maputo toll road, development financing needs were relatively small, amounting to only 12.5 percent (or about ZAR232 million) of the total financing requirement. This was provided by the DBSA (ZAR200million) and CFD (ZAR32 million), respectively (Box 3.A). Currently, donor financing and public finance are used for policy and strategy studies, training programmes and implementation of management systems with regard to the road transport sub-sector in SADC.
- To finance road maintenance in the future, SADC countries are establishing dedicated Road Funds, as specified in the Transport Protocol. Most or all of the revenues to be directed to these Funds will be obtained from user charges, principally fuel levies and license fees.

² Relying on these secondary sources, however, poses some real difficulties. The sector documents often amount to no more than a 'wish-list' of desirable ideas (as perceived by SADC bureaucrats) rather than concrete investment opportunities that have been properly scrutinised in terms of priority and viability. For example, the policy and strategy papers on the infrastructural and natural resource sectors convey an indication of the needs, objectives and priorities aimed at strengthening *intra-sectoral* linkages only. To be meaningful in operational terms this view however, has to be complemented by a perspective on *cross-sectoral* linkages to enable reasonable choices to be considered about the levels, combination and location of physical and social infrastructure. Thus, ideally a sub-regional natural resource and infrastructure investment framework is required for determining the quantity, quality and composition of the stock of infrastructure, location and its eventual impact on sub-regional growth and development, as well as the most appropriate delivery options, i.e. financing, provision and management of such infrastructure.

³ These include:

- A direct connection between Lesotho and the ports of Durban and Richards Bay;
- An arterial road connection between Malawi and the port of Nacala;
- Reconstruction of a permanent bridge (road and rail) across the Zambezi River (Sena bridge) to improve the connection between Malawi and central/southern Mozambique; and
- An arterial road connecting Maputo with Richards Bay.

Revenue from cross-border charges might also be channelled to these national Road Funds, although in future a separate regional Road Fund is contemplated to receive these revenues.

- Road rehabilitation and construction projects in the SADC portfolio are funded by SADC governments with borrowings from multilateral (e.g. WB and AfDB) and bilateral (e.g. EIB, KfW and Norad) financial institutions. The road sector is also supported by grants provided by the UN, DAC and Middle East donor agencies.
- Until now the **railway system** has not performed as an integrated regional system due to non-standardised equipment and operating procedures, weak service performance and the de-linking of three railways, constituting portions of the interconnected system, from the rest of the regional network. Up to now, both 'soft' and 'hard' projects in the railway sector have been financed largely by official aid provided by the USAID, the EC, and DANIDA, while some loans have been secured from the AfDB. Most SADC railways are undertaking internal restructuring programmes to improve their commercial viability. In some countries this process is quite advanced (e.g. Mozambique). In other countries, railways are considering offering concessions to private operators as an approach to achieving commercial viability. But the commercial viability of SADC railways is a long way from being achieved. A SADC Railways Options Workshop held in September 1996 concluded that current restructuring efforts were unlikely to lead to sustainable commercial viability of the region's railways. The main reason was that autonomous railway management, a prerequisite for the sound commercial operations of railway systems, was unlikely to be achieved under the current institutional arrangements.
- Of the 15 principal **seaports** in SADC, only the East Coast ports of Durban, Maputo, Beira, Nacala and Dar es Salaam are, currently, of importance to hinterlands, extending well beyond the borders of their respective states⁴. The three Mozambican ports accounted for 73% of the total SADC transit traffic moving through the region's ports, and those of SA for 17 percent in 1996. Capacity constraints for containerised and breakbulk cargoes are beginning to emerge at the region's principal ports. Seaports have been financed by governments with loans from multilateral and bilateral financial institutions as well as with grant support. With seaports, granting concessions may be more easily achievable over the shorter term and is one of the options included as part of the Maputo, Beira and Nacala corridors.
- The total cost (SADC: 1997c) for transport systems development related to these three ports' is estimated at US\$1.54 billion. SADC's Transport Sector Unit has suggested that financing should come from donors (grants/loans from multilateral and bilateral financial institutions) for nearly 90% of total cost with local sources providing only 10 percent. Up to now, 54% of the financing requirement has been met. The financing gap of US\$700 million could be met by development finance although the precise sources have not been specified. The case of the Maputo toll road suggests that the development finance component might be relatively small in relation to financing provided by the private sector.
- SADC's **air transport industry** operates on the basis of bilateral arrangements which do not allow access to each other's domestic cabotage or flight freedom markets, resulting in gross under-utilisation of extremely expensive flight and ground equipment. Ongoing discussions are taking place on possible airline mergers, but no such mergers have materialised as yet in the region - instead countries are forming 'strategic cooperation alliances'. Flight connections within SADC are increasingly being made through

⁴ With the completion of the Trans-Kalahari and Trans-Capriivi Highways, the port of Walvis Bay might also become important for handling cargoes of adjacent land-locked countries and even parts of South Africa.

Johannesburg International airport, virtually the only hub and predominant gateway in the region. Johannesburg International is bound to experience congestion unless its expansion matches air traffic growth. Institutional reform or restructuring in civil aviation is taking place in all countries with the commercialisation of airlines, airports and air traffic services as well as of other facilities which can be operated commercially or as autonomous organisations. In some cases private sector participation is being considered or planned. Malawi, Mozambique and Tanzania have already declared their intention to privatise their national airlines. Similarly, strategy formulation studies and considerations are ongoing for Lesotho Airways, Air Namibia and Swaziland's Royal National Airways.

- Most civil aviation projects in the SADC portfolio are classified as national projects by the *Rationalisation & Review of the SADC Programme of Action*. Funding for them has been secured by member states from international and bilateral financial institutions as well as donors. In this case, the role and requirements for development financing at the sub-regional level seems to be restricted by policies regarding privatisation and commercialisation as well as by identification of regional projects.

3.19 In the SADC *telecommunications sector*, there is an urgent need for coordinated policy intervention to remedy very low levels of access to telephones and other communications infrastructure and to improve the efficiency and reach of these services.

