

# PART III

## STRATEGIC FRAMEWORK

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### PAN AFRICAN CAPACITY BUILDING PROGRAMME

Between

THE DEVELOPMENT BANK OF SOUTHERN AFRICA  
(Hereinafter referred to as the DBSA)

And

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AGENCE FRANCAISE DE DEVELOPPEMENT  
(Hereinafter referred to as AFD)



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*The third part of the document outlines the institutional framework for the PACBP, its governance structures, skills and market focus area, funding model, and the role and responsibilities of the strategic partners.*

## **1. BACKGROUND AND RATIONALE**

The Development Bank of Southern Africa (DBSA) and Agence Francaise De Developpement (AFD) including PROPARCO, its private sector subsidiary, created a Pan African Capacity Building Platform through signing a Memorandum of Understanding in April 2008. This program is aimed at addressing identified skills gaps in the current African education and professional training landscape that prevent the Continent from meeting their infrastructural development goals. Being of a Pan African nature, the program aims at covering the whole African Continent although the initial phase will cover SADC and West Africa. Similarly, although the program will cover the three main sectors – water, energy and transport - identified by NEPAD and AU as the focus areas for the Continent, the program will focus on the water and sanitation sector in the initial phase.

The driving force behind this program is based on the common view that access to finance is no longer a constraint but rather the availability of skilled professionals to successfully implement projects. This skills gap is now viewed as, inter alia, the main obstacle to an efficient and timely delivery of adequate infrastructure throughout the continent. The unavailability of skilled professionals is exacerbated by capacity constraints in the current African education and professional training landscape thereby preventing the continent from meeting its infrastructural development objectives. It is within this context that the partners decided to design and implement a professional training program pitched at a postgraduate level accredited by both local and international universities. The working title for the training program is 'The Pan African Masters in Infrastructure Management.

## **2. PURPOSE OF THE DOCUMENT**

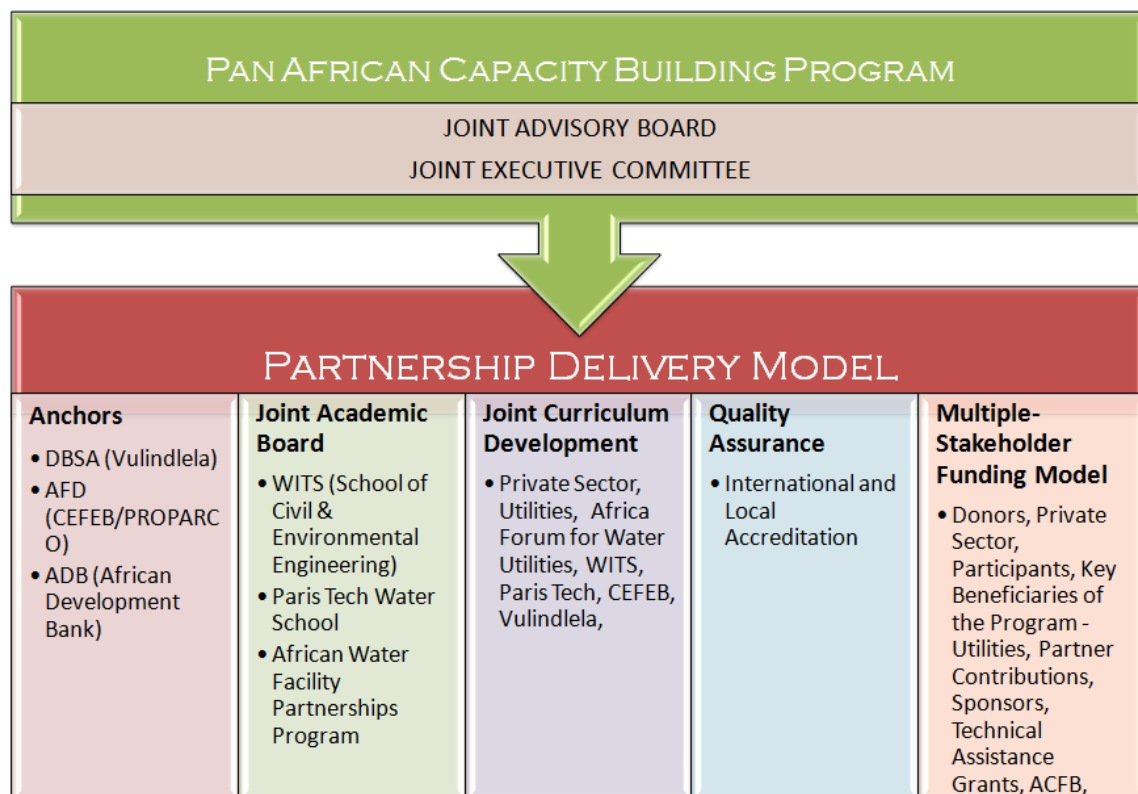
The strategy sets out the path for the implementation of the virtual academy model for the implementation of the PACBP, addressing dimensions such as

