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Study to assess the potential for enhanced private participation in the maritime and air transport sectors in Africa

CONTRACT N° ICA/TSP/001

Final Report

May 2012



Prepared for:

The Infrastructure Consortium for Africa (ICA) hosted by The African Development Bank
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Tunisia

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Glossary

ACSA	Airports Company South Africa
AERCO	Special Purpose Vehicle operating three airports in the Republic of Congo
AERIA	Aéroport International d'Abidjan, an SPV operating Abidjan Airport
AFD	Agence française de développement
AfDB	African Development Bank
AICD	Africa Infrastructure Country Diagnostic
ANS	Air Navigation Services
APMT	Global ports and terminal operator, based in the Netherlands
ASECNA	Agency for Aerial Navigation Safety in Africa and Madagascar (L'Agence pour la Sécurité de la Navigation aérienne en Afrique et à Madagascar), covering most of French-speaking West and Central Africa
BAG	Regional Economic Community: Banjul Accord Group
BOT	Build Operate Transfer
CDS	Credit default swap
CEMAC	Regional Economic Community: Central African Economic and Monetary Union
CFM	Mozambique Ports and Railways company
COMESA	Regional Economic Community: Common Market for Eastern and Southern Africa
DBOT	Design Build Operate Transfer
DUBE	Durban Airport (Trade Port)
EASA	European Aviation Safety Agency
EIB	European Investment Bank
FAA	Federal Aviation Administration of the United States of America
FAA IASA	Federal Aviation Administration (USA) International Aviation Safety Assessments
FAAN	Federal Airports Authority of Nigeria
FRAPORT	Frankfurt Airport Services Worldwide
GACL	Ghana Airports Company Limited
GDP	Gross Domestic Product
GNI	Gross National Income
ICA	Infrastructure Consortium for Africa

ICAO	International Civil Aviation Organisation
IFC	International Finance Corporation (private finance arm of the World Bank Group)
IFI	International Finance Institution
IMF	International Monetary Fund
KADCO	Kilimanjaro Airports Development Company
KLM	Royal Dutch Airlines
MIGA	The World Bank's Multilateral Investment Guarantee Agency
MMA2	Lagos Airport Domestic Airport
MOIB	The Mo Ibrahim Index of African Governance
MPDC	Maputo Port Development Company
MPDC	Maputo Port Development Company
mppa	million passengers per annum
NCAA	Nigerian Civil Aviation Authority
OAG	Official Airline Guide
PAP	Priority Action Plan within the PIDA programme
PIDA	Programme for Infrastructure Development in Africa
PPIAF	The World Bank's Public-Private Infrastructure Advisory Facility
PPP	Public Private Partnership
RSA	Republic of South Africa
SBG	Saudi BinLaden Group
SPV	Special Purpose Vehicle
TAV	Turkish Airports Operator
TEU	Twenty foot equivalent unit, a measure of volume for container traffic
WAEMU	Regional Economic Community: West African Economic and Monetary Union

Executive Summary

Introduction

1. The members of the Infrastructure Consortium for Africa (ICA), established in 2005, seek to facilitate sustainable investment in infrastructure development from both public and private sources. This study has been procured to assess the potential for enhanced private participation in the maritime and air transport sectors in Africa. It presents a long list of ports and airports projects which may be suitable for private investment and evaluates them in a way which identifies a short list of the projects most suitable for technical or financial assistance from ICA members.

2. We consider firstly the key lessons to be learned from past port and airport PPPs, before analysing the investment climate in different African countries. This is followed by a brief description of the evaluation methodology, and a summary of the projects shortlisted as suitable for intervention by ICA members.

Ports – key learning points

3. Over the last 20 years there has been a general move, in Africa and elsewhere, from public sector service ports to landlord ports in which the public sector is responsible for the overall planning of the port and the provision of common infrastructure and services, whilst private companies invest in terminals and port services such as stevedoring and towage.

4. This has substantially improved opportunities for private investment, focusing it on the most profitable areas of port operations and allowing terminal concessions to be designed and priced so that they are financially viable. Although the political risks to private investors have often been high, they have been offset by high rewards and relatively low commercial risks.

Market background

5. Most African ports are fairly small by world standards, and are located in the middle of busy cities, with high land values and significant levels of traffic congestion. This has created a need for the development of more modern port facilities at new greenfield sites.

6. High commodity prices have also increased interest in new mining opportunities, many of which are being developed by the private sector as integrated mine/rail/port projects

Past PPP projects

7. The most comprehensive private investment programme has been in Nigeria. Other countries which have hosted multiple private sector investments in ports include Algeria, Egypt, Mozambique and Djibouti.

8. Container terminals form the largest single group of past PPP projects, followed by whole port concessions and dry bulk terminals. Although multi-purpose general cargo berths have attracted local investors in Nigeria, they have not been of great interest to international investors, and remain largely in public ownership.

TABLE 1 PRIVATE PORT PROJECTS BY TYPE

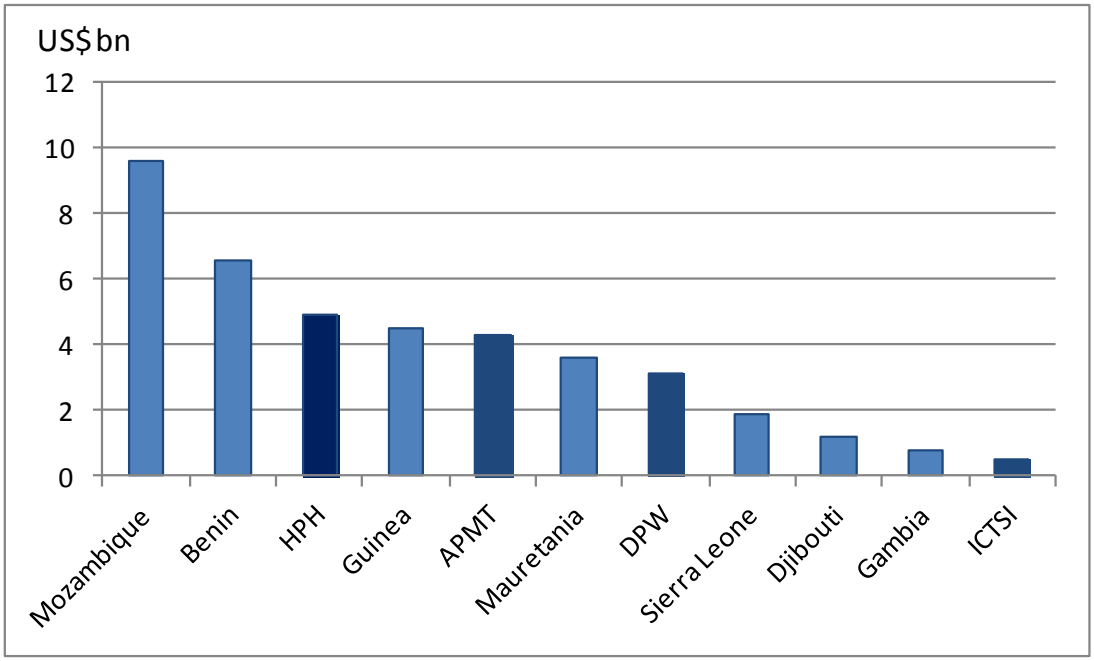
Type of concession	Nigeria	Other Africa	Total
Whole port	1	9	10
Container	3	24	27
Dry bulk	3	3	6
Liquid bulk	-	1	1
RoRo	1	-	1
Multipurpose/general cargo	6	-	6
Offshore supply	9	-	9
Total	**23**	**37**	**60**

Source: PPIAF database amended by reference to the Nigerian Ports Authority website

Characteristics of private investors

9. International container terminal operators are large and extremely profitable, and their worldwide turnovers can be larger than the GDP of host countries. Figure **1** shows the turnovers of HPH, APMT, DPW and ICTSI to be broadly comparable with the GDPs of countries in the Gambia-Guinea size range.

FIGURE 1 TERMINAL OPERATORS TURNOVER IN 2010 COMPARED WITH SELECTED COUNTRIES GDP (US$BN)



Source: Terminal operators' accounts (turnover) and World Bank database (GDP)

10. Local investors in ports are still fairly scarce in Africa, and vary considerably in their origins and approaches to investment. The continent lacks "national champions" – companies which have been successful in other sectors of the economy to whom governments are willing to entrust port development – even though these have been important participants in port PPPs in countries such as Brazil, Malaysia and South Korea.

Lessons learned from past PPP Projects

11. The lessons learned from past port PPP projects relate to:

- Project specification;
- Form of contract;
- Characteristics of private investor(s);
- Project preparation and tendering;
- The concession agreement itself;
- Post-transaction monitoring and regulation.

12. Whilst it is generally desirable for the project to be specified by the port authority of other public sector bodies, to ensure that it is successfully integrated with other aspects of economic development, lack of planning capacity within the relevant institutions means that some of the projects put before private investors are poorly or incorrectly specified, with the need for private investment identified only after port congestion has reached unacceptable levels.

13. Although competitively-tendered common user terminals represent the most efficient use of scarce resources, there are circumstances in which other approaches may be appropriate, for example the authorisation of captive user terminals linked to the investor's other business interests, or the qualified acceptance of unsolicited bids. Although these may provide additional port facilities in countries which badly need them, at no cost to the public purse, they can also open up opportunities for land speculation, corruption and the development of monopolies. Where possible they should be avoided in favour of public sector specification and procurement. Moreover, when they go ahead they should be subject to strict requirements for transparency and public scrutiny.

14. The Tanger-Med experience shows that Middle East-type "big bang" port developments on greenfield sites are possible in Africa, but only under certain circumstances. Location is a critical success factor, and the quality and dynamism of the public sector team planning the development is also very important, together with the strength of the Government's political commitment to the project and its ability to provide funding.

15. Most of the past PPP projects have involved private **concessions awarded within the framework of a public landlord port authority**, usually by competitive tendering. This has generally worked well. There are three other types of PPP arrangement which have been tried less successfully: the **management contract**, the **master concession** (in which a private company becomes the landlord port authority) and the **joint venture**.

16. Choice of the "*right*" private investor(s) is an important **success factor in PPPs**. **Five main issues** were highlighted by the case studies, relating to:

- The treatment of **captive users** in the award of terminal concessions, which needs to strike a balance between fairness and efficiency;
- The structure of **consortia**, which are relatively rare in the ports sector compared with other modes of transport. Whilst some consortia, for example at Richards Bay coal terminal, have been successful, others have failed because of differences in the interests of member firms and lack of strong leadership;

- The advantages of large investors over **small investors**. Whilst large investors have clear advantages in expensive and technically complex port operations like container terminals, there are still opportunities for small investors in facilities with lower requirements for capital and technology, such as multi-purpose berths;
- Ways of **increasing local participation**. Past arrangements have not led to significant transfers of technology or operating experience, suggesting that it may be necessary to bring in larger local companies from outside of the ports sector;
- The importance of foreign investors having experience of, or **willingness to adapt to the local culture**.

17. Small and fairly simple private sector investments can often be made in ports without the need for PPP or port reform legislation, but good project preparation is essential. This is an area where donor-funded technical assistance can add great value, ensuring that the private investor makes an acceptable financial return and the public sector an acceptable economic return from jointly-funded projects.

18. A large amount of experience has been gained in the drafting of container terminal concessions, which are now fairly standardised, but concession agreements for other types of terminal are still generally "custom-built". Four issues have proved controversial in a wide range of projects:

- Agreement of a commercially viable private investment programme;
- Selection of an appropriate concession period;
- Exclusivity arrangements;
- Tariff regulation. Here the main problems are the existence of local monopolies, the risk of "regulatory capture" and start-up tariffs which are unreasonable to begin with. As a result, port users in Africa have not benefitted greatly from reductions in charges.

19. Many of the problems relating to private investment occur ***after*** rather than ***before*** signature of the contract. They fall into four main groups:

- Non-compliance: the inability of one party to force the other to meet its obligations;
- The role of regulatory bodies: which can add to rather than reduce the uncertainty of project outturns;
- The difficulty of restructuring concession agreements when future conditions turn out to be different from expected; and
- The contribution of other statutory authorities (Customs, Immigration, etc) to the success or otherwise of the private investment.

Success factors and obstacles to future investment

20. Similar success factors are found in many projects. The most common are:

- Strong traffic growth, which generates a perception of success even if it has very little to do with the private investment itself;
- Large and fairly immediate benefits to port users, often through the introduction of new technology which the port authority does not have the knowledge or funding to introduce on its own;

- Sensitive treatment of labour, sometimes involving generously-funded retrenchment schemes;
- Lack of political interference, before and after signing of the contract.

21. Several obstacles to private investment in ports were identified in the case studies and stakeholder interviews. These include:

- Political opposition to the concept of private investment.
- Political interference.
- The absence of a process which will lead to financial closure within a reasonable time period.
- Insufficiently clear policy frameworks.
- Overbidding.
- Barriers to market entry.
- Lack of funding.

22. With their authority, resources and multi-country experience, ICA members are well positioned to assist in overcoming many of these obstacles.

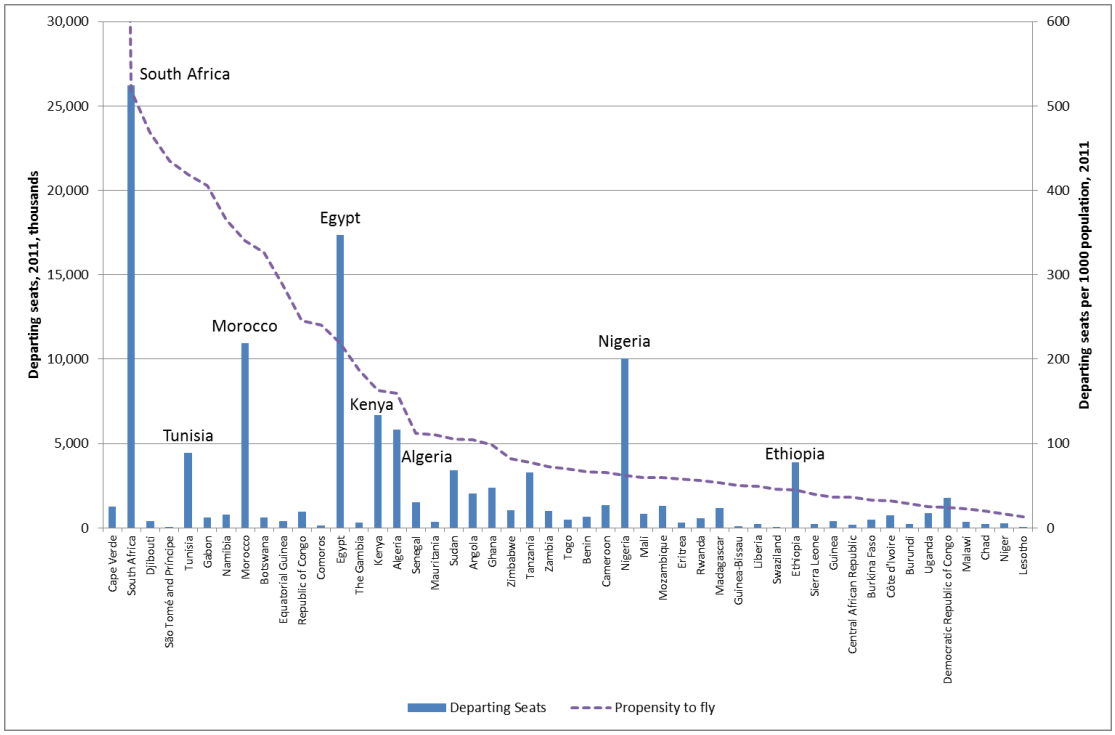
Air Transport Infrastructure – key learning points

Market background

23. The context for understanding the history of private sector participation in air transport infrastructure across Africa starts with understanding the size and characteristics of the aviation markets across the continent.

24. Aviation in Africa is currently growing strongly, but from a generally low base, with the number of seats flown rising at a cumulative annual growth rate (CAGR) of 7% p.a. in the five years to 2011 (Official Airline Guide (OAG) data). Apart from in South Africa and the North African countries, the propensity to fly (i.e. the number of air passenger journeys in relation to the total population) is generally very low, and only a few countries have airports with a passenger throughput greater than 1 million per annum. Figure 2 shows market size defined as departing seats operated in 2011 by country, as well as propensity to fly, defined as departing seats per 1,000 inhabitants, ranked by descending propensity to fly. Departing seats is used as a proxy for air passengers flown for convenience of data availability.

FIGURE 2 MARKET SIZE AND PROPENSITY TO FLY BY COUNTRY



Source: OAG, IMF, Steer Davies Gleave analysis

25. Figure 2, in which the top eight markets by seats flown are highlighted, shows that African countries can be divided into a number of categories from an aviation perspective:

- South Africa, the largest market in absolute terms and with the highest propensity to fly of any non-island state in Africa;
- The North African countries, which have relatively high propensities to fly and which also mostly represent large markets in absolute terms;
- The three large markets in sub-Saharan Africa: Nigeria, Kenya and Ethiopia;
- Smaller markets with moderate propensity to fly (over 100 departing seats per 1,000 inhabitants) – these include Namibia and Botswana in southern Africa, significant tourism destination countries such as Senegal and the Gambia, and central African countries such as Gabon, Angola and Congo (Republic);
- The remainder, with relatively low absolute size and low propensity to fly.

26. Based simply on the absolute sizes of the aviation in each country, it follows from the size of African markets that runway capacity is not generally a limiting factor in Africa. A single runway can easily accommodate a passenger throughput of 5 to 10 million passengers annually depending on supporting infrastructure such as parallel taxiways, and some single runway airports accommodate over 30 million passengers. However only two airports in the whole continent (Johannesburg and Cairo) currently have more than 10 million passengers (both of these already have two runways), and, outside South Africa and Egypt, only three airports have over 5 million passengers (Casablanca, Lagos and Nairobi). The infrastructure capacity challenge for African aviation therefore principally lies in the area of passenger terminal capacity, as well as quality, rather than runway capacity.

27. Historically the African aviation market was characterised by intercontinental routes to and from the continent generally dominated by non-African carriers and intra-African flights operated by the state-owned airlines based in most African countries. However, most state-owned airlines proved to be unprofitable and many failed, often reducing levels of connectivity within the continent and reducing competition to European carriers on inter-continental routes. Recognising the potential benefits of greater liberalisation, African governments issued the Yamoussoukro Declaration in 1988, formalised in 1999 as the Yamoussoukro Decision, which has legal force under the Abuja Treaty of 1991 in 44 of 54 African countries, important exceptions being South Africa and Morocco (Schlumberger, 2010[1]).

28. It should be noted that full implementation of the Yamoussoukro Decision forms one element of the Priority Action Plan (PAP) for transport within the PIDA strategic plan. In practice, however, implementation of the Decision has only been partial, and the various supra-national oversight bodies envisaged have not been established.

29. Africa has a poor aviation safety record, with a higher accident rate than other world regions and a rate of hull loss over 10 times higher than in Europe[2]. Of those African countries rated by the FAA IASA programme allowing direct flights to the US, only four (Egypt, Ethiopia, Nigeria and South Africa) are currently certified as reaching the required standard. The European Union bans airlines which it considers to be unsafe including, in the case of 15 African states[3], all airlines certified in that country. Therefore, improving aviation safety in Africa is of paramount importance and is listed as the first priority in the AICD report. In this context it should be noted that creation of a common framework for air navigation across the continent (the Single African Sky) forms an element of the PIDA PAP.

Past PPP Projects

30. Most air transport infrastructure in Africa remains in public ownership, but there have been a significant number of successful attempts to involve the private sector. Three generic types of infrastructure can be considered: airports, airlines and air navigation services.

31. For airport assets, PPP projects divide into a number of categories:

- Greenfield airport development;
- Existing airport airfield enhancements or refurbishments;
- Existing airport terminal expansion or refurbishment;
- Cargo facilities; and
- Management contract for operation of an existing facility.

32. The scale of investment in each of these categories varies, but in general will be highest for a greenfield airport and lowest for a management contract, which may

[1] Charles E. Schlumberger, Open Skies for Africa: Implementing the Yamoussoukro Decision, World Bank, 2010

[2] 2006 Safety Report, IATA

[3] Angola, Benin, Congo (Rep), Congo (DR), Djibouti, Equatorial Guinea, Liberia, Gabon, Mauritania, Mozambique, Sao Tome & Principe, Sierra Leone, Sudan, Swaziland and Zambia – source EU.

involve no capital investment from the private sector. It is of course possible for a project's contractual structure to involve more than one category at once.

33. There have not been any historical PPPs in Africa relating to Air Navigation Services, although in principle these services do generate revenues and could be operated as PPPs. ASECNA, which covers most of French-speaking West and Central Africa could be a candidate, but currently works successfully in the public sector (and has received funding from European Investment Bank (EIB)).

34. There are several examples of private sector involvement in African airlines, and indeed there are a growing number of fully private airlines. Where state-owned airlines have brought in the private sector, this has generally been in two ways:

- Involvement of a foreign airline as shareholder and operational partner; and
- Support for funding for the purchase or financial lease of aircraft.

35. The most important example of foreign airlines investing in an African airline was KLM's investment in Kenya Airways in 1995, receiving a 26% share for $26m. Kenya Airways has developed into one of the most successful airlines in Africa consistently profitable at the operating level and growing at an annual rate of 8% p.a. in passenger numbers between 2001/02 and 2010/11[4].

36. IFIs or similar organisations have also supported airlines through providing funding for aircraft purchase / leases. Two examples are the acquisition of Boeing 777 aircraft for Kenya Airways, supported by IFC, and for Ethiopian Airlines by AfDB and the Emerging Africa Infrastructure.

37. There have been a small number of greenfield airport developments across the continent. These include Enfidha Airport in Tunisia, Durban Airport (DUBE) in South Africa and the new Dakar Airport in Senegal, currently under construction.

38. A concession was established at Abidjan Airport, Côte d'Ivoire in 1996 for a period of 15 years, following a process started in 1994; the concession was renewed for a further 20 years in 2010.

39. Lagos Airport Domestic Airport (MMA2) was let as a concession in 2007 to Nigerian construction company Bi-Courtney, following destruction of the original terminal in a fire.

40. The cargo facilities at Nairobi airport have been developed by the private sector. The original concession was let in 1998, but subsequently additional concessions providing more capacity were also let to other operators. In each case the private operator developed the transit shed facilities in return for a concession fee.

41. Several airports in Egypt are operated as Management Contracts where the airport is managed on behalf of the owner for a fee, without a requirement for significant capital investment from the operator. This includes both Cairo and Luxor airports.

Lessons learned from past PPP projects

42. One of the clear features of the African air transport market is its relatively small size, outside a few key markets (South Africa, Egypt, Nigeria, Morocco, Kenya,

[4] http://www.kenya-airways.com/uploadedFiles/Global/About_Kenya_Airways/Investor_Information/Financial_Reports/2010-2011%20Full%20Year%20Investors%20presentation.pdf

Algeria, Tunisia and Ethiopia), in contrast to the situation in other parts of the world such as Europe, where the airports involved tend to larger. The appropriate size for private sector participation depends on the nature of the project. For a greenfield airport, with costs of the order of $500m, an annual throughput of at least 3 mppa is likely to be required to allow the private sector to fully finance the project. However, as already noted, Africa does not in general suffer from a lack of absolute airport capacity (which might require new airports to be built), but rather from poor quality infrastructure and often undersized terminal facilities. Projects that involve refurbishment of the airfield and/or terminal expansion are likely to require investments of the order of $50m to $200m which can be economic in a much smaller airport. The range of economic size need to support this investment may vary between 0.5 and 1 mppa, which brings a much larger number of airports into the frame.

43. Despite these opportunities, it is clear that there have been many difficulties in achieving the level of private sector participation that many consider desirable. While the issues of the necessary minimum scale for economic efficiency is important, many stakeholders have identified that the biggest problem actually lies on the public sector side.

44. In the first place, it is impossible for a PPP arrangement to be established for important national infrastructure such as airports without the enthusiastic support of the government of the country concerned. However, in many cases, governments are either opposed or only partially supportive of PPPs, fearing a loss of control over an important national asset or simply the loss of the relatively secure revenue streams provided by airports. Even where governments do support the PPP concept, it is often the case that they have highly unrealistic expectations of the balance of risk and reward that the private sector will accept, making it hard to deliver the project.

45. In addition to governments' approach to PPPs in general, certain issues specific to aviation can make it harder for successful private sector involvement to be achieved. In particular, while there is broad support for liberalisation of market access through the Yamoussoukro Decision, in practice, as noted by a number of stakeholders, "open skies is not a reality" with full implementation not achieved, or only partially achieved, across the continent. Furthermore, many governments are keen to promote and protect a national airline, often a reason for restricting market access to other carriers. For these reasons, the market for aviation is restricted below its natural level, as evidenced by the relatively high level of fares across the continent. In contrast, it is reasonable to suppose that improved implementation of the Yamoussoukro Decision would be likely to lead to lower costs for customers through reduced air fares brought about by increasing airline competition.

46. Going beyond the aviation-specific factors, there are a number of "institutional" factors that need to be in place to ensure that a successful PPP can be established. These include:

- A suitable legal framework such as explicit PPP-enabling legislation;
- Appropriate and credible regulatory institutions covering issues such as safety and airport charges; and

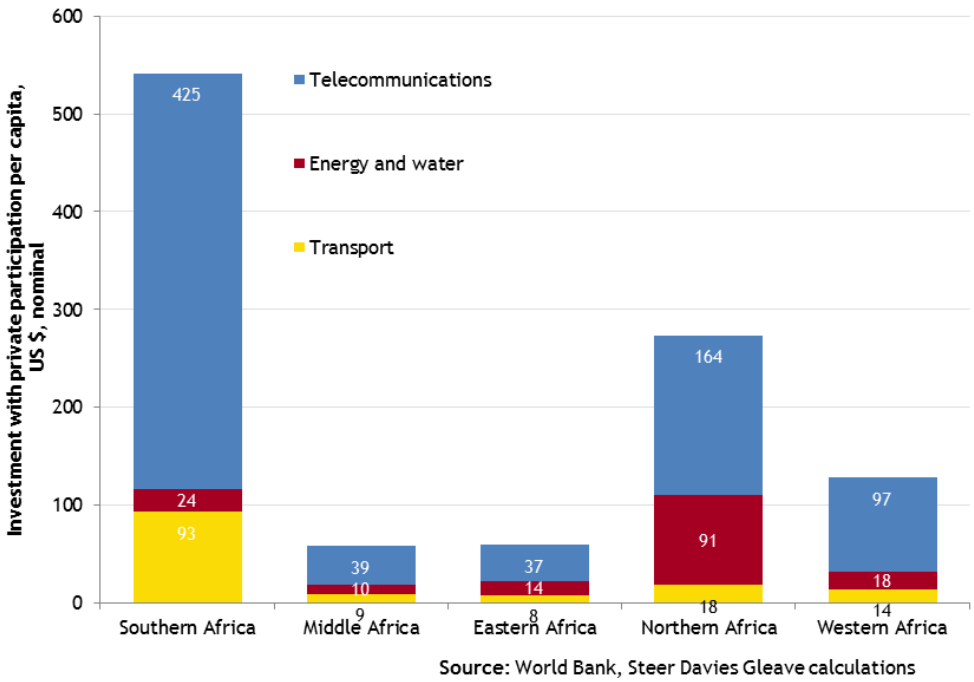
- A transparent procurement process (the involvement of IFIs in the process often adds credibility to this).

47. It follows from this analysis that the interventions which IFIs can make to enhance private sector participation are not limited to the provision of financial support: Technical assistance, particularly in the form of capacity building for the public sector, can be equally, if not more, important. Stakeholders emphasised the need for a "package" of supporting interventions, from the early stages of a project through to financial close and post-implementation monitoring. The combination of "softer" approaches including capacity building with "harder" approaches including financial assistance, was most likely to lead to success, both in terms of encouraging private sector participation and of improving air connectivity, thereby benefiting the wider economy.

Investment climate in Africa

48. Over the last two decades, more than $150bn of investment involving private participation has been undertaken on the African continent, of which around $17bn has been in transport infrastructure. Approximately one third of transport investment has taken place in southern Africa, even though it accounts for only 5% of the continent's population, with Western and Northern Africa accounting for the bulk of the remainder. Figure 3 displays total investment with private participation per head from 1990 to 2009 across the regions.

FIGURE 3 CUMULATIVE INVESTMENT WITH PRIVATE PARTICIPATION PER CAPITA, 1990-2009



Source: World Bank, Steer Davies Gleave calculations

49. On a Purchasing Power Parity basis, Gross National Income (GNI)[5] per capita in Africa was around $3,000 in 2010, roughly a quarter of the world average. This conceals significant income variations within the continent. In 2010 for example, Southern Africa (using United Nations definitions) had GNI per capita more than eight times that of Eastern Africa. Economic growth has been strong however, with every region except Southern Africa outpacing world growth between 2000 and 2010 in percentage terms. Several countries including Sierra Leone, Ethiopia, Mozambique, Angola and Equatorial Guinea have shown very rapid economic growth, with GNI more than doubling between 2000 and 2010 (although this is in the context of very low base levels of wealth).

50. Credit agency ratings of sovereign debt provide a general indication of the perceptions of financial and economic risk in a country. A review of the ratings from the three major rating agencies; Moody's, Fitch and Standard and Poor, reveals that only 22 of the possible 53 countries have ratings, with most of these ranked B to BBB. The most secure is Botswana with an A- ranking. Most countries have a "stable" outlook, with the exception of Egypt, Senegal and Tunisia, which each have a negative outlook meaning their rating could be downgraded in future.

Key influences on the availability of finance in African countries

51. During the study, we interviewed a number of stakeholders about the key influences and constraints on the availability of finance and its influence on implementing Public Private Partnerships in African Countries. This section describes the key points that were made during these conversations and goes on to outline some suggestions for addressing or mitigating these issues:

- Short length of Credit default SWAP and Forward Foreign Exchange markets (typically 4-5 years).
- Weakness of the local banking industry (except in South Africa, Nigeria, and Egypt).
- Sovereign investment, especially by China, at non-commercial rates.
- Level of equity return required due to high risk up to 30% p.a.).
- Not a market for the generalist due to complexities of risk.

52. Options to address some of these issues include:

- Stapled finance, arranged or supported by ICA members;
- Establish track record in transport sector development programmes with ICA members' support.
- IFIs involved in the early stage of the bid preparation.
- Specialist investors in Africa.
- Government involvement to reduce private sector risk.
- Up-front financing to reduce early-stage risk of projects (as provided, for example, by PIDG Fund InfraCo Africa).

[5] We use GNI for this comparison as it is a reflection of the values of products and services based on citizenship of owners rather than the territory of the activity. It does not reflect on the profits of foreign organisations investing in a country. It is a reflection of the wealth produced by its citizens rather than foreign investors.

53. These potential options for mitigating the constraints facing private investment in African infrastructure can be used to influence the type of intervention by ICA members appropriate for each of the key projects examined later in the report.

54. A number of factors influence the investment climate in each African country. These include:

- Political stability and the absence of corruptions (indicators from World Governance Indicators);
- Governance (based on the Ibrahim Index of African Governance);
- The presence of a PPP Unit in the country; and
- The country's track record (as demonstrated, for example, by the number of World Bank PPI projects in the transport sector).

55. An assessment of these factors have been incorporated into the project evaluation methodology, described below, in relation to the country-specific risk, sector-specific institutional capability and PPP track record factors

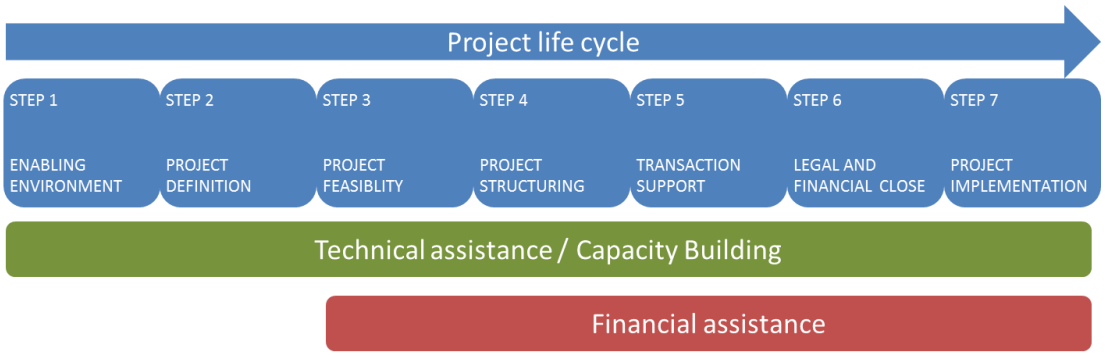
Evaluation Framework

56. We have developed an objective, independent project evaluation framework for our long list of projects, with both ports and airports projects assessed using the same framework. During our review of the literature and discussions with stakeholders we identified a broad range of projects which cover all stages of the project life cycle from concept through feasibility to implementation. Whilst some projects are ready for intervention through provision of project finance in a 1 to 3 year time horizon, others were still in pre-feasibility stages and a number of good opportunities still in a concept phase were identified.

57. To assist in defining the assessment, we reviewed the range of instruments that the ICA members have available to assist projects throughout their life cycle:

- In the formation stages, the assistance provided would most likely be technical assistance in areas such as institutional reform, safety and security support, and advice to facilitate private sector participation. Technical support may also extend throughout the project as transaction support.
- Financial support is most appropriate for projects entering into the middle stages of their life cycle (i.e. from feasibility stage onwards). Financial support could be in the form of grants, debt, equity, interest rate subsidies, and insurance guarantees, and could be provided to either private or public sector entities, or both.

FIGURE 4 ICA MEMBERS' ASSISTANCE OPTIONS THROUGHOUT THE PROJECT LIFE CYCLE



58. The evaluation framework has been developed with these features in mind, namely that:

- Projects will be at different stages in their life cycle; and
- The assistance that the ICA members provide could be of either a technical or financial nature (or both).

Assessment criteria and scoring mechanism

59. Our methodology for project assessment scores projects against four categories:

- Desirability of the project;
- Scope for (an IFI-assisted) PPP;
- Project status;
- Institutional capacity.

60. Each of these categories is broken down into more specific criteria (e.g. project status includes, *inter alia*, readiness for assistance and the existence of a viable financial structure).

TABLE 2 PROJECT ASSESSMENT CRITERIA

Assessment category	Assessment criteria
A. Desirability	A1. Size of the relevant market
	A2. Urgency of need
	A3. Additional capacity provided by project
	A4. Improved service quality provided by project
	A5. Social/ developmental benefits
	A6. Regional benefits
	A7. Competition/ regulatory benefits or constraints
B. Scope for an IFI-assisted PPP	B1. Operational benefits from private sector involvement
	B2. Financial benefits from private sector involvement
	B3. Government commitment to PPPs

Assessment category	Assessment criteria
	B4. Need/ scope for IFI technical assistance
	B5. Need/ scope for IFI financial assistance
C. Project status	C1. Readiness for technical or financial assistance
	C2. Viable financial structure in place
	C3. Technical soundness
	C4. Complementary projects in place
D. Institutional capacity	D1. Country specific risk
	D2. Relevant authorities' capability
	D3. Procurement procedures
	D4. PPP track record

61. The project evaluation phase allows for a general assessment of projects against each of the categories, to ensure that projects with good potential for ICA members' intervention are moved forward into the shortlist. The evaluation is designed to produce a mix of projects at different stages of their life cycle, and with different investment needs, on the project short list. Two balancing criteria have been borne in mind when deciding upon the recommended list of projects for ICA members' intervention, namely:

- Regional spread; and
- A spread of different types of intervention ranging from Technical Assistance to financial lending or equity provision to the project.

62. For each of the detailed criteria within the four categories we have used a scoring mechanism, with scores of between 1 (low) and 5 (high) assessed against a standard requirement, which are then combined to give an overall score for each of the four categories. Given the level of information available it is not possible to derive a purely mechanical and "objective" project assessment methodology. However, for each criterion we have developed a set of decision rules which have been applied consistently across the set of projects to give a reasonable spread of scores. We present our analysis with each scoring category equally weighted at 25% of the total. To allow different stakeholders and readers to apply their own weightings to the categories, the weightings for each of the categories can be adjusted.

Ports Project Evaluation

63. We developed the shortlist of ports projects in two stages. Firstly, a "long list" of 43 projects was identified. Of the 43 projects evaluated, 6 are multi-berth modernisations/expansions of existing ports, 16 involve the construction of entirely new ports, 10 are container terminals, 8 are berths for the export of coal, iron ore or other minerals, 1 is a tanker berth, and 2 are industrial berths linked to

new manufacturing plants (methanol/urea and cement). The long list of ports projects is provided in Table 3.

TABLE 3 PORTS PROJECTS LONG LIST

Project no.	Project name	Country
P1A	Algiers - Ténès, new port	Algeria
P1B	Cap Djinet new port	Algeria
P2	Oran container terminal	Algeria
P3	Barra do Dande new port	Angola
P4	Lobito modernisation & expansion	Angola
P5	Namibe, iron ore + container berth	Angola
P6	Caio, new port	Angola
P7	Seme-Kpodji new port	Benin
P8A	Kribi, new port	Cameroon
P8B	Kribi, iron ore jetty	Cameroon
P9	Banana, new port	DR Congo
P10	Ile de Boulay new port	Cote d'Ivoire
P11A	San Pedro container terminal	Cote d'Ivoire
P11B	San Pedro ore terminal	Cote d'Ivoire
P11C	San Pedro mineral jetty	Cote d'Ivoire
P12	Mayumba, new port	Gabon
P13	Tema container terminal	Ghana
P14A	Takoradi mineral berths	Ghana
P14B	Takoradi container terminal	Ghana
P15	Matakang Is. iron ore jetty	Guinea
P16	Bissau port rehabilitation	Guinea-Bissau
P17	Buba bauxite terminal	Guinea-Bissau
P18	Mombasa container terminal (Phases 2&3)	Kenya
P19	Lamu new port	Kenya
P20	Noukchott container terminal	Mauritania
P21	Casablanca container terminal 3	Morocco
P22	Mohammedia container terminal	Morocco
P23	Maputo port modernisation/ expansion	Mozambique
P24A	Nacala container terminal	Mozambique
P24B	Nacala coal terminal	Mozambique
P25	Beira and/or Chinde coal terminal(s)	Mozambique
P26	Beira rehabilitation & expansion	Mozambique
P27	Walvis Bay tanker berth	Namibia
P28A	Lekki, new port + FTZ	Nigeria
P28B	Badagry, new port	Nigeria
P28C	Olokola, new port + FTZ	Nigeria
P29	Koko, new port + FTZ	Nigeria

Project no.	Project name	Country
P30	Mwambani Bay new port	Tanzania
P31A	Dar es Salaam 2nd container terminal	Tanzania
P31B	Dar es Salaam modernisation	Tanzania
P32A	Mtwara methanol/ urea berth(s)	Tanzania
P32B	Mtwara cement berth	Tanzania
P33	Enfidha new port	Tunisia

64. Each project was evaluated against the criteria in the evaluation framework as well as other criteria such as the need for geographical balance, project diversity, a mixture of "ready to go" and longer-term projects, and opportunities for technical as well as financial assistance has led to the short-listing of the following seven projects:

- **Maputo port modernisation (Mozambique)**. This involves the reconstruction of an existing multi-purpose quay to create a series of specialist terminals for ferro-chrome, sugar, other dry bulks (granite, grain, sulphur, fertilizer, clinker, iron ore and copper concentrates), cars and general cargo. The quay would also be deepened to accept larger ships.
- **Mtwara methanol/urea berths (Tanzania)**. The proposal is to develop petrochemical and fertilizer export industries close to local gas supplies, to be followed by corridor development from the port to inland coal and iron ore resources which would also improve access to Malawi. This project is dependent on Tanzanian government decisions on the use of existing gas supplies and the outcome of further gas exploration drilling.
- **Noukchott container terminal (Mauritania)**. This project is required because the existing container berth has limited capacity and is very inefficient, with the stacking area located 1.5km from the berth. Container traffic is still small (84,000 TEU in 2010) but growing quickly.
- **Dar es Salaam container terminal (Tanzania)**. The existing container terminal – one of Africa's first port PPPs – is severely congested and the port authority is seeking Chinese funding for the construction of new terminal infrastructure, with the private operator – to be selected by competitive tendering - required to fund the superstructure and equipment.
- **Mozambique coal terminals**. Mozambique looks set to become a world-class coal producer, accounting for perhaps 5-10% of future world exports. However it lacks suitable port facilities, and the associated rail (or barge) capacity needed to bring the coal to the ports. Several world-class mining companies have put forward integrated main/rail/port projects, but these need to be carefully coordinated. Legal changes are also needed to protect private investors and maximise local benefits from their investments. The government lacks the capacity to do this, resulting in the need for a technical assistance programme which could then be rolled out to a several countries in West Africa which face very similar problems.
- **New industrial port in Algeria**. In 2008 the Algerian conglomerate Cevital proposed the construction of a new port and industrial zone at Cap Djinet, 60km east of Algiers to serve its car import business and other industrial opportunities linked to the availability of low cost gas. The project did not proceed, but a

similar project for a new port to the west of Algiers is currently under investigation.