- SADC has seen significant growth in direct exchange lines (DELs) recently. Yet telephone penetration remains among the lowest in the world, at about 3.5 DELs per 100 inhabitants compared to a world average of 12.5 DELs. The average regional penetration is distorted by South Africa and Mauritius, which have penetration of about 10 and 13.5 DELs per 100 inhabitants, respectively. Half of the SADC countries have penetration of less than 1 telephone per 100 inhabitants. In addition to skewed inter-country telephone density, the distribution of telephones is distorted within all countries. The rural or poor areas, where over 73 per cent of the region's population live, have an average telephone density of about 0.03 per 100 inhabitants.
- The Southern African Transport and Communications Commission's (SATCC) Annual Report (1997c) suggests that inadequate tele-density in the region is inhibiting its economic development. To quote *'it is estimated that tele-density of at least 30% (i.e. 30 DELs per 100 inhabitants) is required to sustain social and economic activities of a country at the take-off stage in the transition to a modern developing economy. Tele-density in developed countries is between 50-80%. The emerging modern economies of East Asia have drastically improved their tele-density to above 30%....'* To cross this threshold, SADC will need to take some very large steps.
- Apart from low penetration, the quality of services offered is also poor compared with other regions in the world. The average call completion rate in SADC is 40% compared with a minimum of about 80% in the developed world. In spite of some improvements, SATCC asserts that this low quality of service is attributable to traffic congestion caused by capacity limitations, institutional inefficiency, inadequate skills and maintenance problems. The diversity of equipment, and lack of common operating standards and maintenance procedures have contributed to amplifying technical problems on regional networks. Apart from increasing tele-density within individual countries, regional inter-connectivity of trunk services between SADC countries also needs to be expanded with appropriate gateway arrangements. At present, certain Southern African countries are still routing some intra-regional calls via countries in the Northern Hemisphere.

- No cost estimates are available for upgrading the regional telecom system, installing missing links and connecting with the rest of the world. The current SADC telecommunications project portfolio does not provide any indication of investment needs. Less than 25%, in value terms, of the total telecommunications project portfolio (amounting to about US\$1.3 billion) is 'regional'. That appears unusually low in the context of any reasonable regional content criteria (SADC: 1997b).
- SADC countries are taking several measures to expand and improve the quality of their telecom services. These include attracting capital and skills from the private sector in the development and management of communication networks and introducing new services, such as cellular telephones, wireless local loops and data communication services. The role of private sector and development finance in improving the telecom network in SADC will depend on further privatisation of telecommunication companies, the liberalisation of regulatory structures and processes, as well as policy reforms aimed at cost-based tariff structures to encourage efficient network operations. Progress on these fronts will certainly have an impact on changing the current financing situation. At present over 50% of financing for improving telecommunications in SADC is being secured from multilateral and bilateral donor institutions when the financing needs of the whole sector can be met entirely by private operators and capital markets.

3.20 As far as the *energy sector* in SADC is concerned, it is difficult to determine the amount of capital investment required in the region over the longer-term for four main reasons:

- First, the projected rate of economic growth and therefore energy demand in the region will vary depending on the extent and speed of reform. Second, the amount of investment will vary according to the mix of energy sources used. Third, the extent of energy co-operation in the region will affect the amounts invested by specific countries. Finally, it is uncertain to what extent governments will take account of environmental factors and enforce controls that may push up costs.
- Despite these uncertainties, some crude estimates of future capital requirements have been made. The World Bank estimated that about US\$11 billion in foreign resources would be required in the 1990s just to finance additional capacity (4,300 MW) in the electric power sector in the Eastern and Southern African region, excluding South Africa (Dutkiewicz: 1997). A more recent estimate for electricity⁵ rehabilitation and expansion of generation, transmission and distribution facilities in SADC amounts to US\$15 billion for 1997-2005 (SADC: 1997d & e). The SADC Energy Action Plan notes that in view of the limited availability of public sector funds and finance from international development agencies, private sources of investment capital will need to be tapped. Estimates are that private funds (equity and loans) will be required for some 60% of the envisaged regional investments. This estimate, however, must be seen against the backdrop of a process to engender integrated resource planning in the regional electricity sub-sector aimed at taking advantage of the diversity of regional (as opposed to the current practice of considering only national) electricity supply options for guiding investment decisions.
- Details of investment requirements in other energy sub-sectors could not be accessed or were not available. However, energy supply and demand trends strongly suggest significant investment requirements. For example, natural gas currently supplies less than 1% of the region's energy consumption. Both natural gas and coal-bed methane are receiving increased attention from the industry as alternative energy sources due to their potential

⁵ Electricity is the second most important source of commercial energy in SADC after coal and contributes between 5 and 26 per cent of the total energy demand in the respective Member States.

penetration of the market for power and the extensive reserves discovered. Where gas has been adequately developed in other parts of the world, it accounts for 15-20% of total final consumption of commercial energy in SADC, indicating the scope that exists for further development of this sub-sector. Cross-border transmission pipelines, that will represent a major proportion of the investment in the gas supply industry infrastructure, might be one area where development finance could play a major role.

- Although investment requirements for the energy sector as a whole have not been properly quantified, the SADC Energy Sector Action Plan incorporates a strategy for mobilising private funds for priority investments. Private participation in SADC's energy resource development is becoming more possible because of a stronger focus on commercialising energy provision, energy pricing reform and a level playing field for public and private participation. According to the SADC Energy Sector Action Plan, the Sector Unit *'will need to increase its contact with financing institutions in general and should aim at developing strategic alliances with regional investment funds and regional financing institutions committed to the long-term development of the SADC region'*.
- Investments in the energy sector in SADC are typically characterised by: (i) long time horizons and gestation periods; (ii) considerable, if decreasing, dependence on parastatals with weak financial capabilities and limited creditworthiness; (iii) high perceived political, financial and commercial risks implying considerable need for credit enhancement facilities to attract private investors and financiers; (iv) the need for end-user credit schemes for small-scale energy users, to promote the increased utilisation of new and renewable sources of energy; and (v) a number of potential major regional investment projects with a multinational character which increases risks for project financiers and investors
- The involvement of private and development finance in the energy sector would depend on 'good governance' of the sector, specifically in the electricity industry, and the development of a regional energy planning framework which would involve 'promoting a competitive investment environment'. The new emphasis on private and development finance differs from the financing strategy followed until now; as indicated by the funding status of projects (SADC: 1997e). The latter assumes that the SADC energy project portfolio will be financed almost entirely (95%) by donors. Funds secured for some of the major 'hard' projects were from the EU and bilateral donors.