rationale, intent, approach, goals, key success factors, target market, product offering, institutional arrangements, and quality management. The model is designed in such a way that it has the ability to train and deliver qualified and skilled public and private sector development agents. The document further outlines the PACBP governance structures, skills and market focus areas, funding for the program and the different roles and responsibilities for the active partners.

### 3. PACBP STRATEGIC FRAMEWORK

The strategy is designed on the basis of a multi-stakeholder approach to development. Please note that this framework is presented with flexibility as an indicated of its multi-stakeholder approach which will allow for changes on a continuous basis.

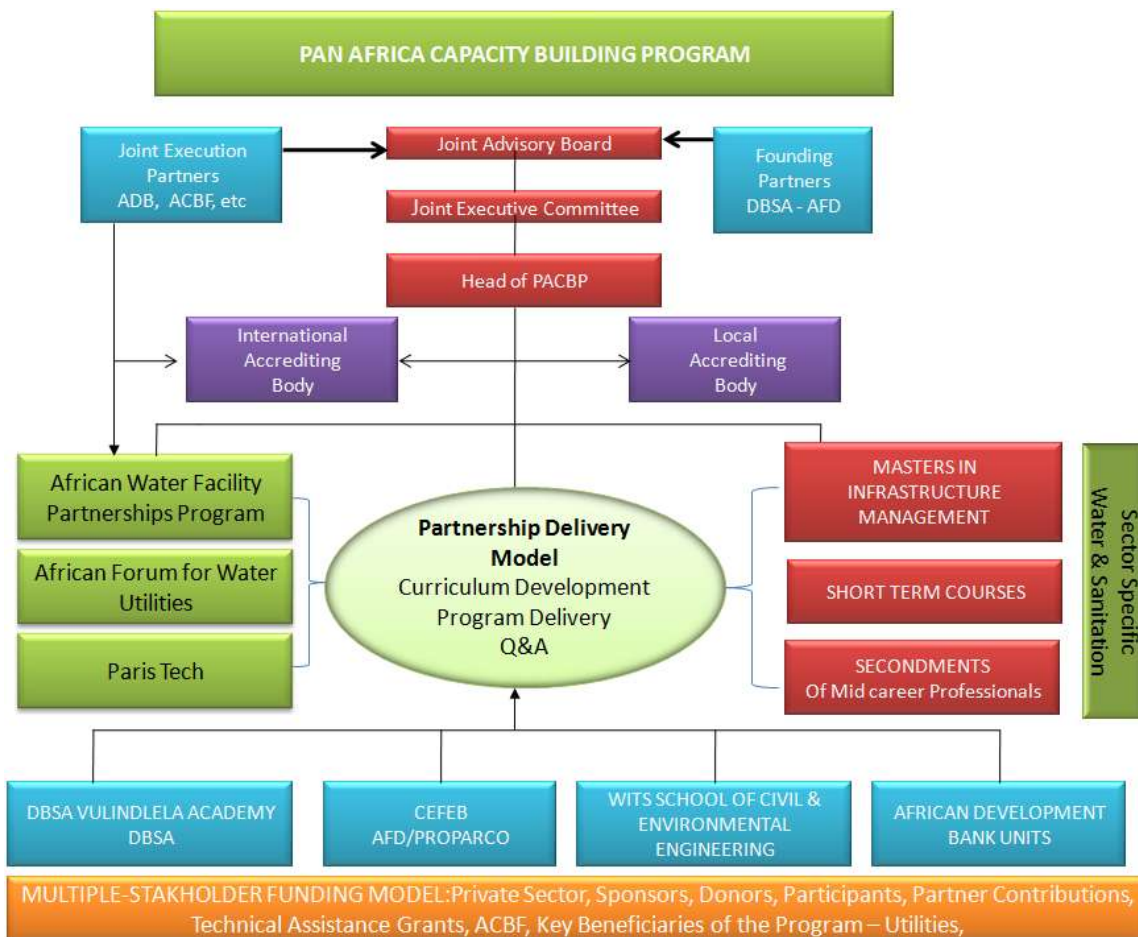
Table 1: PACBP Strategic Framework



#### 4. PACBP GOVERNANCE STRUCTURE

The PACBP shall be governed by the Joint Advisory Board (Board) and the Joint Steering Committee (EXCO) as per provisions of the signed MOU; the detailed roles and responsibilities for the advisory board and the joint steering committee are detailed in the respective terms of reference. The role of the Advisory Board is to provide *strategic guidance, direction and oversight* to the Steering Committee (i.e. EXCO) in order to achieve the overall objectives of the program and to protect the interests of partner organizations. The EXCO on the other hand is constituted to assist the Joint Advisory Board in the implementation and management of the PACBP.