- **New deepwater port near Lagos (Nigeria)**. This project is intended to relieve serious port congestion in Lagos, provide more modern facilities with deeper water, and attract new industrial investment to the associated Free Trade Zone. Three private sector projects have been put forward, of which Lekki and Olokola look the most promising.

65. The shortlisted ports projects, along with the shortlisted airports projects, are mapped in Figure 5 below.

Air Transport Projects Evaluation

We developed the shortlist of ports projects in two stages. Firstly, a "long list" of 23 projects was identified. These include greenfield airport developments airport terminal and airfield enhancements, air navigations services enhancements and cargo facilities across the continent. The long list of airports projects is provided in Table 4.

TABLE 4 AIRPORTS PROJECTS LONG LIST

Project no.	Project name	Country
A1	Ouagadougou	Burkina Faso
A2	Yaoundé	Cameroon
A3	Douala	Cameroon
A4	Bangui	Central African Republic
A5	Kinshasa	Democratic Republic of the Congo
A6	Addis Ababa	Ethiopia
A7	Libreville	Gabon
A8	Accra	Ghana
A9	Kumasi	Ghana
A10	Nairobi	Kenya
A11	Bamako	Mali
A12	Fez	Morocco
A13	Lagos International (LOS)	Nigeria
A14	Abuja	Nigeria
A15	Lekki-Epe (Lagos)	Nigeria
A16	Bugesera, Kigali	Rwanda
A17	Dakar	Senegal
A18	Dar Es Salaam	Tanzania
A19	Kilimanjaro	Tanzania
A20	Zanzibar	Tanzania
A21	Lomé	Togo
A22	Entebbe / Kampala	Uganda
A23	Lusaka	Zambia

66. The long list of air transport projects were then assessed using the evaluation framework. Taking account of the scores from the evaluation, as well as other broader criteria, has led to a short-list of eight projects, as follows:

- **Lagos International (LOS), Nigeria.** Lagos airport is the largest airport in West Africa by a significant margin, with over six million passengers in 2010, and serves the largest and most economically important city in the region. There is a clear and urgent need to improve the quality of the operation at the international terminal to help support the Nigerian economy. The airport would form a natural hub if well organised and with good facilities which it currently lacks.
- **Lekki-Epe (Lagos), Nigeria.** The Lagos State government is promoting a greenfield airport at Lekki, on the peninsula to the east of Lagos Island, the commercial centre of Lagos. The proposed airport would be easier to reach than the current airport being located relatively conveniently for the business district. As a greenfield airport it would provide high quality facilities. The procurement process is already underway with expressions of interest received and the pre-qualification stage begun.
- **Accra, Ghana.** Ghana's principal airport, Kotoka International Airport in Accra, served 1.3m passengers in 2008 and is one of the key airports in West Africa. The airport terminals are generally of poor quality and the airport operator wishes to improve and expand the facilities, highlighting the increasing demand. Although unable to rival Lagos in size, Accra is well located to provide a function as a secondary hub in the region.
- **Fez, Morocco.** This project would deliver a new two-storey terminal building, allowing airport expansion by increasing capacity at the airport from 0.5 to 3 million passengers per year. The project, with an estimated cost of $71m, represents a relatively low risk PPP, and already has IFI involvement (AfDB).
- **Dar es Salaam, Tanzania**. The Tanzanian authorities are seeking funding to support a third terminal at Dar es Salaam airport to increase capacity from the current level of 1.5 million to 8 million passengers. The airport is important in the region, and though unlikely to be able to rival neighbouring Nairobi in size, has the potential to provide regional competition.
- **Entebbe / Kampala, Uganda**. Entebbe is a medium sized airport in the East African region and is currently suffering from congestion issues. There are plans to expand the passenger terminal, increase the size of the apron area and allow the construction of modern cargo facilities.
- **Bugesera, Kigali, Rwanda.** The Rwandan government is promoting a new airport at Bugesera, 25km to the south of Kigali, to replace the existing airport. In order to have the ability to increase the capacity for and range of services the government has sponsored the new airport project, which would provide for an unconstrained runway and modern facilities. It is anticipated that IFI support may be needed.
- **Lusaka, Zambia**. The Zambian government is considering a PPP to help deliver the construction of a new international terminal and refurbish the existing terminal, at a cost of $200m. The airport, which served over 800,000 passengers in 2008 is well-located to act as a secondary hub and is of a sufficient size to facilitate private sector participation, although both technical and financial support are likely to be necessary.

Shortlisted ports and airports projects

67. The shortlisted ports and airports projects are mapped in Figure 5.

FIGURE 5 SHORTLISTED PORTS AND AIRPORTS PROJECTS

1 Introduction and Project Overview

1.1 This Final report is the project deliverable from the Steer Davies Gleave consultant team for the study to assess the potential for enhanced private participation in the maritime and air transport sectors in Africa.

1.2 This report builds on our inception and draft final reports, taking into account progress made against the project tasks as well as the points raised in the kick-off meeting and subsequent discussions with the Infrastructure Consortium for Africa (ICA) Secretariat, African Development Bank (AfDB) and European Investment Bank (EIB), as well as comments from stakeholders and the discussion at the meeting hosted by EIB in Brussels on 25 April 2012.

1.3 The rest of this document is structured as follows:

- **Chapter 2:** describes the context and our approach to the study;
- **Chapters 3 & 4:** provide key issues and learning points from the ports and air transport sectors respectively;
- **Chapter 5**: outlines the investment climate in Africa;
- **Chapter 6**: presents our evaluation framework;
- **Chapter 7 & 8**: applies our evaluation framework to the long list of projects to develop the shortlists, for the ports and air transport sectors respectively; and
- **Chapter 9**: provides our conclusions.

1.4 We also provide five supporting appendices:

- **Appendix A:** List of stakeholders interviewed;
- **Appendix B:** Case Studies of past PPPs for ports and airports;
- **Appendix C:** Bibliography;
- **Appendix D:** Ports long list assessment; and
- **Appendix E:** Air transport infrastructure long list assessment.

Project milestones and timing

1.5 The project commenced on 8 November 2011 with a contractual duration of six months, i.e. to 8 May 2012. The Draft Final Report was submitted on 12 March 2012 and a workshop in Brussels took place on 25 April, hosted by the European Investment Bank. The Final Report was submitted on 8 May 2012, with the final workshop, hosted by ICA, scheduled to take place in Tunis on 11 June 2012.

2 Overview and Stakeholder Consultation

Introduction

2.1 This section provides an overview of the sponsor and purpose of this study, before describing an overview of our approach.

The Infrastructure Consortium for Africa

2.2 The members of the Infrastructure Consortium for Africa (ICA), established in 2005, seek to improve the lives of people across the African Continent through support to facilitate sustainable investment for infrastructure development from both public and private sources. The ICA members are supported by a secretariat hosted by the African Development Bank.

2.3 ICA bilateral members include the G8 countries (Canada, France, Germany, Italy, Japan, Russia, the United States, and the United Kingdom) and multilateral institutions such as the African Development Bank Group, the European Commission, the European Investment Bank, the Development Bank of Southern Africa and the World Bank Group.

This study

2.4 As a part of the ICA members' Transport Sector Platform (TSP), this study has been procured to assess the potential for enhanced private participation in the maritime and air transport sectors in Africa. The study aims to identify a long list of potential projects in the ports and airports sector where intervention by ICA members might be needed. Following evaluation the project is then required to shortlist these project and identify a handful to be recommended for targeted intervention by ICA members.

2.5 There has been comparatively modest private sector involvement in the maritime transport sector in Africa, and very little in the air transport sector. Investment in telecommunications and power generation and distribution has been more significant, with over 90% of African countries having multiple licensed mobile operators and $2.5 billion invested in power generation alone. By comparison less than $0.1 billion has been invested in four airport concessions and $1.3 billion has been invested in 26 container terminal concessions[6]. The study is aimed at ports as the important terminal nodes of key regional corridors and airports with regional hub potential.

2.6 The overall objective of this study is the identification of targeted interventions which would facilitate private participation in key ports and airports across the African Continent. These interventions are nominated for a small number of projects where they have been identified as being most effective, and can range from technical assistance/ institutional building to provision of funding or financial support.

[6] *Africa's Infrastructure: A time for transformation*, 2010, The International Bank for Reconstruction and Development / The World Bank. Timeframe from early 1990's to 2008/09. Scope of report does not include North African countries

Scope of PPPs covered by the study

2.7 Public Private Participation embodies a partnership between the public (Government) sector and Private sector. The PPP definition covers a wide range of possible contractual models from outright sale (privatisation of an asset or company), through to a management contract, where the Public Government sector specifies the requirements of a contract and the private sector operates the management contract. In between these extremes are a variety of concession agreements including building of new infrastructure and operation of this infrastructure.

2.8 The scope of this study covers all contracts, but not outright sale (privatisation) of the asset or company (of which there are very few examples in Africa).

What can Public Private Partnerships in the ports and airports sector achieve?

2.9 Transport is an important facilitator for the movement of goods and people. Its provision, relative efficiency and connectivity to key destinations can have a significant impact on the relative competitiveness of a country's or region's economy.

2.10 The introduction of private finance and private sector participation can:

- Improve the delivery, operational efficiency and service quality of transport infrastructure;
- Enable the build of new transport infrastructure (which otherwise would not be built);
- Enable the long term maintenance and renewal of transport infrastructure through contractual mechanisms (which otherwise would be subject to government budgetary pressure, which has the potential to limit activity).

The interventions available to the ICA members

2.11 Across the members of the ICA, there are a wide range of potential forms of intervention available, including:

- **Technical Assistance**: providing assistance to Countries or Regions to address barriers to reform of sectors – including institutional reform, safety and security support in the aviation sector, and advice to facilitating private sector participation (EIB, AfDB, World Bank (IFC)).
- **Grants:** available to finance components of projects which would produce social or environmental benefits.
- **Debt:** usually provided at commercial rates and requiring security. AfDB provide lead arranger and syndication facilities for senior and junior debt, available on a variety of terms and fixed and variable interest rates. Often limitations on the proportion of the project a single provider can cover, e.g. maximum 50% of funding provided by EIB.
- **Interest rate subsidies and holidays:** providing for flexibility to the lender to reduce the amount payable or temporary reprieve in the difficult early stages of the project.
- **Equity:** provision of equity and quasi-equity available for specific types of project.
- **Insurance guarantees:** For example through the World Bank's MIGA, this provides insurance for political and other risks that would not be provided at an affordable rate by the private sector. Insurance premia for early-stage project risk from the EIB.

2.12 The interventions often work alongside private sector investors who invest through either a provision of equity or debt. The ICA member multilateral organisations often work in syndications with these private sector investors. Therefore, we expect the study to

provide useful information on emerging project in the ports and airports sector for all these investors.

Our approach to the study

2.13 Our study involved an extensive programme of review of the available literature and stakeholder consultation.

Documentation review

2.14 We built up a bibliography at the start of the project, this was extended through discussions with ICA members and other stakeholders during the course of the study. Also, a number of reports were published or made available throughout the course of the study. The reports reviewed include the recent Programme for Infrastructure Development in Africa (PIDA) Phase II and Phase III reports relating to transport, produced on behalf of the African Union (AU), African Development Bank (AfDB) and the New Partnership for Africa's Development (NEPAD), which developed a strategic framework for transport development across the continent.

2.15 A full Bibliography of the source documents used throughout this study is provided as Appendix C.

Stakeholder consultation

2.16 We undertook an extensive stakeholder consultation with a variety of interested stakeholders. The stakeholders were suggested by the project team and augmented by the ICA Steering Group, and additional suggestions were made during the course of the interview programme.

2.17 In each case an introductory email and telephone contact was made inviting participation in the study. If this was agreed a draft agenda of key themes for the discussion was shared with the stakeholder. Most of the interviews took place by telephone with a smaller number on a face to face basis.

2.18 The full list of stakeholders interviewed is provided in Appendix A.

Working with the ICA Steering Group

2.19 Throughout the work programme we have provided regular updates of progress, identifying key issues arising with the ICA Steering Group (members from the ICA, African Development Bank and European Investment Bank). This has taken the form of regular weekly progress reports and when issues have arisen working teleconferences have been used to review and, where possible, resolve issues.

3 Ports – Key Learning Points

Introduction

3.1 Over the last 20 years there has been a general move, in Africa and elsewhere, from public sector service ports to landlord ports in which the public sector is responsible for the overall planning of the port and the provision of common infrastructure and services, whilst private companies invest in terminals and port services such as stevedoring and towage.

3.2 The move towards landlord port structures substantially improved opportunities for private investment, focusing it on the most profitable areas of port operations and allowing terminal concessions to be designed and priced so that they are financially viable. Although the political risks to private investors have often been high, they have been offset by high rewards and relatively low commercial risks.

3.3 The next wave of port investments is likely to be less attractive, as it will be dominated by:

- New ports whose institutional structures are still to be developed;
- Container terminals in smaller ports like Takoradi and San Pedro where start-up traffic volumes are low;
- Second container terminals in the larger ports which will face price competition from existing operators;
- Bulk export terminals which form part of complex and extremely expensive mine-rail-port projects, sensitive to variations in international commodity prices;
- Redevelopment of multi-purpose/general cargo terminals with lower financial returns. The lower economic growth economic climate is also causing private investors to focus on lower cost/lower risk investments like berth conversions rather than large greenfield projects

3.4 This section pulls together the findings of the literature review, case studies of ten past PPP projects, and interviews with African terminal operators. Its objective is to document common success factors in past PPP projects, and identify the main obstacles to further private investment in ports in Africa.

Market background and legal framework

3.5 Most African ports are fairly small by world standards, characterised by relatively shallow water depths, low levels of automation, limited separation of different types of cargoes, and layouts designed for the handling of break-bulk cargoes rather than containers. Most are also located in the middle of busy cities, with high land values and significant levels of traffic congestion.

3.6 Container volumes are still low. The total amount of container traffic handled by African ports just under 22m TEU (twenty foot equivalent units), of which around 7m TEU is transhipment traffic for other countries moving through ports in Egypt, Morocco, Djibouti and South Africa. Domestic container traffic (excluding trans-shipment) is only around 15 TEU per 1,000 population, compared with 50-100 TEU in SE Asia and 100-200 TEU in Europe.

3.7 Most African countries generated between 250-750,000 TEU of container traffic in 2010. Only three – Egypt, South Africa and Nigeria –had domestic traffic volumes of more than 1.0m TEU pa, whilst ten countries produced less than 100,000 TEU. However high GDP growth (5-7% p.a. in many countries) is resulting in sustained double digit growth of container traffic in many ports.

3.8 Africa is also benefiting from high levels of demand for oil & gas and minerals exports. High world prices have led to the discovery of large new reserves of coal, iron ore, bauxite and copper concentrates, although many lie well inland, and require large investments in railways to enable them to be exploited.

Legal and institutional framework

3.9 The pace of port reform in Africa has been uneven. Figure 4.1 overleaf summarises the attractiveness to private investors of the existing organisational structures, legislation and port policies. It also indicates whether there is a formal planning framework in place which can be used to evaluate private investment opportunities, and shows each country's past level of experience with port PPP projects.

3.10 The main conclusions to be drawn from Figure 3.1 are that:

- the countries which have made the most progress towards developing an enabling environment for private investment in ports are Algeria, Egypt, Gabon, Mozambique and Nigeria;
- the countries which still operate public sector service ports with no private investment are DR Congo, Gambia, Mauretania and Sudan;
- the majority of African countries lie between these two extremes. They have begun to introduce private investment very selectively, usually in container terminals or captive user dry bulk facilities, but still use public sector organisations for handling other types of cargo. The legal changes required to support PPPs are not always as comprehensive as private investors might wish, and very few ports in Africa have a satisfactory regulatory framework or access to experienced multi-sector regulators; and
- there is still a lot of work to be done to convert most countries' ports to full "landlord port authority" status, and this process will generate a substantial number of new opportunities for private investment.

Organisational structure

3.11 Organisational structures which encourage private investment include landlord port authorities, successful joint venture arrangements, the concessioning of smaller ports as complete entities, and the decentralisation of authority from Government Ministries to autonomous ports with a strong commercial culture.

3.12 Port structures which discourage private investors include tight control by central government, with exposure to bureaucracy, corruption or political interference, and pure public sector service ports.

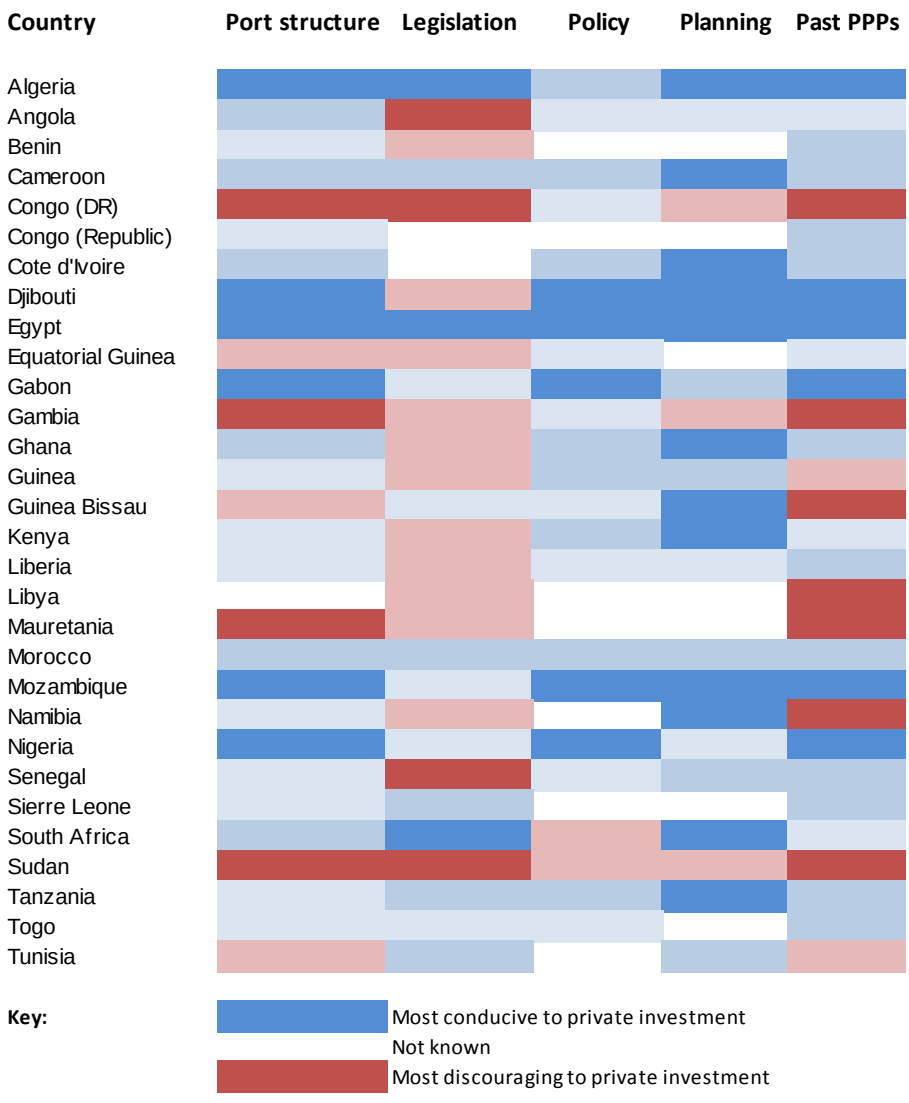
3.13 "Neutral" port structures include those which are physically suitable for sub-division into terminals but where conversion to a landlord port structure has not yet taken place, and those with a long tradition of private stevedoring.

3.14 There are relatively few examples of "pure" landlord port structures, as most African ports acts as landlords for one or two private terminals, whilst continuing to provide marine services and other cargo handling services themselves. The greatest progress

towards landlord port structures has been made in Egypt and Nigeria, although even here the transition process is still far from complete.

3.15 Although concessioning of terminals within a public sector landlord port is the most common way of introducing private investment, it is by no means the only one. Joint-venture PPP models have been used reasonably successfully in Algeria and Mozambique where the national railway CFM acts as the public sector partner. At Maputo there is a private "master concession" for normal port authority functions and a series of sub-concessions for individual private terminals; Dakar and Djibouti appear to be moving towards a similar model. Several countries have also concessioned whole ports, although these have usually been relatively small.

FIGURE 3.1 ATTRACTIVENESS OF INSTITUTONAL FRAMEWORK



Source: Ocean Shipping Consultants *Beyond the Bottlenecks: Ports in Africa*, AICD Working Paper No.8, 2009, updated by SDG on the basis of further research

Legislation

3.16 Ports legislation – where it exists – varies in the attention it pays to private investment in ports. It is most supportive of private investment in Algeria, Egypt and South Africa.

3.17 In Algeria Ordonnance 01.04.2001 established a separate agency for divestment and new private investment in ports (Sogeports). In Egypt the Marine Act 1998 allowed terminals and port services to be privatised whilst adhering to a landlord port structure. Public port operating companies continue to exist, but private companies are now allowed to compete. In South Africa the National Ports Act of 2005 sets out in detail the legal position of private investors in ports, and establishes an independent ports regulator.

3.18 Elsewhere – for example Morocco - port legislation may set up an enabling environment for private investment whilst stopping short of specific measures to make it happen.

Policy

3.19 The policy environment is becoming more favourable to private port investment in most African countries, in many cases running ahead of legislation and regulatory reform. Even countries such as DR Congo and Guinea Bissau are now beginning to consider private finance options for new projects.

3.20 Those which are still hesitant about private investment are mainly oil or mineral-rich countries such as Cameroon, DR Congo, Guinea, Sierra Leone and Sudan where Western private investment is competing head-on against Chinese funding.

3.21 South Africa has also been reluctant to engage with private investors as Transnet - which has separate divisions for port infrastructure and port services - is one of the most efficient public transport authorities in Africa, and has been able to raise large amounts of money in the commercial bond market. The Government is also very dependent on trade union support, which may explain why private investment has been permitted mainly in capital- intensive bulk terminals employing relatively little labour e.g. Richard's Bay Coal Terminal. In a significant policy change, the 2012 budget statement envisages a large role for private investment in future.

Planning

3.22 The existence of port Master Plans and port policy statements gives private investors some insight into how governments intend to develop their ports, for example the scope for expansion and the competition to be expected from rival terminal operators. The majority of African countries have port Master Plans of one form or another, although some are now in need of updating. However the majority are regarded as commercially confidential by the port authorities commissioning them, and are not accessible to private investors.

3.23 In the last 2-3 years there have been several studies for "corridor" development between the coast and the interior[7] which have produced recommendations on investment priorities. Whilst these have been of assistance to the donor community, there is little evidence that individual governments are willing to forgo investments in their own ports to support a better project elsewhere, despite of the efforts made by the PIDA study to achieve inter-governmental agreement on high priority projects of common interest.

[7] For example three studies by Nathan Inc
Definition and Investment Strategy for a Core Strategic Transport Network for Eastern and Southern Africa, 2011
Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, 2011
West Africa Transport Logistics Analysis Using FastPath : Tema-Ouagadougou Corridor, 2010 and
JICA *Preparatory Survey for Southern Africa Integrated Regional Transport Program,* 2010

Past PPP projects

3.24 Past PPP projects in African ports are documented in the World Bank PPIAF database. They are mainly public sector terminals which have been concessioned to private operators, plus a number of new BOT projects carried out by private investors within landlord ports. The World Bank database excludes some privately-owned terminals which have been built in association with oil & gas, mining, or industrial developments, on the grounds that they are purely private investments undertaken without public sector involvement. It also excludes some longer-established PPP projects in South Africa which were built before the database was set up.

Geographical spread.

3.25 The most comprehensive private investment programme has been in Nigeria, which in 2005/06 split its ports into 23 terminals and concessioned them for periods of 10-25 years. The privatisation process included container and dry bulk terminals, general cargo berths and small multi-purpose terminals in Eastern Nigeria which have subsequently been developed as oil supply bases.

3.26 In Nigeria private investors were selected mainly through transparent competitive tendering, although in some cases the existence of large captive users such as flour mills or cement plants led to negotiated transfers. The successful bidders were a mixture of foreign and local companies, in some cases working in partnership. This “one off” process, which was conducted under World Bank supervision, has generally been regarded as a success, and there is strong private sector interest in the next wave of new greenfield BOT projects in Nigeria.

3.27 The other four countries which have hosted multiple private sector investments in ports are Algeria, Egypt, Mozambique and Djibouti. Algeria’s first PPP project was a joint venture for container terminal development at Beijaia with Singapore-based equipment manufacturer Portek in 2005. This was followed by a JV with DP World in 2009 for the operation of existing facilities at Djazair (Algiers) and expansion of the port of DjenDjen.

3.28 Egypt has secured private investment in a variety of ways. Container terminals at Alexandria/El Dekheila and Damietta were concessioned by competitive tendering; development rights for the Suez Canal East container transhipment terminal, a successful greenfield BOT project, were assigned by negotiation after receiving proposals from a selected group of potential partners; and the El Sokhna “whole port” BOT project was triggered by an unsolicited bid. There have also been smaller, less well-publicised private investments in dry bulk and multi-purpose facilities.

3.29 Mozambique was one of the first African countries to seek out private investment for its ports, with the concessioning of Maputo container terminal to P&O Ports in 1996. This was followed by the concessioning of Beira port in 1998 to the Dutch company Cornelder which had been present in the port for many years; another small port (Quelimane) was concessioned to Cornelder in 2004. The master concession for Maputo – within which sit a number of specialist sub-concessions - was assigned to a consortium of international investors in 2003 after five years of negotiations, whilst the concession for the port of Nacala was assigned to an international consortium linked to the development of its rail connection in 2004.

3.30 The standard model in Mozambique of a JV between private investors and the national railway company (CFM) has not always produced the desired results, with the original

investors at Maputo and Nacala subsequently selling their stakes to companies whose other businesses were able to benefit from the development of the ports.

3.31 At Djibouti the overall development of the port is controlled by DP World under a 20 year management and investment agreement arrived at via inter-governmental discussions. Although DP World remains the main investor in the port, other companies are allowed to develop their own terminals, for example Djibouti Bulk Terminal and Horizon Terminals Ltd.

3.32 Most of the other PPP projects to date have been container terminals. These have been developed on a "one per country" basis, and concessioned quite recently.

Types of terminal

3.33 Container terminals form the largest single group of past PPP projects, followed by whole port concessions and dry bulk terminals. Although multi-purpose general cargo berths have attracted local investors in Nigeria, they have not been of great interest to international investors, and remain largely in public ownership.

TABLE 3.1 PRIVATE PORT PROJECTS BY TYPE

Type of concession	Nigeria	Other Africa	Total
Whole port	1	9	10
Container	3	24	27
Dry bulk	3	3	6
Liquid bulk	-	1	1
RoRo	1	-	1
Multipurpose/general cargo	6	-	6
Offshore supply	9	-	9
Total	**23**	**37**	**60**

Source: PPIAF database amended by reference to the Nigerian Ports Authority website

Whole port concessions

3.34 Four of the ten "whole port " concessions are located in Mozambique (Maputo, Beira, Nacala and Quelimane) and two in Gabon (Owendo and Gentil). The others are at Djibouti, El Sokhna (Egypt), Dakar (Senegal) and KoKo (Nigeria).

3.35 Most are relatively small, and have attracted local investors (Orascom at El Sokhna, and Green Leigh at KoKo) or smaller foreign port operators (Cornelder at Beira and Quelimane, Portek at Gentil and Owendo). Two - Maputo and Nacala - have been concessioned less successfully to consortia, whose members have had different and sometimes conflicting objectives. And two - Djibouti and Dakar - are operated by DP World.

3.36 A common model for "whole ports" is the master concession which allows other private companies to build terminals, but only with the consent of the master concessionnaire and on its terms. In some cases this has slowed down private investment; but in other cases traffic volumes may be insufficient to justify the presence of more than one private investor.

Container terminal concessions

3.37 Container terminal concessions are widely spread throughout the continent. They generate high financial returns and are much sought after by private investors.

3.38 The majority are operated by large international companies specialising in container terminal operations, sometimes in association with local stevedoring companies or other local investors. There is very little involvement of banks or other financial institutions in the equity structure, and lending tends to be in the form of corporate bonds or senior debt to parent companies rather than non-recourse project finance.

3.39 The main investors are APMT, Bolloré, DP World and Hutchison Port Holdings.

- APMT – a sister company of Maersk – operates 63 container terminals worldwide, of which 9 are in Africa: Abidjan, Apapa (Lagos), Douala, Luanda, Monrovia, Onne (Nigeria), Suez Canal East (Egypt), Tanger-Med in Morocco, and Tema.
- Bolloré is a French freight transport and logistics company specialising in Africa which is currently investing in six container terminals In West Africa, three in association with APMT (Abidjan, Douala and Tema) and three on its own or in association with local investors (Cotonou, Freetown and Pointe Noire).
- DP World operates container terminals in Algiers, Dakar, Djibouti and Maputo. The first is packaged with an obligation to develop new port facilities at DjenDjen 280km to the east, whilst the last three are operated within the framework of "whole port" concessions in which DP World also holds a stake.
- Hutchison Port Holdings has concessions at Alexandria and Dekheila (Egypt) and Dar es Salaam, all of them awarded as "stand-alone projects through competitive tendering.

3.40 The main issues in respect of past container terminal PPPs have been:

- Uncertainly surrounding the tendering process and choice of preferred bidder;
- Changes in the structure of the concessionaire after the concession has been awarded;
- The dominance of APMT and Bolloré in the West African container terminal market;
- The relatively high concession fees paid, which limit the scope for passing on the benefits of private investment to users in the form of lower cargo handling charges;
- The role of shipping lines, which can distort competition in some circumstances;
- The commercial viability of transhipment hubs.

3.41 The assignment of container terminal concessions has been irregular at several ports, most notably Abidjan, Conakry, Lome and Luanda. There have also been numerous voluntary changes in the ownership structure of other concessions since they were first awarded, including:

- The acquisition of stakes in container terminals by shipping lines, for example Cosco at Suez Canal East;
- The replacement of original consortium members by new ones, or an increase in the stake of the dominant partner, resulting from conflicts of interest between consortium members or the inability of junior partners to fund the necessary investments e.g. the restructuring of Meridian Port Services at Tema;
- The growing partnership between APMT and Bolloré in West Africa, in which the two companies have bid jointly or bought into each other's concessions. Whilst this is quite legal, it has resulted in a significant reduction in competition.

3.42 APMT in particular has been submitting very competitive financial bids for many of its concessions, most notably Apapa container terminal. It can do this because as part of a

large shipping group it obtains four benefits from winning concessions: profits from terminal operations, faster ship turnround times, a highly visible presence in the shipper community which helps its affiliated shipping company to capture more cargo, and the opportunity to diversify into value-added services such as inland logistics. Although concession agreements normally protect the rights of competing shipping lines and provide safeguards against abuse of monopoly power, they can do little to bring down tariffs if a high proportion of terminal revenues are being transferred directly to government in the form of royalty payments.

3.43 African container terminal tariffs are high by international standards. This is partly because they were originally based on tariffs for general cargo, whose handling costs are much higher. It has been in the interests of inefficient public monopolies to retain these tariffs, which elsewhere in the world have been driven downwards by inter-port competition. Private investors regard them as a useful offset to the political risks of investing in African ports and low initial traffic volumes. Some South American countries have addressed the issue of high port charges by making substantial reductions in tariffs a condition of the concession agreement, but this has rarely been done in Africa.

3.44 These multiple benefits are now encouraging other shipping lines like MSC and CMA-CGM to invest in African terminal concessions. Whilst this is perfectly normal elsewhere, in Africa it may distort competition for shipping services because of the small size of most national markets.

3.45 Several container terminal PPPs, particularly in the Mediterranean, rely on transhipment traffic. Whilst Suez Canal East and Tanger Med have been extremely successful as transhipment ports, there is intense competition for transhipment traffic, resulting in low transhipment tariffs which has culminated in the withdrawal of some proposals e.g. Enfidha.

Dry bulk terminals

3.46 Dry bulk terminals will increase in importance as African countries exploit more of their mineral reserves. The six past projects identified in Table 3.1 are fairly small and handle imports of grain, sugar and cement for the local market, plus coal exports at Maputo. There are also several privately-operated dry bulk terminals in South Africa which are not included in the PPIAF database; these are more like conventional property leases, with waterfront access but no exclusive berthing rights.

3.47 Past dry bulk projects sit comfortably within existing ports, and are governed by the same types of contractual arrangements as container terminals. However some of the future dry bulk terminals will be quite different, especially those handling large volumes of iron ore, bauxite and coal. These will large single-user jetties developed away from the main ports in association with new or refurbished railway lines, resembling dry bulk ports in Australia and Brazil. New legal frameworks may be required to protect the interests of the host countries, with conventional tariffs and concession fees replaced by “take or pay” agreements.

General cargo/multi-purpose berths

3.48 Multipurpose general cargo berths have remained largely in the public sector as they are not very profitable and require relatively small amounts of capital investment.

3.49 In West Africa, “tool port” structures are quite common, in which small private stevedoring companies are given open access to the quayside and short-term leases of storage space, and can rent mechanical equipment from the port authority. The larger

ports usually have several stevedoring companies, most of them with little capital; this makes it difficult to split the port into terminals and arouses strong local opposition to outside investment.

3.50 Nigeria has been most successful in privatising its general cargo berths. However the short duration of the general cargo concessions (10 years) has discouraged investment, whilst a shortage of container capacity has encouraged some of the terminals to switch to this more profitable line of business.

Characteristics of private investors

3.51 This section examines the characteristics of the two main groups of investors involved in past port PPPs in Africa:

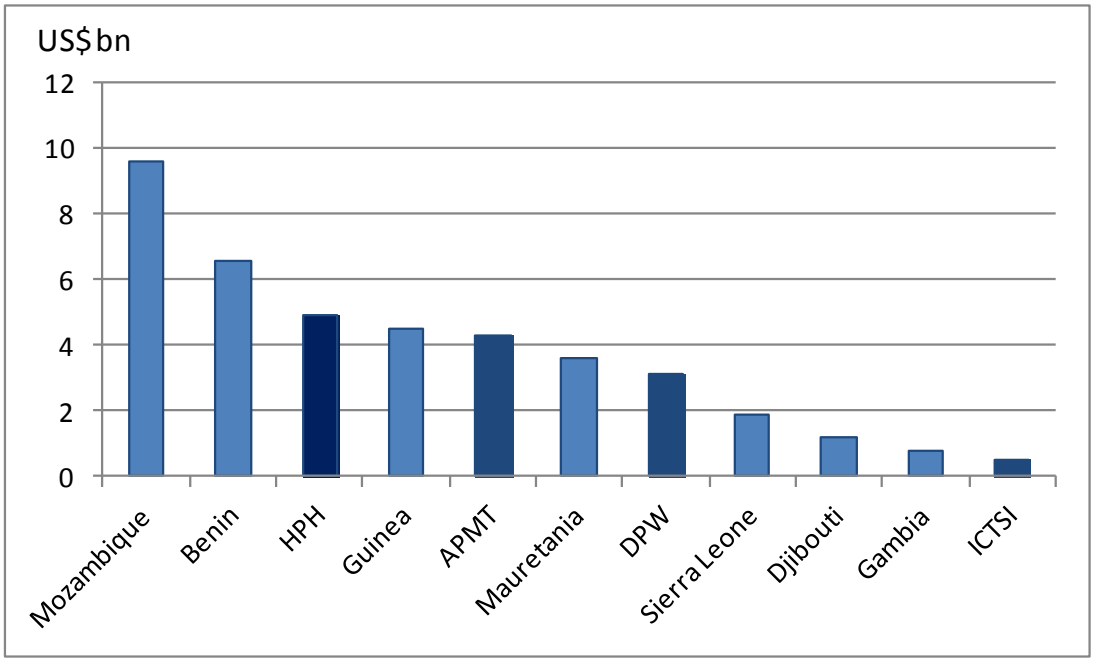
- International container terminal operators;
- Large local companies such as Grindrod, Orascom and Dangote.

3.52 Some transactions have also involved small local investors, mainly in Nigeria, but insufficient information is available to consider them in any systematic way.

International container terminal operators

3.53 International container terminal operators are large and extremely profitable, and their worldwide turnovers can be larger than the GDP of host countries. Figure 3.2 shows the turnovers of HPH, APMT, DPW and ICTSI to be broadly comparable with the GDPs of countries in the Gambia-Guinea size range.

FIGURE 3.2 TERMINAL OPERATORS TURNOVER IN 2010 COMPARED WITH SELECTED COUNTRIES GDP (US$BN)



Source: Terminal operators' accounts (turnover) and World Bank database (GDP)

3.54 The best available indicator of profitability is each operator's earnings before interest, tax, depreciation and amortisation (EBITDA). Pre- and post-tax profit figures are not generally available because the results are aggregated with those of other companies in the same group. The EBITDA figures in Table 3.2 are indicative of the worldwide

profitability of container terminals. High tariffs and low wage costs mean that African terminals are likely to be even more profitable than the global average.

TABLE 3.2 EBITDA AS PERCENTAGE OF TURNOVER

Company	% of turnover
HPH	31
APMT	21
DPW	40
ICTSI	47

Source: Steer Davies Gleave estimates based on company accounts

3.55 The balance sheets of the terminal operators' parent companies are also large. It is they rather than the terminal operating companies themselves which carry the debt, as they are generally able to raise finance more cheaply. The levels of long-term bank debt shown in their most recent financial statements are large: US$ 29.2bn for Hutchison Whampoa, US$ 7.4bn for DP World and US$ 0.6bn for ICTSI. The importance of debt finance can be seen in the percentage of the balance sheet not accounted for by equity and shareholder funds, as shown below.

TABLE 3.3 PERCENTAGE OF BALANCE SHEET NOT COVERED BY EQUITY

Company	% of balance sheet not covered by equity
Hutchinson Whampoa	51
A.P. Moller-Maersk	49
DP World	59
ICTSI	60

Source: Steer Davies Gleave estimates based on company accounts

3.56 The terminal operators' parent companies are very sophisticated in the way they raise finance, employing many different instruments. They also enjoy relatively high credit ratings. Hutchison Whampoa has an AAA credit rating, whilst DP World has recently been upgraded to Baa3. AP Moller-Maersk, the parent company of APMT, and ICTSI have both been able to issue long-term bonds recently without even seeking a credit rating: - AP Moller-Maersk issued a €500m 7 year bond in November 2010, and ICTSI a US$ 250m 10 year bond in July 2010.