3.21 Across SADC, **water resources** are unevenly distributed by nature and inefficiently utilised by governments. Many SADC countries are already experiencing conditions of water stress or scarcity that are aggravated by recurring droughts.

- By 2020 many SADC countries will face severe constraints on food production, ecosystem protection and economic development because of water scarcity. Currently, the majority of the SADC region's population still lacks reasonable access to safe water, and even more lack access to adequate sanitation.
- The uneven distribution of water resources in SADC makes it critical for member states to develop this scarce, shared resource jointly. There is already extensive co-operation among SADC countries in managing particular river basins. Examples are various river basin commissions (Orange, Limpopo, Okavango) and Joint Permanent Technical Committees or JPTCs (mainly between South Africa and its neighbours, and Namibia and its neighbours), the Lesotho Highlands Water Project (LHWP), described in Box 3.B, and the Zambezi basin ZACPLAN project. This cooperation is now becoming regionally coordinated, with the implementation of the Protocol on Shared Watercourse Systems in the SADC Region, adopted in August 1995.

- The SADC Water Protocol places responsibility on the states within a river basin to cooperate with one another on matters pertaining to the rivers of the basin. It calls for states to establish institutions at three levels. First, at the level of government, states should come to an agreement on the sharing and development of common water resources. The JPTCs function at this level. Second, the Protocol requires a commission to be established at the level of the river basin. Third, it requires co-operation through river authorities, boards or utilities. In addition to the institutions established by individual member states, the Protocol makes provision for a regional institution in the form of a monitoring unit, to be based in the SADC Water Sector Co-ordinating Unit (WSU).
- The role of the SADC WSU is to stimulate and facilitate development and cooperation in water resources management, development, conservation and utilisation in the region. It does not engage in developing ‘hard’ water projects itself, but collaborates with relevant stakeholders in the public and private sectors to fulfil set objectives. The WSU is presently focusing on: dealing with the implications for the sovereignty of individual countries’ that closer regional linkages in the joint use of water resources might imply; instilling awareness among governments and users of the costs involved in developing and the monetary value of depleting water resources; promoting harmonised laws; highlighting potential environmental problems that may result from enhanced linkages; and encouraging long-term planning of water resource development.
- Gauteng, and the industrial heart of the region, will need more water than present arrangements can provide - possibly through the proposed Zambezi transfer - by about 2030. This may seem a long time away, but projects of this nature take a very long time to plan and implement. For example, the LHWP was first proposed (as the Oxbow Project) in the mid-1950s. Yet it began to supply water only in 1998. Together with appropriate pricing policies, there are a number of issues that need to be dealt with before involving private and development finance in financially viable regional water projects. The large scale of such projects and the long ‘gestation’ periods suggest a specific useful role for development financing as illustrated by the LHWP and Komati River Basin Development. (Boxes 3.B & 3.C)

3.22 In the productive sectors of *mining, manufacturing and agriculture* it is, for obvious reasons, extremely difficult to quantify investment needs at the regional level. Even so:

- **Mining** has an important (in some cases predominant) role in SADC economies. Its share in regional GDP is about 10%, notwithstanding a secular decline in the region’s share of world mineral sales. However, the current and potential contribution of the region’s mining sector to world supplies still remains significant. Mining exploration and development in most, if not all, SADC countries is now largely a private sector activity, traditionally involving well-capitalised and capable regional mining companies as well as trans-national corporations from elsewhere. The SADC Mining project portfolio therefore consists exclusively of ‘soft’ projects related to coordination, harmonisation of policies, development of information bases, human resource developments of specific relevance to the mining sector, investigations on mitigation of environmental impacts of mining, etc.
- The case for development finance supporting the mining industry in a regional context only exists where beneficiation is concerned. Mineral beneficiation projects are of such a large scale that a case could be made for the use of development finance. When such a project has to be located near a seaport, with clearly quantified and significant inputs from neighbouring, land-locked countries, such as in the case of the Maputo Aluminium Smelter (the Mozal project), the cross-border multiplier effect clearly makes it a regional project.

- With regard to **agriculture** and food security, the region has considerable unexploited potential for increased food production, employment generation and regional trade expansion, provided its land resources are managed for sustainable production and productivity increases. But, the agricultural policies pursued so far in SADC have not fully tapped the potential that exists. In most SADC countries, economic policies have favoured industrial development and urban concentration, neglecting rural activities, small farmer support services, agricultural research and strengthening farmer and rural cooperative organisations. In countries such as SA, Zimbabwe and Namibia, dualistic agricultural strategies have been followed, with support largely directed to a small number of commercial large-scale farms. Small-scale farming, much of it on communal lands, was not properly supported. Although this approach promoted the achievement of food self-sufficiency, it did not reduce poverty. Low-income rural populations and households remained food insecure. Agricultural land reform has not created sufficient productive farming opportunities due to the lack of appropriate support systems. Synergistic interaction between large and small-scale farming has not been exploited. In addition, indefensible intra-SADC trade barriers have constrained the development of new markets and the reduction of transport costs. Furthermore, agricultural policies have not sufficiently taken into account the different stages of economic transformation across the region.
- It has been argued (Van Rooyen: 1997) that agriculture should play a much larger role in the transformation of the regional economy. This is because it can increase food security across the region, alleviate rural poverty and create productive rural employment. Agricultural development has the potential to contribute to increasing rural household incomes and create a much greater number of employment linkages within countries and across the region. Furthermore, given the dissimilarities in factor endowments, including natural resources and existing patterns of production, trade and consumption, there is substantial agricultural trade potential between the SADC countries, which is dependent on the harmonisation of trade policies and reduction in trade transaction and transportation costs.
- Factors constraining agricultural development and food-security in SADC need to be addressed mainly at national level. The role of development finance, in a regional context, would be to promote cross-border infrastructural support. National DFIs would be far better placed to provide the necessary coverage in terms of number of clients and appropriate financing instruments at the domestic/local level than a sub-regional financial mechanism, due to *inter alia* lower transaction costs.
- In SADC only Zambia, Zimbabwe, Mauritius and South Africa have a sizeable **manufacturing sector**. Industrial output in the region is concentrated in resource-intensive activities such as food, beverages, tobacco and textiles. These industries account for half of regional manufacturing value-added (MVA). Producer and capital goods account for another quarter. Manufactures make up more than 70% of total imports, but only 10% of exports. Excluding petroleum and non-ferrous metals, regional manufacturing production satisfies less than 50% of the region's consumption of manufactured goods.
- A noticeable characteristic of the region's economy is the absence of a diversified production structure, particularly evident in manufacturing. Apart from having a very small manufacturing sector, Southern African economies do not produce a diversified range of manufacturing products. This lack of complementarity limits the scope for intra-regional trade. In addition to producing a similar range of products such as foodstuffs, beverages and textiles, vertical and horizontal linkages within and across different industries are missing.