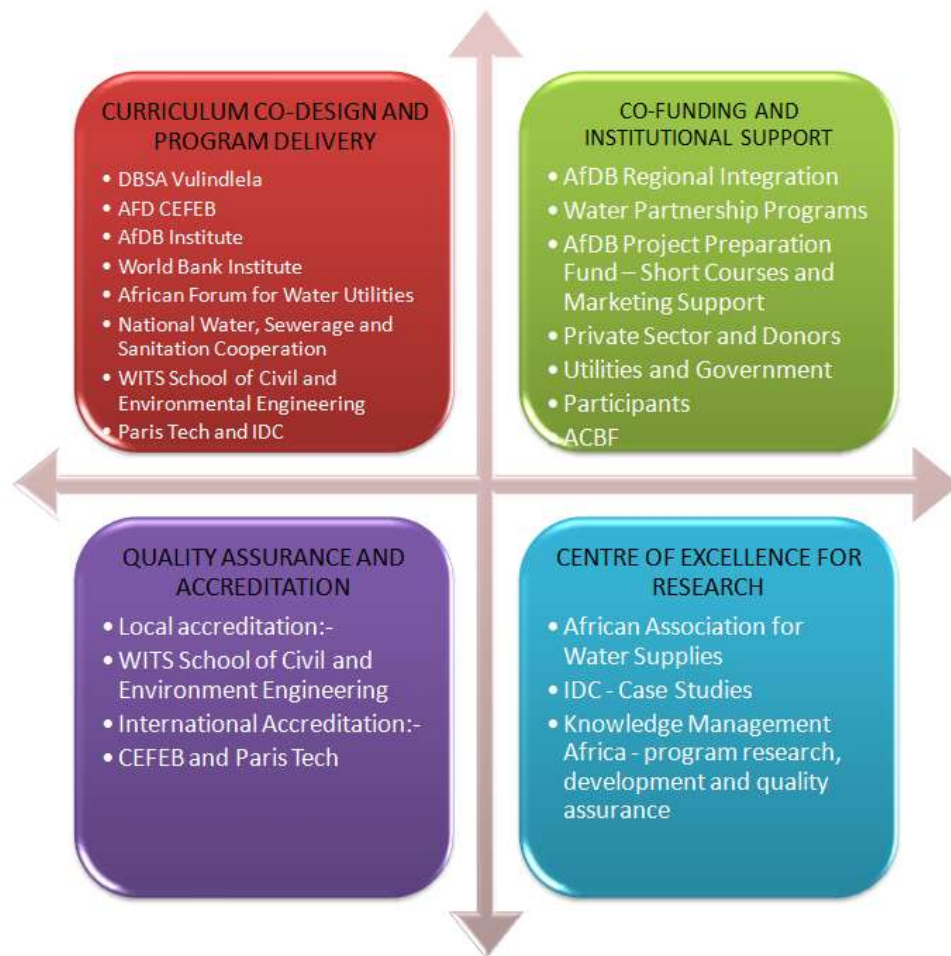
Table 2: PACBP Governance Structure



## **5. INSTITUTIONAL ARRANGEMENTS**

The DBSA's Vulindlela Academy, working closely with the AFD's Centre for Financial Economic and Banking – CEFEB – will plan and facilitate the actual implementation of PACBP. The delivery of the program will be a partnership delivery model with multiple centres and campuses which have their base housed at the DBSA's Vulindlela Academy. There will be joint curriculum housing at the different Institutions that will form part of the co-design and delivery of the program. At an International level the centre will be the AFD's CEFEB –and at the Local Southern African level - the WITS School of Civil and Environmental Engineering will be the centre in collaboration with Vulindlela.

The actual delivery of the program is designed in such a way that it allows the program's partners and their relevant training academies to co-design and co-deliver the curriculum. This structure not only increases access to participants but also ensures regional integration of the program. It is designed in such a way that it provides for an innovative and flexible system that strengthens the networks of the partners and coordination among training centers and universities at regional and international level. In addition, it will allow the exchange of existing expertise and experience, curricula and best practice among the executive committee of the program. The delivery structure is summarised below:



## 6. SKILLS AND MARKET FOCUS AREAS

The demand for such a program is intuitively assumed to be large and complex in its extent and character. However, the design of an effective intervention requires that there be a close estimate of the numbers that must be trained; the specializations that need emphasis and the