Local investors

3.57 Local investors in ports are still fairly scarce in Africa, and vary considerably in their origins and approaches to investment. This section looks at three which have been involved in significant port developments: Orascom (Egypt), Dangote (Nigeria) and Grindrod (South Africa).

3.58 Orascom is a conglomerate with interests in construction, telecommunications, manufacturing and trading. In 1998 it established the Egyptian Container Handling Company, which became the majority shareholder in Sokhna Port Development Company, the concessionnaire for a major greenfield BOT development. However Orascom, which

benefitted from construction contracts at El Sokhna, did not retain its interest once the port became operational, and sold its 90% stake to DP World in 2007.

3.59 Dangote has become involved in port development to support its other business interests in cement, sugar, flour milling, fertilizers and steel. It acquired a dry bulk terminal in Lagos in 2005/06, and is now planning to expand its cement business into other African countries, starting with a new cement export terminal in Mtwara (Tanzania).

3.60 Grindrod is the only large African private investor with a long track record in ports & shipping. It was established in 1910 and shortly afterwards formed a shipping line which is still a major part of its business. It was listed on the Johannesburg Stock Exchange in 1986. Grindrod has terminal leases in Durban and Richards Bay (South Africa), Maputo (Mozambique) and Walvis Bay (Namibia), and a 24.5% stake in the Maputo Port Development Company, a private sector landlord port authority. It has been developing these businesses over the last seven years, and is now seeking opportunities for expansion in ports outside of Southern Africa.

Lessons learned from past PPP Projects

3.61 This section summarises the findings of the 10 case studies of past PPP projects included in Appendix B. They have been deliberately selected to illustrate particular issues, as well covering different types of cargo and different host countries. The case studies are:

- Mombasa (2): grain terminal (successful) and container terminal (failed)
- Dar es Salaam: container terminal
- Maputo: master concession for the whole port
- Richards Bay: coal terminal
- Lagos(4): container terminal, RoRo terminal, dry bulk terminal, and multi-purpose terminal
- Tanger Med: BOT terminals (various) built by private investors for a special government agency

3.62 The analysis also draws on Steer Davies Gleave's experience of other port PPPs , which includes preparation of tender documents for a successful PPP in Tanzania, first-hand observation of the functioning of PPPs in Nigeria, Kenya and Liberia, and involvement in the now-abandoned process for involving private investors in the Durban and Ngqura container terminals in South Africa.

3.63 The case studies show that there are many lessons to be learned from past PPP projects. For convenience they have been grouped under six headings, relating to:

- Specification of the project to be financed;
- Type of PPP contract;
- Characteristics of private investor(s);
- Project preparation and tendering;
- The concession agreement itself;
- Post-transaction monitoring and regulation.

Project specification

3.64 The majority of past PPP projects have been existing brownfield terminals transferred to private investors for modernisation and expansion. This generally works well, but insufficient attention has often been paid to what happens when the terminal reaches full capacity working. This has created problems in Dar es Salaam where the container

terminal concession contains an exclusivity clause for a throughput well in excess of the terminal's original capacity, and the port authority has been reluctant to release adjoining berths which would allow it to expand, favouring the construction of a completely new (competing) terminal. A similar problem is also emerging at Tema.

3.65 The high quality of the Grimaldi BOT terminal at Lagos suggests that it is often easier to create modern port facilities at a greenfield site, but the higher risks involved mean that an anchor tenant or captive user is needed to justify the investment. This can be difficult to reconcile with the desire to create common user facilities, which are more intensively used and make more efficient use of scare resources.

3.66 Projects on greenfield sites often arise through unsolicited bids. These are of three main types:

- Captive user port projects which are vertically integrated with industrial or mineral developments, for example Richards Bay coal terminal (South Africa). Such projects can bring large economic benefits to the host country, but the port and rail links can cause significant environmental damage. Proper economic and financial evaluations of the total package should always be carried out, including wherever possible investigation of alternative options for port development;
- Common user port projects, for example El Sokhna (Egypt). In some cases the unsolicited bid can be the result of opportunism, land speculation, or corruption, and must be handled extremely carefully if not rejected outright. At the very least, other private investors should be given the right to put forward their own proposals, and the project development rights assigned by competitive tendering. Although many international financial institutions advise against the acceptance of unsolicited bids, cautious and transparent handling of unsolicited bids may be a better option than rejection in situations where the public port authority does not have the capacity to identify and develop suitable projects on its own; and
- Dedicated terminals for individual shipping lines. This type of unsolicited proposal is still rare, but may increase in future as traffic volumes rise. Its treatment should depend on the availability of space within the port, and the impact of the proposal on the Port Master Plan and competition within the shipping industry.

3.67 Container transhipment terminals have attracted unsolicited bids in Europe and Asia, although so far the main ones in Africa have all been publicly sponsored. They are generally low profit/high risk ventures if built from scratch because of the low tariffs needed to attact very mobile business; this may result in cross-subsidies between transhipment traffic and captive domestic cargoes, to the detriment of the host country. Such projects should only go ahead if a high proportion of the investment risk can be transferred to the private operator or shipping lines, and a regulatory framework put in place to control domestic cargo tariffs.

3.68 The Tanger-Med experience shows that Middle East-type" big bang" port developments on greenfield sites are possible in Africa, but only under certain circumstances. Location is a critical success factor, and the quality and dynamism of the public sector team planning the development is also very important, together with the strength of the Government's political commitment to the project and its ability to provide funding. Ngqura port in South Africa, which resembles Tanger Med but has taken longer to develop, shows what can happen when Government commitment wavers.

3.69 The failure of the first attempt to launch Tanger-Med as a 100% private project shows that "whole port" projects with large breakwater, dredging or land reclamation

requirements are not generally suitable for private sector funding unless the potential financial returns from terminal operation are extremely high.

Type of PPP contract

3.70 Most of the past PPP projects have involved private **concessions awarded within the framework of a public landlord port authority**, usually by competitive tendering. This has generally worked well.

3.71 There are three other types of PPP arrangement which have been tried less successfully: the **management contract**, the **master concession** (in which a private company becomes the landlord port authority) and the **joint venture**.

3.72 The best example of a (failed) management contract is Mombasa container terminal, which was managed between 1996/97 by Felixstowe Port Consultants, part of the Hutchison Whampoa Group. This failed for four main reasons:

- The management contractors were given insufficient control over policies;
- The length of the contract (two years) was too short to produce the desired turn-round of the business;
- The (perceived) high fees caused resentment in the host organisation, which led to a reduced level of co-operation;
- The short-term nature of the contract made it easy to walk away from, even at the risk of some reputational damage.

3.73 Large international terminal operators view management contracts as high risk (to reputation) and low reward (because of lack of investment) and are usually uninterested in them except when they represent a "*get to know you*" phase prior to the signing of a more substantial contract.

3.74 The master concession for Maputo Port Development Co. (MPDC) has produced mixed results[8]. Landlord port authorities are generally less profitable than terminals because of relatively low charges for marine infrastructure and services, and substantial investment needs for breakwaters, dredging etc. There may also be conflicts of interest between the private landlord, which is seeking to make as much money as possible out of the concession, and terminal operators pressing for more investment.

3.75 Experience at Maputo shows that when this occurs the best solution may be to replace the master concessionaire with another organisation whose interests are more closely aligned with those of the terminal operators. Doing this, however, raises significant competition issues, and may prevent or deter new entrants from opening competing facilities in the port.

3.76 Maputo Port Development Co is also a good example of the advantages and disadvantages of joint venture arrangements. Although the 49% stake held by Mozambique Railways (CFM) was intended to smooth relations with government, protect the public interest, and accelerate rehabilitation of the rail link to South Africa, this has been achieved to only a limited extent. The difficulties faced by CFM in financing its own share of the investment plan for the port may have contributed to the withdrawal of the first private investors only 5 years into a 30 year concession.

[8] World Bank *Implementation and Completion Report on a Credit of US$ 100m to the Republic of Mozambique for a Railway and Ports Restructuring Project,* report No. ICR 000 118, December 2009

Characteristics of private investor(s)

3.77 Choice of the "*right*" private investor(s) is an important success factor in PPPs. Five main issues were highlighted by the case studies, relating to:

- The priority to be given to captive terminal users in the award of concessions;
- The structure of consortia;
- The advantages of large investors over small investors;
- Ways of increasing local participation;
- The need for foreign investors to have experience of, or ability to adapt to, the local culture.

Captive users

3.78 The dry bulk case studies lead to slightly different conclusions about the advantages of concessioning terminals to their main users. Richards Bay Coal Terminal is an excellent example of the advantages of vertically integrated operations, whilst comparison between the Dangote and Josepdam terminals in Lagos suggests that captive user concessions can result in more investment and faster performance improvements than those awarded to independent third-party operators.

3.79 However if a captive user's terminal is not 100% dedicated to its own business, there is a need to protect the rights of minority users. Similarly, the award of a concession to a third party operator should protect the rights of established captive users.

3.80 The case studies reveal three other potential problems with captive user concessions: valuation difficulties, loss of capacity, and abuse of monopoly power.

3.81 The valuation difficulties arise because most captive user concessions are negotiated rather than tendered, and the value of the concession to the concessionnaire is difficult to assess in a vertically-integrated operation. African port authorities lack the specialist skills to carry out the necessary accounting analysis or benchmarking, leaving concession fees to be politically determined instead of being calculated in a rational market-oriented way. However this problem was successfully tackled during the Nigerian ports privatisation programme of 2005-2006 by the use of outside technical assistance.

3.82 Loss of capacity occurs when terminals dedicated to captive users refuse to handle third party cargo. This appears to be happening at the Grimaldi terminal in Lagos, which is still under-used in spite of serious congestion elsewhere in the port.

3.83 An example of monopoly power can be found at Mombasa grain terminal, where smaller grain importers are obliged to pay relatively high charges at a terminal controlled by one of the largest grain importers, or use the much slower general cargo berths. Consideration has been given to the construction of a second (competing) grain terminal but progress has been slow.

Consortia

3.84 Richards Bay Coal Terminal shows that it is possible for competing companies to join forces in a terminal management consortium when it is in their interests to do so, and that agreements can be reached on the sharing of capacity and the handling of coal for smaller companies which are not shareholders in the terminal. Similar structures are already found in some Australian coal terminals, and may become more common in Africa in future.

3.85 However the Maputo Port Development Co. whose shareholders originally comprised Portia (port consultancy) Grindrod (shipping), Skanska (construction) and Tertir (terminal operations) highlights the difficulty of holding together a multi-national consortium whose members have different interests in the concession, and want to get different things out of it. Multi-interest consortia are common in some other types of transport, for example toll roads, but still relatively rare in the ports sector.

Large vs small investors

3.86 The choice between large and small investors is also often a choice between foreign and local investors. The case studies suggest that large investors have many advantages in expensive and technically complex port operations like container terminals; these include technical expertise, purchasing power with equipment suppliers, ability to switch managers and equipment between terminals in the event of a problem, frequent contacts with shipping lines, and the financial muscle to move quickly to get things done.

3.87 There are still opportunities for small investors in facilities such as multi-purpose berths which have lower capital expenditure requirements and less sophisticated technology; small local companies can also be successful in dry bulk import terminals, or in niche markets like perishable products if they have links to other parts of the local supply chain.

Local participations

3.88 All Governments would like to see national companies playing a larger role in the operation of their ports. However foreign investors usually have to be pushed into taking local partners, who are generally used for their contacts with Government or to provide access to local funding. There is little evidence that partnerships with local companies have led to significant technology transfer.

3.89 An alternative approach is for governments to pick out "*national champions*" – companies which have proved themselves in other industries and can be trusted to bring the same competence and professionalism to the development of port facilities. This type of "economic nationalism" has been successfully adopted in Korea, Malaysia and Brazil, but there are still only a few examples of it in Africa, such as Dangote in Nigeria.

Cultural awareness.

3.90 The success of companies like Grimaldi and Cornelder as terminal operators has been largely due to their long experience of local culture in the ports in which they operate, which allows them to invest in an atmosphere of familiarity and trust. Such companies are already a "known quantity" to their host governments, who are more likely to co-operate in resolving any start-up problems. Because the port community is still very small in most places, personalities matter.

3.91 An existing local presence is not, however, a necessary condition for private investment. The large international container terminal operators have been successful in part because of their responsiveness to national aspirations, using small teams of expatriate managers to begin with whilst investing heavily in the training of local managers.

Project preparation

3.92 Small and fairly simple private sector investments can often be made in ports without the need for PPP or port reform legislation, simply by adapting existing contracts used for construction work and the out-sourcing of services such as stevedoring. However this needs to be done carefully as there are many examples of property leases in ports – for example in South Africa - which leave the operating rights and obligations of both parties

largely un-mentioned. There are also some countries whether specific legislation may be required as a prelude to private investment.

3.93 Unsolicited approaches from private investors should usually trigger an overview of the need for the private investment and the robustness of the proposals being put forward, their impact on the longer-term development of the port and other stakeholders, and the way in which the project is going to be supervised and regulated. This is also best practice for private investment projects identified by the port authority itself.

3.94 Irrespective of who initiates the project, an important issue at the project preparation stage is to ensure that the capital costs are divided between the public and private sectors so that the private operator can make a reasonable **financial** return on its own investment, and the public sector a satisfactory **economic** return on its share of the costs. Port authorities should also look at the impact of the project on their own operations, and its contribution to port finances.

3.95 Most port PPP projects are competitively tendered, but the process needs to be professionally managed to ensure it is fair and transparent. The donor community has played an important role in achieving this, but must be prepared to extend similar assistance to future projects. There are still relatively few African port authorities which have the specialist skills required to prepare a large PPP project on their own. Donor-funding at the project preparation stage also reduces the risks of inappropriate political interventions, whilst leaving the overall policy framework clearly in the hands of government.

3.96 One issue which has proved particularly difficult at the project preparation stage is project valuation i.e. the price which private investors are willing to pay for a concession. There are examples in Africa of projects which have been tendered at low points in the market and turned out to be much more valuable than expected. The result has been local resentment of foreign "rip off" investors. Other projects, where the bid price has been extremely high, have had problems in sustaining "affordable" port charges.

3.97 In the past the value placed on a concession has usually been left to the market to decide. Experience suggests that governments and their professional advisers should be more cautious in future, either by estimating plausible "floor and ceiling" reserve prices in advance of the tender, submitting financial offers to more careful scrutiny, or reducing the weighting given to concession fees in the tender evaluation process.

3.98 The other lesson to be learned in respect of project preparation concerns the need to have a realistic timetable that is firmly adhered to. A number of projects have been delayed – or bidders lost – because private investors have been given insufficient time to prepare their offers, whilst the public authorities running the tender have themselves found it difficult to keep to over-ambitious timelines.

Concession agreements

3.99 A large amount of experience has been gained in the drafting of container terminal concessions, which are now fairly standardised, but concession agreements for other types of terminal are still generally "custom-built". Four issues have proved controversial in a wide range of projects:

- The private investment programme;
- Concession duration;
- Exclusivity arrangements;

- Tariff regulation.

Investment programme

3.100 Tight specification of the required investment programme prior to tendering makes it easier to compare the offers made by different bidders. However giving bidders the freedom to propose their own investment programme encourages innovation and may lead to a better (and more viable) investment programme than one put forward by the port authority. The correct solution depends very much on local circumstances and the scale of the potential benefits to be obtained by allowing investors to specify their own programmes. Unfortunately the choice is often made less rationally.

3.101 A second set of challenges arises when the private investor wishes to modify the investment programme included in the concession agreement. Sometimes this is due to "*back-tracking*" but often it is due to changes in external circumstances beyond the investor's control. Some concession agreements still hold the investor strictly to the original programme, with penalties for non-compliance, rather than setting out a fair and transparent procedure for negotiating changes. A better solution is to agree a short-term investment programme – usually covering no more than the first five years – with a strict and enforceable timetable, and a longer-term indicative programme which is subject to periodic review.

3.102 The third challenge arises towards the end of the concession period - how to compensate the investor for the residual value of investments in the later stages of a concession so as to encourage the continuation of the investment right up to the expiry date. The issue is often avoided by the use of renewal options, which results in a reduction in competition ***for*** the market, and leads to the continuation of contractual relationships which may no longer be the best available. It would be better to define accounting rules which ensure that the investor is properly compensated, with an authorisation procedure to protect the port authority against over-investment if these rules appear to be biased in the investor's favour.

Concession duration

3.103 The need for concession periods long enough to allow the private partners to recover their investment costs is now widely accepted, although there have been one of two cases of concessions where the investment period has been too short (e.g. the Josepdam concession in Lagos). Some concessions may have veered too much the other way, although it should be recognised that private companies make substantial "soft" investments – in building up markets, training staff, and introducing modern procedures – in addition to the "hard" investments shown in financial models. It is also common to find the same concession period applying to projects with very different economic fundamentals, to avoid the risk of shorter concession periods discouraging private investors or because the technical skills are not available to determine what an appropriate concession period would be.

Exclusivity

3.104 Similar problems are encountered when deciding whether or not to improve project viability - or reduce commercial risks – by granting an investor the exclusive right to handle a certain type of cargo for a certain period of time or up to a certain throughput. Economies of scale play are important for the viability of many port investments, so protection from competition until the market is large enough to support more than one operator can be justified in some circumstances. However exclusivity clauses can prevent

the benefits of private investment (and economies of scale) from being passed on to users. They should therefore be used sparingly, usually in parallel with regulatory conditions to safeguard against abuse of monopoly power.

Tariff regulation

3.105 Procedures for changing tariffs in response to inflation or other macro-economic variables are now built in to most concession agreements, based on automatic tariff indexation or regular review procedures. A small number of ports even have independent tariff regulators. Two criticisms can be made of the provisions incorporated into past concession agreements:

- When tariffs are regulated by landlord port authorities – the most common arrangement - there is a risk of "regulatory capture" in which the port authority becomes disinclined to resist requests for tariff increases. This is a particularly danger when concession fees are linked to tariffs through some form of revenue sharing agreement.
- Very little effort is made to ensure that tariffs are reasonable to begin with.

3.106 As a result, port users in Africa have not benefitted greatly from reductions in charges, even though most African tariffs are very high by world standards. In South America, in contrast, some governments have taken positive action to reduce port charges by building lower tariffs into concession agreements.

Post-transaction monitoring and regulation

3.107 Many of the problems relating to private investment occur ***after*** rather than ***before*** signature of the contract. They fall into four main groups:

- Non-compliance: the inability of one party to force the other to meet its obligations;
- The role of regulatory bodies;
- Restructuring requirements;
- The relationship with other statutory authorities (Customs, Immigration, etc).

Non-compliance

3.108 Private investors in ports frequently complain about delays in the fulfilment of port authorities' contractual obligations, particularly in respect of dredging. Port authorities are equally concerned when private companies fail to implement their investments on time, or do not achieve the hoped-for improvement in performance.

3.109 Concession agreements usually deal with this via dispute resolution mechanisms, provision for arbitration, sanctions and penalties, or – in the last resort – termination clauses. However these mechanisms are rarely used, partly because of dislike of publicity and the risk of deterring future investors. Instead, there seems to be a need for less formal interactions to keep the contract working smoothly. These include better alignment of public and private interests to begin with, more informal contacts between the two sides (perhaps hosted by the Government body responsible for promoting private investment), greater use of independent mediators, and continued institutional strengthening of the landlord port authority.

3.110 Independent mediators with the authority to resolve non-compliance issues are still fairly rare in Africa. This is a role which could be fulfilled very successfully by some ICA members; although the results would be less visible than high profile financial investments the benefits could still be quite substantial, and the costs considerably less.

Regulatory bodies

3.111 Private investments in ports are normally regulated through contract law or economy-wide legislation governing areas such as employment, health & safety and the environment. Enforcement of obligations via contract law is usually the responsibility of the port authority, whilst economy-wide regulation is undertaken by Ministries or specialised agencies, most of which have more pressing priorities than ports.

3.112 However the creation of an independent Ports Regulator in South Africa has not had much impact either, partly because its remit is very narrow. In addition, the small and irregular workload makes the organisation unattractive to high calibre staff. This has remained a problem even when a multi-sectoral transport regulator has been established, as in Tanzania.

3.113 A great deal has been written about the quasi-judicial role of regulators, and the need to safeguard their neutrality in order to retain investor confidence. This may now have gone too far, resulting in the need for a rethink about the functions of regulatory bodies, and whether or not they have a pro-active role to play in creating a more enabling environment for private investment.

Restructuring

3.114 Experience has shown that the need for future restructuring of concessions has been greatly under-estimated. Restructuring can take place for many different reasons, such as changes in external circumstances, new opportunities, inability to comply with contract conditions, and dissatisfaction with the original investors.

3.115 It is important for concessions to include procedures which allow restructuring to be achieved non-acrimoniously, in a way which is fair to both parties, whilst avoiding the use of restructuring to lessen normal commercial risks. The emphasis should be on trying to make concessions work, but with provision for divorce by mutual agreement if this proves impossible.

Other statutory authorities

3.116 Whilst concessions usually set out the port authority's obligations quite clearly, private investors rarely have much influence over other statutory authorities such as Customs whose performance can determine the success or failure of the investment. This is an area which ICA members are particularly well-equipped to deal with, as several are supporting large trade-facilitation projects in Africa. There is a need for these to foster arrangements which will encourage statutory authorities and private investors to work together more closely – for example by co-ordinating working hours, simplifying and standardising documentation, and integrating IT systems.

Success Factors

3.117 Similar success factors are found in many projects. The most common are:

- Strong traffic growth, which generates a perception of success even if it has very little to do with the private investment itself. This is one of the main reasons for investors' current interest in port development in Angola, even though the business environment and legal framework there are regarded as difficult;
- Large and fairly immediate benefits to port users, often through the introduction of new technology which the port authority does not have the knowledge or funding to introduce on its own. This is a strong feature in 8 of the 10 case studies in Appendix B;

- Sensitive treatment of labour, sometimes involving generously-funded retrenchment schemes. Because expectations about compensation are still fairly low and unions – outside South Africa - are weak compared with those in European and North American ports – private investment to date has not been strongly resisted by the labour force;
- Lack of political interference, before and after signing of the contract.

Obstacles to Future Investment

3.118 Several obstacles to private investment in ports were identified in the case studies and stakeholder interviews. These include:

- **Political opposition to the concept of private investment**. Sometimes this is spearheaded by trade-unions fearful of its impact on jobs, for example in South Africa. Sometimes it arises from the failure of senior port management to "let go" of operations they have controlled for years. And sometimes it is simply ideological opposition, with its roots in the belief that ports are strategic assets that should be kept in the public domain to protect the public interest;
- **Political interference**. Stakeholders consider African governments to have become more stable over the last 10 years, but are concerned that in many places decision-making is still affected by the personal interests of leading politicians and those of their friends and relatives;
- **The absence of a process which will lead to financial closure within a reasonable time period**. One of the main causes is lack of institutional capacity within the landlord port authority. This increases transaction costs for private investors, with all of the port stakeholders interviewed citing it as one of the main reasons for the decline in their interest in long-running projects like Enfidha container terminal or Seme-Kpodji port in Benin;
- **Insufficiently clear policy frameworks**. Private investors are often uncertain about how the ports system is intended to develop in future and whether/when they are likely to face competition;
- **Overbidding** for some concessions, which has raised government expectations about concession fees to unrealistic levels;
- **Barriers to market entry** caused by exclusivity agreements or the dominant market position of earlier private investors. Investors interested in developing specialist terminals at Dakar, for example, have complained about the stifling effect of DP World's master concession, whilst several organisations have publicly expressed their concern about the dominant position of APMT and Bolloré in the West African container terminal market.
- **Lack of funding** for associated public sector investments such as dredging and road and rail access.

3.119 ICA members are well positioned to assist in overcoming many of these obstacles through their ability to influence governments in key policy areas such as investment planning, encouragement of competition, and legislative changes. They are also more aware than many government of the advantages of technical assistance, and have the resources and experience to ensure that governments are provided with high quality advice.

4 Air Transport Infrastructure – Key Learning Points

Introduction

4.1 This section reviews learning points from private sector involvement in air transport infrastructure in Africa. It starts with a review of the air transport markets across the continent, as well as key regulatory issues on market access and safety. It then reviews a selection of past PPP projects, considering the different types of private sector involvement (looking principally at airports but also considering air navigations services and airlines), and examines the characteristics of investors and funding providers. Finally it considers the lessons to be learned from past PPPs, considering the opportunity, barriers to success, appropriate types of intervention by IFIs and likely success factors for future projects.

Market background and legal framework

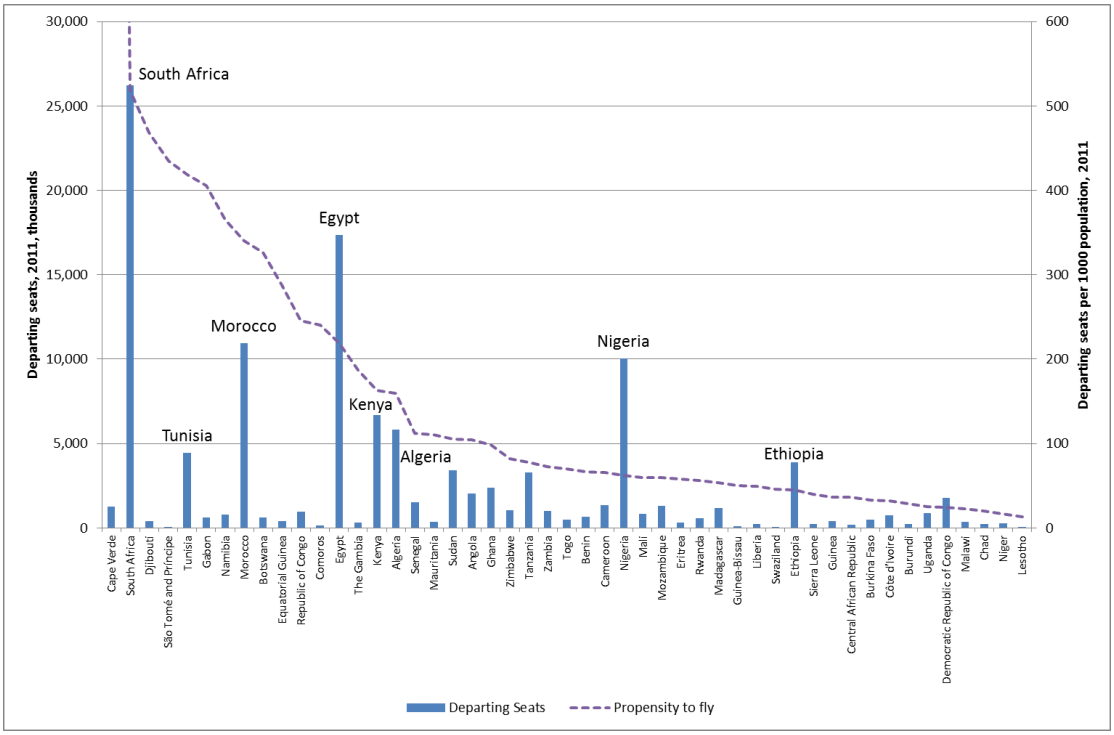
Market background – volumes

4.2 The context for understanding the history of private sector participation in air transport infrastructure across Africa starts with understanding the size and characteristics of the aviation markets across the continent.

4.3 Aviation in Africa is currently growing strongly, but from a generally low base, with the number of seats flown rising at a cumulative annual growth rate (CAGR) of 7% p.a. in the five years to 2011 (OAG data). Apart from in South Africa and the North African countries, the propensity to fly (i.e. the number of air passenger journeys in relation to the total population) is generally very low, and only a few countries have airports with a passenger throughput greater than 1 million per annum.

4.4 Figure 4.1 shows market size defined as departing seats operated in 2011 by country, as well as propensity to fly, defined as departing seats per 1,000 inhabitants, ranked by descending propensity to fly. Departing seats is used as a proxy for air passengers flown for convenience of data availability.

FIGURE 4.1 MARKET SIZE AND PROPENSITY TO FLY BY COUNTRY



Source: OAG, IMF, Steer Davies Gleave analysis

4.5 Figure 4.1, in which the top eight markets by seats flown are highlighted, shows that African countries can be divided into a number of categories from an aviation perspective:

- South Africa, the largest market in absolute terms and with the highest propensity to fly of any non-island state in Africa;
- The North African countries, which have relatively high propensities to fly and which also mostly represent large markets in absolute terms;
- The three large markets in sub-Saharan Africa: Nigeria, Kenya and Ethiopia;
- Smaller markets with moderate propensity to fly (over 100 departing seats per 1,000 inhabitants) – these include Namibia and Botswana in southern Africa, significant tourism destination countries such as Senegal and the Gambia, and central African countries such as Gabon, Angola and Congo (Republic);
- The remainder, with relatively low absolute size and low propensity to fly.

4.6 In terms of understanding the drivers for the various country markets shown in Figure 4.1 above, the relative strength of South Africa and the North African countries lie in the level of economic development, significantly above the average for the continent, strong tourism markets in most of the countries and, in most cases, a strong airline based in the country. Of the three major sub-Saharan aviation markets, two (Kenya and Ethiopia) are based principally on the strength of the network airline based in the country. In the case of Kenya, strong tourism flows also increase the propensity to travel, whereas for Ethiopia, the market is almost entirely supported by transfer traffic at Ethiopian Airlines' Addis Ababa hub. The Nigerian market is significant due to the country's large size and economic importance, dominating West Africa with nearly two thirds of the

economic output of the region (source IMF), despite negligible levels of tourism and instability in the airlines based in Nigeria.

Implications for infrastructure

4.7 Based simply on the absolute sizes of the aviation in each country, it follows from the size of African markets that runway capacity is not generally a limiting factor in Africa. A single runway can easily accommodate a passenger throughput of 5 to 10 million passengers annually depending on supporting infrastructure such as parallel taxiways, and some single runway airports accommodate over 30 million passengers. However only two airports in the whole continent (Johannesburg and Cairo) currently have more than 10 million passengers (both of these already have two runways), and, outside South Africa and Egypt, only three airports have over 5 million passengers (Casablanca, Lagos and Nairobi).

4.8 As noted in the AICD background paper on the industry[9], the infrastructure capacity challenge for African aviation therefore principally lies in the area of passenger terminal capacity rather than runway capacity. Infrastructure condition is, however, often poor (21% of runways in sub-Saharan Africa are noted as being in poor condition in the AICD paper), and many passenger terminals are of poor quality and/or insufficient size, so that there is significant scope for improving the quality of all assets. In addition, the paper noted the poor quality of air navigation services (ANS) infrastructure across the continent with, for example, only South Africa and Kenya in sub-Saharan Africa, able to rely on consistent use of radar facilities.

4.9 A further consideration is airline "*infrastructure*", providing the route connectivity available across the continent. As noted in the AICD paper, air fares are generally high in comparison with other regions of the world, reflecting generally poor connectivity and lack of effective competition both to and within the continent. The paper noted that, in West and Central Africa in particular, connectivity has actually declined due to the demise of Air Afrique, Air Gabon, Ghana Airways, and Nigerian Airways. This is in contrast to East Africa, where the successful networks operated by Kenya Airways and Ethiopian Airlines have improved connectivity. For an airport to be a successful hub, as is often the ambition of sponsoring governments, there needs either to be a very large local market (such as at Lagos) or else a successful airline based at the airport to drive transferring traffic through the hub (such as at Addis Ababa). The development of suitable hubs is one element of the strategic plan for transport within PIDA[10].

4.10 Therefore plans to develop air transport infrastructure need to consider the overall size of the market, the appropriate type of infrastructure required (whether to enhance capacity on the airfield or in the terminal, or to improve quality) and the complementary airline connectivity to support traffic and connectivity. The ability of airlines to compete fairly and gain access to markets is therefore very important. This is discussed in the next section.

[9] Africa Infrastructure Country Diagnostic, Background Paper 16: An Unsteady Course: Growth and Challenges in Africa's Air Transport Industry, H Bofinger, 2009, p32ff

[10] Study on Programme for Infrastructure Development in Africa (PIDA), Phase III

Market Access – Yamoussoukro Decision and related international agreements

4.11 Historically the African aviation market was characterised by intercontinental routes to and from the continent generally dominated by non-African carriers and intra-African flights operated by the state-owned airlines based in most African countries. However, most state-owned airlines proved to be unprofitable and many failed, often reducing levels of connectivity within the continent and reducing competition to European carriers on inter-continental routes. Recognising the potential benefits of greater liberalisation, African governments issued the Yamoussoukro Declaration in 1988, formalised in 1999 as the Yamoussoukro Decision, which has legal force under the Abuja Treaty of 1991 in 44 of 54 African countries, important exceptions being South Africa and Morocco (Schlumberger, 2010[11]).

4.12 The Yamoussoukro Decision allows market access for carriers based in participating countries on a Third, Fourth and Fifth Freedom[12] basis, following a simple notification procedure by the relevant government, and has provisions to liberalise fares and to ensure fair competition and appropriate safety standards. If fully implemented, it would therefore liberalise intra-African air routes, while not superseding bilateral air service agreements between African states (it is therefore significantly more limited in scope than the aviation liberalisation measures in force within the European Union). It does not affect market access on routes outside the continent. It should be noted that full implementation of the Yamoussoukro Decision forms one element of the Priority Action Plan (PAP) for transport within the PIDA strategic plan. An important benefit of market access would be likely to include lowering costs for consumers through reduced air fares as connectivity and competition between airlines increased.

4.13 Schlumberger notes that about two thirds of African countries – those with either a dominant national carrier and those with no national carrier have an interest in promoting the implementation of the agreement, whereas those with a weak national carrier (i.e. one that requires financial support) are more likely to adopt a protectionist policy and fail to implement all aspects of the agreement.

4.14 In practice, therefore, implementation of the Decision has only been partial, and the various supra-national oversight bodies envisaged have not been established. Nevertheless, many countries have moved towards liberalisation either through the actions of the Regional Economic Communities, or via liberalisation of bilateral agreements with other countries. In West Africa, the West African Economic and Monetary Union (WAEMU) has implemented Yamoussoukro, but only within its own territory (largely the French-speaking countries of West Africa). Similarly, the Banjul Accord treaty implements the Decision across the countries of the Banjul Accord Group (BAG), which largely comprises the English-speaking countries in West Africa. However, the Decision has not been implemented fully for routes between the two regions.

[11] Charles E. Schlumberger, Open Skies for Africa: Implementing the Yamoussoukro Decision, World Bank, 2010

[12] The Chicago Convention defined five Freedoms of the Air, in relation to airline and its "home country", i.e. country of registration. The first two Freedoms relate to overflights and technical stops. The Third Freedom allows an airline to transport passengers from its home country to a second country; the Fourth Freedom allows an airline to pick up passengers from a second country to transport them to its home country; the Fifth Freedom allows an airline to pick up and drop off passengers in a second country going to a third country, as part of an operation originating/terminating in the home country.

4.15 In the rest of Africa, CEMAC (Central African Economic and Monetary Union) has implemented Yamoussoukro within its territory; COMESA (Common Market for Eastern and Southern Africa) has developed a regional agreement but not yet implemented it, while within the East African Community some liberalisation has taken place to date on a bilateral basis. The African Maghreb Union has not yet attempted to implement Yamoussoukro, but Morocco has entered into a Common Aviation Area Agreement with Europe, a move also being considered by Tunisia and potentially Egypt.

4.16 Despite a definite trend towards liberalisation, the implementation of the Yamoussoukro Decision has been patchy and inconsistent. For example, even within WAEMU, apparently fully liberalised, it took six months for the new Togo-based airline Asky to be granted permission to fly to Abidjan in Côte d'Ivoire[13]. In parallel with moves towards liberalisation, African governments appear to remain determined to establish national airlines, even where there is a history of failure: recent examples include the re-establishment of Sénégal Airlines and Air Côte d'Ivoire, both of which replace previously defunct national airlines.

4.17 Hence countries' desire to liberalise market access through the Yamoussoukro Decision is often in conflict with a desire to establish, and then protect, national airlines. While national airlines can help to bring traffic to an airport if they are able successfully to mount a hub operation, protection of such airlines through denial of market access to other operators can reduce choices for consumers, increasing the costs of travel and decreasing overall connectivity.

Safety

4.18 Africa has a poor aviation safety record, with a higher accident rate than other world regions and a rate of hull loss over 10 times higher than in Europe[14]. Of those African countries rated by the FAA IASA programme allowing direct flights to the US, only four (Egypt, Ethiopia, Nigeria and South Africa) are currently certified as reaching the required standard – it was headline news when Nigeria finally achieved this certification in 2010. The European Union bans airlines which it considers to be unsafe including, in the case of 15 African states[15], all airlines certified in that country.

4.19 Both Bofinger (AICD report) and Schlumberger conclude that the primary causes of the high accident rate is largely related to poor staff training and poor oversight by the relevant authorities in each country (poor equipment plays a part but is not the primary cause). As an example, Bofinger cites the case of Nigeria where, following the demise of Nigeria Airways several new private airlines were established, reaching a peak of 40 airlines in 2005. However the capacity of the Nigerian CAA to uphold safety and security standards did not increase to match this, leading to three serious accidents each of which was put down to pilot error linked to inadequate oversight by NCAA. Despite efforts to improve the situation, NCAA still does not have the capacity to finance its long-term equipment and finance needs.

[13] Comments by AERIA, operator of Abidjan Airport

[14] 2006 Safety Report, IATA

[15] Angola, Benin, Congo (Rep), Congo (DR), Djibouti, Equatorial Guinea, Liberia, Gabon, Mauritania, Mozambique, Sao Tome & Principe, Sierra Leone, Sudan, Swaziland and Zambia – source EU.

4.20 Therefore, improving aviation safety in Africa is of paramount importance and is listed as the first priority in the AICD report. Both ICAO and EASA are involved in projects to enhance the regulatory framework and improve the technical capability of safety agencies in a number of African countries. For example ICAO is involved in the creation of a common accidents and incidents investigations bureau across West African states, while EASA is supporting a project to enable the use of satellite for air navigation services across sub-Saharan Africa. Funding for ICAO and EASA projects either comes from the countries themselves, from donor countries or from the relevant EU budget. Typically funding has not come from IFIs, but the EIB has provided assistance to ASECNA.

4.21 In this context it should be noted that creation of a common framework for air navigation across the continent (the Single African Sky) forms an element of the PIDA PAP Action Plan.

Past PPP Projects

Types of air transport infrastructure PPPs in Africa

4.22 Most air transport infrastructure in Africa remains in public ownership, but there have been a significant number of successful attempts to involve the private sector. Three generic types of infrastructure can be considered:

- Airports;
- Airlines; and
- Air Navigation Services.

4.23 It can be debated whether airlines should be considered as "*infrastructure*", but it appears to be the consensus among IFIs (and private sector investors such as the Aga Khan Development Network) that this is appropriate: certainly airlines do form an essential element of the connectivity that aviation facilities provide and, furthermore, have expensive assets (aircraft) for which significant financing is required.

4.24 For airport assets, PPP projects divide into a number of categories:

- Greenfield airport development;
- Existing airport airfield enhancements or refurbishments;
- Existing airport terminal expansion or refurbishment;
- Cargo facilities; and
- Management contract for operation of an existing facility.

4.25 The scale of investment in each of these categories varies, but in general will be highest for a greenfield airport and lowest for a management contract, which may involve no capital investment from the private sector. It is of course possible for a project's contractual structure to involve more than one category at once.

4.26 There have not been any historical PPPs in Africa relating to Air Navigation Services, although in principle these services do generate revenues and could be operated as PPPs. ASECNA, which covers most of French-speaking West and Central Africa could be a candidate, but currently works successfully in the public sector.