- In the countries with the most developed industrial sectors - South Africa and Zimbabwe - minerals are at the core of industry. In Zimbabwe only 43% of production originates in the non-metallic minerals, metals and transport equipment sectors. In South Africa, industrial growth in the last two or three decades has taken place mainly in sectors that beneficiate raw materials, namely, basic iron and steel, non-ferrous metals, non-metallic products and chemicals.
- South Africa's dominance in industrial production in the region has a profound influence on intra-regional trade patterns. South Africa's manufacturing sector is, in manufacturing value-added terms (MVA), over five times larger than the sum of all the other SADC member states' MVA, and nearly 15 times larger than that of the second biggest manufacturer, namely Zimbabwe.
- The underdeveloped industrial sector of the SADC region exemplifies the structural problems endemic in Africa. For this reason, industrial development and diversification will go further in enhancing intra-regional trade, than the removal of trade barriers, which is the current focus of the SADC Trade and Industry Sector (Mayer & Thomas: 1997). To expand the region's manufacturing base will clearly require addressing supply problems in the availability of industrial support services (e.g. reliable infrastructural services, financing, training, etc.) within the context of broader national and regional industrial policies.
- Apart from large-scale beneficiation projects, previously discussed, as well as possible region-wide cooperation on venture funds for medium- to larger-scale entrepreneurial concerns, national DFIs are better placed to provide the development financing needs of the manufacturing sector. A regional DFI would not have a large role in this sector except for very large cross-border beneficiation projects.