location across Africa of that demand in a bid to interrogate the market segments that traditionally employ such skills. Most of the studies reviewed lead to the following; DFI's, Government Ministries, Agencies, and Regulatory bodies, Public and Private Enterprises, Bank and Financial Institutions, Professional Bodies, Management, Engineering and Business Consulting Firms, Water and Energy Utilities, Regional Economic Communities, International Development Agencies, Non-Governmental Organizations, and even Training Establishments that can play the vital role of

propagating capacity beyond the appointed delivery points. The following skill gaps were identified as the main obstacle to an efficient and timely delivery of adequate basic infrastructure throughout the African continent.

- Public, Private Partnership (PPP) focusing on Water;
- Project Finance focusing in Water and Sanitation;
- Project Appraisal/Due Diligence
- Infrastructure Management – Efficiency Management Techniques
- Project Management and Valuation
- Monitoring and Evaluation –Operation and Management

In line with this assessment, the five year Pan African Capacity Building Program will target about 400 learners plus 40 young professional pitched at Post Graduate Level – with a specific focus on the water sector for the initial phase. The young professional will be placed with partner institutions including DBSA, AFD, IDC and other agencies in order to gain experience. In the event where participants do not qualify to enter the program at this level, the recognition of prior learning or substantial work experience will be considered on case by case basis. This platform will implement a pilot professional training program in the area of infrastructure project management in three main sectors: 1) Energy, 2) Water and Sanitation 3) Transport.