4.27 There are several examples of private sector involvement in African airlines, and indeed there are a growing number of fully private airlines. Where state-owned airlines have brought in the private sector, this has generally been in two ways:

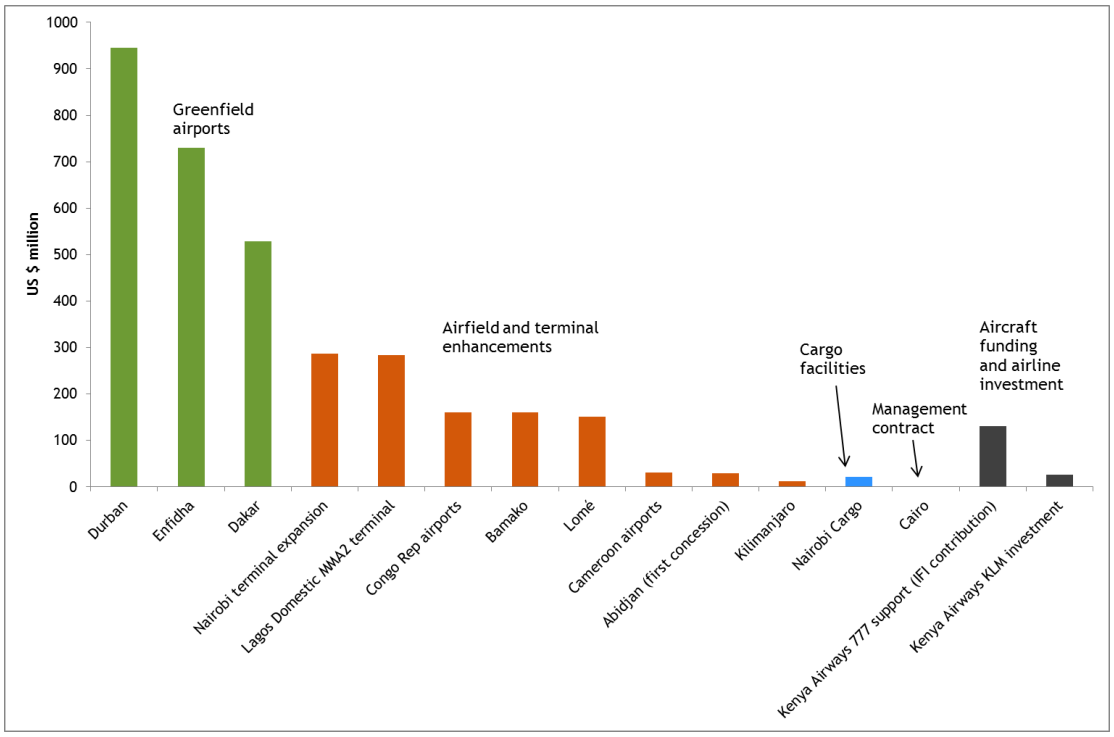
- Involvement of a foreign airline as shareholder and operational partner; and
- Support for aircraft funding.

4.28 While the focus of this Study has not been on airlines, they do form an important part of the air transport package where there has been significant financing activity involving both IFIs and the private sector.

Examples of PPPs

4.29 Figure 4.2 indicates the approximate value and type of the projects described below. Estimates have been used where information was not available.

FIGURE 4.2 HISTORICAL AIR TRANSPORT PPP EXAMPLES



Greenfield airports

4.30 There have been a small number of greenfield airport developments across the continent. These include Enfidha Airport in Tunisia, Durban Airport (DUBE) in South Africa and the new Dakar Airport in Senegal.

4.31 The Enfidha project objective was to build a new tourist airport at Enfidha and to rehabilitate and maintain the existing airport at Monastir (see case study in Appendix B). The project started in 2004, but was delayed due to an unrealistic construction specification. It was re-let in 2006 and awarded in 2007, with financial close in 2008. The new airport opened in December 2009. The Concession, awarded to TAV, runs to 2047, with a concession payment of between 11% and 26% of revenues between 2010 and 2047. The construction cost was €550 million. Finance was provided by a number of institutions including the IFC, EIB and Pan African Fund for development.

4.32 The implementation of the concession involved reduction in staff numbers and this has caused some social issues. The tourism and connectivity improvements have the potential to improve the development of the region, and traffic has increased, in difficult economic times, although not as quickly as the Concessionnaire, TAV, had expected. The site presents itself as an international airport providing facilities to ICAO standards.

4.33 The DUBE Trade Port project in Durban involved the building of a greenfield airport in Durban South Africa, including the relocation of the original downtown airport to an out of town greenfield site and sale of the land downtown (see case study in Appendix B). Feasibility studies and analysis were undertaken between 2004-2006, and award of contract was subject to legal challenge before finally being awarded in 2007 (US$946 million contract). The new airport opened on 1 May 2010, and associated cargo and business facilities continue to be built to establish the DUBE Trade Port concept. A number of PPP models were considered but in the end there was a construction contract with Group 5 leading the build of the new airport and ACSA South Africa providing the long term management of the airport under a separate management contract for 10 years. Funding was eventually provided by the RSA Government, after a number of PPP models were examined but not found to represent sufficient value for money.

4.34 In the end a true PPP structure was not possible because the financial feasibility of the new airport was difficult to prove. This could have been solved by appropriate structuring but unrealistic expectations at the start of the process influenced the possible approach. Where new and unproven concepts (such as the tradeport) are not proven it is very difficult to persuade the providers of feasibility studies and the private suppliers of finance that this is feasible. There have been large positive employment impacts from development of the new airport and a large amount of associated activity. The airport has managed to attract direct services to the UK and freighter-only services to improve the connectivity of KwaZulu Natal as a consequence with the associated potential benefits for development. The involvement of the private sector meant that the construction and operation of the new airport was ready for the May 2010 opening despite the contract only being awarded in 2007, thus helping to deliver a very difficult project.

4.35 The new Dakar airport development has reached financial close, but construction is still ongoing (and some commentators believe that there may be a change to the project following forthcoming elections in Senegal) (see case study in Appendix B). The objective was to build a new airport in Dakar with a capacity of 3 million passengers per annum, replacing the existing airport on a Design Build Operate Transfer (DBOT) basis, but in fact funding has been achieved entirely through the public sector. The Project started in 2006 with the formation of AIDB, a wholly owned government agency whose purpose was to promote the airport project. Interim bridging financing was achieved by 2008 and longer term finance was signed in September 2011, total financing of €406m ($529m) having been raised from IFIs and commercial banks, with BNP Paribas as lead arranger.

4.36 Construction of the new airport began in the first quarter of 2008, but was slowed down by financing issues and it is not expected to open until at least 2014. The airport is being constructed by the Saudi BinLaden Group (SBG) and will be operated by FRAPORT, we understand as part of a local consortium, under a

concession (the term of which is not clear). The outcomes of the project are not yet known as it is not yet operational.

Existing airport enhancements involving airfield improvements

4.37 A concession was established at Abidjan Airport, Côte d'Ivoire in 1996 for a period of 15 years, following a process started in 1994 (see case study in Appendix B). The concession was operated by AERIA, a special purpose vehicle whose shareholders were Marseille Chamber of Commerce (who operate Marseille airport), Sofréavia (later taken over by Egis), some private companies and some institutional investors including BNP Paribas and Agence française de développement (AFD). The concession was renewed with a new concession period of 20 years which started on 1 January 2010 (lasting until 2029). For the second concession, the technical partner changed from Marseille to Egis Airport Operation, which manages 11 airports across the world. AERIA's shareholders also include the Government and private investors, and there is financing from BNP Paribas, AFD and Proparco.

4.38 During the first concession AERIA developed the terminal, extended the runway, refurbished and extended the cargo terminal, improved access and landside roads as well as participating in a project to develop a training academy. In the second concession, there is a requirement to invest CFA80bn (€120m), over four 5-year plans. It is planned to increase capacity from 2 to 3 million passengers per annum, as traffic requires and there is also a commitment to develop an Airport City complex.

4.39 A concession for three airports in the Republic of Congo was let in 2009 to AERCO, an SPV in which Egis has the dominant role, starting in 2011 with a 25 year term (see case study in Appendix B). The concession involves refurbishment of the airfield at Brazzaville, including an Airbus A380 compatible runway, taxiways, parking stands, as well as a 50,000sqm terminal. Funding of the new terminal came in part from a $160m loan from Export-Import Bank of China. The concession also involved the building of a new airport at Ollombo, which was financed by the Government at a cost of $62m.

4.40 Egis is also the Concessionaire at Libreville Airport in Gabon, where it has a 30 year Concession, which has involved terminal expansion and runway and apron strengthening.

4.41 Nairobi's Jomo Kenyatta Airport has extensive plans to modernise and enhance its infrastructure. Apron extension and the Unit 4 terminal facility and associated infrastructure, as well as pavement rehabilitation and re-organisation of existing terminal units (1,2 and 3 and the Arrivals building), are underway (total cost €215m according to EIB). In the absence of appropriate PPP legislation, this has been funded through the public sector, with support from World Bank, AFD and EIB. A more ambitious scheme to develop a greenfield terminal and associated apron infrastructure (and potentially a second runway) is currently being tendered, but again it is anticipated that this will be funded through loans to the government, although constructed privately. However, cargo facilities have been privately funded (discussed below).

4.42 A major expansion of Lomé's airport (Togo) started in December 2011, including new terminal, extra aircraft capacity, trebling the cargo centre size and the

development of large commercial centre serving both the airport and city. This project has been financed by China's Ex-Im Bank ($150m). This is therefore a case where the ready availability of Chinese finance has proved more attractive than raising private sector funds in a PPP, which is becoming increasingly common.

Existing airports – passenger terminal enhancements

4.43 Lagos Airport Domestic Airport (MMA2) was let as a concession in 2007 to Nigerian construction company Bi-Courtney, following destruction of the original terminal in a fire (see case study in Appendix B). The Concession is a 36 year agreement to Build and Operate the terminal, established as a three-way agreement with the Federal Government and the Federal Airports Authority of Nigeria (FAAN), and gives the Concessionaire the rights to serve all domestic flights (although in practice a major domestic airline, Arik Air, has refused to move to the new facility). Passenger fees and commercial revenues accrue to the Concessionaire, which pays a percentage of revenue to FAAN as a fee, as well as covering its own costs. The capital expenditure was financed initially from Bi-Courtney's own resources and at a later stage from a consortium of Nigerian banks (Naira-denominated loan), at relatively high interest rates. Bi-Courtney is keen to refinance its debt to reduce financing costs.

4.44 A new terminal is being constructed at Bamako Airport in Mali (project cost $160m including runway enhancements), partially funded through US Millennium Challenge Corporation funds. The successful bidder is required to invest $66m by 2016. Although SNC-Lavalin was declared the winner of the auction, there is a legal dispute and the concession may be re-awarded to Egis instead.

4.45 In contrast, there was a plan to concession Abuja Airport in Nigeria, involving terminal refurbishment and other developments, in which the World Bank acted in an advisory role. However, the contract was cancelled by the Federal Government and did not proceed. FAAN now has plans to improve the terminals and rehabilitate the runway, but is not intending to use a PPP.

4.46 Kilimanjaro Airport in Tanzania was let as a 25-year Concession to rehabilitate and operate the airport in 1998. Kilimanjaro Airports Development Company (KADCO) was established, dominated by international partners, and invested over $11m in the infrastructure. However the concession failed in late 2009 and the airport is being taken back under the control of the Tanzanian Airport Authority.

Cargo facilities

4.47 The cargo facilities at Nairobi airport have been developed by the private sector. The original concession was let to African Cargo Handling in 1998, but subsequently additional concessions providing more capacity were also let to other operators: Swissport, Signon, TransGlobal and Kenya Airfreight Handling. In each case the private operator developed the transit shed facilities in return for a concession fee (rental).

4.48 Cargo facility expansion is a common feature of airport enhancements, for example the first Abidjan concession included expansion of the cargo terminal while the recently started Lomé project involves a tripling of the cargo facility. Cargo was an important part of the Durban airport relocation as part of the DUBE port concept.

Management contracts

4.49 Several airports in Egypt are operated as Management Contracts where the airport is managed on behalf of the owner for a fee, without a requirement for significant capital investment from the operator. This includes Cairo Airport, managed by FRAPORT and Luxor Airport, managed by Aéroports de Paris. The new airport in Dakar is planned to be operated by FRAPORT, again on a management contract basis.

Airlines – foreign airline partner

4.50 The most important example of foreign airlines investing in an African airline was KLM's investment in Kenya Airways in 1995, receiving a 26% share for $26m. While there are several smaller airlines with private sector participation, of the continent's five major airlines (South African Airways, Egyptair, Ethiopian Airlines, Royal Air Maroc and Kenya Airways[16]) only Kenya Airways has majority private sector ownership. KLM and Kenya Airways entered into a Cooperation Agreement setting out the two airlines' plans for the future and the means by which they intend to work together to develop a world-wide network with Nairobi as one of its hubs. Since the KLM investment, Kenya Airways has developed into one of the most successful airlines in Africa consistently profitable at the operating level and growing at an annual rate of 8% p.a. in passenger numbers between 2001/02 and 2010/11[17].

4.51 Other examples include Air France's participation in the new Air Côte d'Ivoire and Lufthansa's involvement in Congo Brazzaville's ECAir. Ethiopian Airlines, together with private investors, recently established Asky as a West African regional airline based in Lomé, Togo.

Airlines – support for funding of aircraft purchase/leases

4.52 There are a number of examples where IFIs or similar organisations have supported airlines through providing funding for aircraft purchase/ leases. Again Kenya Airways is the best example, where the IFC supported the acquisition of Boeing 777 aircraft for the fleet. Similarly, AfDB and the Emerging Africa Infrastructure Fund supported Ethiopian Airlines in the acquisition of Boeing 777 aircraft. The Aga Khan Development Network has supported the establishment of new airlines across Africa: Air Uganda, Air Mali and Air Burkina through provision of equity and, effectively, supporting these airlines' ability to lease aircraft.

4.53 Support for aircraft funding can be an important factor in allowing airline expansion, increasing competition on some routes and thus helping to reduce costs for consumers as air fares fall. We are aware that AfDB is currently undertaking an initiative in this area, focusing on medium-sized aircraft.

Characteristics of private investors and funding providers

4.54 The relatively small number of air transport PPPs in Africa mean that to date there have been only a small number of investors, although it is clear that there is high level of interest in such projects (as evidenced by the significant number of

[16] 2007 data, based on seat km, source AICD paper

[17] http://www.kenya-airways.com/uploadedFiles/Global/About_Kenya_Airways/Investor_Information/Financial_Reports/2010-2011%20Full%20Year%20Investors%20presentation.pdf

investors who have expressed interest in the new airport projects in Rwanda and Lekki, Nigeria – 33 in the latter case).

4.55 Airport operators form one important group of investors. French group Egis Avia has a strong position in francophone Africa (in Côte d'Ivoire, Congo and Gabon), TAV the Turkish Airports Operator runs the Enfidha and Monastir Concession, FRAPORT has a key role in operating Cairo Airport and as the designated operator of the new Dakar Airport and Aéroports de Paris operates Luxor Airport.

4.56 Construction companies form the other main group of investors, with involvement from Group 5 Construction (South Africa), Saudi BinLaden Group (Senegal), Bi-Courtney (Nigeria), Kato Investments (Egypt) and SNC-Lavalin (Libya and potentially Mali). In addition, Chinese construction companies are very active in a number of countries, often employed directly by the public sector.

4.57 In terms of funding providers, IFIs are active in Africa, including the World Bank, African Development Bank, European Investment Bank, Agence française de développement and, with a private sector focus International Finance Corporation and Proparco. The Aga Khan Development Network provides equity funding for projects that it considers socially beneficial, attempting to bring in commercial funding, while the Private Infrastructure Development Group attempts to catalyse private sector investment using seed capital from donors.

4.58 In terms of pure private sector lending, BNP Paribas is active in the continent, and Nigerian banks were able to fund the MMA2 Lagos Airport terminal. However, in sub-Saharan Africa, only South Africa, Nigeria and Kenya have sufficient banking capacity to fund major projects such as air transport infrastructure, so international debt funding is likely to continue to be required.

4.59 In summary, investors and funders of African airports tend to be those with a direct interest in aviation operation or airport construction, or in BNP Paribas's case, with an important presence in Africa. More general investment funds and most international banks have not had such a significant involvement, possibly reflecting a view that the region is higher risk than other parts of the world.

Lessons learned from past PPP projects

4.60 This review of the market background and past PPPs in the air transport sector in Africa indicates that, while there has historically been a range of opportunities for private sector participation, the actual overall level of activity has been relatively low. This is certainly the case in comparison with the ports and roads sectors within transport, and even more so in comparison with the power and telecommunications sectors.

4.61 It is therefore important to assess both the scale of the opportunity for private sector participation, the barriers to success and the opportunities for intervention from IFIs and similar organisations to help overcome these barriers. These "*lessons learned*" are based both on the review of historical activity and the views of a wide range of stakeholders interviewed, including IFIs, private sector funding providers and airport operators. They lead naturally to a set of success criteria to apply to potential future projects.

The scale of the opportunity

4.62 One of the clear features of the African air transport market is its relatively small size, outside a few key markets (South Africa, Egypt, Nigeria, Morocco, Kenya, Algeria, Tunisia and Ethiopia). This is in strong contrast to other markets where airport concessions have been let, particularly in Europe, where the airports involved tend to be of a significant size and generally over 5 million passengers per annum (mppa). Many stakeholders commented on this, but appeared to disagree on the appropriate minimum size at which private sector participation was likely to be economic.

4.63 The appropriate size for private sector participation depends on the nature of the project. For a greenfield airport, with costs of the order of $500m, an annual throughput of at least 3 mppa is likely to be required to allow the private sector to fully finance the project. However, as already noted, Africa does not in general suffer from a lack of absolute airport capacity (which might require new airports to be built), but rather from poor quality infrastructure and (often) undersized terminal facilities. Projects that involve refurbishment of the airfield and/or terminal expansion are likely to require investments of the order of $50m to $200m which can be economic in a much smaller airport. The range of economic size may vary between 0.5 and 1 mppa, which brings a much larger number of airports into the frame.

4.64 Furthermore, with a suitable sharing of investment between the public and private sectors, some stakeholders considered that private sector participation might be feasible in an airport with as few as 200,000 annual passengers. In some cases, the only viable type of private sector participation may be through a management contract (i.e. with private sector operation but not investment). Given that private sector operation has generally produced a step-change in the quality of service provided in African airports, facilitating this may still be a highly worthwhile intervention.

4.65 Apart from airports, there is a clear need for enhancing African countries' aviation safety capability. Interventions here can range from institution building and training for personnel such as pilots and air traffic controllers, to enhancing the capabilities and equipment of air navigation services where private sector suppliers provide a vital service and where potentially private sector investment may be captured for a PPP arrangement funded through fees from airlines (e.g. for overflights).

4.66 Finally, as airlines expand across the continent, there will be a significant need for aircraft financing. Support for pre-delivery payments may be required from IFIs, as well as financing through export credit facilities, to allow the private sector to supply the equipment.

Barriers to success

4.67 Despite these opportunities, it is clear that there have been many difficulties in achieving the level of private sector participation that many consider desirable. While the issues of the necessary minimum scale for economic efficiency is important, many stakeholders have identified that the biggest problem actually lies on the public sector side.

4.68 In the first place, it is impossible for a PPP arrangement to be established for important national infrastructure such as airports without the enthusiastic support of the government of the country concerned. However, in many cases, governments are either opposed or only partially supportive of PPPs, fearing a loss of control over an important national asset or simply the loss of the relatively secure revenue streams provided by airports. Even where governments do support the PPP concept, it is often the case that they have highly unrealistic expectations of the balance of risk and reward that the private sector will accept, making it hard to deliver the project.

4.69 In addition to governments' approach to PPPs in general, certain issues specific to aviation can make it harder for successful private sector involvement to be achieved. In particular, while there is broad support for liberalisation of market access through the Yamoussoukro Decision, in practice, as noted by a number of stakeholders, "open skies is not a reality" with full implementation not achieved, or only partially achieved, across the continent, as noted from paragraph 4.11 above.

4.70 Furthermore, many governments are keen to promote and protect a national airline, often a reason for restricting market access to other carriers. For these reasons, the market for aviation is restricted below its natural level, as evidenced by the relatively high level of fares across the continent (see paragraph 4.9 above), reducing the incentives for and economic viability of private sector investment. In relation to airlines, it was also noted by stakeholders that governments often left it too late to involve the private sector, waiting until the airline's performance and financial position had deteriorated too far to be attractive to investors.

4.71 A further issue specific to aviation is that there is often a split of responsibility for investments between the ministries responsible for transport and for infrastructure. In addition, there is usually a role for the finance ministry and sometimes a PPP unit, so that there may be four different governmental institutions involved in the process, leading to a lack of clarity about objectives and process.

4.72 Going beyond the aviation-specific factors, there are a number of "institutional" factors that need to be in place to ensure that a successful PPP can be established. These include:

- A suitable legal framework such as explicit PPP-enabling legislation;
- Appropriate and credible regulatory institutions covering issues such as safety and airport charges; and
- A transparent procurement process (the involvement of IFIs in the process often adds credibility to this).

4.73 It is essential that there should be clarity over what is included and excluded from the concession, and what will be funded by the public sector, to enable bidders to have certainty over what revenues the Concessionaire will be entitled to and what costs it will incur. The government needs to ensure that the public sector contribution should be such as to ensure that the private sector element is commercially viable, and if necessary, approach funding bodies to provide support for the public sector part of the project if it is needed.

4.74 The contractual framework (as set out in the Concession Agreement) needs to be clear and to involve all the relevant parties – for example IFIs sometimes wish to be direct parties to the agreement to ensure recourse to the private partner for any loan. Clarity on the contractual framework also gives comfort to private sector bidders about the costs, revenues and risks associated with the project.

4.75 Finally, the restricted range of international investors and funding providers who have been involved in African aviation infrastructure projects, generally specialists such as airport operators, construction companies and banks with an African focus, indicates that attracting funds from more general investors and funds providers would help to unlock the potential of the sector. Actions that provide confidence to such institutions are likely to make a difference in the level of funding and investment available.

Appropriate types of intervention by IFIs

4.76 It follows from this analysis that the interventions which IFIs can make to enhance private sector participation are not limited to the provision of financial support: technical assistance, in particular capacity building for the public sector, can be equally, if not more, important. Stakeholders emphasised the need for a "package" of supporting interventions, from the early stages of a project through to financial close and post-implementation monitoring. The combination of "softer" approaches including capacity building with "harder" approaches including financial assistance, was most likely to lead to success.

4.77 Such technical assistance will often be required to be given to the public sector to enable:

- Support in developing a suitable legislative framework;
- Institution building, such as for safety and economic regulation authorities;
- Support for the initial phases of the project – defining objectives and establishing a viable split between the public sector and private sector elements;
- Support for the transaction process; and
- Support for the on-going regulatory framework following implementation of the project.

4.78 In terms of financial assistance, this can be either to the private or public sectors (or both). For example, if the public sector needs to develop some of the project (such as building or rehabilitating the runway) in order to make the private sector element (such as a passenger terminal concession) financially viable, then funding may be required to support the public sector element. Equally, providing funding to the private sector can form a vital part of the project finance, encouraging private sector debt providers to contribute and hence delivering the required level of capital.

4.79 Given the importance of safety in an African context, it should be noted that international aviation organisations such as ICAO and EASA are able to provide specific technical assistance in this area, but do require funding to deliver this. Financial support for this type of technical assistance would therefore be a valuable contribution to the task of improving aviation safety across the continent.

4.80 Given that investors only achieve a financial return through the on-going success of the PPP, it is important that potential investors believe that, for example, the regulatory environment will be both stable and fair during the period of the concession. Support to provide monitoring and, potentially, arbitration of disputes, would be very helpful in providing this level of confidence.

4.81 Equally, considering the underlying rationale for IFIs' support of air transport infrastructure projects, namely to support the economic development of the country and its surrounding region, it is important that the benefits of the projects reach the wider economy and population through improving air connectivity and, ultimately, helping to reduce the cost of air travel. In this context it is important to ensure that airport charges are reasonable and not excessive. IFIs can help to achieve this by influencing the design of the regulatory system for airport tariffs or, alternatively, through by encouraging suitable contractual mechanisms in the airport operator's concession agreement. A fair and stable contractual structure and regulatory regime can benefit both investors and the economy and country as a whole.

4.82 The IFIs are well placed to provide both the technical assistance, in terms of capacity building, contractual structures and regulation, and financial assistance to ensure viability through support to the public sector and seed capital for the private sector. These can give the private sector the confidence to invest in air transport infrastructure, but a flexible and broad approach is likely to be required to ensure success.

Success factors

4.83 Based on the lessons learned, we have developed a set of criteria for assessing the likely desirability and success of potential projects involving private sector participation. From an IFI perspective, it is important the project achieves appropriate social, developmental or regional objectives in order to be worth supporting. Equally, the circumstances of the project need to be such as to make an IFI-supported PPP a realistic solution, considering factors such as the need for funding and government enthusiasm for PPPs. The government's willingness to allow effective market access through the implementation of the Yamoussoukro Decision, and to allow other airlines to compete fairly with the national carrier is also an indicator of the likelihood of success. The project itself needs to be in a suitable state of readiness for support – in some cases that might be an early stage project in need of technical support to help define it, while in others is might be ready for financial support. Finally, the relevant institutions in the country must be able to support the process so that, for example, fair procurement procedures can be adopted.

4.84 The main relevant criteria are therefore based on four groupings:

- Desirability of the project – its urgency and benefits it delivers;
- Scope for (an IFI-assisted) PPP – the ability of a PPP to bring these benefits;
- Project status – the readiness and viability of the project; and
- Institutional capacity – the ability of the relevant institutions to support delivery of the project.

4.85 These criteria are discussed in more detail in Chapter 6.

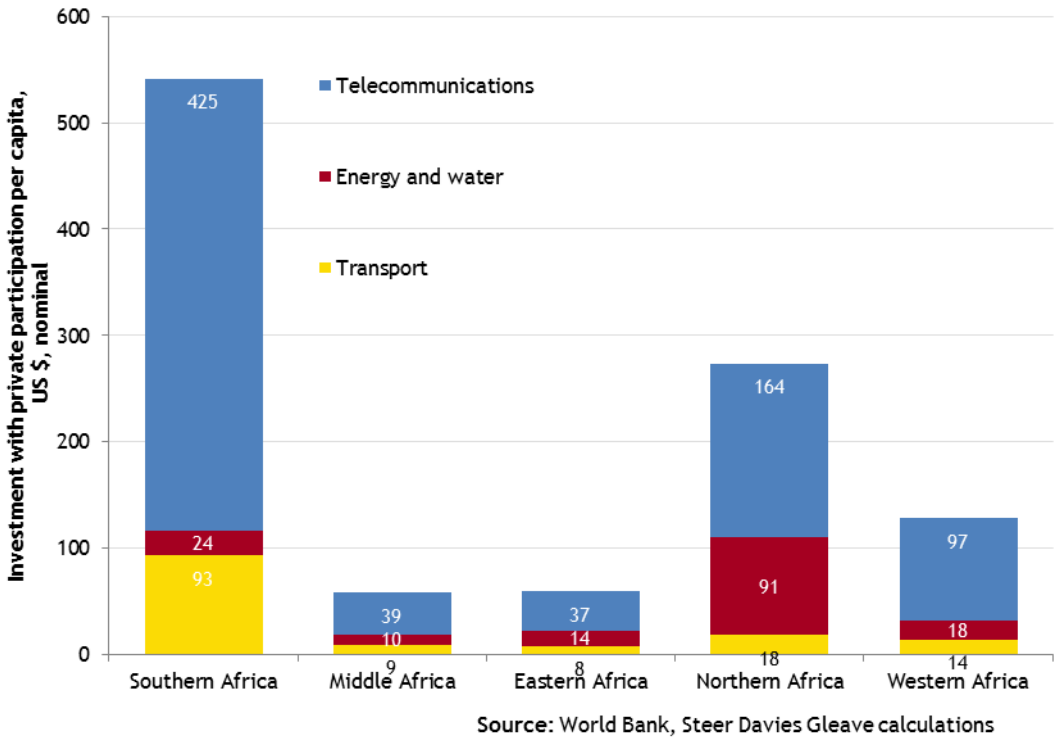
5 Investment Climate in Africa

Introduction

5.1 This section provides a description of the investment climate in Africa, covering past investments in the transport sector, credit ratings, key factors influencing the availability of project finance, governance, the presence of PPP units and country track records of successful PPP implementation. A number of the metrics described in this section will be applied to our evaluation framework to assess our long list of projects described in Chapters 7 (ports) and 8 (air transport infrastructure).

5.2 Over the last two decades, more than $150bn of investment involving private participation has been undertaken on the African continent, of which around $17bn has been in transport infrastructure. Approximately one third of transport investment has taken place in Southern Africa, even though it accounts for only 5% of the continent's population, with Western and Northern Africa accounting for the bulk of the remainder. Figure 5.1 displays total investment with private participation per head from 1990 to 2009 across the regions. For transport and other types of investment, expenditure has been highest in Southern and Northern Africa (but often in the roads sector), where incomes are highest and corruption levels are relatively low.

FIGURE 5.1 CUMULATIVE INVESTMENT WITH PRIVATE PARTICIPATION PER CAPITA, 1990-2009

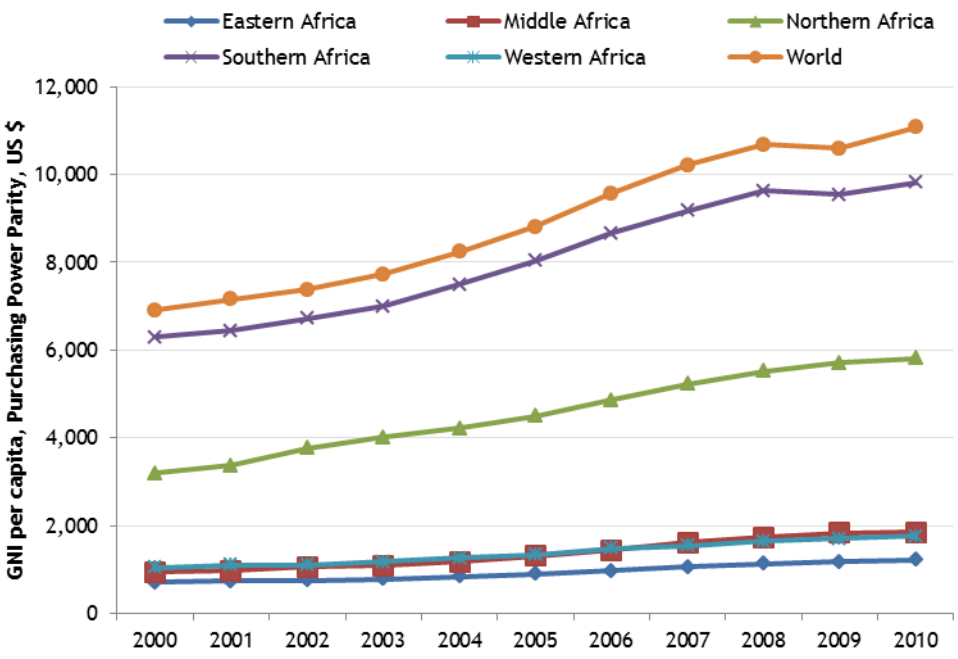


Source: World Bank, Steer Davies Gleave calculations

Investment Climate

5.3 On a Purchasing Power Parity basis, Gross National Income (GNI)[18] per capita in Africa was around $3,000 in 2010, roughly a quarter of the world average. This conceals significant income variations within the continent. In 2010 for example, Southern Africa (using United Nations definitions) had GNI per capita more than eight times that of Eastern Africa, as illustrated in Figure 5.2. Economic growth has been strong however, with every region except Southern Africa outpacing world growth between 2000 and 2010 in percentage terms.

FIGURE 5.2 GNI PER CAPITA AT PURCHASING POWER PARITY, 2000-2010



Source: World Bank, Steer Davies Gleave calculations

5.4 Several countries including Sierra Leone, Ethiopia, Mozambique, Angola and Equatorial Guinea have shown very rapid economic growth, with GNI more than doubling between 2000 and 2010 (although this is in the context of very low base levels of wealth).

Credit Ratings

5.5 Credit agency ratings of sovereign debt provide a general indication of the perceptions of financial and economic risk in a country. Table 5.1 provides an overview of the ratings from the three major rating agencies; Moody's, Fitch and Standard and Poor. Only 22 of the possible 53 countries have ratings, most are ranked B to BBB. The most secure is Botswana with an A- ranking. Most countries have a "stable" outlook, with the exception of Egypt, Senegal and Tunisia, which each have a negative outlook meaning their rating could be downgraded in future.

[18] We use GNI for this comparison as it is a reflection of the values of products and services based on citizenship of owners rather than the territory of the activity. It does not reflect on the profits of foreign organisations investing in a country. It is a reflection of the wealth produced by its citizens rather than foreign investors.

TABLE 5.1 SOVERERIGN CREDIT RATINGS JANUARY 2012

Nation	MOODYS RATING	MOODYS OUTLOOK	FITCH RATING	FITCH OUTLOOK	S and P RATING	S and P OUTLOOK
Angola	Ba3	STABLE	BB-	STABLE	BB-	STABLE
Benin	-	-	B	STABLE	B	STABLE
Botswana	A2	STABLE	-	-	A-	STABLE
Burkina Faso	-	-	-	-	B	STABLE
Cameroon	-	-	B	STABLE	B	STABLE
Cape Verde	-	-	B+	STABLE	B+	STABLE
Egypt	B1	NEGATIVE	BB	NEGATIVE	B+	NEGATIVE
Gabon	-	-	BB-	STABLE	BB-	STABLE
Ghana	-	-	B+	STABLE	B	STABLE
Kenya	-	-	B+	STABLE	B+	STABLE
Lesotho	-	-	BB-	NEGATIVE	-	-
Morocco	Ba1	STABLE	BBB-	STABLE	BBB-	STABLE
Mozambique	-	-	B	STABLE	B+	STABLE
Namibia	Baa3	STABLE	BBB-	POSITIVE	-	-
Nigeria	-	-	BB-	STABLE	B+	STABLE
Rwanda	-	-	B	STABLE	B	POSITIVE
Senegal	B1	STABLE	-	-	B+	NEGATIVE
Seychelles	-	-	B	STABLE	-	-
South Africa	A3	NEGATIVE	BBB+	STABLE	BBB+	STABLE
Tunisia	Baa3	NEGATIVE	BBB-	NEGATIVE	BBB-	NEGATIVE
Uganda	-	-	B	STABLE	B+	STABLE
Zambia	-	-	B+	STABLE	B+	STABLE

Source: http://www.guardian.co.uk/news/datablog/2010/apr/30/credit-ratings-country-fitch-moodys-standard

Business Environment

5.6 The African Development Bank (AfDB) provides a set of indicators relating to the business and institutional environment of African nations including metrics in Economic Management, Structural Policies, Policies for Social Inclusion and Equity, Country Policy and Governance Rating. The AfDB also provides an assessment of 'portfolio performance', which assesses the performance of the organisations investments in particular countries.

5.7 Table 5.2 shows the rating list across these metrics on the next page (5=best, 0 = worst). Overall Ghana, Cape Verde, Benin and Burkina Faso are ranked highly in terms of overall governance rating. Somalia, Sudan, Zimbabwe and Eritrea are ranked lowest. In terms of AfDB portfolio performance Guinea, Guinea-Bissau,

Malawi and Rwanda are all ranked highly. The worst performing AFDB portfolios are in Lesotho, Mauritania, the Democratic Republic of Congo, and Burundi.

TABLE 5.2 AFRICAN DEVELOPMENT BANK INDICATORS

	Economic Management	Structural Policies	Policies for Social Inclusion / Equity	Country Policy and Institutional Assessment (CPIA)	Governance Rating (GR)	Country Portfolio Performance Assessment (PPA)
Angola	3.67	3.33	3.00	3.33	2.80	4.50
Benin	4.33	3.33	3.70	3.79	4.20	4.63
Burkina Faso	4.33	4.33	4.00	4.22	4.20	3.88
Burundi	3.67	2.83	3.10	3.20	2.80	3.13
Cameroon	4.00	3.67	3.80	3.82	3.60	3.75
Cape Verde	4.50	4.17	4.50	4.39	4.50	4.50
Central African Rep	3.67	2.83	2.50	3.00	2.70	4.50
Chad	3.17	3.33	3.20	3.23	3.00	4.63
Comoros	2.67	2.67	2.50	2.61	2.00	4.50
Congo, DRC	3.67	3.00	2.80	3.16	2.70	3.13
Congo, Rep. of	3.83	3.00	3.20	3.34	3.30	4.50
Cote d'Ivoire	2.83	3.00	2.60	2.81	2.90	4.50
Djibouti	3.83	3.50	3.30	3.54	3.20	4.25
Eritrea	1.67	2.00	2.90	2.19	2.00	4.50
Ethiopia	3.83	3.17	3.80	3.60	3.60	4.63
Gambia	3.50	3.50	3.10	3.37	2.80	4.50
Ghana	4.00	4.33	4.10	4.14	4.40	4.50
Guinea	3.67	3.50	3.00	3.39	3.00	5.00
Guinea Bissau	3.67	3.17	3.30	3.38	2.90	5.00
Kenya	4.33	4.33	4.20	4.29	3.60	4.50
Lesotho	4.17	3.50	3.70	3.79	3.50	3.13
Liberia	4.33	3.33	3.50	3.72	3.70	4.50
Madagascar	3.67	3.50	3.00	3.39	2.80	3.88
Malawi	3.33	2.83	3.40	3.19	3.60	5.00
Mali	4.50	4.33	3.80	4.21	4.10	5.00
Mauritania	4.17	3.33	3.80	3.77	3.20	3.25
Mozambique	4.17	3.50	3.50	3.72	3.40	4.75
Niger	4.17	3.67	3.30	3.71	3.50	4.25
Nigeria	4.83	3.67	3.30	3.93	3.30	4.50
Rwanda	4.50	4.00	4.40	4.30	4.10	5.00
Sao Tome &	3.83	3.50	3.60	3.64	3.60	4.50
Senegal	4.50	4.00	4.10	4.20	4.10	4.13
Sierra Leone	3.83	3.33	3.00	3.39	3.20	3.38
Somalia	1.17	1.33	1.00	1.17	1.00	-
South Sudan	2.33	2.00	2.00	2.11	2.00	-
Sudan	3.33	2.50	2.30	2.71	2.30	3.38
Tanzania	4.33	3.83	3.80	3.99	3.80	4.00
Togo	3.67	2.67	2.50	2.94	2.70	4.50
Uganda	4.33	4.33	3.80	4.16	3.50	4.75
Zambia	4.50	3.83	3.30	3.88	3.80	4.63
Zimbabwe	1.83	2.50	2.10	2.14	2.10	4.50
Average	3.72	3.33	3.26	3.44	3.21	4.31

Source: African Development Bank Country and Institutional Assessments (Blue= High Rank, Red = Low Rank)

Key influences on the availability of finance in African countries

5.8 During the study, we interviewed a number of stakeholders about the key influences and constraints on the availability of finance and its influence on implementing Public Private Partnerships in African Countries. This section describes the key points that were made during these conversations and goes on to outline some suggestions for addressing or mitigating these issues:

Key constraints on private investment

- **Short length of Credit default SWAP and Forward Foreign Exchange markets**: many African countries have only 4-5 years credit default SWAP and forward foreign exchange contracts provided by the market. This in principle makes currency and credit risk very difficult to manage over a 20 to 30 year concession life.
- **Strength of the local banking industry**: only a small number of African countries have a sufficiently large and mature local banking sector capable of providing significant local financing of PPP projects. Examples include South Africa, Nigeria and Egypt. Local banks can provide loans in local currency, limiting the need for recourse to Credit of Foreign exchange contracts.
- **Sovereign investment**: the availability of finance for transport projects is being impacted by significant investments being undertaken through direct sovereign investment, for example by China. These investments are often undertaken for the purpose of acquiring strategic assets rather than their financial return.
- **Level of equity return**: due to the perceived risks associated with some of the countries and projects in Africa, the required equity rate of return can be high (up to 30% per annum according to a 2011 report by Mandala [19]), making the cost of private finance prohibitively expensive.
- **Not a market for the generalist**: the complexities of the risks encountered in African countries mean that investors need to become specialists in understanding the financial and project risks of the market. Many of the generalists have either never entered the market, or when they have, have withdrawn.