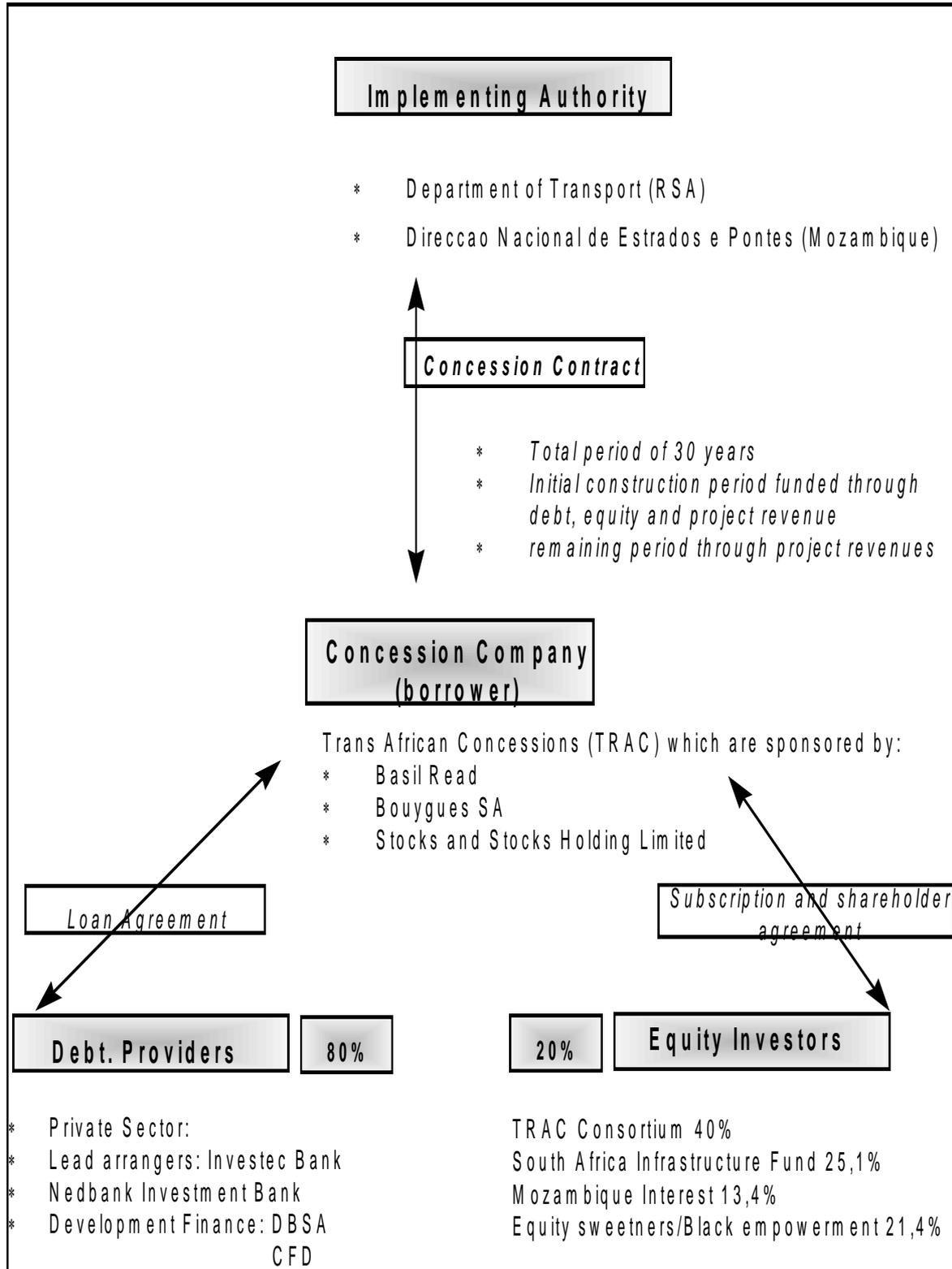
Conclusion

3.23 This chapter has attempted to define more precisely the notion of ***regional projects***, and to indicate concomitant regional development finance needs. The attempt has only served to emphasise how vague and diffuse the concepts of 'regional projects' and 'regional development finance' actually are. The inescapable conclusion reached is that both these terms - while perhaps valid in communicating the sense of something different from the normal - are suggestive and evocative rather than indicative or meaningful from an operational viewpoint. Close scrutiny of the SADC portfolio of projects, as well as the content and feasibility criteria developed for the rationalisation and review of the SADC portfolio, provided nothing more than suggestions on what might be a sub-regional project and what the concomitant sub-regional development finance needs might be, except in the case of those projects that are:

- clearly multinational in nature, or
- of such a large scale that they require joint financing or management.

BOX 3.A MAPUTO DEVELOPMENT CORRIDOR

1. INSTITUTIONS INVOLVED IN FINANCING OF THE WITBANK TO MAPUTO TOLL ROAD



2. FINANCING STRUCTURE

The period of the concession is 30 years. After the initial construction period of three and a half years, which will be funded through debt and equity raised by the concession company, as well as a certain amount of project revenue, the upgrading, maintenance and operation of the road for the remaining period of the concession will be paid for out of project revenues.

Table 3.A.1: The Source and Application of Funds for the Initial Construction Period of Three and a Half Years

<i>Project Costs</i>	<i>(R'000)</i>	<i>Funding</i>	<i>(R'000)</i>	<i>%</i>
Escalating operating costs	170,818	Revenue	366,479	19.9
Capital costs plus escalation	1,393,793	Equity	295,926	16.0
Investment during construction	253,635	Debt	1,183,702	64.1
Loan fees	27,861			
Total finance to be raised	1,846,107	Total base funding	1,846,107	100.0

Table 3.A.2: The Funding Currently Envisaged for the Project is Summarised below

<i>Funding for the Project</i>	<i>R'000</i>	<i>%</i>
Equity	295,926	20%
Total Subordinated Debt	200,000	13%
Non-DBSA Subordinated Loan	100,000	
DBSA Subordinated Loan	100,000	
Total Senior Debt	983,701	67%
Rand Term Loan	425,978	
DBSA Senior Loan	100,000	
CPI Linked Facility	425,978	
CFD Loan (FFR)	31,745	
Total Funding (excluding revenue during construction and standby facilities)	1,479,181	100%
Other Facilities		
Revenue During Construction	366,479	
Total	1,846,107	

Table 3.A.3: Details of Debt Instruments
Terms Of Project Financing (R'000)

<i>Financing Assumptions</i>	<i>Currency</i>	<i>Arranged Facility (Rands)</i>	<i>Banking</i>	<i>Rate</i>	<i>Margin/ Rate</i>	<i>Front Fee</i>	<i>Commitment Fee</i>	<i>Repayment Period</i>	<i>Grace Period</i>	<i>Term</i>
Rand Term Loan (not fixed)	Rand	426.000	Senior	91 day SAFEX BA	2.31%	1.6%	0.5%	11	4	15
DBSA Senior Loan (fixed)	Rand	100.000	Senior	91 day SAFEX BA	2.31%	0.15%	0.25% or 0.75%	10	10	20
CPI Linked Facility (not fixed)	Rand	426.000	Senior	CPI year-on-year reference	6.00%	1.90%	0.00%	16	4	20
CFD Loan (FFR 40 million)	F France	31.745	Senior	2.0%		0.00%	0.50%	12	7	19
Standby Facility (fixed)	Rand	175.000	Senior	91 day SAFEX BA	2.35%	1.60%	0.50%	11	4	15
DBSA subordinated (fixed)	Rand	100.000	Junior	91 day SAFEX BA	3.00%	0.15%	0.25% or 0.75%	10	10	20
Subordinated Loan (fixed)	Rand	100.000	Junior	91 day SAFEX BA	3.00%	1.90%	0.00%	11	4	15

The envisaged debt/equity ratio, excluding revenue during construction and the standby facilities, is 80/20. Revenue during construction, which is derived from certain toll plazas opening before the end of construction, is R366 479 million. The concessionaire has also arranged for standby debt and equity facilities of R175 million and R25 million, respectively. The standby facilities will be used for cost overruns or lower than expected revenues during the construction period, if required.

Table 3.A.4 Equity Investors

<i>Institution</i>	<i>(R'000)</i>	<i>%</i>
TRAC Consortium	120,000	40.1
South Africa Infrastructure Fund	75,000	25.1
Mozambique	40,000	13.4
Equity Sweeteners/Black empowerment	64,000	21.4
Total	299,000	100.0