Some of the sector-specific skills requirements, as per sector specialists, are highlighted below and are consistent with the above:

SECTOR	SPECIFIC OUTCOMES	GENERAL OUTCOMES
Energy	<ul style="list-style-type: none"> <li>▪ Understanding of legal, technical and financial aspect of power projects,</li> <li>▪ Regulatory Frameworks; norms and standards,</li> <li>▪ Power Purchase Agreements</li> <li>▪ Tariff setting methodologies,</li> </ul>	<ul style="list-style-type: none"> <li>▪ Economic and Financial Analysis,</li> <li>▪ Financing mechanisms,</li> <li>▪ Strategic management,</li> <li>▪ Public Private Partnership models,</li> </ul>

Transport	<ul style="list-style-type: none"> <li>▪ Coordinated and harmonized codes and standards,</li> <li>▪ Knowledge of Power pool operations,</li> <li>▪ Utilities management,</li> <li>▪ Energy conservation and audit</li> </ul>	<ul style="list-style-type: none"> <li>▪ Feasibility studies,</li> <li>▪ Contract Management (including bilateral agreements and negotiations)</li> <li>▪ Project appraisal and monitoring,</li> <li>▪ Project implementation &amp; management,</li> <li>▪ Risk measurement and mitigation,</li> <li>▪ Environment assessment,</li> <li>▪ Quantitative and Research Methods,</li> <li>▪ People and Organizational Management,</li> <li>▪ Procurement and Management of Construction,</li> <li>▪ Governance,</li> <li>▪ Trans-boundary cooperation</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Issues on Standardization of bridges, roads and railway tracks,</li> <li>▪ Concessioning;</li> <li>▪ Models of PPPs,</li> <li>▪ Safety management,</li> <li>▪ Airport/Port business management</li> </ul>	
Water	<ul style="list-style-type: none"> <li>▪ Integrated water resource management,</li> <li>▪ Developing regulatory instruments,</li> <li>▪ Water resource assessment,</li> <li>▪ Surface and under water resource management,</li> <li>▪ Water quality management,</li> <li>▪ Distribution and Collection systems</li> </ul>	

Within this context the initial water sector focused Masters in Infrastructure Management will have the following module content:

MODULE & TIMEFRAME	CONTENT
Project Management (6 weeks)	<ul style="list-style-type: none"> <li>▪ Project cycle</li> <li>▪ Project planning, demand analysis and project design</li> <li>▪ Project appraisal, feasibility analysis and project financing</li> <li>▪ Project procurement processes</li> <li>▪ Negotiation skills and communication</li> <li>▪ Contract law</li> <li>▪ Contract management and dispute resolution</li> <li>▪ Project cost estimation and cost benefit analysis</li> <li>▪ Project evaluation and functionality</li> <li>▪ Value for money tracking studies</li> <li>▪ Stakeholder analysis and buy-in</li> </ul>
Operation and Maintenance Management (4 weeks)	<ul style="list-style-type: none"> <li>▪ Materials management</li> <li>▪ Simple operations research tools</li> <li>▪ Fundamentals of instrumentation</li> <li>▪ Work scheduling and job cards</li> <li>▪ Types of maintenance (preventive, break-down, risk-based etc)</li> <li>▪ Operational and maintenance manuals</li> <li>▪ Operational safety and health (OSH)</li> </ul>