Options to address some of these issues

- **Stapled finance**: based on the above symptoms, some stakeholders have suggested the ICA members might assist sponsors in arranging "stapled finance" (where the sponsor prearranges finance at the time of letting the tender competition), to enable the potential financing of PPP concessions. This is easiest in a country where there is a strong local banking market – such as Egypt, but in principle could also be possible through a mix of IFI and international banks.
- **Track record**: other stakeholders suggested ICA members should concentrate on supporting certain country transport sector development programmes, allowing a country or group of countries to establish a track record of success. This would gradually reduce the need for IFI support (see also the discussion later in this section on countries that have successfully developed and implemented PPPs).

[19] Overcoming Africa's Aviation Expansion – Overcoming Financial Risk, Mandala, July 2011

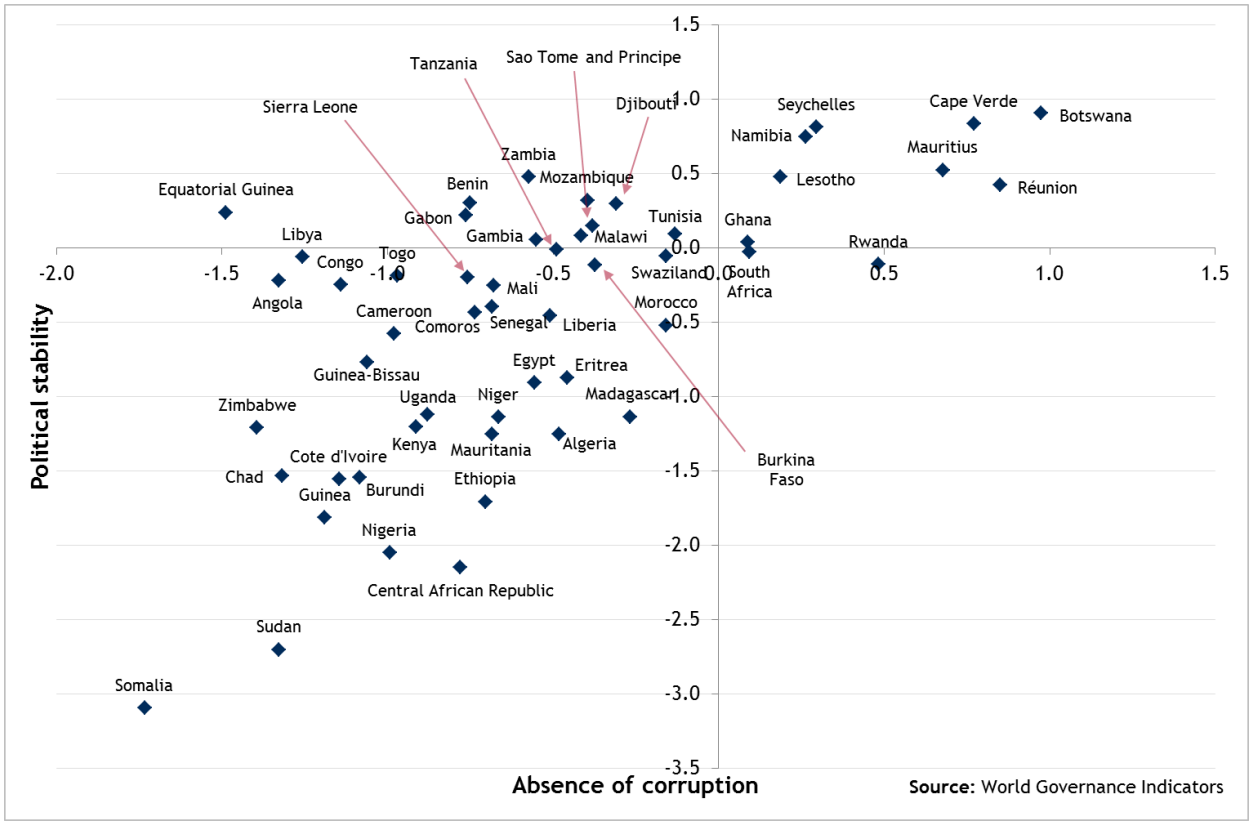
- **IFI involved in the early stage of the bid preparation**: some stakeholders perceived significant benefits from a body like the International Finance Corporation (IFC) being involved in the preparation of the project. Their involvement would reduce investors' risk perceptions and allow private investment to be arranged at reasonable risk premiums.
- **Specialist investors in Africa**: A number of investors are becoming specialist in Africa, including the Aga Khan Development Network, Egis Infrastructure, as well as Hutchinson and DP World amongst others in the ports sector. These organisations are producing successful results by taking a portfolio approach to the investments and undertaking significant research and development to understand the key risks in the market.
- **Government involvement**: There are some projects where the private sector will not be willing or able to take on all risks associated with the project. An unappealing risk share can often be addressed through the structuring of the project, for example a vanilla turnkey (where the contractor is obliged to deliver the construction in return for a fixed price) contract paid by the government sector for the investment and a private sector management contract for the maintenance and operation of that infrastructure. There are also other alternatives, such as government guarantees or bridging loans which the ICA members could play an active role in supporting.
- **Up-front financing:** PIDG Fund InfraCo Africa funds the early phases of projects on its own balance sheet and then, once the project is sufficiently developed to attract private sector interest, sells the full rights to a third party.

5.9 These potential options for mitigating the constraints facing private investment in African infrastructure can be used to influence the type of ICA members intervention appropriate for each of the key projects examined later in the report.

Political Stability

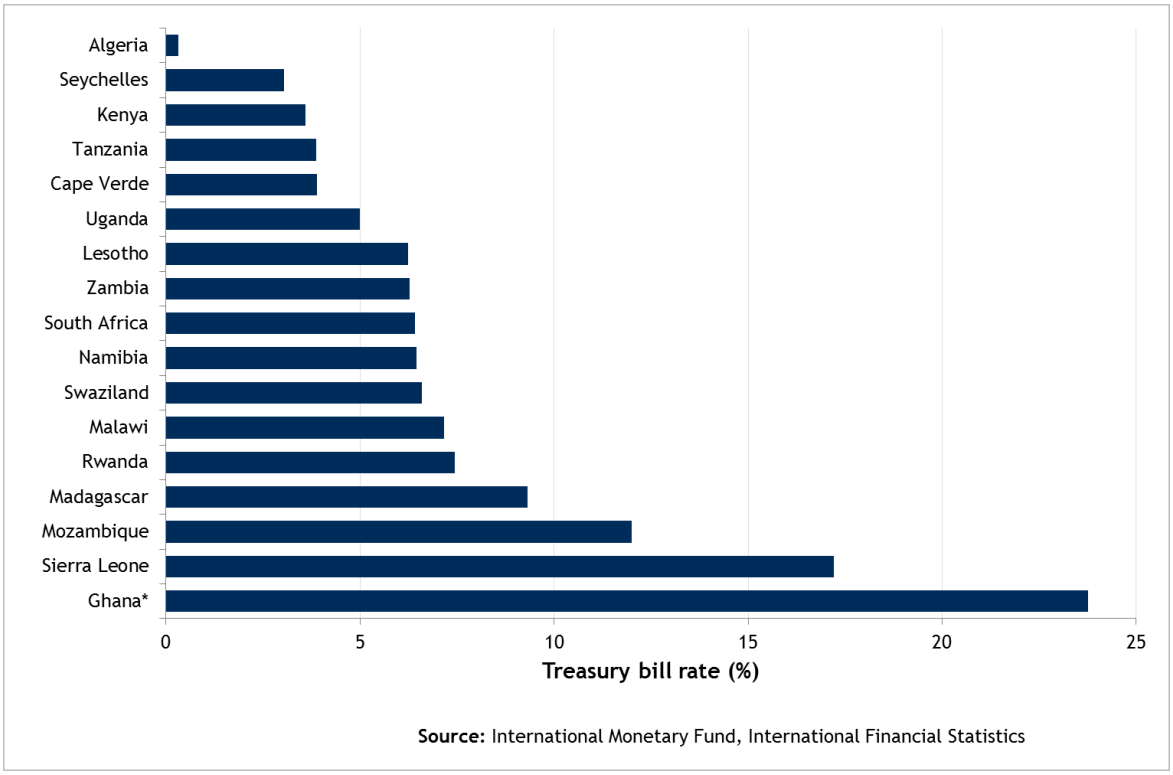
5.10 GNI figures are closely correlated with indices of political stability and the absence of corruption, which are displayed in Figure 5.3. Southern African nations, such as Botswana and South Africa, which have relatively high levels of GNI per head, also enjoy relative political stability and low levels of corruption. Overall Cape Verde, Botswana, Mauritius, Namibia and Seychelles are all ranked highly across these metrics (relative to other African countries). In contrast, countries in Eastern and Western Africa such as Somalia, Sudan, Nigeria and the Central African Republic have very low incomes and suffer from high levels of political instability and corruption.

FIGURE 5.3 POLITICAL STABILITY AND ABSENCE OF CORRUPTION, 2010



5.11 Treasury bill rates provide an indication of the perceived risks of sovereign defaults, and as such provide an indirect measure of political uncertainty as assessed by financial markets. Rates in countries for which information is available are provided in Figure 5.4. The chart shows that Algeria, Seychelles, Kenya, Tanzania, Cape Verde and Uganda all have bill rates under 5% suggesting lower perceived risks. In contrast Ghana, Sierra Leone and Mozambique all have bill rates of over 10%.

FIGURE 5.4 NOMINAL TREASURY BILL RATE, 2010

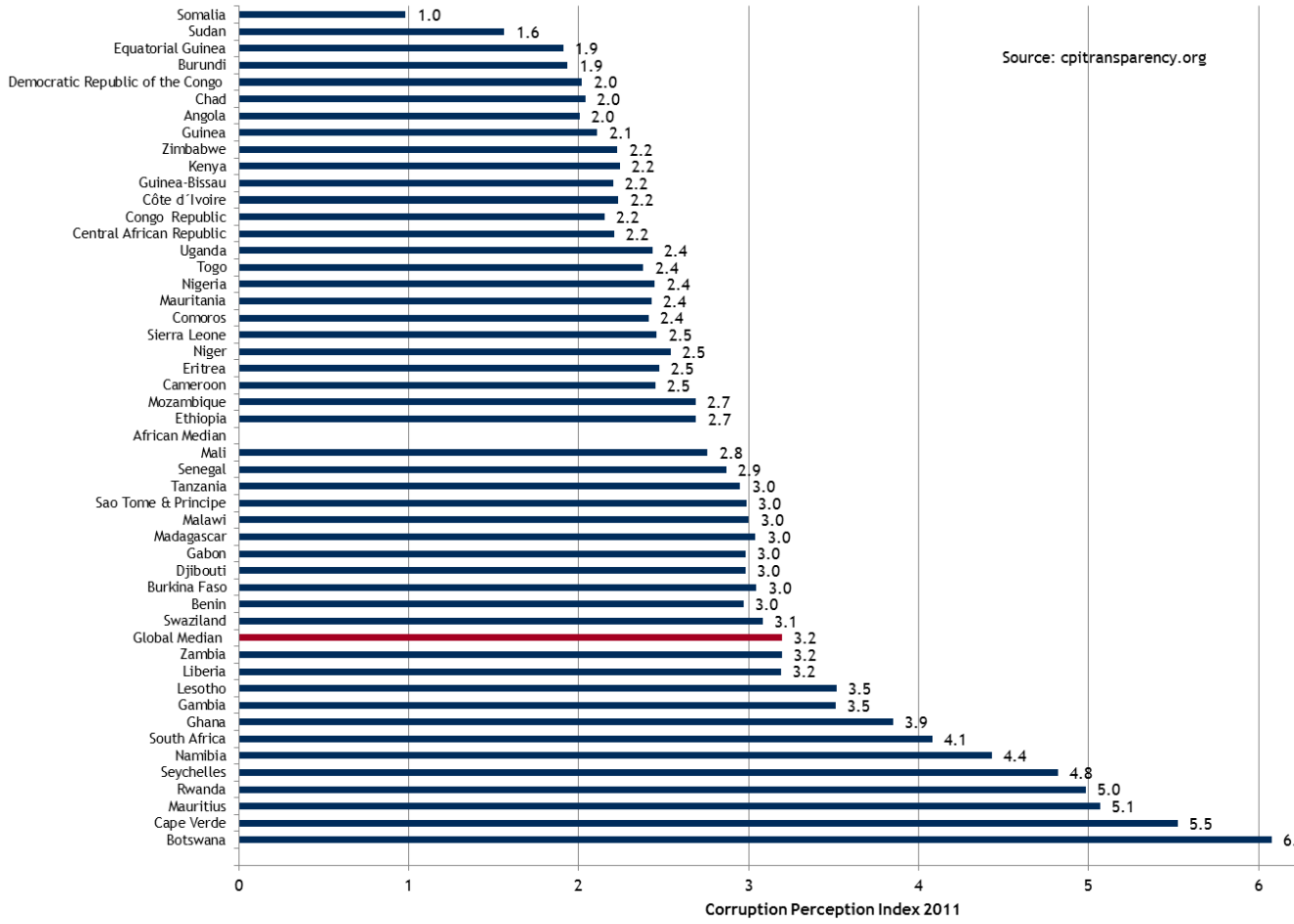


Corruption

5.12 The Corruption Perception Index combines indices from the African Development Bank, Economist Intelligence Unit, the World Bank and others to provide a composite indicator of the levels of perceived corruption in countries throughout the world. Relative to the global median, most African countries have a relatively high level of perceived corruption with an overall median of 2.7 against a global median of 3.2 (0 = high corruption, 10 = low corruption).

5.13 In an African context, Southern Africa is perceived as relatively less corrupt, with the nations of Botswana, Cape Verde and Mauritius viewed as the least corrupt in Africa. Somalia and Sudan are perceived as the most corrupt countries in both Africa and the world. Figure 5.5 shows the ranking of African countries according to their corruption index, highlighting the global and African medians.

FIGURE 5.5 CORRUPTION PERCEPTION INDEX



Governance

5.14 The Ibrahim Index of African Governance combines indicators across Safety and Rule of Law, Participation and Human Rights, Sustainable Economic Opportunity and Human Development to provide a holistic measure of a nation's political, social and economic development. Overall, the index ranks Mauritius, Cape Verde, Botswana, Seychelles and South Africa as the top five African nations for governance. The Central African Republic, the Democratic Republic of Congo, Zimbabwe, Chad and Somalia form the bottom five.

5.15 The report notes that Liberia and Sierra Leone have demonstrated significant improvements in the index following the end of lengthy civil conflicts, each showing improvements across all metrics. The report also suggests that an imbalance between Human Development and Participation and Human Rights in Libya, Egypt and Tunisia may have been a factor in recent political instability.

5.16 In determining a country's ability to sustain a major PPP project, the Sustainable Economic Opportunity Index is a particularly relevant metric. This index combines data across Public Management, Business Environment, Infrastructure and the Rural Sector to benchmark relative performance. Overall Mauritius, Egypt, Cape Verde, Botswana and Tunisia are ranked highest on this indicator. Conversely Somalia, Zimbabwe, Comoros, Guinea and Guinea Bissau are ranked lowest. The

top and bottom ten nations in terms of Public Management and Business Environment are shown in Table 5.3 and Table 5.4 (100 = best, 0 = worst). The full results for the last year are provided in Table 5.5.

TABLE 5.3 PUBLIC MANAGEMENT INDEX

Top Ten Scores	Nation	Score	Bottom Ten Scores	Nation	Score
1	South Africa	73	44	Congo, Democratic Republic	48
2	Libya	71	45	Equatorial Guinea	47
3	Tunisia	71	46	Comoros	47
4	Morocco	70	47	Central African Republic	46
5	Botswana	70	48	Zimbabwe	44
6	Mauritius	66	49	Sudan	43
7	Algeria	66	50	Chad	41
8	Rwanda	65	51	Guinea	40
9	Cape Verde	64	52	Eritrea	34
10	Namibia	62	53	Somalia	4

Source: 2011 Ibrahim Index of African Governance

TABLE 5.4 BUSINESS ENVIRONMENT INDEX

Top Ten Scores	Nation	Score	Bottom Ten Scores	Nation	Score
1	Mauritius	98	44	Togo	33
2	Egypt	80	45	Comoros	33
3	Botswana	77	46	Guinea-Bissau	31
4	South Africa	72	47	Congo	30
5	Morocco	70	48	Equatorial Guinea	26
6	Cape Verde	70	49	Libya	26
7	Rwanda	69	50	Congo, Democratic Republic	22
8	Ghana	68	51	Eritrea	11
9	Namibia	66	52	Zimbabwe	9
10	Seychelles	65	53	Somalia	3

Source: 2011 Ibrahim Index of African Governance

TABLE 5.5 IBRAHIM INDEX OF AFRICAN GOVERNANCE

	Overall Score	Safety and Rule of Law	Participation and Human Rights	Participation and Human Rights	Sustainable Economic Opportunity	Human Development
Algeria	55	54	38	38	52	77
Angola	41	39	43	43	42	39
Benin	60	66	65	65	52	56
Botswana	76	87	68	68	68	82
Burkina Faso	55	59	56	56	59	47
Burundi	45	46	50	50	40	44
Cameroon	45	46	34	34	48	53
Cape Verde	79	87	78	78	68	83
Central African Republic	33	29	34	34	36	31
Chad	31	36	24	24	33	29
Comoros	47	54	51	51	29	56
Congo	42	43	38	38	41	48
Democratic Republic of the	32	30	33	33	29	38
Cote d'Ivoire	36	31	30	30	39	45
Djibouti	49	56	34	34	47	58
Egypt	61	63	34	34	70	76
Equatorial Guinea	37	45	17	17	36	49
Eritrea	35	36	20	20	29	54
Ethiopia	46	45	34	34	54	50
Gabon	51	59	39	39	42	64
Gambia	52	46	44	44	52	64
Ghana	66	72	69	69	53	70
Guinea	38	43	33	33	30	44
Guinea-Bissau	37	40	35	35	33	40
Kenya	53	48	53	53	50	60
Lesotho	63	69	66	66	55	61
Liberia	45	47	54	54	34	47
Libya	50	41	19	19	57	82
Madagascar	47	44	44	44	50	50
Malawi	57	65	59	59	48	54
Mali	54	62	56	56	47	50
Mauritania	47	47	47	47	48	47
Mauritius	82	89	75	75	79	87
Morocco	58	62	35	35	64	71
Mozambique	55	61	58	58	51	48
Namibia	70	78	66	66	63	72
Niger	44	50	42	42	45	40
Nigeria	41	46	34	34	41	44
Rwanda	52	49	39	39	57	62
Sao Tome and Principe	58	65	63	63	38	68
Senegal	57	59	59	59	53	59
Seychelles	73	78	67	67	63	86
Sierra Leone	48	58	53	53	43	38
Somalia	8	5	13	13	4	10
South Africa	71	69	72	72	64	77
Sudan	33	21	22	22	40	49
Swaziland	51	62	28	28	50	66
Tanzania	58	60	60	60	58	54
Togo	46	57	42	42	36	48
Tunisia	62	58	34	34	67	88
Uganda	55	58	51	51	52	59
Zambia	57	62	54	54	51	61
Zimbabwe	31	28	27	27	24	44

Source: 2011 Ibrahim Index of African Governance (Blue = High Rank, Red = Low Rank)

Public-Private Partnership Units

5.17 The presence of a dedicated PPP unit is likely to improve the capacity of a country to deliver a major PPP project successfully by providing dedicated expertise to support the project. There are many PPP units operating throughout Africa, both internationally and within specific countries. The quality and experience of these units is likely to vary significantly from country to country and it is difficult to assess their relative strength. Table 5.6 shows countries where PPP units are in place.

TABLE 5.6 PPP UNITS IN AFRICAN NATIONS

Country	PPP Organisation
Angola	Angola National Private Investment Agency
	Ministry of Finance and Development Planning
Botswana	Botswana Development Corporation
Egypt	Public Private Partnership Central Unit
Ethiopia	Ministry of Finance and Economic Development
Ghana	Project and Financial Analysis Unit of the Ministry of Finance and Economic Planning
Kenya	Treasury Public Private Partnership Unit
Malawi	The Privatisation Commission
Mauritius	Public-Private Partnership Unit of the Ministry of Finance
Morocco	Ministry of Economy and Finance
Nigeria	Bureau of Public Enterprises
	Infrastructure Concession Regulatory Commission
	Foundation for Public Private Partnerships
South Africa	National Treasury Public Private Partnership Unit
Uganda	Uganda Government Public Enterprise REFORM and Divestiture Programme
	Ministry of Finance, Planning and Economic Development
Zambia	Ministry of Finance
	Zambia Development Agency

Source: Steer Davies Gleave research

5.18 Definitively establishing the presence of a unit throughout all 53 African countries has been difficult. Some countries have dedicated units with public websites providing clear evidence of activity. Others have units which operate within a broader Ministry which are harder to trace and assess. Many African countries have expressed an interest or desire for the development of a PPP unit in the future. The African Public Private Partnership Conference for example includes delegates from a wide range of countries, some of which do not currently appear to have a dedicated PPP unit in place. In addition to the countries listed in Table 5.6 there is evidence that Algeria[20], Democratic Republic of Congo, Kenya,

[20] In the case of Algeria this is a PPP unit (SOGEPORTS) relating specifically to Ports.

Lesotho, Mozambique, Namibia, Rwanda and Swaziland have established or are planning to establish a formal PPP institutional framework.

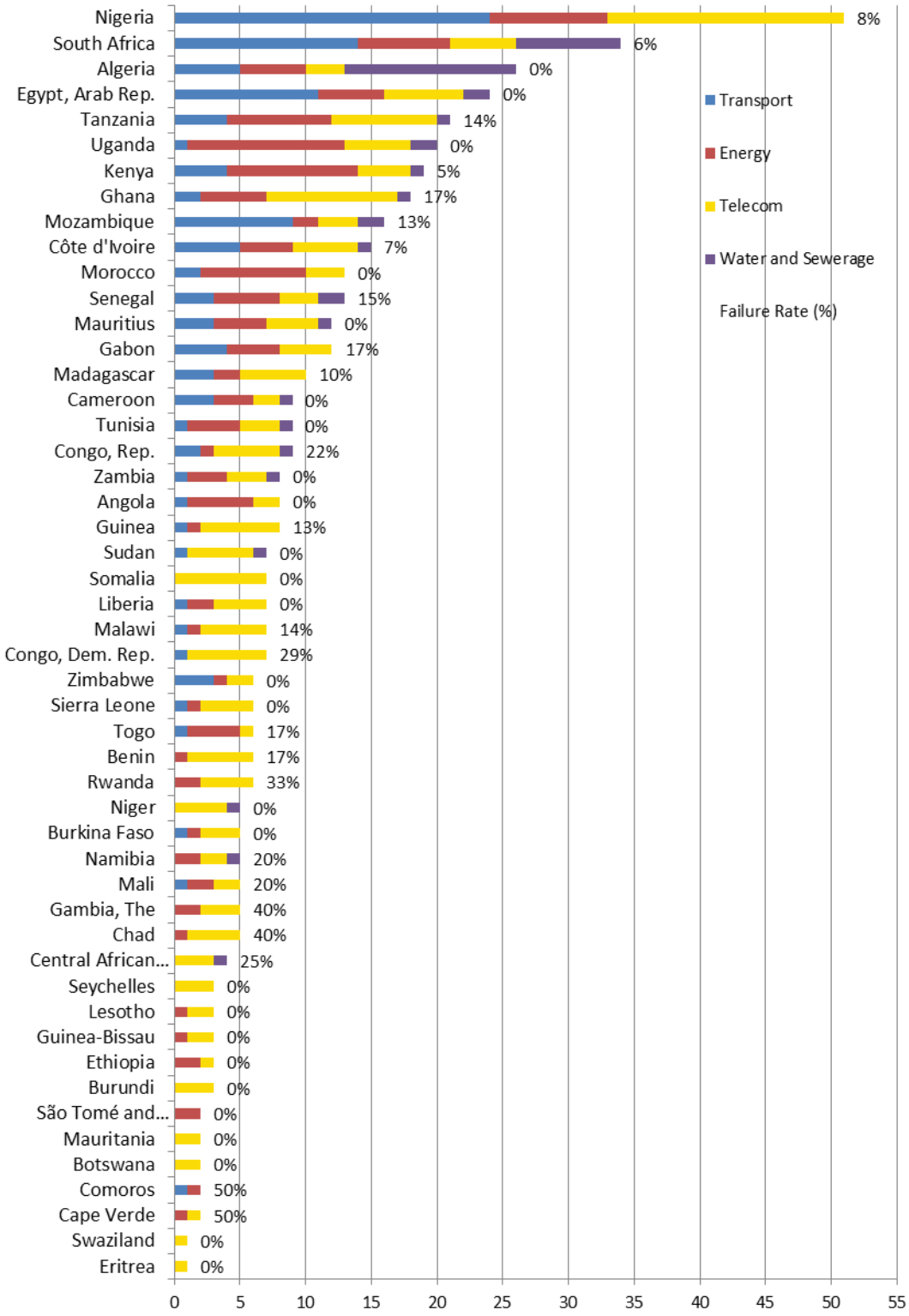
Country track record

5.19 The World Bank maintains a record of historic PPP projects across countries and sectors including transport, energy, telecoms, water and sewerage and across different classes of investment including concession, divestitures, greenfield projects, management and lease contracts. These records include information on expenditure and project failure rate. Figure 5.6 on the next page provides a list showing the total number of infrastructure projects with private sector involvement and highlighting the overall failure rate of different countries across Africa.

5.20 The figure shows that Nigeria has had the highest number of projects over the period 1990- 2011, with 51 in total, including 24 in transport. Its failure rate is also relatively low at 8% (although one of the failures was an airport project). South Africa, Algeria, Egypt, Tanzania and Uganda also have a high number of projects and relatively low failure rates - between 0 and 14%. These countries demonstrate a strong track record of delivering projects involving private investment in infrastructure, which suggest that generally investment risk is likely to be low.

5.21 In contrast, Eritrea, Swaziland, Cape Verde, Comoros, Botswana, Mauritania and Sao Tome and Principe have all had low levels of investment projects (under three projects in total). In terms of failure rates, the low numbers of projects for some countries make comparisons difficult, however overall Cape Verde, Comoros, Chad, Gambia, Mali, Namibia and the Republic of Congo all have relatively high failure rates above 20%. This suggests a relatively poor track record of delivering public-private investments projects over the recent past indicating that any investment in these countries could be subject to higher risk.

FIGURE 5.6 WORLD BANK PPI PROJECTS BY SECTOR 1990-2011



Source: World Bank PPI Database

Summary

5.22 The metrics listed in this section provide a high level overview of the social, economic, regulatory and business environment in African countries across a range of indicators. Making definitive statements about investment 'quality' based on these indicators is difficult for a number of reasons - many of the indicators are not available for every country and the reliability of the data is likely to be low in many instances. Any general judgment about the viability of a PPP project based on simple aggregate metrics is likely to be uncertain without supporting qualitative information and context. However a number of conclusions can be drawn based on the consistent appearance of specific nations within the top and bottom of the metrics described in this report.

5.23 Southern Africa and South Africa in particular is the most developed and stable part of the continent. As a region it has relatively high levels of GDP per capita and significantly higher levels of private infrastructure investment suggesting that its institutions and regulatory environment are likely to be more experienced and effective at managing large scale PPP projects. Botswana also has the highest credit rating of all African nations and both Botswana and South Africa both have functional PPP units in place.

5.24 Looking across the indicators, several countries are ranked highly on a consistent basis. South Africa, Botswana, Mauritius, Rwanda, Cape Verde and Namibia all score well on metrics of perception of corruption, public management and business environment. AfDB portfolio performance within these nations has also been relative strong indicating a good track record of investment projects and relatively low levels of general investment risk.

5.25 Conversely the Democratic Republic of Congo, Equatorial Guinea, Sudan, Zimbabwe, Chad, Eritrea and Somalia all consistently rank poorly across these metrics. AfDB portfolio performance within these nations has also tended to be poor (with the addition of Sierra Leone, Burundi and Lesotho). Based on this evidence, generally investment in these nations would be subject to a significantly higher degree of risk.

5.26 In addition to these top and bottom ranked countries we have specifically examined the investment environment of several countries in more detail, focusing on those countries particularly relevant to the emerging list of projects identified during the Study.

Nigeria

5.27 Nigeria had a GNI per capita of US $2,160 (at purchasing power parity) in 2010, low relative to the African average. It has an AfDB governance rating of 3.3, which is in the mid-range of African countries. The MOIB index ranks the countries government performance and business environment in the mid-range, however perceptions of corruption are relatively high. Between 1990 and 2011 Nigeria had 51 private infrastructure projects - a very high number relative to most other African countries. Its track record of success is also relatively good with a failure rate of 8% (however one of these projects was in the airports sector). Nigeria also has a range of PPP units including the Bureau of Public Enterprises and the Infrastructure Concession Regulatory Commission, which may reflect a more developed legal and institutional environment for PPP projects.

Cote d'Ivoire

5.28 Cote d'Ivoire had a GNI per capita of US $1,800 (at purchasing power parity) in 2010, very low relative to the African average. It has an AfDB governance rating of 2.9, which is in the mid-range of African countries. The MOIB index also ranks the countries government performance and business environment in the mid-range although perceptions of corruption are relatively high. Cote d'Ivoire has had 19 private infrastructure projects in the period 1990 to 2011 with a very low failure rate of 5%. We have no evidence of established PPP units or a developed regulatory and institutional framework for PPP projects in the country.

Morocco

5.29 Morocco had a GNI per capita of US $ 4,620 (at purchasing power parity) in 2010, which is just above the African average. The country has no AfDB government performance rating although perceptions of corruption are similar to the average. The MOIB index ranks Morocco's government performance and business environment relatively highly. Between 1990 and 2011 there have been 13 infrastructure projects with private sector involvement. The country has been highly successful in delivering these countries with a failure rate of 0%. Morocco has an established PPP unit which operates within the Ministry of Economy and Finance.

Zambia

5.30 Zambia has a GNI per capita of US $1,370 (at purchasing power parity), which is significantly below the African average. The country has an AfDB government performance rating of 3.8 which is relatively high, although perceptions of corruption are comparable to the average. The MOIB index ranks the business environment and government performance in the mid-range of African countries. Between 1990 and 2011 Zambia has had eight private sector infrastructure projects with a failure rate of 0%. Zambia has an established PPP unit operating in the Zambia Development Agency, the Ministry of Commerce, Trade and Industry also plays a role in PPP projects.

Burkina Faso

5.31 Burkina Faso had a GNI per capita of US $1,250 (at purchasing power parity) in 2010, significantly below the African average. The county has an AfDB government rating of 4.2 which is relatively high. Perceptions of corruption in the country are average and the MOIB index ranks the country in in the mid-range in terms of government performance and business environment. Between 1990 and 2010 there were only five infrastructure projects with private sector involvement. These projects had a very low failure rate of 0%. We have found no evidence of a formal PPP regulatory and institutional framework or dedicated government PPP unit.

Central African Republic

5.32 Central African Republic has a GNI per capita of US $780 (at purchasing power parity), which is amongst the lowest in Africa. The country has an AfDB government rating of 2.7, which is in the mid-range and perceptions of corruption in the country are also similar to the average. The MOIB index ranks the country in the mid-range in in terms of government performance and business environment. Between 1990 and 2011 there have been four infrastructure projects with private sector involvement although there has been a relatively high failure rate of 25%.

We have found no evidence of a formal PPP regulatory and institutional framework or dedicated government PP unit.

Democratic Republic of Congo

5.33 The Democratic Republic of Congo has a GNI per capita of US $ 320 (at purchasing power parity), which is amongst the lowest in Africa (and the world). The country has an AfDB government rating of 2.7 which is in the mid-range, perceptions of corruption are also average compared with other African countries. The MOIB index ranks the country poorly in terms of its overall government performance and business environment. Between 1990 and 2011 there have been seven infrastructure projects with private sector involvement, although there has been a relatively high failure rate of 29%. There is some evidence of a formal PPP regulatory and institutional framework, however we have not been able to establish if a dedicated government PPP unit exists.

Republic of Congo

5.34 The Republic of Congo had a GNI per capita of US $ 3,050 (at purchasing power parity), which is just below the African average. The country has an AfDB government performance rating of 3.3, which is in the mid-range of African countries, although perceptions of corruption are relatively high. The MOIB index ranks the country in the mid-range in terms of government performance and business environment. There have been nine investment projects with private sector involvement between 1990 and 2011 with a relatively high failure rate of 22%. There is some evidence of a formal PPP regulatory and institutional framework, however we have not been able to establish if a dedicated government PPP unit exists.

Application in the evaluation framework

5.35 We will use some of the metrics collected above and apply them to our evaluation framework to assess our long list of projects described in Chapters 7 and 8. In particular, it will be used to assess the metrics of institutional capacity covering:

- Country-specific risk;
- Relevant sector specific authorities' capability; and
- PPP track record.

6 Evaluation Framework

A flexible framework

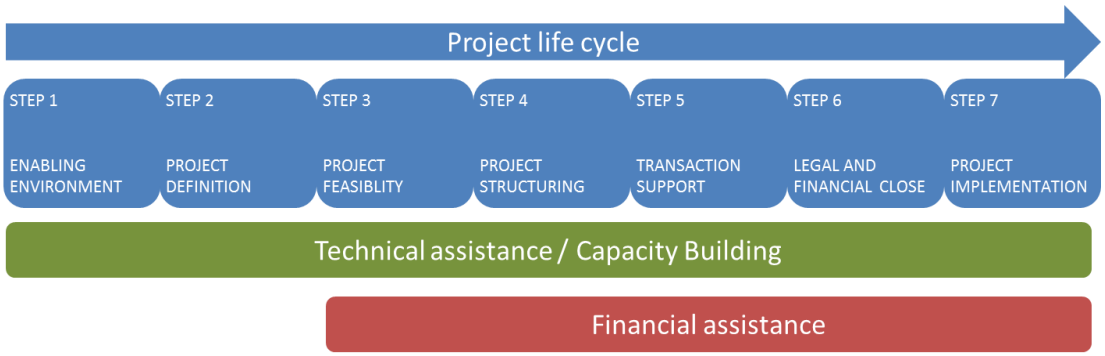
6.1 We have developed an objective, independent project evaluation framework for our long list of projects. Ports and airports projects are assessed using the same framework.

6.2 During our review of the literature and discussions with stakeholders we identified a broad range of projects which cover all stages of the project life cycle from concept through feasibility to implementation. Whilst some projects are ready for intervention through provision of project finance in a 1 to 3 year time horizon, others were still in pre-feasibility stages and a number of good opportunities still in a concept phase were identified. In selecting projects we have been mindful of the PIDA programme priorities as set out in the Phase II Report Annex 1 (Transport) and the Priority Action Plan (PAP) programme set out in the Phase III Report.

6.3 To assist in defining the assessment, we reviewed the range of instruments that the ICA members have available to assist projects throughout their life cycle (Figure 6.1):

- In the formation stages, the assistance provided would most likely be technical assistance in capacity building areas such as institutional reform, safety and security support, and advice to facilitate private sector participation. Technical support may also extend throughout the project as transaction support.
- Financial support is most appropriate for projects entering into the middle stages of their life cycle (i.e. from feasibility stage onwards). Financial support could be in the form of grants, debt, equity, interest rate subsidies, and insurance guarantees, and could be provided to either private or public sector entities, or both.

FIGURE 6.1 ICA MEMBERS ASSISTANCE OPTIONS THROUGHOUT THE PROJECT LIFE CYCLE



6.4 The evaluation framework has been developed with these features in mind, namely that:

- Projects will be at different stages in their life cycle; and
- The assistance that the ICA members provide could be of either a technical or financial nature (or both).

6.5 It should be noted that while the procurement rules of ICA members were borne in mind during the development of the assessment criteria and the strength of procurement procedures were included in the framework. However, projects were not explicitly tested for their conformance with ICA members' procurement rules. This reflects the fact that many projects in the early stages of their life cycle would not yet be ready for assessment against procurement rules, which in any case are not applicable when only technical assistance is being considered. Furthermore, procurement criteria differ between different ICA members and a formal appraisal against the criteria of each organisation is beyond the scope of the Study.

Assessment criteria

6.6 We have developed our methodology with the intervention options available to the ICA members in mind, ensuring projects in different stages of development in the project life cycle are assessed fairly. Our methodology for project assessment scores projects against four categories:

- Desirability of the project;
- Scope for (an IFI-assisted) PPP;
- Project status;
- Institutional capacity.

6.7 Within each of the four categories there are a number of sub-criteria. A description of each category and its sub-criteria is provided below.

Desirability of the project

6.8 The desirability dimension evaluates the scale and urgency of the issue that is to be addressed by the project and the effectiveness and benefits of the proposed solution. We have included criteria (size of project and urgency of need) that allow us to distinguish between large projects that are needed well into the future and small projects that are required sooner. We also distinguish between the proposed additional capacity and quality of service improvements that projects offer, as well as their social and developmental benefits.

6.9 Desirability criteria also include an assessment of the regional impact of the project on neighbouring countries, and the presence of competition or regulatory constraints that may limit the project's success. Each of the desirability criteria are listed below:

- **Size of the project**: the size of a project and its growth potential is expected to influence its impact, and there is a preference for larger, more sustainable throughput. For airports, size is measured in passengers, for ports/terminals, size is determined by the relevant cargo volumes.
- **Urgency of need**: how soon action needs to be taken in order to alleviate the issue (capacity constraints, poor service quality, etc.). Some ports or airports may be anticipating and planning for problems that are some years off materialisation.
- **Additional capacity provided by project**: the proposed scale of the capacity solution and its reflection of the capacity issue.
- **Improved service quality provided by project**.

- **Social / developmental benefits**: the potential of the project to drive significant improvements to social and developmental indicators as a consequence of the intervention, including poverty reduction benefits and the development of linked economic activities like mining, manufacturing and agriculture.
- **Regional benefits**: there is a preference for port and airport projects which are likely to have a regional impact through hub effects or the opening up of a regional corridor.
- **Competition / regulatory benefits or constraints**: the presence of regulatory constraints or limits on competition that could restrict growth and constrain the financial performance of project. For example for an airport there is a preference for countries willing to implement the Yamoussoukro Decision on market access, whilst in the ports sector there is a preference for terminals which will increase competition.

Scope for an IFI-assisted PPP

6.10 This dimension evaluates the attractiveness of the project to the private sector for operations and/or financing, and the need for technical and/or financial assistance from International Finance Institutions (IFIs) to accelerate project implementation.

6.11 The first two 'Scope for PPP' criteria assess the operational and financial benefits of private sector participation. The third criterion assesses government commitment to PPPs, without which they are not realistically achievable. The final two criteria assess both the need and scope for IFI intervention in terms of technical and financial assistance, respectively. The criteria for the 'Scope for PPP' dimension are listed below:

- **Operational benefits from private sector involvement**: for example improved performance standards, use of more advanced technology.
- **Financial benefits from private sector involvement**: for example: lower procurement costs, earlier completion.
- **Government commitment to PPPs**: a measure of the Government's enthusiasm and support for private investment in the ports and airports sector in the country. This could be that either private investors have already been identified or are in the process of being short-listed, or there is a commitment to competitive tendering to find the best private sector operator.
- **Need / scope for IFI technical assistance**: there is a role for an ICA member in facilitating the involvement of the private sector by providing essential technical assistance for the project.
- **Need / scope for IFI financial assistance**: there is a role for an ICA member in facilitating the involvement of the private sector by providing essential investment/financial assistance.