3. THE ROLE OF DBSA

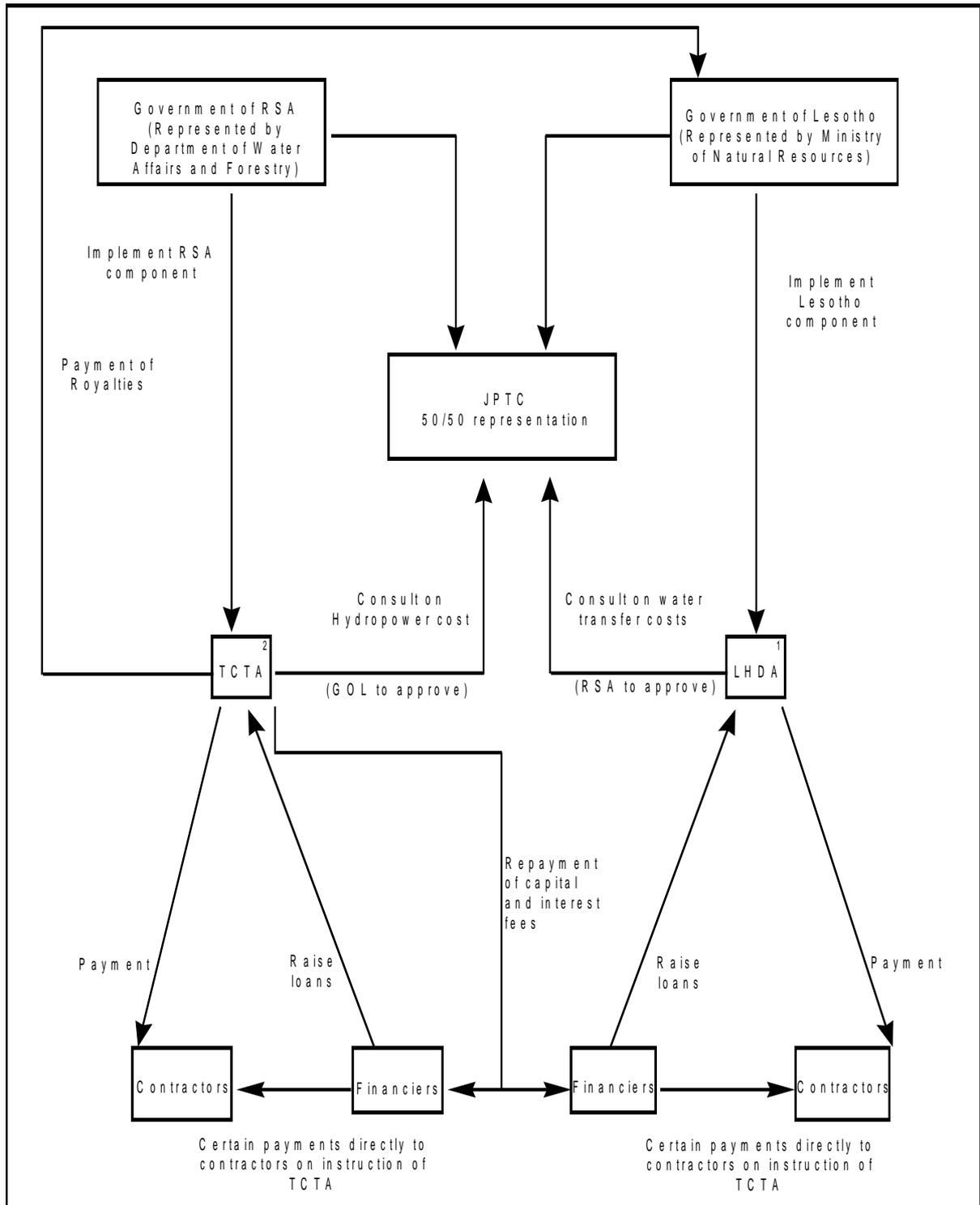
The concessionaire and the private sector financiers welcomed a national DFI's, the DBSA's, involvement in the project.

The following reasons were indicated:

- the terms of DBSA finance (in particular the proposed final maturity of the loans and the capital grace periods), if approved by the Board, are more favourable than those available from the private sector. Without DBSA finance, the financial structure of the project would have had to be re-negotiated and this would have, in all probability, resulted in an increase in the tolls levied;
- the private sector financiers respect DBSA's views regarding the more developmentally orientated aspects of the project and are looking to DBSA's appraisal of the environmental study and the resettlement programme, as well as the traffic study, to assist them in their decisions. Similarly, they expect DBSA's supervision and monitoring of its investment to afford them with added protection against risks in these areas over time;
- the DBSA is seen as a public sector development finance institution, providing comfort to the private sector as its involvement is regarded as an implicit guarantee from the RSA government.

BOX 3.B : LESOTHO HIGHLANDS WATER PROJECT (PHASE 1A)

1. INSTITUTIONS INVOLVED IN FINANCING OF THE LHWP PHASE 1A



¹ Lesotho Highlands Development Authority: the implementing and operating authority (Lesotho) responsible for raising all of the financing requirements for that part of the project to be constructed in Lesotho. All such debt raised by LHDA is guaranteed by South Africa who is also responsible for its ultimate repayment.

² RSA parastatal which responsibilities include: Full debt servicing of LHDA's foreign loans; repayment of LHDA's local CMA facilities; refinancing of LHDA facilities as required, arranging funding for the project component on RSA territory, as well as project management.

2. FUNDING STRUCTURE

Table 3.B.1 shows the overall costs and funding to 31 March 1998. Of the total capital cost 68% is denominated in CMA (Common Monetary Area) currencies and 32% in non- CMA currencies.

Table 3.B.1: Summarised Project Cost Schedule And Financing Plan
(In Maloti '000 Equivalent)

<i>Total Financing Requirement in</i>	<i>Non-CMA</i>	<i>CMA</i>	<i>Total</i>
Capital Costs			
Katse Dam Construction	561 153	880 974	1 442 127
Transfer Tunnel Construction	663 413	733 531	1 436 944
Delivery Tunnel Construction	172 369	195 620	367 989
Infrastructure Construction		549 428	549 428
Engineering Major works	116 844	288 349	405 194
Engineering Other		117 536	117 536
Administration	151 627	421 962	573 589
Environment		259 974	259 974
Sub Total	1 665 407	3 487 373	5 152 781
Finance Costs			
Charges capitalised during construction period	147 772	770 639	918 411
Charges paid during construction period	511 362	898 598	1 409 960
Total Capital and Finance Costs	2 324 542	5 156 610	7 481 152
<i>Ultimate Financing Sources</i>	<i>Non-CMA</i>	<i>CMA</i>	<i>Total</i>
Capital Costs			
Export Credits	1 377 429		1 377 429
Offshore Commercial	200 995		200 995
World Bank	235 969		235 969
CDC	103 562		103 562
RSA Commercial		150 558	150 558
RSA Capital Market Issues		2 413 742	2 413 742
DBSA		320 431	320 431
Concessionary		58 114	58 114
Cost Related Payments		291 981	291 981
Sub Total	1 917 955	3 234 825	5 152 781
Capitalised Finance Costs	147 772	770 639	918 411
Interest Debt Service - Cost Related Payments	511 362	898 598	1 409 960
	2 577 090	4 904 062	7 481 152
Offshore Funds supplied to Onshore Costs	(252 548)	252 548	(0)
Total Financing Provided	2 324 542	5 156 610	7 481 152

To fund the costs of the main component of the project, LHDA raised a variety of financing facilities, consisting of offshore currency export credits, commercial bank finance and Rand export credits. Subsequently the Rand export credits were cancelled. The offshore loan agreements became effective in April 1992, with drawings commencing shortly thereafter. Further offshore currency export credits have been raised in 1995 to fund 85% of the additional foreign currency costs and a part of the additional Maloti/Rand costs of the full tunnel lining. The remaining additional costs on this contract will be financed through existing surplus CMA facilities.