Strategic Management (6 weeks)	<ul style="list-style-type: none"> <li>▪ Institutional analysis techniques</li> <li>▪ Public-Public and Public-Private Partnerships</li> <li>▪ Performance Incentive plans and comparative competition</li> <li>▪ Performance contracting techniques and options</li> <li>▪ Stakeholder management</li> <li>▪ Human resource management techniques</li> <li>▪ Institutional strengthening and development approaches</li> <li>▪ Business planning and performance indicators</li> <li>▪ Fundamentals of sector governance</li> <li>▪ Fundamentals of utility regulation</li> </ul>
Finance and Marketing Management (4 weeks)	<ul style="list-style-type: none"> <li>▪ Types of marketing and market and analysis</li> <li>▪ Social marketing and community management</li> <li>▪ Service levels and product differentiation</li> <li>▪ Service development measurement tools</li> <li>▪ Fundamentals of customer care management</li> <li>▪ Tariff setting techniques and viability analysis</li> <li>▪ Concept of Financial sustainability</li> <li>▪ Financial analysis tools and systems</li> <li>▪ Financial audit systems</li> </ul>
Efficiency Management Techniques and Benchmarking (3 weeks)	<ul style="list-style-type: none"> <li>▪ Concept of benchmarking</li> <li>▪ The concept of technical efficiency and productivity</li> <li>▪ Production functions</li> <li>▪ Data envelopment analysis</li> <li>▪ Stochastic frontier analysis</li> <li>▪ Distance functions</li> <li>▪ Index analysis</li> </ul>
1. Research Methods (2 weeks)	<ul style="list-style-type: none"> <li>▪ Types of Research</li> <li>▪ Problem identification</li> <li>▪ Setting research objections</li> <li>▪ Research questions and hypotheses</li> <li>▪ Data collection methods</li> <li>▪ Literature review techniques</li> </ul>
Elective Topics (4 weeks)	<ul style="list-style-type: none"> <li>▪ Water treatment plants</li> <li>▪ Water distribution systems</li> <li>▪ Drainage systems</li> <li>▪ Dams</li> <li>▪ Roads &amp; highways</li> <li>▪ Bridges</li> <li>▪ Public and Commercial buildings</li> <li>▪ Airports</li> <li>▪ Ports</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Railways</li> </ul>
Research Project (16 weeks)	<ul style="list-style-type: none"> <li>▪ Related research topic.</li> </ul>

## 7. TARGET MARKET

The program will reach out to young upwardly mobile professionals of up to 45 years of age in the public sector and state-owned enterprises. Participants are expected from:

- a) Public and private sector institutions;
- b) Development finance institutions (DFIs), including portfolio managers, analysts, program/project managers, loan officers, legal advisors, transactional advisors, water specialists, and others;
- c) Local authorities and governments, including mayors, local councillors, and municipal managers;
- d) Utilities; water specialists, program managers and other relevant participants in the water sector.

## 8. FUNDING FOR THE PROGRAM

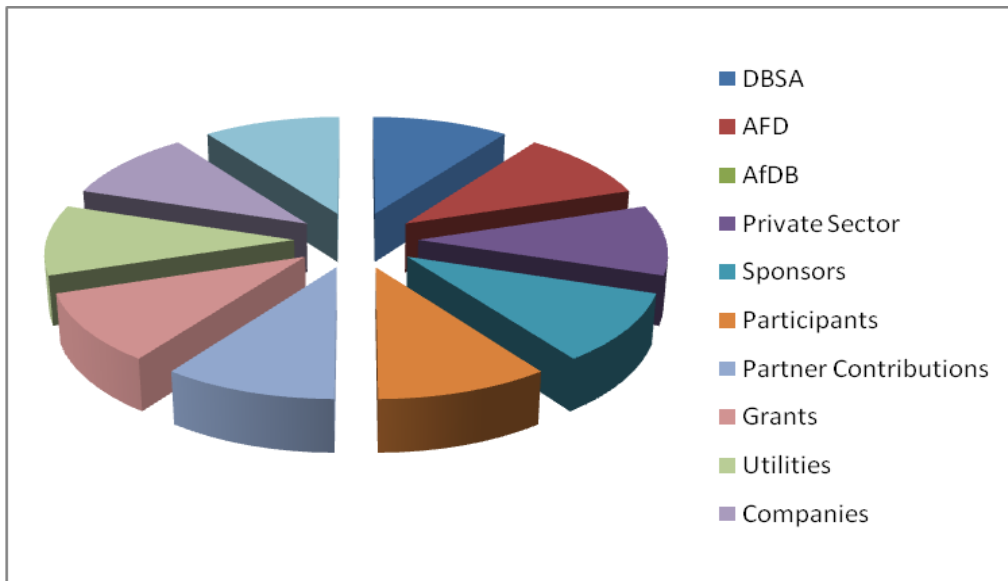
The program is funded (Euro 1.5 million per year) jointly by AFD/PROPARCO and the DBSA for a period of 5 years. Currently the shareholding and financial contribution split is as follows:

DBSA Contribution                      - 33 %

AFD/PROPARCO Contribution   - 67 %

The DBSA contribution will be reduced as other targeted partners (Eg. The

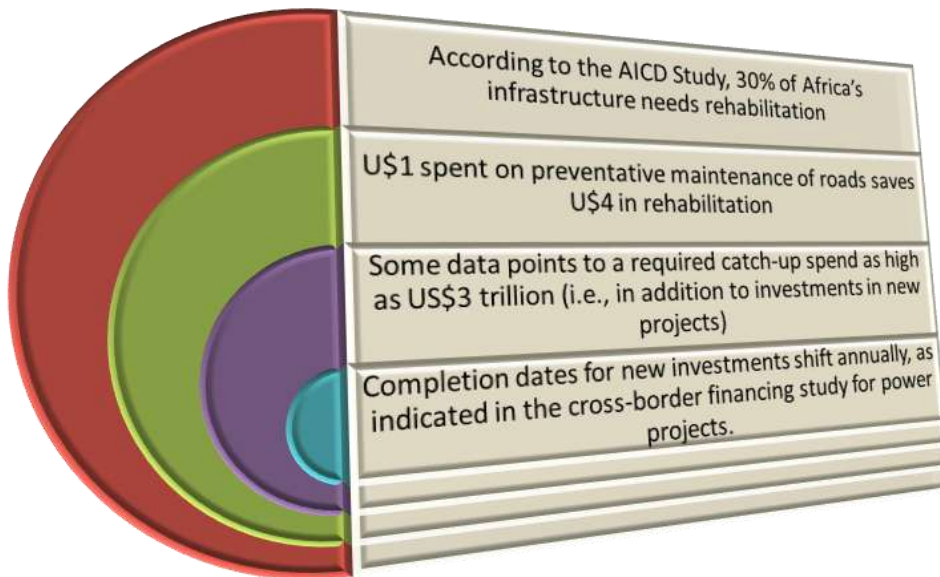
African Development Bank, KFW or other European DFIs) join the program as shareholders. The IDC has expressed commitment to match the DBSA 33 % contribution towards the program. All share holder institutions will fund costs relating to their subsistence and travel. In the long-term, for program sustainability, there is consensus on the need for private sector funding, some utilities and others, as depicted in the diagram below.



The funding requirements are based on training at least 100 participants a year in the identified core skills area; with the initial intake focusing on the water sector, later including energy and transport.

## 9. FUTURE IMPLICATIONS FOR THE RELEVANCE OF THE PACBP

As indicated in the feasibility study, annual infrastructure investment needs in Africa are estimated to be \$40 billion, plus \$40 billion for '*maintenance*' and operations. Additional substantiating facts include:



Over the past years emphasis has been placed on new infrastructure to the detriment of maintaining existing assets, as a result, African governments may have more assets than they can afford to maintain; and in many instances, the implications are not highlighted. The relevance of these statistics on the PACBP lies in understanding the environment within which the recipients of the program practically apply the programs taught. It is therefore important for the PACBP to bear in mind that Africa's infrastructure deficiency represents a major and rapidly growing problem but the cost of defaulting on rehabilitation and maintenance is escalating the maintenance deficit at a future cost that is unknown.