Project status

6.12 The project status dimension assesses the readiness of the project to receive assistance, its technical and financial viability for the private sector, and the status of any complementary infrastructure needed to support the project.

6.13 The criteria forming the project status dimension are listed below:

- **Readiness for technical or financial assistance**: the long list of projects includes projects at a range of stages in their life-cycle. This criterion allows us to nominate those projects ready for either technical or financial assistance, ensuring that we can be proactive in our suggestions for ICA member intervention, and not limit the scope of the ICA members' assistance by excluding projects that are not ready for full financial assistance or those with low levels of available information due to their being in the very early stages of the project lifecycle.
- **Viable financial structure in place**: enabling a good, well thought through project which can be financially viable for the private sector and can be economically justified by the public sector with predictable cash flows when structured appropriately, resulting in a measure of "bankability" of the project
- **Technical soundness**: an assessment of the safety, environmental, and other appropriate technical features of the project. This will be particularly relevant for the environmental impacts of ports and for the safety processes and records of the aviation industry.
- **Complementary projects in place**: presence of supporting infrastructure that enables project performance and success. This could be in the form of access roads or rail infrastructure to ports or airports, the presence of a hub airline at an airport, etc.

Institutional capacity

6.14 The institutional capacity dimension assesses the capability of the project's supporting institutions and structures. These are assessed at both country, sector and project level; the country's political and government risk is evaluated as well as the capability and maturity of the operational and political authorities supporting the process. We also assess the procurement procedures available to the project and the track record of past PPP projects in that country, where possible in the same sector.

6.15 The institutional capacity criteria are listed below:

- **Country-specific risk**: whether the country has political and governmental structures which are sufficiently stable and predictable to support the ICA members' interventions (using published measures of political stability and corruption).
- **Relevant authorities' capability**: effectiveness of the institutional framework immediately applicable to the project, for example port and airport authorities, and civil aviation administration.
- **Procurement procedures**: the transparency of the procurement procedures applicable to the project and their conformity with international standards.
- **PPP track record**: including a transparent and independent method for choosing concessionaires, which will be based on the track record of countries and their legislative arrangements for example the availability of a PPP unit as well as ICA members' project procurement requirements.

Project evaluation

6.16 The project evaluation phase allows for a general assessment of projects against each of the categories, to ensure that projects with good potential for ICA members' intervention are moved forward into the shortlist.

6.17 The evaluation is designed to result in a mix of projects at different stages of their life cycle, and with different investment needs, on the project short list.

Balancing criteria

6.18 Two balancing criteria have been borne in mind when deciding upon the recommended list of projects for ICA members' intervention. The following criteria are not strict requirements but rather factors for consideration in the determination of the final list of recommendations:

- **Regional spread**: there is a desire for the project chosen for intervention to represent a balanced spread across the African Continent (North, East, South and West). This criterion may be used as a final method of choosing projects following the assessment of the other criteria, to ensure a geographical spread of projects takes place.
- **Spread of types of intervention**: ranging from Technical Assistance to financial lending or equity provision to the project.

Scoring mechanism

6.19 For each of the criteria within the four categories, we have used a scoring mechanism (scores of between 1 and 5 assessed against a standard requirement) to assess the performance against this criteria for each of the potential projects we have identified. These scores are relative to the other projects in the database. A score of 1 would reflect a low score and 5 a high score.

6.20 Given the level of information available it is not possible to derive a purely mechanical and "objective" project assessment methodology. However, for each criterion we have developed a set of decision rules which have been applied consistently across the set of projects to give a reasonable spread of scores. For example, projects score highly (within the project status dimension) for complementary projects being in place if it is known that, for example, connecting roads already exist or are being built or procured, but score poorly if it is known that such complementary projects are required but no plan is in place to deliver them. As another example, the country-specific risk score was based on taking the average ranking each country according to a number of indices (GNI, Governance, corruption, and MOIB) and assigning roughly equal numbers of countries to each score in the range 1 to 5 based on this ranking. Approaches similar to these apply to each scoring criterion.

6.21 We present our analysis with each dimension equally weighted at 25% of the total. To allow different stakeholders and readers to apply their own weightings to the categories, the weightings for each of the categories can be adjusted, but must sum to 100%. Within each category the score is simply the arithmetic average of the criteria used; if a criterion is not used - for example because insufficient information is available - it is not included in the average. If necessary, weightings could also be added at this lower level.

7 Ports Project Evaluation

Introduction

7.1 This section identifies port projects suitable for private investment for which IFI technical or financial assistance may be appropriate. We begin with a "long list" of potential projects, identified from desk research and discussions with port authorities and other stakeholders. Each project has then been evaluated using the scoring approach described in chapter 5. We have then prepared a shortlist from amongst the high-scoring projects indicating those in which different types of IFI assistance would appear to be of greatest benefit.

Developing the long list

7.2 The long list of projects has been derived from a number of different sources:

- A literature review, within which the AICD and PIDA Reports provide the most comprehensive overview. The PIDA Report Phase 2, Annex 1 identifies 14 priority port investments, of which nine have been included in the Long List. The others have already been undertaken, are too small for inclusion in the Long List, or are considered unsuitable for private investment;
- A web search of a dozen technical journals covering port engineering, port operations, dredging, and port investment opportunities, of which the Ports & Ships, which specialises in African port developments, was probably the most informative;
- Examination of the web sites of all of the main African port authorities;
- E-mail requests to 26 African port authorities asking them to nominate suitable projects. The response rate was low, despite E-mails being sent directly to the CEOs of each organisation and followed up with further E-mails or telephone calls in the most promising cases. Five replied positively: Kenya Ports Authority, Tanzania Ports Authority, Namport (Namibia), Maputo (Mozambique) and San Pedro (Cote d'Ivoire);
- Stakeholder interviews with private terminal operators (ICTSI, Grindrod and Grimaldi) and a leading port engineering company (Royal Haskoning). Requests for interviews were sent to eight of the main terminal operators in Africa, but most did not wish to be interviewed because of concerns about data confidentiality and/or relationships with port authorities;
- Informal contacts with a range of professionals engaged in port development projects in Africa, including IFI staff, other consultants, mid-level port managers and private investors not included in the stakeholder interviews; and
- Team member's knowledge of projects in Kenya, Tanzania and Nigeria.

7.3 As most African ports are now moving towards a landlord port structure with multiple specialist terminals, there are many more opportunities for private investment than in the aviation sector. The opportunities are also more diversified, making direct comparisons between projects more difficult and increasing the amount of information needed to evaluate projects.

7.4 Some of the projects included in the "long list" have been initiated by the private investors themselves, as unsolicited bids. These are often single-user facilities vertically integrated with other projects such as mines or manufacturing plants (cement, fertilizers, petrochemicals etc). Some of these projects are controversial and have received widespread publicity, but many are treated as confidential until they are well-advanced to reduce the chance of competing bids. The "long list" of projects used for evaluation purposes is therefore incomplete.

7.5 For practical reasons a decision was also made to reduce the "long list" by excluding the following types of project:

- Oil supply bases: e.g Aboim (Angola), Luba (Equatorial Guinea), Takoradi (Ghana);
- LNG terminals: e.g Kribi (Cameroon), Jorf Lasfar (Morocco), Nigeria (various);
- Inland container depots (ICDs): e.g Kisarawe (Tanzania), Tema (Ghana), Nigeria (various);
- Development of land for port-related industry or Free Trade Zone: e.g San Pedo (Cote d'Ivoire), Mombasa (Kenya);
- Projects likely to be funded by incumbent private investors from their own resources or operational cash flow e.g. Djibouti container terminal expansion, El Sokhna second basin (Egypt), Matola coal terminal (Mozambique), Maputo container terminal (Mozambique);
- Projects not yet specified in sufficient detail: e.g Owendo mineral berth (Gabon), Technobanine new port (Mozambique), Akwa Ibom new port (Nigeria), Bagamoyo new port (Tanzania), export terminals for iron ore and bauxite in Guinea/Liberia/Sierra Leone (several competing proposals), port modernisation and expansion projects at Benghazi, Misurata, Sirte and Tripol (Libya), Vopak West Africa oil distribution centre (location still to be decided);
- Lack of clarity about the role of private finance: e.g. Kamsar container terminal (Guinea), Suakin container terminal (Sudan), South Africa (general).

7.6 Although they have not been included in the "long list", projects in Libya and South Africa are particularly worth watching. Several projects in Libya were approaching the *"ready to go"* stage before the fall of the Gadhafi regime, and could be revived quite quickly once a stable government is in place. South Africa has one of the most favourable regimes for private investment in Africa, but until very recently was keeping port investment firmly in the public sector. Recent speeches by Government Ministers, including the 2012 budget speech, suggest that this policy may be about to be relaxed.

Projects included in the long list

7.7 Of the 43 projects evaluated, 6 are multi-berth modernisations/expansions of existing ports, 16 involve the construction of entirely new ports, 10 are container terminals, 8 are berths for the export of coal, iron ore or other minerals, 1 is a tanker berth, and 2 are industrial berths linked to new manufacturing plants (methanol/urea and cement).

7.8 A number of the projects are competing or complementary; these have been given the same number, but different suffixes:

- The alternative projects are P1A/P1B (new industrial ports in Algeria), P11B/P11C (mineral berths at San Pedro), and P28A/P28B/and P28C (new ports in the Lagos area); it is unlikely that more than one project in each group will go ahead.
- The complementary projects are P8A/P8B (Kribi), P11A/P11B (San Pedro), P14A/P14B (Takoradi), P24A/P24B (Nacala), P31A/P31B (Dar es Salaam) and P32A/P32B (Mtwara). These represent different types of port infrastructure within the same port area, in some cases sharing common infrastructure and services. Each will have an effect on the layout, timing or (in some cases) availability of finance for the other project with which it is grouped.

7.9 The "long list" of projects is given in Table 7.1. The score has been derived from a more detailed analysis of the four project dimensions described in Chapter 6 – desirability as a project, scope for an IFI-assisted PPP, project status, and capacity of the institutions responsible for implementation – with each of the four dimensions given equal weight. The analysis column in Table 7.1 provides a brief explanation of why individual projects have been given high or low scores (shaded green and red respectively).

7.10 The score for each project dimension is included in Appendix D, and is underpinned by even more detailed worksheets (not included in this report) scoring each of the dimensions on the basis of the individual criteria listed in Chapter 6 (urgency of need, operational benefits, readiness to go, country risks, etc.).

7.11 Where possible, quantitative indicators have been used to assess how projects measure up against specific criteria, in an attempt to make the scoring as objective and consistent as possible. It must be emphasised, however, that this is only a desk study, in which it has not been possible to verify or update all of the published information.

7.12 Whilst it is feasible to rank projects which are broadly similar in type (for example container terminals) it is more difficult to prioritise projects which are quite different (for example container terminals and iron ore jetties). For this reason, the "short-list" of projects given at the end of this Chapter deliberately includes different types of project, selecting "the best of class" in each major group.

TABLE 7.1 LONG LIST OF PORT PROJECTS

No.	Project	Country	Description	Analysis	Score
P1A	Algiers - Ténès, new port	Algeria	Facilities still to be decided	Industrial development potential, good track record with port PPPs	3.5
P1B	Cap Djinet new port	Algeria	Car import, container and multipurpose berths serving new 5,000ha industrial area	Industrial use of gas resources, private investor identified, good track record with PPPs	3.4
P2	Oran container terminal	Algeria	600m of quay + 24ha yard	Scope for improving port efficiency, experience with similar PPP project at Beijaia	3.3
P3	Barra do Dande new port	Angola	Two dock basins with breakwaters, plus land for logistics & industry. Overspill facility for Luanda	Large potential market & strong private interest, but public implementation capacity weak. Project economics & institutional complexity indicate need for IFI assistance.	3.1
P4	Lobito modernisation & expansion	Angola	New dry dock, container and minerals terminals	Scope for large performance improvements, rail access to Zambia and DRC recently improved, Government attitude to private investment unknown (Chinese presence)	2.8
P5	Namibe, iron ore + container berth	Angola	Second phase of Japanese-funded rehabilitation programme	Small local market, ore exports require railway rehabilitation, Japanese assistance likely	1.9
P6	Caio, new port	Angola	Two berths (Phase 1) expandable to six later, with 150 acres of land. Potential investor (identity confidential)	Small enclave market with high transport costs to alternative ports, growing demand from offshore oil exploration, private investor interested	3.2
P7	Seme-Kpodji, new port	Benin	Overspill port for Cotonou	Project around for some time, high commercial risks due to small market and more border controls, port not fulfilling obligations of first PPP	2.6
P8A	Kribi, new port	Cameroon	Phase 1: one container berth and one multi-purpose berth, with breakwater protection. Long-term plan for 20 berths	Chinese-funded construction started Oct 2011, operating arrangements unclear, one major user already identified (Rio Tinto Alcan)	3.2

No.	Project	Country	Description	Analysis	Score
P8B	Kribi, iron ore jetty	Cameroon	Single berth iron ore jetty for ships of up to 300,000dwt.	Integrated mine-rail-port project, investor (Sundance Resources) lacks finance but may soon be taken over by a Chinese company	3.0
P9	Banana, new port	DR Congo	Two container and three general cargo berths.	Existing DRC ports (Matadi & Boma) shallow and in poor condition, market small, public institutions weak, high political risks	2.6
P10	Ile de Boulay new port	Cote d'Ivoire	1,500m quay with 950ha logistics/industrial zone, & container transhipment hub	Highly political project with funding linked to real estate sales, T/S demand unproven, new bridge required, scope for further expansion at existing port (Vridi)	2.5
P11A	San Pedro container terminal	Cote d'Ivoire	700m quay with 10ha container yard	Small market, serves less accessible parts of Liberia, Guinea & Mali (investment in roads required), port authority enthusiastic about PPP but project unlikely to be viable without IFI assistance	3.2
P11B	San Pedro ore terminal	Cote d'Ivoire	New terminal for iron ore manganese, and nickel	Timing of mining projects uncertain and new rail link may be required, Ministerial coordination needed	3.1
P11C	San Pedro mineral jetty	Cote d'Ivoire	New jetty, greater capacity than 11B, for use by larger ships	As above but larger scale with larger risks and rewards. New rail link essential	2.9
P12	Mayumba, new port	Gabon	Three berths for palm oil, timber and general cargo.	Small local market (timber & palm oil), interest of private investor (Olam Group) still to be confirmed	2.9
P13	Tema container terminal	Ghana	Second container terminal of around 1.5m TEU pa capacity to relieve congestion at first terminal	Existing terminal almost full, but no agreement on best way of increasing capacity, port authority unenthusiastic about PPPs	2.7
P14A	Takoradi mineral berths	Ghana	Two new mineral berths to replace existing lighterage operations, plus	Scope for environmental benefits & large efficiency improvements, but Chinese funding already committed,	2.6

No.	Project	Country	Description	Analysis	Score
			breakwater modifications	may be too late for IFI assistance	
P14B	Takoradi container terminal	Ghana	1,000m quay also used for general cargo and RoRo traffic	Small local market, project yet ready, port authority unenthusiastic about PPPs	2.8
P15	Matakang Is. iron ore jetty	Guinea	Integrated mine-rail-port project.	Outlet for major new mining area. Investor identified (Rio Tinto) with option for other mining companies sharing infrastructure	3.0
P16	Bissau port rehabilitation	Guinea-Bissau	Conversion of general cargo berths into container terminal, plus dredging & general rehabilitation work	Small port with serious siltation problems, may be suitable for privatisation, but traffic already diverting to Banjul & Dakar	2.7
P17	Buba bauxite terminal	Guinea-Bissau	Single berth for bulk bauxite exports, requiring. Investor identified (Angola Bauxite)	Commercial viability of mine still to be confirmed, requires 100km rail link to mine and road improvements to Senegal, Mali & Guinea, potential environmental problems	2.6
P18	Mombasa container terminal (Phases 2&3)	Kenya	Extension of Kipevu West Phase 1 container terminal currently under construction with Japanese funding.	Long-term project unlikely to be needed before 2020, mixed track record of port PPPs, political and trade union opposition	2.8
P19	Lamu new port	Kenya	First three berths of a new port serving Ethiopia and South Sudan.	Project includes port, rail line, roads, oil pipeline, refinery, airport and three resort cities. Probably too large and risky for private finance, Chinese funding more likely	2.6
P20	Noukchott container terminal	Mauritania	New container terminal (part of larger port expansion plan)	Small fast-growing market, existing port inefficient and short of capacity, probable funding gap, World Bank/IFC already engaged	3.7

No.	Project	Country	Description	Analysis	Score
P21	Casablanca container terminal 3	Morocco	520m quay with 30ha yard area, capacity 0.6m TEU pa	Infrastructure construction has started, operators have been shortlisted, opportunities for IFI assistance appear limited	2.9
P22	Mohammedia container terminal	Morocco	600m quay envisaged as overspill facility for Casablanca	Project now on hold following decision to complete Casablanca CT3	2.8
P23	Maputo port modernisation/ expansion	Mozambique	Redevelopment of the area between Berths 3-12 to create a series of specialist terminals	Large efficiency gains, ability to use larger ships, more port capacity, regional impact, several beneficiaries, private investors already in place	3.9
P24A	Nacala container terminal	Mozambique	PIDA project, still undefined	Existing container terminal severely congested (but may be capable of improvement), small market, private investor in place (Vale), but may be more interested in 24B	3.3
P24B	Nacala coal terminal	Mozambique	Integrated mine-rail-port project	Large project with private investor (Vale) already in place, Government may need legal advice on contract for rail infrastructure provision	3.5
P25	Beira and/or Chinde coal terminal(s)	Mozambique	Coal terminal(s) for Riversdale/Rio Tinto and smaller mining companies. Location and size still to be determined	Mining projects still at early stage, advice needed on the most cost-effective way of providing (possibly shared) infrastructure	3.4
P26	Beira rehabilitation & expansion	Mozambique	Dry bulk or multi-purpose berths for fertilizers, clinker, sugar, containers and general cargo.	New port facilities needed to open up the Beira Corridor, private investor already in place but weak capital base	3.3
P27	Walvis Bay tanker berth	Namibia	Replacement of existing tanker berth by one for larger ships.	Replacement of existing berth, commercially- minded port authority but rationale for PPP unclear	2.9

No.	Project	Country	Description	Analysis	Score
P28A	Lekki, new port + FTZ	Nigeria	970m of container berths, 320m dry bulk berth, 1-2 oil berths, located 60km east of Lagos.	Lagos overspill facility, concession agreement in place (Tollaram Group), need for IFI financial assistance, terminal operators still to be identified, role of public sector still to be defined	3.4
P28B	Badagry, new port	Nigeria	1,000m of container berths, 970m of dry bulk berths, two oil berths, located 60km west of Lagos.	Lagos overspill facility, unsolicited bid (Trilex Corp), less advanced than 28A and 28C	2.9
P28C	Olokola, new port + FTZ	Nigeria	180m container berth, 1,800m of dry bulk/multi-purpose berths, located 120km east of Lagos.	Linked to FTZ for capital-intensive industries, some Lagos overspill traffic, more ambitious but less advanced than 28A, private investor in place (Rent-A-Port)	3.4
P29	Koko, new port + FTZ	Nigeria	River port for fertilizers, petrochemicals, and other industrial goods. Potential investors identified (Xenel for petrochemicals and Nagarjuna for fertilizers)	Project still at early stage but private investors identified for fertilizer & petrochemicals plants	3.0
P30	Mwambani Bay new port	Tanzania	One container berth, one dry bulk berth, and one multi-purpose berth (Phase 1) replacing lighterage operations	Replacement of lighter port (Tanga) by deepsea berths, small existing market but potential new corridor to Uganda, funding gap may deter private investors	2.7
P31A	Dar es Salaam 2nd container terminal	Tanzania	Two berths with approx 600m of quay	Congestion relief at first terminal (existing PPP), Chinese funding for basic infrastructure, strong private interest in operating concession, needs Transaction Advice but IFI financial assistance unlikely	3.6
P31B	Dar es Salaam modernisation	Tanzania	Reconstruction of general cargo berths (B1-7) to provide deeper water and more efficient layout	Productivity improvements and access for larger ships, but technically & institutionally complex, and difficult to implement	2.1

No.	Project	Country	Description	Analysis	Score
P32A	Mtwara methanol/ urea berth(s)	Tanzania	1-2 berths for export of methanol and/or urea from adjoining plants (still to be built)	Integrated industrial project using local gas, investor (Wentworth Resources) has completed other projects in port, timing will depend on results of gas exploration activity	3.7
P32B	Mtwara cement berth	Tanzania	1 berth for cement exports, from adjoining plant (still to be built).	Integrated industrial project using local gas & limestone, investor in place (Dangote), timing dependent on land access and gas prices	3.4
P33	Enfidha new port	Tunisia	1,500m container berths and 1,120m multi-purpose berths (Phase 1), with breakwater protection and associated industrial zone	Container T/S hub acting as industrial development pole, already designed, investors for container terminal shortlisted in 2008 but bids indicated large funding gap	3.1

Developing the shortlist

7.13 A short-list of seven projects has been developed largely on the basis of the project scores above. Fortuitously, the high scoring projects include different types of project (new ports, container terminals, minerals berths etc.) at different stages in the development cycle. They also cover a wide range of IFI assistance requirements, and provide a good geographical balance between East, West and Southern Africa, and between anglophone, francophone and lusophone countries.

7.14 The estimated value of each project is indicative only. It includes the public sector component of the port expenditures, but not the costs of associated infrastructure like rail links, or investments in related economic activities like mining or manufacturing.

TABLE 7.2 SHORTLIST OF PORT PROJECTS

No.	Country / Region	Port	Project type	Status	IFI assistance	Reason for inclusion	Estimated value (US $m)
P23	Mozambique	Maputo	Port modernization	Implementation of port master plan has already started	Financial	Project ready to go. Experienced private investors already in place Multiple beneficiaries + wider regional benefits	230
P32A	Tanzania	Mtwara	Methanol/ urea berths	Private investor identified	Financial	Experienced investor with local track record Associated industrial development benefits	50-80
P20	Mauritania	Noukchott	Container terminal	Concept review approved by World Bank/IFC in October 2011. Technical and legal consultants for PPP now being appointed	Financial	Significant operational benefits World Bank/IFC already providing technical assistance	110
P31A	Tanzania	Dar es Salaam	Container	Chinese funding for infrastructure close to being finalised, with private investors to provide superstructure & equipment	Transaction	Project urgently needed & almost ready to go Strong private sector interest Lessons to be learned from existing PPP	500
P24A and/or P25	Mozambique	Various	Integrated mine- rail- port coal terminals	24A: Identified as a PIDA priority project 25: under study by various mining companies	Project structuring	Complex issues relating to infrastructure access Public sector weakness relative to mining companies Experience gained can be rolled-out to other countries	300-500

No.	Country / Region	Port	Project type	Status	IFI assistance	Reason for inclusion	Estimated value (US $m)
P1A or P1B	Algeria	Either E or W of Algiers	New port	1A: Concept 1B: Unsolicited private sector proposal	Project structuring/ financial	Industrial development opportunities Interest expressed by large local investor (Cevital) Institutional arrangements in place to support PPPs	1,000+
P28A or P28C	Nigeria	Lekki/ Olokola	New port	28A: Concession agreement signed, now looking for funding 28C: Feasibility study completed, now discussing first stage of project with potential investors	Financial/ regulatory	Relief of port congestion at Lagos Substantial operational benefits Stimulus to Free Trade Zone development Private investors already in place	1,500+

7.15 Because many of the overall project scores are quite close – within the relatively large margin of error associated with desk studies – and individual ICA members may wish to vary the weightings given to scores for individual dimensions (or even the detailed criteria), Table 7.3 lists the "next best" projects with overall scores of more than 3.0, which almost made it to the shortlist.

TABLE 7.3 PROJECTS ALMOST REACHING THE SHORT LIST

Project type	Country	Location
Port modernisation	Mozambique	Beira
New port	Angola	Barra do Dande
	Angola	Caio (Cabinda)
	Cameroon	Kribi
	Tunisia	Enfidha
Container terminal	Algeria	Oran
	Cote'd'Ivoire	San Pedro
Minerals berth	Cote'd'Ivoire	San Pedro
Cement berth	Tanzania	Mtwara

Projects included in the short list

7.16 **Maputo port modernisation**. This involves the reconstruction of an existing multi-purpose quay to create a series of specialist terminals for ferro-chrome, sugar, other dry bulks (granite, grain, sulphur, fertilizer, clinker, iron ore and copper concentrates), cars and general cargo. The quay would also be deepened to accept larger ships.

7.17 The estimated cost of the whole project is US$ 550m, of which US$ 230m is scheduled for 2009-15. A Master Plan and Business Plan for the project are already in place, but implementation has been slowed by the recession. The main project risks relate to the traffic forecasts, which envisage a growth in traffic from 1.8m tons in 2007 to 7.1m tons in 2015; this is dependent on capacity increases on the Ressano Garcia rail line to South Africa and the provision of additional rolling stock, as well as more active marketing.

7.18 The project will be undertaken by Maputo Port Development Company (MPDC), an existing joint venture between Mozambique Railways (CFM), Grindrod, DP World, and a local investment company. As separate projects Grindrod is also expanding the port's coal terminal, and DP World the port's container terminal, in both cases as sub-concessionaires of MPDC. The scale of the port modernisation plan, and the investors' involvement in parallel projects, suggests there may be a need for financial assistance, whilst the "ready to go" nature of the project means that this could be negotiated quite soon.

7.19 **Mtwara methanol/urea berths**. This project is less advanced, and depends on Tanzanian government decisions on the use of existing gas supplies and the outcome of further gas exploration drilling. The proposal is to develop petrochemical and fertilizer export industries close to the gas, to be followed by

corridor development from the port to inland coal and iron ore resources; this would also improve access to Malawi.

7.20 The private investor (Wentworth Resources) has played a key role in the development of Tanzania's gas resources, and has undertaken similar gas-related projects in other countries. It has recently completed a PPP power station project at Mtwara, and is about to build a gas pipeline to Dar es Salaam.

7.21 Its capital base is relatively small (total assets of only US$ 85m at 31.12.2010) suggesting that the integrated methanol and fertilizer projects will require financial assistance. The port facilities are unlikely to be needed for at least another 2-3 years as the industrial plants which they support do not yet exist, so this is a relatively long-term financial assistance project.

7.22 **Noukchott container terminal**. Container traffic is still small (84,000 TEU in 2010) but growing quickly; the existing container berth has limited capacity and is very inefficient, with the stacking area located 1.5km from the berth. The whole port is currently being redeveloped, with Chinese funding likely for the oil and dry cargo berths.

7.23 Mauritania has no previous history of port PPPs, so technical assistance for the development of a privately-funded container terminal is being provided by the World Bank/IFC. Their preliminary evaluation of the project suggests that the small size of the market is likely to create a funding gap of the order of US$ 35-45m, opening up opportunities for IFI financial assistance. If planned timescales are met, this could be needed in 12-18 months' time.

7.24 **Dar es Salaam container terminal**. The existing container terminal – one of Africa's first port PPPs – is severely congested. The port authority is seeking Chinese funding for the construction of new terminal infrastructure, with the operator – to be selected by competitive tendering - required to fund the superstructure and equipment.

7.25 The process for selecting the private investor will be complicated by an exclusivity clause in the existing container terminal contract, inserted during restructuring negotiations in 2005; competition from the port authority which handles 20% of the port's containers over its own general cargo berths; and the possibility of a price war during the early years of the new concession. The government is also keen to avoid some of the adverse consequences of the previous concession. As the port authority does not have the expertise required to deal with such issues, a Transactions Adviser – ideally funded by an IFI – is likely to be required in the next 12-18 months.

7.26 **Mozambique coal terminals**. Mozambique looks set to become a world-class coal producer, accounting for perhaps 5-10% of future world exports. However it lacks suitable port facilities, and the associated rail (or barge) capacity needed to bring the coal to the ports.

7.27 Several proposals for new infrastructure have been put forward by private investors as part of integrated mine-rail-port developments, but the government lacks the capacity to evaluate and coordinate them to ensure that new facilities are built cost-effectively and operated to the benefit of Mozambique. This could involve the sharing of rail links and coal terminals by mining companies (including

access rights for smaller companies) and the assignment of spare rail capacity to other types of freight.

7.28 The development of new port facilities is being held back by the national railway's lack of resources and the absence of a clear legal framework for private sector rail construction. Technical assistance to Government, which would unlock large private investments, is needed at two levels: strategic and contractual. At the strategic level a national master plan is required for the long-term development of resource-related infrastructure. At the contractual level, legal advice is required on the drafting of integrated mine-rail-port contracts to fully protect the national interest.

7.29 **New industrial port in Algeria**. In 2008 the Algerian conglomerate Cevital proposed the construction of a new port and industrial zone at Cap Djinet, 60km east of Algiers. The project was originally intended to serve Cevital's car import business, but other industrial opportunities linked to the availability of low cost gas resulted the project being expanded to include container and multi-purpose berths, and a large industrial zone. It is not known why the project did not proceed.

7.30 In October 2011 the Government commissioned a feasibility study for a deepwater port on the other side of Algiers, perhaps to reduce competition with existing PPP projects at Beijaia and DjenDjen. It is not known whether there is scope for merging the two projects (P1A and P1B in the long list) into a hybrid project. Algeria has a good track record in respect of port PPPs, and its industrial potential is certainly under-developed. We therefore believe that the situation in Algeria is worth watching, although it is difficult to define the opportunities for IFI assistance without further information.

7.31 **New deepwater port in the Lagos area**. This project is expected to relieve serious port congestion in Lagos, provide more modern facilities with deeper water, and attract new industrial investment to the associated Free Trade Zone. Three private sector projects have been put forward, of which Lekki and Olokola are the most promising. Although differing in some respects they are to a large extent alternatives.

7.32 Lekki is at a fairly advanced stage: a private investor (Tollaram Group) is sponsoring the project, a concession agreement has been signed with the Nigerian Ports Authority, detailed designs have been prepared, the EIA has been approved, and an EPC contract has been tendered for construction works.

7.33 However there are still many loose ends. The financing is not yet in place, the Tollaram Group lacks port operating experience and recognised terminal operators have yet to sign the proposed sub-concessions, the concession agreement – which was prepared in response to an unsolicited offer – has several shortcomings, and the role of the Lagos State Government in the project is still unclear. The project also requires large public investments in road infrastructure.

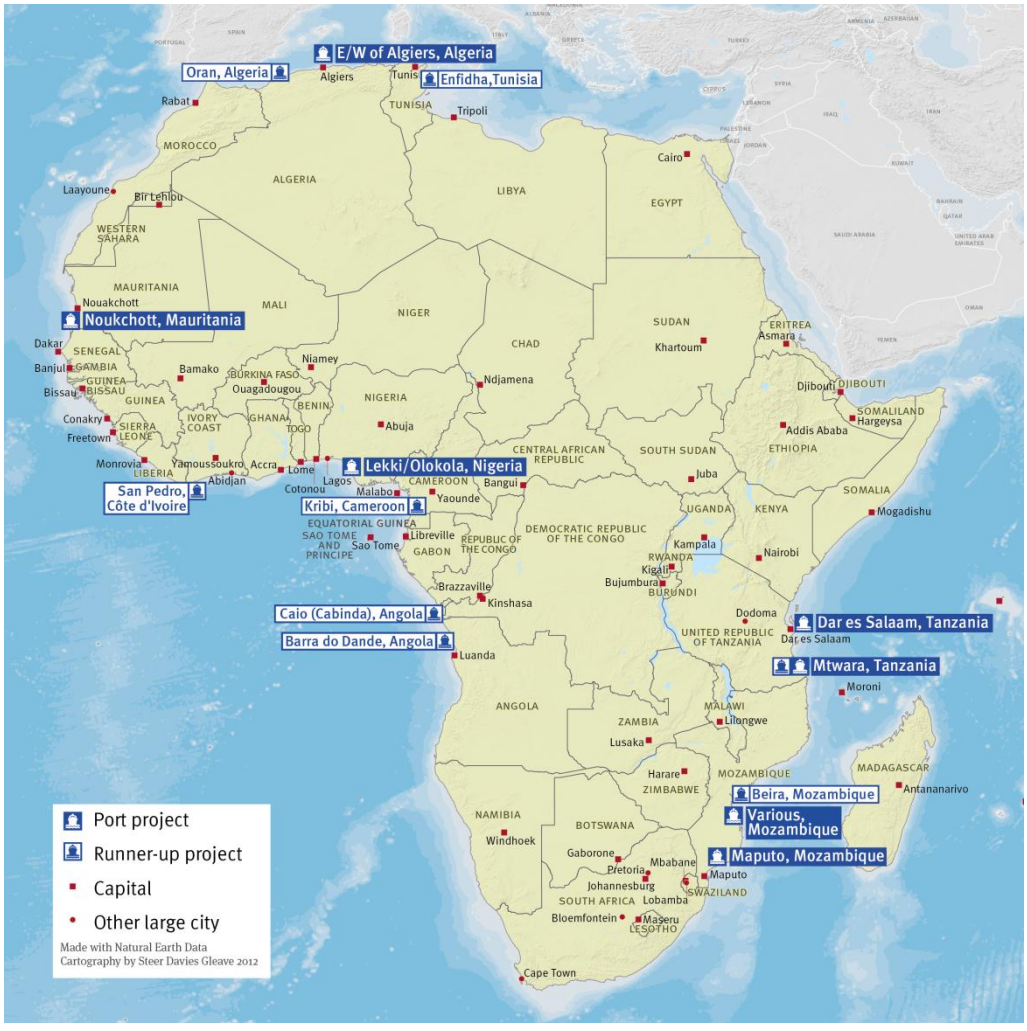
7.34 Olokola is still at the concept design stage, about 18 months behind Lekki. It has the potential to become larger than Lekki eventually, and may have more scope for incremental development in the early stages. The private investor (the Belgian company Rent-A-Port) also lacks port operating experience, and intends to develop the port through a series of JVs with sub-concessionnaires who will be either

international terminal operators (for container and multipurpose berths) or companies with plants in the adjoining Free Trade Zone.

7.35 There is relatively little to choose between the two projects, both of which require financial rather than technical assistance. There is scope also for the provision of technical assistance to the Nigerian Ports Authority, to complete its conversion to a full landlord port authority with the skills required to plan, negotiate, develop and regulate greenfield PPP port projects. Nigeria has by far the largest number of port PPP projects in Africa, but these were all the result of a World Bank-assisted divestment programme in 2005/06. New skills are required to support a new round of private investment in projects which have very different public sector partnership requirements.

7.36 The shortlisted ports projects are mapped along with the runners-up in Figure 7.1.

FIGURE 7.1 MAP SHOWING SHORTLISTED PORTS PROJECTS (INCLUDING RUNNERS UP)



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8 Air Transport Project Evaluation

Introduction

8.1 This chapter considers potential air transport infrastructure projects for which IFI assistance may be appropriate. We have focused on airport infrastructure in particular as the natural type of project where PPPs might be appropriate. We did not identify any suitable PPPs in the field of air traffic management systems, and have not attempted to identify opportunities relating to airlines where there is a significant concern about not trying to "pick winners".

8.2 We first consider a "long list" of potential projects, identified from desk research and discussions with stakeholders. Each project on the long list has been evaluated ("scored") using the approach described in chapter 5 considering a number of different dimensions and criteria. Based on the results of this evaluation, as well as other factors, which are important but less quantifiable (such as regional balance), we have identified a shortlist from the high-scoring projects within the long list.

Developing the long list

8.3 In developing the long list of potential airport projects, we have reviewed a number of key data sources (full details in Appendix C). These include:

- Study on Programme for Infrastructure Development in Africa (PIDA), NEPAD African Union, African Development Bank.
- Nigeria Aviation Report, African Development Bank.
- Airport Expansion & Development in Africa, European Investment Bank.
- Airports in Africa – Capital Investment Programmes 2012, Brooks Market Intelligence.
- Fact-Finding Mission to Ghana and Nigeria, UK Trade and Investment.
- Online news sources including the Infrastructure Journal, Financial Times Al Ahram, Morocco Board and Frontier Market Intelligence.
- Study team members' knowledge of projects in Rwanda, Ghana Senegal and Enfidha.

8.4 In addition, we held discussions with the following stakeholders:

- African airport operators (Jomo Kenyatta International Airport, Nairobi; AERIA operator of Abidjan Airport concession, Bi-Courtney, operator of domestic terminal concession, Lagos Airport);
- International Financial Institutions (African Development Bank, European Investment Bank, World Bank, International Finance Corporation, Agence française de développement);
- International Air Safety Organisations (ICAO, EASA); and
- Other organisations promoting air transport in Africa (Aga Khan Development Network, Private Infrastructure Development Group, British Aviation Group).

8.5 The result of our research was to identify only a few archetypal PPP projects likely to be ready for investment within one or two years. However, we did identify a

significant number of potential projects which, with suitable technical assistance and development, could develop into PPP opportunities. In line with the "lessons learned" from historical projects and stakeholder comments (Chapter 4), we have interpreted the objectives of the project broadly, incorporating less well developed as well as pre-packaged projects, taking account both of desirability and need, as well as project structure. The long list reflects this interpretation.

8.6 In relation to the PIDA Priority Action Plan (PAP), the long list includes a number of airports relevant to the West Africa Air Transport plan, including Accra (project A8 in Table 8.1), Dakar (A7) and Lagos (A13). It also includes a number of airports relevant to the PAP Central Africa Air Transport plan, including Yaoundé (A2), Douala (A3) and Kinshasa (A5). Annex 1 of the Phase II PIDA Transport Report also lists the new terminal project at Nairobi (A10 in the long list). The importance of improvements to market access through better implementation of Yamoussoukro, and of improved safety measures including the Single African Sky air navigation initiative, which are also included within the PAP, has been discussed in Chapter 4. However, these initiatives are not included in the long list, which focuses on airports projects.

The long list

8.7 Table 8.1 sets out a long list of potential airport PPP projects. Each project is identified by the relevant airport and country, with a brief description of the project. Projects on the long list have been assessed according to the criteria set out in Chapter 5, in terms of their desirability, the scope for a (IFI-assisted) PPP, the project status and the relevant institutional capacity in the country for the sector.

8.8 A summary analysis of the project assessment is provided, as well as a score in the range 1 to 5, for each project. This score is a composite of the scores for each of the four dimensions (desirability, etc.). The scores have been colour coded with a red/amber/green scheme, with the most attractive scheme being towards the green end of the colour scale and the least attractive towards the red end of the scale. More detailed analysis providing the scores for each of the four dimensions and a rationale for each of these is provided in Appendix E.