The World Bank loan, originally for the equivalent of US\$110 million, became effective in May 1992 with drawdowns commencing in the fourth quarter of 1992. In June 1995 US\$20 million of this loan was cancelled, and of the balance of US\$90 million, it is estimated that approximately US\$66 million will be used to fund costs included in this financing plan. The proceeds of this loan are for the payment of offshore costs relating to the engineering and construction supervisory services for the main construction contracts, certain technical advisory and environment costs incurred in non-CMA currencies. The loan will also be used to meet certain Phase 1B costs, although such costs are not included in this financing plan.

LHDA raised loans with the Commonwealth Development Corporation and the Development Bank of Southern Africa for funding part of the infrastructure construction and engineering costs.

LHDA has also raised substantial CMA currency commercial bank loan facilities and, jointly with TCTA, substantial CMA funds through Capital Market issues (CMI), the latter which is an on-going process. By the end of November 1996 LHDA's share of issues was R1.722 billion net proceeds. Both the CMA currency commercial bank facilities and the CMI issues are used to finance all project costs for which no specific sources of finance have been arranged. (See tables 3.B.2, 3.B.3, 3.B.4 and 3.B.5 for terms and conditions of finance sources).

3. THE ROLE OF DBSA

LHWP, a multi-million development programme located in the remote Highlands of Lesotho, was initiated during a period of political instability in the Southern Africa sub-region. International financiers were cautious to become involved in the implementation of this project. DBSA with its experience in local conditions provided facilitation through:

- the provision of development finance towards advanced infrastructure components (R600 million); and
- sharing its development experience, which assisted the implementing authority to successfully and timeously implement the infrastructure project. This provided the necessary international confidence in the programme and full sourcing of the project from international donor community and Southern Africa finance institutions.

Table 3.B.2: Export Credits

<i>Loan Details</i>	<i>France</i>	<i>Italy</i>	<i>Germany (Dresdner)</i>	<i>Germany (Kfw)</i>	<i>Uk</i>
Currency	French Franc	Italian Lira French Franc Pound Sterling	Deutsche Mark	Deutsche Mark	Pound Sterling
Amount	595.4 million	ITL 63 665 million FF 110.4 million GBP 10 million	163.5 million (inc. 49.7m interest capitalisation)	81.7 million (inc. 24.9m interest capitalisation)	49.4 million
Capitalisation period	N/A	up to 7 years	up to 7 years (85%)	up to 7 years (85%)	N/A
Repayment period	10 years	10 years	10 years	10 years	10 years
Commitment fee	0.5%	0.375%	0.5%	0.5%	0.25%
Front End Fee	0.5%	0.5%	1.0%	1.0%	1.0%
Export Credit Premium	5.878%	N/A	N/A	N/A	4.866%
Interest rate used in plan	8.3% Ffr costs (10.66% local costs)	8.3% (LIBOR + 1% cap. Int.)	7.675%	9.2%	8.3%

Table 3.B.3: Commercial Loans

<i>Loan Details</i>	<i>France</i>	<i>Italy</i>	<i>Germany (Dresdner)</i>	<i>Germany (Kfw)</i>	<i>UK</i>	<i>RSA CMA 3/4</i>	<i>RSA CMI (WS01)</i>	<i>RSA CMI (WS02)</i>	<i>RSA CMI (WS03)</i>
Interest Rate used in plan	5.3546%	5.3546%	5.1328%	4.8793%	8.375%	Variable up to 16.57%	13.7527% on net	14.4431% on net	15.2573% on net
Currency	French Franc	French Franc	Deutsche Mark	Deutsche Mark	Pond Sterling	Rand	Rand	Rand	Rand
Amount	105 m	87.6 m	20.07 m	10.03m	8.7 m	2,450 m	1666.6 m nominal 1509.8 m net	500.0 m nominal 468.6 m net	500.0 m nominal 435.3m net
Capitalisation Period	N/A	N/A	N/A	N/A	N/A	Until repayment commences	N/A	N/A	N/A
Repayment period	bullet	bullet	bullet	bullet	bullet	By 1 st July 2007	bullet	bullet	bullet
Commitment fee	1.0%	1.0%	0.5%	0.5%	1.0%				
Front End Fee	1.25%		1.125%	1.125%	1.25%				
Reservation fee			0.25%	0.25%					