TABLE 8.1 LONG LIST OF AIR TRANSPORT PROJECTS

No.	Project	Country	Description	Analysis	Score
A1	Ouagadougou	Burkina Faso	New Ouagadougou International - new airport to be built 35km NE of city. Expected cost USD 450m of which public donors have pledged USD365m.	Although this is a well-defined project, the need for a greenfield airport is unclear, as is the ability of the private sector to fund it: it is therefore unlikely to be a true PPP	3.4
A2	Yaoundé	Cameroon	Possible expansion of airport. Long term development study appears to be still underway.	Unclear as to the status of the project, which may only be an aspiration at this stage. Unlikely to be able to generate significant private sector investment as traffic levels are low.	2.6
A3	Douala	Cameroon	Possible expansion of airport. Long term development study appears to be still underway.	Similar status to Yaoundé, although the traffic levels are significantly higher	2.7
A4	Bangui	Central African Republic	Airport improvement project, extent not fully known but believed to include new terminal and security fencing. Runway has not been reinforced since 1987. IFC have previously investigated Bangui - pre-due diligence	Project at an early stage and unlikely to be able to generate significant private sector investment due to low traffic numbers.	2.1
A5	Kinshasa	Democratic Republic of the Congo	Project to enhance ANS, runway and terminal rehabilitation (part of $642m scheme for DRC)	Highly desirable project which has been well defined, but unlikely to attract private sector financing and high country-specific risk	2.7
A6	Addis Ababa	Ethiopia	Expansion programme to address traffic congestion. Plans include increasing aircraft stands from 18 to 43, constructing new taxiways and resurfacing the existing runway	Although a good opportunity in principle the Ethiopian government appears not to want to follow the PPP route	2.9

No.	Project	Country	Description	Analysis	Score
A7	Libreville	Gabon	New concession after end of current one in 2018	Long-term opportunity following end of existing concession. Likely to be relatively low risk given track record of existing PPP.	3.3
A8	Accra	Ghana	Ghana Airports Company Ltd is being assisted by Investment and Gateway Programme to elicit financial assistance from private and public resources to increase capacity, including USD 402m for Accra Kotoka International	Project at relatively early stage, but part of Ghana authorities' vision for developing the aviation sector. Likely to require both technical and financial support from IFIs. Supportive institutional environment.	3.7
A9	Kumasi	Ghana	Ghana Airports Company Ltd is being assisted by Investment and Gateway Programme to elicit financial assistance from private and public resources to increase capacity, including USD 173m for Kumasi	Very low levels of traffic likely to preclude successful PPP.	2.9
A10	Nairobi	Kenya	New Greenfield Terminal and second runway. KAA is at the procurement stage for a $1bn greenfield terminal and runway facility with 20m passenger capacity. This has been tendered and a preferred bidder selected in December 2011. Unlikely to be PPP - current intention is for KAA to operate.	Ambitious project to improve one of Africa's key hub airports. In principle an excellent opportunity for a PPP since private sector interest would be high, but government appears to wish to fund and manage the project itself.	3.5
A11	Bamako	Mali	New terminal construction in progress, as well as runway upgrade and other airport enhancements, with Millennium Challenge funding - completion expected in Sep 2012. Concessionaire to invest USD 66m by 2016. Concession let, but result disputed.	Project appears to be going ahead as a PPP, although there is a dispute about the winner of the competition, so slight possibility it may re-appear on the market.	2.7

No.	Project	Country	Description	Analysis	Score
A12	Fez	Morocco	New two-storey terminal building being considered at Fez-Saiss airport.	Well-defined project to upgrade medium-sized airport in important tourism location. Good government commitment to PPPs and low country-specific risk.	3.4
A13	Lagos International (LOS)	Nigeria	Lagos airport international terminal. Government announced $120m for airport upgrades in April 2011 (11 terminals across the country to be renovated), but recognised that airports need international organisations and private sector to be more involved.	There is a clear need for improvement at Lagos airport where the international terminal is in poor condition. It is West Africa's most important airport and the natural location for a major hub. The government has plans for improvement, but it is not clear how well developed these are, nor the level of enthusiasm for a PPP.	3.6
A14	Abuja	Nigeria	Airport terminal upgrades. Abuja (ABV) currently preparing to move all domestic passengers to the international terminal to allow the domestic terminal to be renovated.	There is a clear need for improvement at Abuja airport where the international terminal is in poor condition. It is Nigeria's and West Africa's second largest airport and a natural location for a secondary hub. The government has plans for improvement, but it is not clear how well developed these are, nor the level of enthusiasm for a PPP.	3.3
A15	Lekki-Epe (Lagos)	Nigeria	Lekki airport PPP prequalification announced in Nov 2011. Greenfield construction. Concession expected to be 20 years. Request for proposals expected in 2012.	A new airport at Lekki is being promoted by Lagos State government as an alternative to Lagos's main airport, which currently performs poorly. The project is well developed and is at the start of the procurement phase, but more clarity is needed about financing and complementary infrastructure.	3.4

No.	Project	Country	Description	Analysis	Score
A16	Bugesera, Kigali	Rwanda	Plans for new airport (Bugesera) to south of Kigali. Will initially have one runway with contingency for second. Phase one between 2015-2025; will carry 1m passengers and 150,000 tonnes of cargo. Estimated cost - $600m. Currently in pre-bidding phase. 11 firms pre-qualified with financial close planned during 2012. Airport due to open in 2015	The existing Kigali airport suffers from congestion and the airfield cannot be expanded due to a hilltop location. The government is promoting a greenfield airport with a longer runway to support intercontinental departures and higher volumes (which are currently modest). The project is well-defined and at the bidding stage, though financial structure not yet clear.	3.4
A17	Dakar	Senegal	New airport (Blaise Diagne) to replace existing Dakar airport began in 2007, not likely to be complete before 2014. Initially will have one runway with possibility for second. State funding with FRAPORT concessionaire	This project for a greenfield airport is at the construction stage and is apparently fully financed, although it is understood that there may be scope for renegotiation.	3.4
A18	Dar Es Salaam	Tanzania	Third terminal at Dar es Salaam being considered; funding currently being sought.	Not clear what is the status of the project, but volumes at the airport are significant and may justify some private sector investment. The country has put in place a new PPP law and is considered low risk, although the Kilimanjaro airport PPP recently failed.	3.4
A19	Kilimanjaro	Tanzania	Kilimanjaro currently privately owned but in final stages of repossession by TAA. Opportunity for PPP if airport is re-concessioned	This airport was previously let as a PPP, but has recently been taken back into public ownership. A new concession is not likely in the immediate future.	2.4
A20	Zanzibar	Tanzania	Zanzibar is currently privately owned. Construction of new terminal and runway extension underway, funded using Chinese loan facilities.	This project could have the potential for a PPP, but it appears to be proceeding via a different route.	3.0

No.	Project	Country	Description	Analysis	Score
A21	Lomé	Togo	Major expansion to Lomé started Dec 2011. Includes new terminal, extra aircraft capacity, trebling the cargo centre size, development of large commercial centre for airport and Lomé city. Financed by China's Eximbank.	This project could have been developed as a PPP, although it is not clear how much private sector financing would have been available. Government appears to have chosen a different route for development.	2.6
A22	Entebbe / Kampala	Uganda	Expansion of passenger terminal, increase apron area and construction of modern cargo handling facility	This project is at an early stage but would help to relieve current capacity issues at an important airport. There is scope for technical assistance at this stage and financial assistance later and a strong government track record for PPPs, despite the country-specific risk being high.	3.4
A23	Lusaka	Zambia	New international terminal planned at LUN as well as existing terminal refurbishment. Funding of $200m being sought and PPP being considered.	A feasibility study for this project has taken place and a PPP is considered. The airport is of a size where at least partial private sector investment may be realistic, but likely that both technical and financial IFI assistance would be needed. The country is considered to be low risk.	3.4

Interpretation of the long list scores

8.9 It will be noted that many of the scores on the list are relatively close. This reflects the diverse nature of the projects and our approach to assessing projects according to the four different dimensions of criteria (desirability, etc.). Our assessments have been based on the available data, which in many cases have been quite limited. The overall scores also reflect the equal weighting given to each of the four dimensions.

8.10 It would of course be entirely reasonable to apply different weightings to the different dimensions. For example, more emphasis could be placed on the scope for a PPP, the project status (readiness to be taken forward) or institutional capability, or indeed on the underlying desirability of the project. It is likely that different IFIs may put different emphases on these criteria and that this would result in different scores (and ranking of scores). Therefore the scores in Table 8.1 should be regarded as representing only a first attempt to classify the various potential projects.

Developing the shortlist

8.11 We have developed a shortlist of air transport projects based on the long list above, bearing in mind the limitations of the scoring approach already noted. In developing this list, we have also taken account of factors not fully captured by a numerical scoring system which are, nevertheless, important. These include:

- The likelihood that the project will proceed as a PPP (for several items on the long list, an alternative approach for procurement appears likely to be adopted, and in some cases is already underway);
- The geographical balance of the proposed projects across the continent of Africa; and
- The balance of different types of project interventions.

8.12 For certain projects which have scored highly, we believe that the likelihood of a PPP opportunity being available is quite low in practice. This includes the Nairobi airport development and the greenfield airport at Dakar. These have therefore been excluded from the shortlist.

8.13 Considering the remaining high-scoring projects, and bearing in mind the need for balance in the selection, we propose the following shortlist, with reasons for inclusion. Some projects (especially Lagos/Lekki should be regarded as alternatives, i.e. it would not make sense to promote both).

TABLE 8.2 SHORTLIST OF AIR TRANSPORT PROJECTS

No.	Country / Region	Airport	Project type	Status	IFI assistance	Reason for inclusion	Estimated value (US $m)
A13	Nigeria, West Africa	Lagos International (LOS)	International Terminal Rehabilitation	Watchlist	Technical (and possibly financial at later stage)	Most natural location for a West African hub which has a clear and urgent need for improvement, likely to need significant technical assistance before it could be developed	300
A15	Nigeria, West Africa	Lekki-Epe (Lagos)	New greenfield airport in Lagos, competing with existing airport	Ready	Financial	An alternative to Lagos, support for the Lekki airport in Lagos, which is a much more advanced project in terms of procurement and which would achieve some of the benefits of improvement at Lagos Airport itself	600
A8	Ghana, West Africa	Accra	Airport terminal and airfield enhancements	Pre-feasibility	Technical initially, financial at later stage	Clear opportunity in a favourable environment, requiring initially technical assistance for defining the project, and would provide an opportunity for a secondary hub in West Africa, especially if the Nigerian opportunities are not in practice deliverable	402
A12	Morocco, North Africa	Fez	New terminal building	Pre-feasibility	Financial	Well-defined project to upgrade medium-sized airport in important tourism location with relatively low risk in North Africa	70
A18	Tanzania, East Africa	Dar Es Salaam	Third terminal	Pre-feasibility	Technical and financial	Relatively low risk expansion opportunity in important East African airport	200

No.	Country / Region	Airport	Project type	Status	IFI assistance	Reason for inclusion	Estimated value (US $m)
A22	Uganda, East Africa	Entebbe / Kampala	Terminal expansion, apron expansion and modern cargo facility	Pre-feasibility	Technical and financial	Well-defined opportunity to deliver urgent improvements to an important East African airport in favourable PPP environment	250
A16	Rwanda, East/Central Africa	Bugesera, Kigali	New greenfield airport replacing existing Kigali airport	Ready	Financial	Clearly defined, highly ambitious project at bidding stage for PPP, with possibility of developing hub serving East Africa and eastern DRC.	635
A23	Zambia, Southern Africa	Lusaka	New international terminal and existing terminal refurbishment	Watchlist	Technical and financial	Relatively low risk project for medium-sized southern African airport	200

8.14 The shortlist in Table 8.2 above represents a set of credible projects for which ICA members could give serious consideration to providing technical assistance to the public sector or financial assistance to either the public or private sides in a PPP. Which projects should be chosen are likely to depend both on the circumstances of each project, which will change over time, as well as the respective priorities of each ICA member.

Projects included in the short list

8.15 **Lagos International (LOS).** Lagos airport is the largest airport in West Africa by a significant margin, with over six million passengers in 2010, and serves the largest and most economically important city in the region. While the domestic terminal has been rebuilt under a private concession following a fire, the international terminal is in poor condition and is subject to adverse reports from the domestic and international press. Road access is also poor, with long delays reported to reach the airport by road (and no rail access). There is a clear and urgent need to improve the quality of the operation to help support the Nigerian economy. The airport would form a natural hub if well organised and with good facilities which it currently lacks.

8.16 The Nigerian government has recognised the need for improvement at Nigerian airports including Lagos, but does not appear to have a clear programme for delivering lasting improvements. It is not clear whether the relevant authority, the FAAN, has sufficient funding to support the upgrade programme. However, it has been demonstrated that the private sector can effectively deliver airport improvement, as has been done by Bi-Courtney which built and now manages the domestic terminal at Lagos. It is likely that significant technical support would be needed to help deliver a PPP solution, and that financial assistance may also be necessary, but both the need and viability of such a PPP are clear. The likely project cost is $300m.

8.17 **Lekki-Epe (Lagos).** The Lagos State government is promoting a greenfield airport at Lekki, on the peninsula to the east of Lagos Island, the commercial centre of Lagos. The existence of this project is an indication of the level of concern felt about the performance of the existing Lagos airport. The proposed airport would be easier to reach than the current airport being located relatively conveniently for the business district. As a greenfield airport it would provide high quality facilities. The initial capacity of the airport would be two million passengers, rising to five million by 2015, and the likely project cost would be about $600m. The procurement process is already underway with expressions of interest received and the pre-qualification stage begun.

8.18 This project represents a well-defined PPP opportunity, with an ongoing procurement process. It has a significantly higher cost than the improvement of Lagos airport and may require financial support from IFIs to ensure its viability. It is unlikely to make sense for IFIs to support PPPs at both Lekki and the existing Lagos airport.

8.19 **Accra.** Ghana's principal airport, Kotoka International Airport in Accra, served 1.3m passengers in 2008 and is one of the key airports in West Africa. The airport terminals are generally of poor quality and the airport operator wishes to improve

and expand the facilities, highlighting the growing increase in demand at the airport (partly driven by the newly developing oil sector in the country). Although unable to rival Lagos in size, Accra is well located to provide a function as a secondary hub in the region. The government is supportive of PPPs and the country's legal arrangements and institutions are well regarded. The exact scope of the project is unclear, although GACL indicates a sum of $402. It is likely that both technical and financial support would be needed from IFIs.

8.20 **Fez.** This project would deliver a new two-storey terminal building, allowing airport expansion by increasing capacity at the airport from 0.5 to 3 million passengers per year. While only a medium sized airport, Fez is located in an important tourism area, and the country (Morocco) is well-served by a liberalised aviation regime which has recently entered into a Common Aviation Area Agreement with Europe. The regulatory environment is stable and the government is supportive of the use of PPPs. The project, with an estimated cost of $71m, represents a relatively low risk PPP, and already has IFI involvement (AfDB).

8.21 **Dar es Salaam**. The Tanzanian authorities are seeking funding to support a third terminal at Dar es Salaam airport to increase capacity from the current level of 1.5 million to 8 million passengers. The airport is important in the region, and though unlikely to be able to rival neighbouring Nairobi in size, has the potential to provide regional competition. While the government is seeking an investor to deliver the project, it is not clear what mechanism is envisaged, but a PPP would be a reasonable approach. It is likely that both technical and financial assistance would be required. We estimate the cost to be of the order of $200m.

8.22 **Entebbe / Kampala**. Entebbe is a medium sized airport in the East African region and is currently suffering from congestion issues. There are plans to expand the passenger terminal, increase the size of the apron area and allow the construction of modern cargo facilities (this last project is highlighted on the airport website). Given levels of congestion at the airport and its regional importance, airport enhancements are appropriate and private sector involvement desirable. The country has a good track record of PPPs. The cost of the cargo development is stated at $24m; we estimate the total cost to be of the order of $250m.

8.23 **Bugesera, Kigali.** The Rwandan government is promoting a new airport at Bugesera, 25km to the south of Kigali, to replace the existing airport. The current facility, at about 1,500m altitude and located on the top of a hill cannot be expanded either in terms of a runway extension or a parallel taxiway (although it would be possible to expand the passenger terminal). While the current airport has attracted inbound longhaul flights, the runway length combined with the altitude preclude long distance flights departing from the airport, requiring all longhaul services to follow triangular (or add-on) routings via neighbouring airports (often Entebbe). In order to have the ability to increase the capacity for and range of services, and to cater for increasing demand and deliver a hub serving the region, the government has therefore sponsored the new airport project, which would provide for an unconstrained runway and modern facilities. The cost of the new airport is estimated at $635m and a competition is currently underway under internationally accepted procurement rules. The financial structure of the final arrangements are not yet determined and it is anticipated that IFI support may be needed.

8.24 **Lusaka**. The Zambian government is considering a PPP to help deliver the construction of a new international terminal and refurbish the existing terminal, at a cost of $200m. The airport, which served over 800,000 passengers in 2008 is well-located in the southern Africa region to act as a secondary hub and is of a sufficient size to facilitate private sector participation, although both technical and financial support are likely to be necessary. The country is considered low risk and with a good PPP track record.

8.25 The shortlisted airports projects are mapped in Figure 8.1.

FIGURE 8.1 MAP SHOWING SHORTLISTED AIRPORTS PROJECTS

9 Conclusions and Next Steps

9.1 This Study has reviewed past experience of private sector participation in the ports and air transport sectors in Africa and identified future opportunities for such private sector participation for ICA members to support.

Lessons learned

9.2 In reviewing past opportunities, and in discussion with stakeholders, we have identified some key lessons to be learned. Perhaps the most important is that there is a broad range of interventions from IFIs that are required in order to ensure the successful delivery of PPP projects. These range from technical assistance covering institutions, regulation, legislation and procurement, through to financial support for either the public sector (grants or loans) or the private sector (equity or debt). In many cases, a "*package*" of interventions may be appropriate, with technical assistance at the early stages of a project and potentially financial support for both private and public sector entities involved in the PPP.

Ports

9.3 In ports, the features which are most attractive to private investment are:

- Brownfield sites: ability to turn around an existing public sector facility, improving performance, increasing profitability and expanding the traffic base whilst maintaining tariffs at their pre-private investment level;
- Greenfield sites: ability to offer a differentiated product (deeper water, automation, additional space), contractual linkages to large traffic generators like mines and industrial plants, and strong potential traffic growth.

9.4 In both cases private investors are looking for freedom from political interference and a stable policy environment. Although African countries' governments have become more stable over the last 10 years, decision-making in some countries is still affected by the personal interests of politicians and their friends and relatives.

9.5 There are concerns about the speed of decision-making, and the ability of public bodies to conclude a deal within a reasonable period of time. Government decisions to authorise private investment can be easily thwarted by senior port managers and trade union officials opposed to the idea.

9.6 Although many port facilities have now been privatised, there is still a serious shortfall of managerial skills in the landlord port authorities within which they are located. There are also examples of repeated failures by port authorities to fulfil their contractual obligations to private investors, either deliberately or because of shortages of funds.

9.7 So what assistance are private investors looking for from IFIs? Often they are seeking "*soft*" support which will ensure that the projects put forward for private finance are realistically defined, fairly tendered and brought to financial close within a reasonable period of time. Many investors would also like to see IFI involvement continuing after signing of the contract – perhaps through a small loan

or equity stake in the project – to ensure that the public sector remains compliant with the terms of the deal.

9.8 Some private investors would welcome IFI financial assistance, either through loan guarantees or leadership of syndicated loans. But many are large enough to take care of their own funding requirements. What they cannot do is ensure that associated public sector investments – channel dredging, road & rail access, trade facilitation systems – are completed on time and not held up by lack of funding. Financial support may therefore have to be directed to public sector bodies as well as private companies, in order to create an enabling environment for private investment.

Air Transport

9.9 On the air transport side, the size of the project in relation to the local aviation market is an important indication of the potential viability of different types of private sector participation. For greenfield airport developments, a minimum market size is required to allow the private sector fully to finance the project whereas minor refurbishments and private sector operation of an airport can be fully financed privately at much smaller airports. Where the project size is inconsistent with the market size, public sector support will be needed to make the project viable.

9.10 Safety is also a key consideration in aviation projects, as it is widely seen as being deficient in many African countries, largely due to insufficiently effective oversight institutions and lack of training for key personnel in air traffic management and for pilots. Projects to enhance safety capability, which are likely to need public sector support, but which can be delivered by the private sector, are likely to be very effective in encouraging development of the sector.

9.11 Finally, the incomplete implementation of the market access provisions of the Yamoussoukro Decision, often driven by support for unprofitable national carriers, is an important barrier to the development of the sector. As part of providing support for the public sectors, IFIs may be in a position to encourage governments to move faster towards liberal market access policies.

Investment climate

9.12 During our research we have also identified difficulties and constraints in the investment climate and availability of financial instruments across the African continent. Suggestions for addressing these include the promotion of:

- **Stapled finance**: some stakeholders have suggested the ICA members might assist sponsors in arranging "stapled finance" (where the sponsor prearranges finance at the time of letting the tender competition), to enable the potential financing of PPP concessions.
- **Track record**: other stakeholders suggested the ICA members should concentrate on supporting certain country transport sector development programmes, allowing a country or group of countries to establish a track record of success.
- **IFI involved in the early stage of the bid preparation**: some stakeholders perceived significant benefits from a body like the International Finance Corporation (IFC) being involved in the preparation of the project. Their

involvement would reduce investors' risk perceptions and allow private investment to be arranged at reasonable risk premiums.

- **Government involvement**: There are some projects where the private sector will not be willing or able to take on all risks associated with the project. An unappealing risk share can often be addressed through the structuring of the project, for example a vanilla turnkey (where the contractor is obliged to deliver the construction in return for a fixed price) contract paid by the government sector for the investment and a private sector management contract for the maintenance and operation of that infrastructure. There are also other alternatives, such as government guarantees or bridging loans which the ICA members could play an active role in supporting.
- **Up-front financing:** PIDG Fund InfraCo Africa funds the early phases of projects on its own balance sheet and then, once the project is sufficiently developed to attract private sector interest, sells the full rights to a third party.

Projects identified

9.13 Through desk research and discussion with stakeholders we have identified a number of projects in the ports and air transport sectors. These have then been assessed using a "scoring" system which, together with considerations of "balance" in terms of geography and type of project, have enabled us to develop shortlists of projects for each sector. For ports, the shortlist is:

- Maputo Port modernisation
- Mtwara methanol / urea berths
- Noukchott Container terminal
- Dar es Salaam Container terminal
- Mozambique – Various integrated mine-rail-port coal projects
- New port East or West of Algiers
- Lekki/Olokola new port.

9.14 For air transport, the shortlist is:

- Lagos Airport international terminal rehabilitation
- Lekki-Epe (Lagos) greenfield airport
- Accra terminal and airfield enhancements
- Fez new terminal
- Dar Es Salaam third terminal
- Entebbe / Kampala terminal, apron and cargo enhancements
- Bugesera, Kigali new greenfield airport
- Lusaka new terminal and existing terminal refurbishment

9.15 The shortlisted ports and airports projects are mapped in Figure 9.1 and presented in an overview table in Table 9.1.

FIGURE 9.1 MAP SHOWING SHORTLISTED PORTS AND AIRPORTS PROJECTS

9.16 Selection of projects from within the shortlists will depend, to some extent, on the priorities that ICA members have for the development of their own portfolios.

TABLE 9.1 SHORTLISTED PORT AND AIRPORT PROJECTS

No.	Country / Region	Project	Project type	Status	IFI assistance	Reason for inclusion	Estimated value (US $m)
P23	Mozambique	Maputo	Port modernization	Implementation of port master plan has already started	Financial	Project ready to go. Experienced private investors already in place Multiple beneficiaries + wider regional benefits	230
P32A	Tanzania	Mtwara	Methanol/ urea berths	Private investor identified	Financial	Experienced investor with local track record Associated industrial development benefits	50-80
P20	Mauritania	Noukchott	Container terminal	Concept review approved by World Bank/IFC in October 2011. Technical and legal consultants for PPP now being appointed	Financial	Significant operational benefits World Bank/IFC already providing technical assistance	110
P31A	Tanzania	Dar es Salaam	Container	Chinese funding for infrastructure close to being finalised, with private investors to provide superstructure & equipment	Transaction	Project urgently needed & almost ready to go Strong private sector interest Lessons to be learned from existing PPP	500

No.	Country / Region	Project	Project type	Status	IFI assistance	Reason for inclusion	Estimated value (US $m)
P24A and/ or P25	Mozambique	Various	Integrated mine- rail- port coal terminals	24A: Identified as a PIDA priority project 25: under study by various mining companies	Project structuring	Complex issues relating to infrastructure access Public sector weakness relative to mining companies Experience gained can be rolled-out to other countries	300-500
P1A or P1B	Algeria	E or W of Algiers	New port	1A: Concept 1B: Unsolicited private sector proposal	Project structuring/ financial	Industrial development opportunities Interest expressed by large local investor (Cevital) Institutional arrangements in place to support PPPs	1,000+
P28A or P28C	Nigeria	Lekki/ Olokola	New port	28A: Concession agreement signed, now looking for funding 28C: Feasibility study completed, now discussing first stage of project with potential investors	Financial/ regulatory	Relief of port congestion at Lagos Substantial operational benefits Stimulus to Free Trade Zone development Private investors already in place	1,500+

No.	Country / Region	Project	Project type	Status	IFI assistance	Reason for inclusion	Estimated value (US $m)
A13	Nigeria, West Africa	Lagos International (LOS)	International Terminal Rehabilitation	Watchlist	Technical (and possibly financial at later stage)	Most natural location for a West African hub which has a clear and urgent need for improvement, likely to need significant technical assistance before it could be developed	300
A15	Nigeria, West Africa	Lekki-Epe (Lagos)	New greenfield airport in Lagos, competing with existing airport	Ready	Financial	An alternative to Lagos, support for the Lekki airport in Lagos, which is a much more advanced project in terms of procurement and which would achieve some of the benefits of improvement at Lagos Airport itself	600
A8	Ghana, West Africa	Accra	Airport terminal and airfield enhancements	Pre-feasibility	Technical initially, financial at later stage	Clear opportunity in a favourable environment, requiring initially technical assistance for defining the project, and would provide an opportunity for a secondary hub in West Africa, especially if the Nigerian opportunities are not in practice deliverable	402
A12	Morocco, North Africa	Fez	New terminal building	Pre-feasibility	Financial	Well-defined project to upgrade medium-sized airport in important tourism location with relatively low risk in North Africa	70
A18	Tanzania, East Africa	Dar Es Salaam	Third terminal	Pre-feasibility	Technical and financial	Relatively low risk expansion opportunity in important East African airport	200
A22	Uganda, East Africa	Entebbe / Kampala	Terminal expansion, apron expansion and modern cargo facility	Pre-feasibility	Technical and financial	Well-defined opportunity to deliver urgent improvements to an important East African airport in favourable PPP environment	250

No.	Country / Region	Project	Project type	Status	IFI assistance	Reason for inclusion	Estimated value (US $m)
A16	Rwanda, East/Central Africa	Bugesera, Kigali	New greenfield airport replacing existing Kigali airport	Ready	Financial	Clearly defined, highly ambitious project at bidding stage for PPP, with possibility of developing hub serving East Africa and eastern DRC.	635
A23	Zambia, Southern Africa	Lusaka	New international terminal and existing terminal refurbishment	Watchlist	Technical and financial	Relatively low risk project for medium-sized southern African airport	200

Next Steps

9.17 At the stakeholder meeting in Brussels in April 2012, it was agreed that this study is one component of the ICA Members' efforts to address private sector participation in ports and airports projects in Africa. The outcome of this study has been to highlight opportunities in the ports and airports sector which can be followed up in greater detail in subsequent investigations, once it becomes clearer which of them are the most appropriate to pursue.

9.18 For projects at an appropriate stage that are nominated for closer investigation, we recommend that additional evaluations are performed using the IFIs' own selection criteria.

APPENDIX

A

STAKEHOLDERS

STAKEHOLDERS

A1.1 The following is a list of the stakeholders interviewed.

Stakeholder	Contact details
International Financial Institutions	
World Bank	Mr Pierre Pozzo di Borgo, Lead Transport Specialist
African Development Bank	Mr Ralph Olaye
Agence française de développement	Mr Olivier Ratheaux
International Finance Corporation	Mr Emmanuel Nyirinkindi (Johannesburg) Mr Laurent Fremy (Dakar) Mr Ravi Bugga (Washington)
Private Infrastructure Development Group	Mr Edward Farquharson (Executive Director) Mr John Hodges
Other organisations with African infrastructure experience	
Aga Khan Development Network	Mr Simon Hodson
Ernst and Young	Mr Simon Reilly
British Aviation Group	Mr Alan Lamond, Chairman
Port Operators	
Grimaldi	Mr Bernard Short (Director, Grimaldi UK)
Grindrod	Mr David Rennie (CEO Ports & Terminals)
ICTSI	Martin O'Neill (CEO), Mr Mike Mundy
Royal Haskoning	Mr Johan van Voorhuizen
Airport Operators	
Jomo Kenyatta International Airport, Nairobi	Mr Henry Ogoye, Head of Corporate Planning and Strategy
Bi-Courtney, Lagos Domestic Terminal, MMA2	Mrs Dupe Killa-Kafidipe, Head of Human Resources, Mr Abdi Sergi Aziz, Chief Finance Officer, Mr Rafael, Head of Aeronautical Services
AERIA, Abidjan Airport	Thierry Vandenkerckhove, Directeur Général
International Aviation Safety Organisations	
International Civil Aviation Organization (ICAO)	Mr Daniel Souhami
European Aviation Safety Agency (EASA)	Mr Yves Koning

APPENDIX

B

CASE STUDIES – PORT AND AIRPORT PPP

PORT PPP CASE STUDIES

Mombasa grain terminal

Project description	Project Name	Mombasa Grain Terminal
	Location	Mombasa, Kenya
	Project description	Mombasa Grain terminal is a common-user facility for the discharge and storage of grain. The terminal operator Grain Bulk Handlers Ltd (GBHL) has priority use of Berths 3-4, which are still managed by Kenya Ports Authority (KPA), and has installed its own grain unloaders (2), linked by its own conveyors to private silos built on freehold land just outside of the port boundary
	Key dates	Investment agreement signed in 1998
	Project size (total cost, breakdown if available)	Initial investment US$ 32m, and total investment to date US$ 73m
	Project status	Operational
	PPP model and involvement type	Contract between GBHL and KPA for priority berthing rights and wayleaves for conveyors
	Institutions involved	GBHL was originally 25% owned by Portia (UK), an experienced grain terminal operator, which - at the insistence of lenders - was also given an 8 year management contract. This, along with its equity stake, have now ended. GBHL is now 81% owned by Kenyan investors, 15% by the private equity firm ACTIS, and 4% by a US company. Loan were provided by CDC, IFC, Citibank and the Societé de Promotion et de Participation pour la Cooperation Economique, as well as the Kenyan sponsors
Project viability, desirability	Intermodal connectivity	None
	Links between natural resources supply chains and regional corridors/high value export products	None
	Economic viability	Large economic benefits have been obtained as a result of faster ship handling rates and new storage facilities close to the berths which reduce peaks in the demand for trucking to Nairobi.
	Financial viability	Grain handling tariffs are regulated by KPA, and were initially close to the international norm, but increased substantially during the 2008 tariff restructuring. Grain storage charges are unregulated, and have been set deliberately high to encourage rapid turnover of stocks

	Allocation of risks	Normal commercial risks associated with grain storage facilities. On-dock equipment and conveyors represent a relatively small proportion of total costs, and payments to KPA are directly related to throughput
	Size of private investment and % of project costs to be privately funded	Initial investment US$ 32m, and total investment to date US$ 73m (100% privately-funded)
	Additionality (would the project happen without agency involvement)	No agency involvement - investment was initiated by a local entrepreneur
	Affordability (income stream through user charges and their willingness to pay)	Charges can be passed on to customers. Other companies discharge grain at the general cargo berths using grabs/lorry transport, but their lower prices are offset by lower productivity, higher sea freight rates, and general inconvenience, giving GBHL a partial monopoly
Business Climate	Institutional framework	The initial success of the grain terminal has not been followed up by private investments elsewhere in the port, partly because of political and labour opposition. KPA has not yet been converted into a landlord port authority, and has had a rapid succession of Managing Directors. It has not encouraged private investment, and appears to operate independently of the government's PPP unit
	Political climate (long term political stability)	Political instability and civil unrest in 2008-9 have discouraged private investment
	Investment Climate	Kenya has a relatively strong private sector, and has successfully privatised Kenya Airways
	History of private investments in sector	A contract to manage the container terminal was let to the port of Felixstowe in 1996 after competitive tendering, but Felixstowe pulled out in March 1998 after a series of disputes with Kenya Ports Authority over its failure to provide the necessary equipment and spare parts. The grain terminal is generally regarded as successful, but other local companies have been refused permission to develop a second, competing grain terminal. Plans to transfer Berths 12-14 to APMT for conversion into a container terminal appear to have stalled, and several other unsolicited proposals for private investment have not been acted on
	Macro-economic growth and stability	GDP growth is likely to be around 6% pa providing political stability can be maintained
	Transparency	Poor
Project setup	Enabling implementation agencies/administrative capability	The contract is extremely simple and is administered by KPA in a similar way to traditional commercial agreements with other port users. It has been able to do this because most of the investment lies outside of the port boundary. KPA has no experience of more comprehensive concession agreements

	Institutional reform, regional regulatory frameworks	The grain terminal contract was a "one off" event, not linked to any port reform process, and has been very lightly regulated by KPA
	Procedure for selecting private investor	Unsolicited offer
	Safety and environment factors	Not a major issue
	Market potential (for growth)	Large rapidly growing market dominated by GBHL, with competitors unable to gain full market entry
	Has there been any Technical Assistance? Who was this provided by and funded by?	No
	Precision of scope and requirements offered to private sector	Specifications of the project were determined by the private investor
	Precision of obligations of government/public authority	No obligations apart from assignment of priority berthing rights at two berths
	Dependence on success of another related project?	No
Level of project preparation /readiness	Sophistication of current landlord/owner	Low
	Greenfield or brownfield (incl state of current infrastructure)	Mixed (brownfield berths, greenfield storage facilities)
	Current operational levels and growth rates	Past throughput has been very variable, with falls as well as increases in traffic depending on harvest conditions each year. Future traffic growth is expected to average around 8-9% pa. Capacity has expanded in line with traffic growth, and is expected to continue doing so in future.
	Profitability and future opportunities	GHBL is very profitable, and is considering diversifying into fertilizer handling at Mombasa port
	Target date for start of construction	Investment programme is on-going and incremental
	Existence of feasibility studies	Not known
Outcomes	Lessons learned(for past projects)	1) Importance of having an experienced terminal operator included in the project 2) Small and fairly simple PPP projects can sometimes be developed without specific PPP legislation

		3) Charges are likely to remain high in the absence of competition or a well-informed regulator 4) Economies of scale can have a significant effect on the viability of private investments
	Risks and issues (for projects going forwards)	N/A
	Causes of successes and failures (for past projects)	**Success factors:** 1) Large, perceived benefits to customers 2) Lack of interference from port authority and/or politicians 3) Protection from competition until market is large enough to support more than one operator **Failure factors:** 4) Strong market position of terminal operator may prevent benefits being passed on to end users
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	Provision of new facilities has had some effect on the organisational structure of grain importing, and has led to improvements in supply chain logistics
	Impact of private investment in sector	Generally regarded as beneficial

Mombasa container terminal

Project description	Project Name	Mombasa Container Terminal
	Location	Mombasa, Kenya
	Project description	Two year management contract for an existing public sector container terminal
	Key dates	Started August 1996
	Project size (total cost, breakdown if available)	No private investment. Fees believed to be between US$ 1-2m
	Project status	Terminated in September 1997 by Kenya Ports Authority, halfway through the contract
	PPP model and involvement type	Two year management contract
	Institutions involved	Kenya Ports Authority (KPA) and Port of Felixstowe (part of Hutchison Whampoa)
Project viability, desirability	Intermodal connectivity	None
	Links between natural resources supply chains and regional corridors/high value export products	Gateway port for Uganda, Rwanda, Burundi and Eastern DR Congo, as well as sole port serving the Kenyan market
	Economic viability	Expected to produce major improvements in port performance which never materialised
	Financial viability	Small, cost plus contract
	Allocation of risks	Few risks to either party
	Size of private investment and % of project costs to be privately funded	None
	Additionality (would the project happen without agency involvement)	KPA was strongly encouraged to employ a private management contractor by the World Bank, as part of a wider economic reform programme in Kenya
	Affordability (income stream through user charges and their willingness to pay)	No change in tariffs

Business Climate	Institutional framework	Similar to an outsourcing contract for other, more general port services
	Political climate (long term political stability)	Poor
	Investment Climate	Not relevant
	History of private investments in sector	No previous private sector involvement
	Macro-economic growth and stability	Fairly weak
	Transparency	Origins of contract not known
Project setup	Enabling implementation agencies/administrative capability	KPA's management structure was particularly weak, even for Africa, with frequent changes in senior management
	Institutional reform, regional regulatory frameworks	Stand-along contract involving no other government bodies
	Procedure for selecting private investor	Thought to be direct negotiations
	Safety and environment factors	Safety record in need of improvement. No obvious environmental issues
	Market potential (for growth)	Reasonably strong
	Has there been any Technical Assistance? Who was this provided by and funded by?	This was a form of extended technical assistance
	Precision of scope and requirements offered to private sector	Reasonably well defined
	Precision of obligations of government/public authority	Reasonably well defined but not enforceable
	Dependence on success of another related project?	No
Level of project	Sophistication of current landlord/owner	No previous experience of dealing with private operators

preparation/ readiness	Greenfield or brownfield (incl state of current infrastructure)	Brownfield
	Current operational levels and growth rates	Traffic has increased from 278,000 TEU in 2002 to 696,000 TEU in 2010 (12.2% pa)
	Profitability and future opportunities	N/A
	Target date for start of construction	N/A
	Existence of feasibility studies	Not required
Outcomes	Lessons learned(for past projects)	1) Management contracts need to produce rapid results to establish credibility and trust with host 2) Management contractors need to be given a lot of control over policies in order to be effective 3) Two years is too short a period in which to achieve a business major turn-round if contractor is restricted in scope of action 4) High fees can cause resentment in host organisation, especially if there is no visible investment 5) Short-term management contracts are easy to walk away from if things are not going well 6) Large international terminal operators view management contracts as high risk (to reputation) and low reward (because of lack of investment) and are therefore relatively uninterested in them
	Risks and issues (for projects going forwards)	1) Inability to renew assets, replace labour or take other necessary actions to turn-round the business, particularly of there is local opposition to private sector involvement
		2) Strong personalities can have a big impact on the success or failure of the contract (mainly because of the small scale of other commitments)
	Causes of successes and failures (for past projects)	**Success factors** 1) Pressure for fast results 2) Provides the occasion for a detailed review of how the terminal is working, and how its performance can be improved 3) Opportunity to test out relationships before making a long-term commitment

		Failure factors 4) Insufficient transfer of powers to the private contractor 5) Failure of the port authority to trust the private contractor, and fulfill its own obligations 6) Ease of termination of the contract
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	Relatively small
	Impact of private investment in sector	Failure of 1996-7 management contract has had an adverse effect on KPA's attitude towards private investment in the ports sector

Dar Es Salaam container terminal

Project description	Project Name	Dar es Salaam container terminal
	Location	Dar es Salaam, Tanzania
	Project description	Ten year operating lease for an existing container terminal, which was converted into a 25 year concession five years into the contract
	Key dates	Initial concession 2000-2010, revised concession 2000-2025
	Project size (total cost, breakdown if available)	The initial contract envisaged relatively little investment - only the equipment and minor civil works required to handle the projected traffic and meet key performance targets (approx US$ 15-20m). The revised contract envisaged more substantial investment in equipment, and the conversion of an additional berth from general cargo to container handling (an additional US$ 55m)
	Project status	Operational
	PPP model and involvement type	Concession
	Institutions involved	Tanzania Ports Authority (TPA) Tanzania International Container Terminal Services (TICTS), a JV between Hutchison Port Holdings (70%) and a local investor (30%). HPH acquired its interest by buying the financially distressed original concessionaire ICTSI shortly after signature of the first concession
Project viability, desirability	Intermodal connectivity	Gateway to several land-locked countries (Uganda, Rwanda, Burundi, DRC, Zambia, Malawi). Since the original contract there has been a large deterioration in the quality and market share of rail services to these countries
	Links between natural resources supply chains and regional corridors/high value export products	Main high-value export product is Zambian copper. During the concession some of this trade has been lost to Durban due to the deterioration in rail services
	Economic viability	No pre-privatisation feasibility study, but economic viability (of the container terminal and the privatisation process) is considered to be very strong
	Financial viability	Financial modelling prior to the concession agreement, and financial results of the concessionaire since, show the contract to have been extremely profitable for the concessionaire. Concession fees were scheduled to be reviewed in 2010, but this has not yet happened