Table 3.B.4: Other Sources of Finance

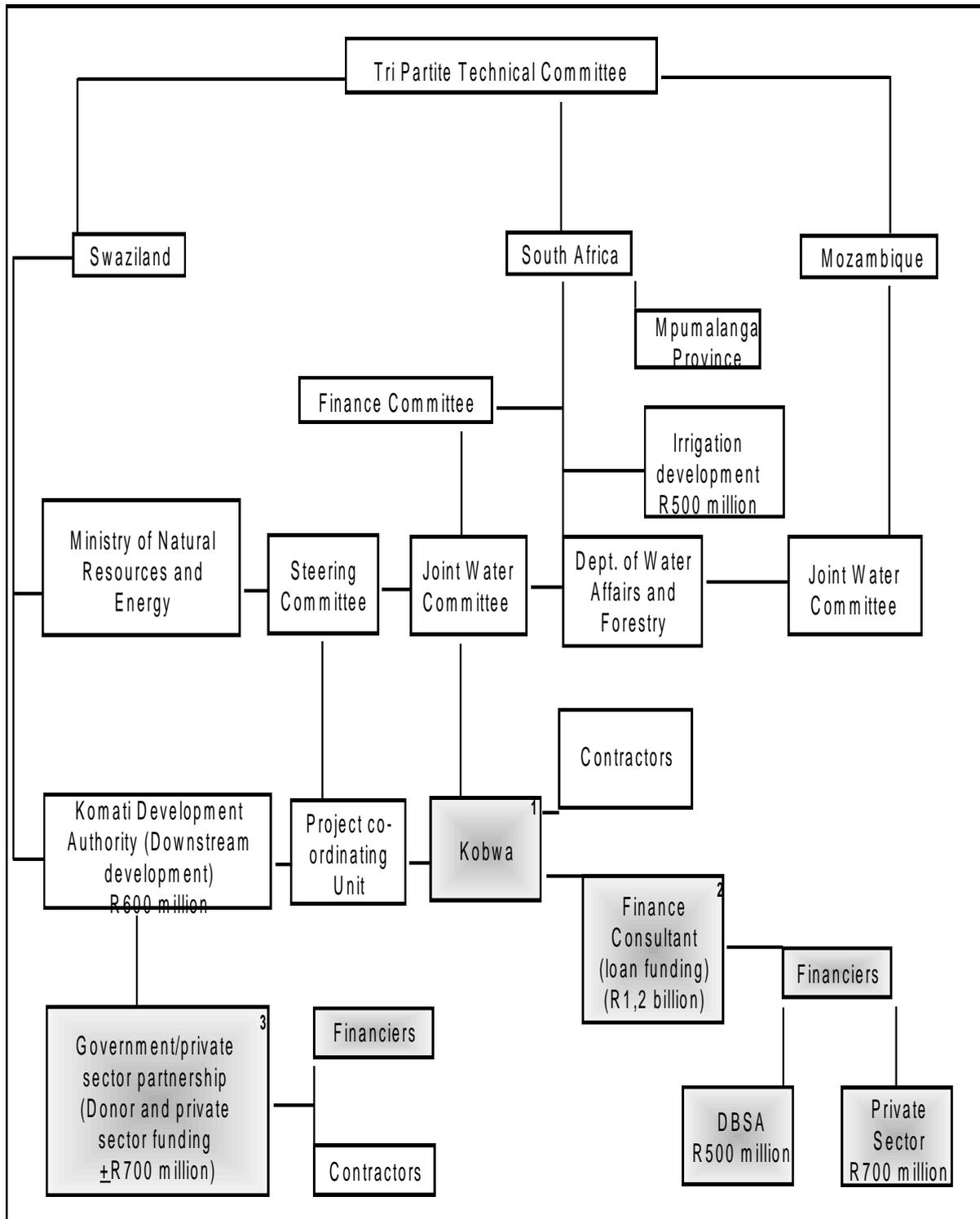
<i>Loan Details</i>	<i>World Bank</i>	<i>DBSA (multiple loans)</i>	<i>Concessionary Sources</i>	<i>CDC (Construction)</i>	<i>CDC (Telecommunications)</i>
Interest rate used in plan	7.0363%	4-12%	7.1682% (World Bank equivalent terms)	10.0%	10.5%
Currency	US dollar	Rand	Rand (deemed)	Pound Sterling	Pound Sterling
Amount	90 million	320 million	58 million	17 million	3.7 million
Capitalisation period	N/A	Up to 4 years	N/A	N/A	N/A
Repayment period	12 years	Up to 20 years	Up to 16 years	14 years	4 years
Commitment fee	0.75%		0.75%	1.0%	1.0%
Front End Fee				1.25%	1.25%
Export Credit Premium	5.878%	N/A	N/A	N/A	4.866%

Table 3.B.5: Export Credits Additional Finance

<i>Loan Details</i>	<i>France</i>	<i>Germany (Dresdner)</i>	<i>Germany (KfW)</i>	<i>UK</i>
Interest Rate used in plan	7.452% (FFr) (8.28% local)	6.717%	7.35%	7.35%
Currency	French Franc	Deutsche Mark	Deutsche Mark	Pound Sterling
Amount	127.4 million	39.5 million (inc. 11.9m interest capitalisation)	19.8 million (inc. 5.9m interest capitalisation)	9.3 million
Capitalisation Period	N/A	up to 7 years (85%)	up to 7 years (85%)	N/A
Repayment Period	10 years	10 years	10 years	10 years
Commitment fee	0.5%	0.5%	0.5%	0.175%
Front End Fee	0.5%	0.75%	0.75%	0.92%
Export Credit Premium	5.32% (5494% local)	N/A	N/A	6.0%

BOX 3.C : KOMATI RIVER BASIN DEVELOPMENT (PHASE 1B MAGUGA DAM PROJECT)

1. INSTITUTIONS INVOLVED IN FINANCING OF THE MAGUGA DAM PROJECT



- 1 Komati Basin Water Authority (KOBWA)
- 2 Price Waterhouse Corporate Finance
- 3 Funding for the Irrigation Development still to be planned

2. FUNDING MODEL

A fixed DBSA loan at a nominal rate of 15% has been provided for the full amount of the advanced infrastructure costs amounting to ±R167m over a 20 to 25 year period. A capital grace period of 5 years will be allowed.

In addition, a fixed DBSA loan at a nominal rate of 15,5% for ±R330m has been provided in respect of the variable bridging facility for a portion of the dam construction costs, over a 20 to 25 year period, with a capital grace period of 5 years. This loan will be disbursed based on an agreed upon draw-down schedule. Once the ceiling of R330m is reached, the amount will be raised through a private sector bond issue to settle the bridging capital' portion. The R330m repayment trenches will be invested over the short-term to serve further disbursement requirements of the project.

The funding for the Irrigation Development is still to be planned and would be a mix of private sector investment and concessionary funding

3. THE ROLE OF DBSA

DBSA's involvement in Phase 1B has provided the necessary security and is directly aimed at the funding of the preparation and implementation of initial project elements through which all relevant social, environmental and developmental aspects will be addressed to pave the way for private sector funding from the region.