	Allocation of risks	Concession fee structure and other contract provisions suggests that the allocation of risks in the original contract was well-balanced. The 2005 renegotiation added an exclusivity clause which gave TICTS protection against competition until throughput reached 650,000 TEU pa. This was equivalent to the capacity of the terminal after the new investment programme, and compared with a throughput at the time of re-negotiation (2005) of 295,000 TEU pa.
	Size of private investment and % of project costs to be privately funded	US$ 70m of private investment, most of which is being funded from internal cash flow. TPA investment unknown, but small (probably less than US$ 5m)
	Additionality (would the project happen without agency involvement)	World Bank involvement, including the provision of technical assistance, was essential for public sector acceptance of the project, and encouraged bidders at a time when traffic volumes were small and investors wary of the political risks and untried administrative procedures.
	Affordability (income stream through user charges and their willingness to pay)	Tariffs pre-privatisation were high by international standards, so there were no affordability problems and investment could be easily financed from cash flow. The contract required tariffs to be reduced by 15% within the first five years, but this was never monitored or enforced
Business Climate	Institutional framework	The original contract was negotiated by the Parastatal Sector Reform Commission (PSRC), with a reasonable level of TPA involvement, and was awarded following a transparent international tender. The contract was to be monitored and regulated by TPA using contract law, as the independent transport sector regulator SUMATRA was not established until the following year. The contract re-negotiation in 2005 was undertaken at a high level in Government. In 2008 Parliament considered taking action to revoke the contract because of concerns about non-transparency before a settlement was finally reached
	Political climate (long term political stability)	Reasonable
	Investment Climate	Moderate. The container terminal was one of the Government's flag ship projects, and its varying fortunes have sent out mixed messages to investors in other sectors.
	History of private investments in sector	The container terminal is the only private port investment to date, although others have been talked about, and private investment is being actively considered for 2-3 major new port projects
	Macro-economic growth and stability	Good
	Transparency	Good at initial award of contract, poor at the contract re-negotiation stage

Project setup	Enabling implementation agencies/administrative capability	Parastatal Sector Reform Commission (PSRC) was reasonably competent, but declined in influence after award of concession. Port authority (TPA) and sector regulator (SUMATRA) are distrustful of private investors. PSRC and the parent Ministry of TPA have had some fairly limited involvement in events since the original concession agreement was signed.
	Institutional reform, regional regulatory frameworks	TPA has never been converted into a proper landlord port authority, and the regulatory boundaries between TPA and SUMATRA are ill-defined. TPA now competes directly against the private investor it regulates, and has not always fully supported it.
	Procedure for selecting private investor	Transparent, competitive international tendering
	Safety and environment factors	Not a big issue. Record since privatisation appears reasonable
	Market potential (for growth)	Considerable
	Has there been any Technical Assistance? Who was this provided by and funded by?	T/A for original privatisation was funded by World Bank. Some limited T/S has since been funded by TPA from its own funds.
	Precision of scope and requirements offered to private sector	Original concession agreement was clearly written, but some of changes made in 2005 are ambiguous, particularly in respect of contract review procedures
	Precision of obligations of government/public authority	Original concession agreement was reasonably clearly written, but provisions have proved difficult to enforce
	Dependence on success of another related project?	Fairly free-standing project, but traffic volumes have been adversely affected by the failed parallel concessioning of the national rail network (TRC)
Level of project preparation /readiness	Sophistication of current landlord/owner	Low
	Greenfield or brownfield (incl state of current infrastructure)	Brownfield
	Current operational levels and growth rates	Rapid growth until terminal reached capacity limits, and serious congestion caused TPA to begin container operations at the general cargo berths

	Profitability and future opportunities	Very profitable to date. Future profitability will depend on on-going review of concession fees, and proposals to introduce a second competing private operator.
	Target date for start of construction	Not applicable - terminal was already fully operational when transferred to private investor
	Existence of feasibility studies	No
Outcomes	Lessons learned(for past projects)	1) Importance of transparency and professionalism in the award and administration of contracts , in particular avoidance of political interference 2) Need for continuing institutional strengthening of the landlord port authority, and achievement of a better alignment of its interests with those of the private investor 3) Need for an experienced mediator/arbiter to assist in resolving disputes before attitudes harden and damaging, highly-publicised legal proceedings are started 4) Inclusion in the concession agreement of a clear statement of what is to happen if the terminal reaches full capacity working, and the port authority has to act quickly to relieve congestion 5) Better valuation of the business opportunity being offered to the private investor in advance of the contract, and independent establishment of a reserve price or profit sharing agreement 6) Need for regular informal contacts between port authority and terminal operator, perhaps hosted by the Government Minister responsible for championing private investment
	Risks and issues (for projects going forwards)	N/A
	Causes of successes and failures (for past projects)	**Success factors:** 1) Strong macro-economic growth which caused traffic and profits to rise much faster than expected 2) Improvements in operational efficiency arising from private management **Failure factors:** 3) Failure of many politicians and senior managers in the port authority to buy into the idea of private investment 4) Severe port congestion caused by rapid traffic growth and inability to expand, leading to public perceptions of private sector inefficiency

		5) Non-transparent re-negotiation of the original concession
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	1) Initial performance improvements due to better management were not followed up by new investment because of the short-duration of the initial contract, and fears that the re-negotiated contract would be prematurely terminated
		2) Labour force reductions were well-managed, mainly by the private investor, and labour training has been greatly improved
	Impact of private investment in sector	There is strong interest amongst private terminal operators in the next container terminal concession in Dar es Salaam

Maputo Port

Project description	Project Name	Mombasa Grain Terminal
	Location	Mombasa, Kenya
	Project description	Mombasa Grain terminal is a common-user facility for the discharge and storage of grain. The terminal operator Grain Bulk Handlers Ltd (GBHL) has priority use of Berths 3-4, which are still managed by Kenya Ports Authority (KPA), and has installed its own grain unloaders (2), linked by its own conveyors to private silos built on freehold land just outside of the port boundary
	Key dates	Investment agreement signed in 1998
	Project size (total cost, breakdown if available)	Initial investment US$ 32m, and total investment to date US$ 73m
	Project status	Operational
	PPP model and involvement type	Contract between GBHL and KPA for priority berthing rights and wayleaves for conveyors
	Institutions involved	GBHL was originally 25% owned by Portia (UK), an experienced grain terminal operator, which - at the insistence of lenders - was also given an 8 year management contract. This, along with its equity stake, have now ended. GBHL is now 81% owned by Kenyan investors, 15% by the private equity firm ACTIS, and 4% by a US company. Loan were provided by CDC, IFC, Citibank and the Societé de Promotion et de Participation pour la Cooperation Economique, as well as the Kenyan sponsors
Project viability, desirability	Intermodal connectivity	None
	Links between natural resources supply chains and regional corridors/high value export products	None
	Economic viability	Large economic benefits have been obtained as a result of faster ship handling rates and new storage facilities close to the berths which reduce peaks in the demand for trucking to Nairobi.
	Financial viability	Grain handling tariffs are regulated by KPA, and were initially close to the international norm, but increased substantially during the 2008 tariff restructuring. Grain storage charges are unregulated, and have been set deliberately high to encourage rapid turnover of stocks
	Allocation of risks	Normal commercial risks associated with grain storage facilities. On-dock equipment and conveyors represent a relatively small proportion of total costs, and payments to KPA are directly related to throughput

	Size of private investment and % of project costs to be privately funded	Initial investment US$ 32m, and total investment to date US$ 73m (100% privately-funded)
	Additionality (would the project happen without agency involvement)	No agency involvement - investment was initiated by a local entrepreneur
	Affordability (income stream through user charges and their willingness to pay)	Charges can be passed on to customers. Other companies discharge grain at the general cargo berths using grabs/lorry transport, but their lower prices are offset by lower productivity, higher sea freight rates, and general inconvenience, giving GBHL a partial monopoly
Business Climate	Institutional framework	The initial success of the grain terminal has not been followed up by private investments elsewhere in the port, partly because of political and labour opposition. KPA has not yet been converted into a landlord port authority, and has had a rapid succession of Managing Directors. It has not encouraged private investment, and appears to operate independently of the government's PPP unit
	Political climate (long term political stability)	Political instability and civil unrest in 2008-9 have discouraged private investment
	Investment Climate	Kenya has a relatively strong private sector, and has successfully privatised Kenya Airways
	History of private investments in sector	A contract to manage the container terminal was let to the port of Felixstowe in 1996 after competitive tendering, but Felixstowe pulled out in March 1998 after a series of disputes with Kenya Ports Authority over its failure to provide the necessary equipment and spare parts. The grain terminal is generally regarded as successful, but other local companies have been refused permission to develop a second, competing grain terminal. Plans to transfer Berths 12-14 to APMT for conversion into a container terminal appear to have stalled, and several other unsolicited proposals for private investment have not been acted on
	Macro-economic growth and stability	GDP growth is likely to be around 6% pa providing political stability can be maintained
	Transparency	Poor
Project setup	Enabling implementation agencies/administrative capability	The contract is extremely simple and is administered by KPA in a similar way to traditional commercial agreements with other port users. It has been able to do this because most of the investment lies outside of the port boundary. KPA has no experience of more comprehensive concession agreements
	Institutional reform, regional regulatory frameworks	The grain terminal contract was a "one off" event, not linked to any port reform process, and has been very lightly regulated by KPA
	Procedure for selecting private investor	Unsolicited offer

	Safety and environment factors	Not a major issue
	Market potential (for growth)	Large rapidly growing market dominated by GBHL, with competitors unable to gain full market entry
	Has there been any Technical Assistance? Who was this provided by and funded by?	No
	Precision of scope and requirements offered to private sector	Specifications of the project were determined by the private investor
	Precision of obligations of government/public authority	No obligations apart from assignment of priority berthing rights at two berths
	Dependence on success of another related project?	No
Level of project preparation /readiness	Sophistication of current landlord/owner	Low
	Greenfield or brownfield (incl state of current infrastructure)	Mixed (brownfield berths, greenfield storage facilities)
	Current operational levels and growth rates	Past throughput has been very variable, with falls as well as increases in traffic depending on harvest conditions each year. Future traffic growth is expected to average around 8-9% pa. Capacity has expanded in line with traffic growth, and is expected to continue doing so in future.
	Profitability and future opportunities	GHBL is very profitable, and is considering diversifying into fertilizer handling at Mombasa port
	Target date for start of construction	Investment programme is on-going and incremental
	Existence of feasibility studies	Not known
Outcomes	Lessons learned(for past projects)	1) Importance of having an experienced terminal operator included in the project 2) Small and fairly simple PPP projects can sometimes be developed without specific PPP legislation 3) Charges are likely to remain high in the absence of competition or a well-informed regulator 4) Economies of scale can have a significant effect on the viability of private investments
	Risks and issues (for projects going forwards)	N/A
	Causes of successes and failures (for past projects)	**Success factors:** 1) Large, perceived benefits to customers

		2) Lack of interference from port authority and/or politicians 3) Protection from competition until market is large enough to support more than one operator **Failure factors:** 4) Strong market position of terminal operator may prevent benefits being passed on to end users
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	Provision of new facilities has had some effect on the organisational structure of grain importing, and has led to improvements in supply chain logistics
	Impact of private investment in sector	Generally regarded as beneficial

Lagos container terminal

Project description	Project Name	Apapa Container Terminal
	Location	Lagos
	Project description	Privatisation of an existing container terminal
	Key dates	2005
	Project size (total cost, breakdown if available)	US$ 180m invested to date, with a further large investment programme currently under consideration
	Project status	Operational
	PPP model and involvement type	Standard 25 year terminal concession, with renewal option (period unspecified)
	Institutions involved	APMT is the terminal operator, Nigerian Ports Authority (NPA) is the landlord port authority, Bureau of Public Enterprises (BPE) initiated and managed the port privatisation programme)
Project viability, desirability	Intermodal connectivity	Poor
	Links between natural resources supply chains and regional corridors/high value export products	Very limited
	Economic viability	A cost benefit analysis of the privatisation process, carried out for BPE midway through the concessioning process, showed large net benefits
	Financial viability	Financial model submitted as part of the bid showed the terminal to be financially viable, even after payment of extremely high concession fees
	Allocation of risks	Extremely high rent level (pre-determined, and increasing sharply over time) relative to royalty payments transfers almost all of the commercial and operational risks to the private investor. Almost all investment to be undertaken by the private operator, with fairly standard provisions for reimbursement in the event of premature termination (with level of reimbursement related to cause of termination).
	Size of private investment and % of project costs to be privately funded	Private investment US$ 180m to date. Some public investment in dredging and renewal of utilities (costs unknown, but fairly small relative to private investment)

	Additionality (would the project happen without agency involvement)	World Bank intervention crucial in generating both pressure and support for private investment
	Affordability (income stream through user charges and their willingness to pay)	Tariffs are high by world standards, but not by comparison with other West African ports. Although the terminal is operated on a common user basis, an APMT sister company (Maersk Line) is one of its main users, accounting for around 65% of throughput, so a high proportion of its revenues represent internal transfers within the same company
Business Climate	Institutional framework	Concession is administered and monitored by NPA, with occasional spot checks by BPE. A new organisation, the Infrastructure Concession Regulatory Commission (ICRC), now has formal responsibility for regulating the concession, but has not so far made any significant interventions
	Political climate (long term political stability)	Political stability appears to be improving, but is still weak
	Investment Climate	Nigeria has attracted relatively little FDI outside of the oil and gas sector because of lack of institutional capability, poor security, and high political risks. Local entrepreneurs are beginning to emerge, for example conglomerates like Dangote, but these are still few in number
	History of private investments in sector	Almost the whole of the ports sector was privatised in 2005, in a single process resulting in 25 separate private concessions. The privatisation process was transparent and well managed (by World Bank appointed consultants) and the concessions - which were for periods of between 10-25 years - appear to be working reasonably well. There has been a substantial increase in investment in ports, and significant improvements in terminal efficiency although - for reasons beyond the control of the terminal operators - the ports remain congested and their overall performance is still poor
	Macro-economic growth and stability	Nigeria has experienced strong macro-economic growth, but this has been closely related to the rise in oil & gas prices. Much of the oil & gas revenue has been spent on imported consumer goods rather than investment, and the performance of other sectors is still very weak. Security is a major problem, particularly in the Delta Region, and the rise of the Boko Haram Islamist movement is also a cause of concern
	Transparency	In general regarded as poor, but very good for this particular project
Project setup	Enabling implementation agencies/administrative capability	Variable. BPE and ICRC perform moderately well, NPA requires further institutional strengthening, but including better definition of its role as a landlord port. State Governments seem likely to become more important in future, but the relationship between State and Federal Governments in the development of new ports is far from clear

	Institutional reform, regional regulatory frameworks	The 2005 wave of port privatisations appears to have been a "one off" event, and little has been done to create a framework for private investment in ports outside of the 25 initial concessions
	Procedure for selecting private investor	The 2005 concessions were awarded on the basis of transparent, international competitive tenders. Subsequent initiatives have been based on unsolicited bids, often involving people close to Government
	Safety and environment factors	Not a major issue
	Market potential (for growth)	Large potential market with opportunities for strong growth
	Has there been any Technical Assistance? Who was this provided by and funded by?	Technical assistance for the 2005 privatisations was provided by CPCS, a Canadian consulting company, and funded by the World Bank
	Precision of scope and requirements offered to private sector	Assets to be transferred were well-defined, and performance requirements clearly specified, with investors invited to propose own investment programmes as part of the tender process. Changes have been made to the investment programme since the beginning of the contract, and performance targets have not always been enforced, but APMT and NPA have generally been able to reach agreement on technical changes to the contract
	Precision of obligations of government/public authority	Public sector obligations were reasonably well-defined, but there have been enforcement problems. For example by 2010 APMT did still not have full possession of the terminal area. There were also initial problems in obtaining electricity supplies, and delays in the execution of dredging requirements
	Dependence on success of another related project?	No
Level of project preparation/ readiness	Sophistication of current landlord/owner	Scope for improvement
	Greenfield or brownfield (incl state of current infrastructure)	Brownfield
	Current operational levels and growth rates	The terminal will have a capacity of 0.8m TEU pa after delivery of equipment on order, but has scope for increasing its capacity to around 1.2m TEU pa through land repossession, moderate equipment purchases, and reductions in dwell times, and to 1.6m TEU pa with major investment. Throughput in 2010 was 483,000 TEU, and the expected growth rate around 13% pa
	Profitability and future opportunities	Profitability after payment of concession fees is unknown. Profitability before payment of concession fees is understood to be high, but much of the potential profit is absorbed by rent payments (the key evaluation critierion in the tender)
	Target date for start of construction	2006, after taking possession of the terminal

	Existence of feasibility studies	Undertaken by bidders, but never published
Outcomes	Lessons learned(for past projects)	1) Importance of transparent bidding process in gaining acceptance for award of contract 2) Competitive bidding may result in unsustainable concession fees. There is no definite evidence of this at Apapa container terminal, but concession fees are very high in relation to revenues 3) Need for stronger mechanism independent of the port authority to enforce execution of public sector responsibilities 4) Need to install managers who can relate to the culture of the host nation (APMT replaced some of its first management team)
	Risks and issues (for projects going forwards)	N/A
	Causes of successes and failures (for past projects)	**Success factors:** 1) Ability of private investor to achieve large, visible improvements in terminal performance 2) Well-managed and generous labour retrenchment scheme 3) Lack of interference from landlord port authority (ability to "let go") **Failure factors:** 4) Poor performance of related businesses (Customs and other statutory authorities) 5) Difficulty of accessing the terminal due to severe urban road congestion 6) Loss of market share to unexpected competition
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	1) Privatisation has resulted in extensive terminal modernisation, large performance improvements, and a substantial increase in terminal capacity
	Impact of private investment in sector	The 2005 ports privatisation programme in general, and the Apapa container terminal in particular, has brought large benefits in terms of port performance, but demonstration effects (increasing private investment in other sectors) have been limited

Lagos RoRo terminal

Project description	Project Name	Port & Terminal Multiservices Ltd (PTML) RoRo terminal
	Location	Lagos, Nigeria
	Project description	25 year BOT contract for a new RoRo terminal at Tin Can Island, Lagos. The project involved the construction of 2 x 200m RoRo berths on partially reclaimed land for exclusive use by the shipping line undertaking the terminal investment (Grimaldi)
	Key dates	Unsolicited proposal for terminal submitted November 2003, concession agreement signed February 2005, and terminal opened late 2006 (well ahead of schedule)
	Project size (total cost, breakdown if available)	US$ 62m
	Project status	Operational
	PPP model and involvement type	BOT
	Institutions involved	Grimaldi Group (Italy) 60%, plus six Nigerian investors, with Nigerian Ports Authority as the landlord port authority
Project viability, desirability	Intermodal connectivity	Grimaldi uses its own barges to clear vehicles from the terminal quickly, and transport them to another site approx 5km away for which it owns the freehold. Customs clearance can take place at either the terminal or the off-dock depot
	Links between natural resources supply chains and regional corridors/high value export products	None
	Economic viability	New terminal makes a significant contribution to the relief of terminal congestion, although less than would be achieved if operated on a multi-user basis
	Financial viability	Unknown, and difficult to ascertain because of intra-company transfer payments
	Allocation of risks	Traffic and revenue risks small because terminal is operated on a captive user basis, and market is growing strongly. Contract also allows for changes to terminal design, which were not opposed

	Size of private investment and % of project costs to be privately funded	US$ 62m (100% of project costs)
	Additionality (would the project happen without agency involvement)	No external organisations involved in concession process
	Affordability (income stream through user charges and their willingness to pay)	N/A. Terminal costs can be passed on to customers through sea freight rates in a market sector where there is limited competition
Business Climate	Institutional framework	See Apapa container terminal
	Political climate (long term political stability)	See Apapa container terminal
	Investment Climate	See Apapa container terminal
	History of private investments in sector	See Apapa container terminal
	Macro-economic growth and stability	See Apapa container terminal
	Transparency	PMTL concession was negotiated privately, before the 2005 port privatisation programme. No competitive tendering was involved
Project setup	Enabling implementation agencies/administrative capability	See Apapa container terminal
	Institutional reform, regional regulatory frameworks	PTML terminal appears to have been largely unaffected by the port reform process
	Procedure for selecting private investor	Unsolicited bid
	Safety and environment factors	Not a big issue
	Market potential (for growth)	Large potential market with opportunities for strong growth
	Has there been any Technical Assistance? Who was this provided by and funded by?	No
	Precision of scope and requirements offered to private sector	Design & construction as proposed by private investor, but subject to NPA approval
	Precision of obligations of government/public authority	Provision and maintenance of road access (quality not specified, and in practice poor)

	Dependence on success of another related project?	No
Level of project preparation/readiness	Sophistication of current landlord/owner	See Apapa container terminal
	Greenfield or brownfield (incl state of current infrastructure)	Greenfield extension to existing brownfield site
	Current operational levels and growth rates	Terminal has capacity for 330,000 vehicles and 75,000 TEUs pa, and in 2010 handled 92,000 vehicles and 31,000 TEU
	Profitability and future opportunities	Profitability unknown, but Grimaldi keen to develop other RoRo terminals in West Africa
	Target date for start of construction	N/A
	Existence of feasibility studies	Technical and financial feasibility studies were almost certainly prepared by Grimaldi, but were never published
Outcomes	Lessons learned(for past projects)	1) Creation of a modern terminal is easier on a new greenfield site than a brownfield site, and is easier with a captive user rather than a third party operator 2) Concessions arising from unsolicited bids can be economically desirable providing the country has sufficient suitable waterfront land at locations which are attractive to private investors 3) Concessioning terminals to captive users may reduce their ability to reduce congestion elsewhere in the port 4) Effective use can be made of inland waterways for transfer of cargo to off-dock depots 5) Keeping traffic volumes well below capacity can result in a higher quality of service, and consequently more widespread acceptance if private investment
	Risks and issues (for projects going forwards)	N/A
	Causes of successes and failures (for past projects)	**Success factors:** 1) Experienced terminal operator with strong links to West Africa 2) Integration of port and shipping operations (improves terminal design and reduces commercial risks) 3) Ability of operator to develop a good working relationship with Customs officers, who work longer hours at Grimaldi's terminal than elsewhere

		Failure factors: 4) Inability to persuade PTML to handle other port users' cargo in order to relieve congestion in other parts of the port
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	The PTML terminal provides an excellent example of what a well-run modern terminal should look like, and has developed a good reputation amongst customers for quality of service. It has also adopted an innovative approach to the use of off-dock depots as a means of overcoming space constraints
	Impact of private investment in sector	Modest demonstration effect - the terminal operator keeps a fairly low profile, and the location of the terminal at the far end of an island means that not many non-port people are aware of it

Lagos multipurpose terminal

Project description	Project Name	Terminal A, Tin Can Island (Josepdam)
	Location	Lagos, Nigeria
	Project description	Rehabilitation of a 460m quay with conveyor belts to four nearby flour mills and sugar refineries. Terminal handles mainly wheat and sugar imports for these plants, which are captive users, plus substantial quantities of steel and smaller amounts of general cargo for which it competes with other terminals
	Key dates	Concession started in 2006
	Project size (total cost, breakdown if available)	Civil works cost estimated at US$ 20m plus US$ 3.5m for mechanical equipment
	Project status	Operational
	PPP model and involvement type	10 year concession with renewal option
	Institutions involved	Josepdam, a local company, is the terminal operator, Nigerian Ports Authority (NPA) is the landlord port authority, Bureau of Public Enterprises (BPE) initiated and managed the port privatisation programme)
Project viability, desirability	Intermodal connectivity	Road access to the terminal is poor, and there is no rail link
	Links between natural resources supply chains and regional corridors/high value export products	None
	Economic viability	Considered to be reasonable, but only a part of the expected benefits of privatisation have been achieved due to failure of the terminal operator to implement its proposed investment programme
	Financial viability	No published accounts, but profitability likely to be high
	Allocation of risks	Commercial risks relatively low due to existence of captive users and low level of competition from other terminals for footloose cargo. NPA given throughput guarantees equivalent to 90% of the terminal operator's forecast traffic volumes
	Size of private investment and % of project costs to be privately funded	US$ 23.5m (100% privately-funded)

	Additionality (would the project happen without agency involvement)	See Apapa container terminal
	Affordability (income stream through user charges and their willingness to pay)	Tariffs are high by world standards, but not by comparison with other West African ports. Port users are able to pass on high port charges to their customers
Business Climate	Institutional framework	See Apapa container terminal
	Political climate (long term political stability)	See Apapa container terminal
	Investment Climate	See Apapa container terminal
	History of private investments in sector	See Apapa container terminal
	Macro-economic growth and stability	See Apapa container terminal
	Transparency	See Apapa container terminal
Project setup	Enabling implementation agencies/administrative capability	See Apapa container terminal
	Institutional reform, regional regulatory frameworks	See Apapa container terminal
	Procedure for selecting private investor	See Apapa container terminal
	Safety and environment factors	Not a major issue
	Market potential (for growth)	Traffic growth is around 6-8% pa. The terminal is working at around 75% of capacity, but has scope for increasing capacity by one third if planned investments are undertaken
	Has there been any Technical Assistance? Who was this provided by and funded by?	See Apapa container terminal
	Precision of scope and requirements offered to private sector	Terminal operator allowed to propose own investment plan, and given freedom to choose which types of cargo to handle
	Precision of obligations of government/public authority	Port authority obligations (mainly dredging) were reasonably well-specified but not fulfilled on time
	Dependence on success of another related project?	No

Level of project preparation/readiness	Sophistication of current landlord/owner	See Apapa container terminal
	Greenfield or brownfield (incl state of current infrastructure)	Brownfield
	Current operational levels and growth rates	The terminal is working at around 75% of capacity, but has scope for increasing capacity by one third if planned investments are implemented
	Profitability and future opportunities	There is a risk that the concession will not be renewed in 2016 if the proposed investments are not undertaken soon
	Target date for start of construction	Not specified in concession agreement
	Existence of feasibility studies	Not known
Outcomes	Lessons learned(for past projects)	1) 10 year concession period may be too short to support significant investments if there is no provision for partial reimbursement of costs at expiry date 2) Importance of setting timetable/milestones for private sector investment programme 3) Need for stronger mechanism independent of the port authority to enforce execution of public sector responsibilities 4) Need to protect the rights of captive users at terminals with third party operators, and to achieve better alignment between their investment plans and those of the terminal operator
	Risks and issues (for projects going forwards)	N/A
	Causes of successes and failures (for past projects)	**Success factors:** 1) Transparent , competitive tendering process assigned a berth shared by four captive users to a single, independent operator without major disputes arising 2) Intraport competition has improved handling rates and charges for steel **Failure factors:** 3) Reluctance of port authority to enforce private sector investment obligations

		4) Failure of NPA to fulfill its dredging obligations, resulting in use of smaller, less economic ships with higher per ton freight rates
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	Improvements in terminal performance, although they exist, have been disappointing
	Impact of private investment in sector	Very limited

Apapa dry bulk terminal, Lagos

Project description	Project Name	Apapa Berths 19-20
	Location	Lagos, Nigeria
	Project description	25 year concession with renewal option for operation of 510m of quay and quay apron. Site area includes 5.1ha of land behind the berth previously leased to the terminal operator (Dangote) for construction of a flour mill, sugar refinery and cement bagging plant. The terminal is to be operated as common user multi-purpose berths, but most of the cargo will be dry bulks for the terminal operator's own businesses. Dangote will build an additional 210m berth, and purchase new mechanical equipment for dry bulk discharge
	Key dates	2006
	Project size (total cost, breakdown if available)	N/A
	Project status	Operational
	PPP model and involvement type	Terminal concession was negotiated directly with Dangote.
	Institutions involved	Dangote (a large Nigerian company specialising in cement manufacturing and agrobusinesses) is the terminal operator. Nigerian Ports Authority (NPA) is the landlord port authority, Bureau of Public Enterprises (BPE) initiated and managed the port privatisation programme)
Project viability, desirability	Intermodal connectivity	None
	Links between natural resources supply chains and regional corridors/high value export products	None
	Economic viability	Main benefits (improvements in ship turnround time, increase in terminal capacity, and faster, cheaper movement of cargo from ship to processing plants) are substantial
	Financial viability	Unknown, and difficult to ascertain because of intra-company transfer payments
	Allocation of risks	Risks largely borne by the private investor. NPA given throughput guarantees equivalent to 90% of the terminal operator's forecast traffic volumes
	Size of private investment and % of project costs to be privately funded	N/A

	Additionality (would the project happen without agency involvement)	Possibly, with less integration between cargo handling and processing processing plants
	Affordability (income stream through user charges and their willingness to pay)	Not known but not an issue
Business Climate	Institutional framework	See Apapa container terminal
	Political climate (long term political stability)	See Apapa container terminal
	Investment Climate	See Apapa container terminal
	History of private investments in sector	See Apapa container terminal
	Macro-economic growth and stability	See Apapa container terminal
	Transparency	Negotiations were conducted privately, but use of independent World Bank consultants and benchmarking of the private investor's offer against bids received at the same time for other similar terminals by competitive tendering provided assurance of a reasonable outcome
Project setup	Enabling implementation agencies/administrative capability	See Apapa container terminal
	Institutional reform, regional regulatory frameworks	See Apapa container terminal
	Procedure for selecting private investor	Main terminal user was selected as terminal operator without competitive tendering. This was regarded as impractical because of the close linkages between the terminal and Dangote's adjoining manufacturing plants
	Safety and environment factors	Not and issue
	Market potential (for growth)	Larger potential market with good growth prospects
	Has there been any Technical Assistance? Who was this provided by and funded by?	See Apapa container terminal
	Precision of scope and requirements offered to private sector	Performance requirements and investment plan largely defined by the terminal operator
	Precision of obligations of government/public authority	Dredging requirements clearly specified, but not yet fully implemented

	Dependence on success of another related project?	No
Level of project preparation /readiness	Sophistication of current landlord/owner	See Apapa container terminal
	Greenfield or brownfield (incl state of current infrastructure)	Brownfield
	Current operational levels and growth rates	Flour mill, sugar refinery and cement bagging plant are nearing completion. Mechanical equipment will be installed when they are completed. Engineering designs for the new berth have been prepared by Dangote, but in mid-2010 were still awaiting approval by NPA
	Profitability and future opportunities	N/A
	Target date for start of construction	2006-7
	Existence of feasibility studies	Almost certainly undertaken by terminal operator, but never published
Outcomes	Lessons learned(for past projects)	1) Where there is port-related industry, in particular a single large terminal user, a concession negotiated with the user may result in more investment and faster performance improvements than competitive tendering for a third party operator (compare with nearby Josepdam terminal). 2) In this situation, clauses may be needed in the contract to protect the rights of minority terminal users 3) The competence and commitment of the private investor should sometimes be given as much weight in the evaluation process as the financial offer made to Government 4) Vertical integration of terminal operations with port-related industry can in some cases bring additional economic benefits on top of those associated with private port investment alone
	Risks and issues (for projects going forwards)	N/A
	Causes of successes and failures (for past projects)	**Success factors:** 1) Competent, ambitious and politically iinfluential local industrialist 2) Considerable scope for improvement of terminal performance **Failure factors:** 3) Risk of abuse of monopoly power through lower priority given to other terminal users

		4) Difficulty of ascertaining whether a negotiated deal generates as much revenue for the Government as a competitive tender
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	Difficult to assess final outcome as construction work is still not completed, but early signs are that Dangote will deliver impressive modern facilities for cargo handling and processing that will have large demonstration effects.
	Impact of private investment in sector	Dangote is trying to secure development rights for similar port facilities in other African countries

Richard's Bay coal terminal

Project description	Project Name	Richards Bay Coal Terminal (RBCT)
	Location	Richards Bay, South Africa
	Project description	One of the world's largest coal terminals, generally regarded as very successful
	Key dates	Began operating in 1976 with a capacity of 12m tons pa and has been enlarged in five stages to 91m tons pa. Lease renewed in 2003 for 20 years + 3 x 5 year renewal options
	Project size (total cost, breakdown if available)	N/A
	Project status	Operational
	PPP model and involvement type	The port authority provides the access channel, assigns the berths on a "preferred user" basis and leases the land behind them to a consortium of private sector mining companies, which provide the equipment and manage operations. The majority of the capacity is reserved for shareholders' own coal, but there is also a requirement to give smaller mining companies which are not shareholders access to any spare capacity in the terminal. By agreement with Government, 32% of future capacity has been assigned to Black Economic Empowerment (BEE) mining companies
	Institutions involved	Transnet NPA (national port authority) and ten private mining companies
Project viability, desirability	Intermodal connectivity	Almost all coal arrives by rail. The terminal is dependent on the efficient operation of Transnet Freight Rail, and operations are adversely affected from time to time by rail breakdowns
	Links between natural resources supply chains and regional corridors/high value export products	Very strong
	Economic viability	Very good
	Financial viability	Believed to be very good, but RBCT does not publish accounts and results may be affected by transfer pricing for tax reasons. RBCT appears to have had no problems in financing past investments
	Allocation of risks	Main risks (small) are collapse in overseas demand for coal and/or lower coal prices, but these affect shareholders' mining operations much more than their port operations

	Size of private investment and % of project costs to be privately funded	No published data available
	Additionality (would the project happen without agency involvement)	No agency involvement required
	Affordability (income stream through user charges and their willingness to pay)	Terminal is vertically integrated with shareholders' mining operations
Business Climate	Institutional framework	Public and private sector investment programmes are agreed with Government at a very high level, and public investments implemented by TNPA. No price regulation.
	Political climate (long term political stability)	One of the most stable in Africa
	Investment Climate	Generally good. BEE involvement is a national requirement in all sectors of the economy, but requirements are clearly stated.
	History of private investments in sector	South African ports operate mainly as public sector service ports, but some private investment has been allowed in the past, mainly for captive user projects. In total TNPA has entered into 31 private sector terminal operating leases spread over 7 ports, but these are more like property leases involving waterfront land than port concession agreements
	Macro-economic growth and stability	Reasonable
	Transparency	Reasonable
Project setup	Enabling implementation agencies/administrative capability	Good. Transnet NPA has the reputation of being one of the most efficient African port authorities, and the Transnet Group is experienced in raising large amounts in money on the commercial bond market. Transnet is supervised by the Department for Public Enterprises, to ensure that its operation are in line with the national economic development strategy. The 2005 Ports Act also created an independent Ports Regulator.
	Institutional reform, regional regulatory frameworks	The Government has been reluctant to privatise any existing public sector port assets, and extremely cautious about entering into agreements with the private sector for greenfield site development, in part because of the existence of strong trade unions in the ports.
	Procedure for selecting private investor	None
	Safety and environment factors	Not an issue

	Market potential (for growth)	Demand for South African coal has been growing strongly, and RBCT's capacity has been increased broadly in line with demand.
	Has there been any Technical Assistance? Who was this provided by and funded by?	No
	Precision of scope and requirements offered to private sector	Capacity to be allocated on the basis of shareholder agreements, and spare capacity to be made available to other users.
	Precision of obligations of government/public authority	Lease requires TNPA to extend the berths in line with RBCT's Phase V expansion plan, but does not specify any requirement to maintain water depths.
	Dependence on success of another related project?	Capacity of rail network between Richards Bay and main mining areas
Level of project preparation /readiness	Sophistication of current landlord/owner	High
	Greenfield or brownfield (incl state of current infrastructure)	Was originally a greenfield site, with port built specifically to facilitate coal exports
	Current operational levels and growth rates	Traffic expected to increase from 65m tons pa to 80-90m ton pa over the next 10 years
	Profitability and future opportunities	Good
	Target date for start of construction	Repeated incremental expansion
	Existence of feasibility studies	Confidential
Outcomes	Lessons learned (for past projects)	1) Competing private companies will co-operate when it is in their interests to do so 2) Governments will readily invest to support world-class national champions. It is less clear how RBCT would have fared if it had been foreign-owned 3) Powerful investors with deep pockets can move quickly to get things done 4) Private sector is more willing than public sector to invest in expensive, high tech equipment

		5) Economy-wide legislation on black empowerment may be more effective in increasing local participation than requiring foreign investors to have local partners on a project-by-project basis 6) Success is easiest in sectors which are growing strongly
	Risks and issues (for projects going forwards)	1) Weaker and less objective Government decision-making, and emergence of a black oligarchy 2) Trade union opposition to private investment 3) Downturn in global commodity markets, especially iron ore and coal
	Causes of successes and failures (for past projects)	**Success factors** 1) Strength of overseas demand for coal 2) Lack of government interference 3) Investment in leading edge technology **Failure factors** 4) Condition of rail network, and Government reluctance to invest in expanding rail capacity
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	Economic impacts have been mainly the expansion of mining activity, as the terminal itself is highly mechanised. Environmental impacts have been well-managed, making Richards Bay an example of "best practice" for the global ports industry
	Impact of private investment in sector	RBCT, although successful, has not been used as a model for private investment in other South African terminals

Tanger Med container transhipment and industrial port

Project description	Project Name	Tanger Med
	Location	Straits of Gibraltar, 40km from Tangiers (Morocco)
	Project description	A large port and industrial complex built from scratch on a greenfield site, with the basic infrastructure - breakwaters, channel basins, land etc- provided by the public sector and the terminals built and operated by specialist private sector companies. When fully developed, it will have four container terminals, nine ferry berths, a car terminal, an oil terminal, a bulk & general cargo terminal, and a large Free Trade Zone and industrial area
	Key dates	In 1998 an attempt was made to secure private sector investment for the whole project. This failed because of the large investments required in low-earning assets such as breakwaters and dredging. In 2002 the Government announced its plans to build the port complex as a PPP. The first berths opened in July 2007. The whole project was originally intended for completion by 2015-6, but is now likely to be delayed because of the global recession.
	Project size (total cost, breakdown if available)	€3.0bn, of which 50% will come from the private sector
	Project status	Two container terminals (mainly for transhipment), the hydrocarbons terminal, the car terminal, and parts of the general cargo and ferry facilities are now operational. The two remaining container terminals have been assigned to investors, but are likely to be built later than originally planned.
	PPP model and involvement type	Private BOT terminals within a public sector port charged with implementing an over-arching port development plan.
	Institutions involved	Tanger Mediterranean Special Agency (TMSA) is a one-off public institution created specifically for this project. It is controlled by the State through the Hassan II Fund for Economic and Social Development, and has a capital base of €75m. Decree No. 2-02-644 also gives its regional and urban planning powers within an area of 550 sq km around the port. The private investors are: CT1 APMT/Akwa; CT2: Eurogate/MSC/CMA-CGM/Comanav; hydrocarbons HTL/IPG/Afriquia; cars: Renault
Project viability, desirability	Intermodal connectivity	The Government has built a new 54Km motorway from Tanger Med to Tangiers (€340m) and a 48km rail link to the national network (€300m)
	Links between natural resources supply chains and regional corridors/high value export products	The port is intended to act as a global container transhipment hub and to support a new manufacturing enclave - particularly for cars - next to the southern boundary of the EU. It is expected to operate as an enclave, with only limited interactions with the rest of the country

	Economic viability	Not known. The project is expected to have a significant macro-economic impact on Morocco, but it is probably still too early to evaluate this
	Financial viability	Not known. Different terminals are likely to have different levels of profitability. Container revenues will be relatively low because of competition from other ports for Mediterranean transhipment traffic, but the companies involved - mostly linked to shipping lines - may be able to offset this by higher earnings from their shipping activities
	Allocation of risks	The costs of the basic public sector infrastructure will take a long time to recover, but this is regarded as a strategic investment required to stimulate economic growth. The main private sector risks are overcapacity (for container and possibly ferry berths). The car terminal is integrated with a Renault manufacturing plant, and the oil terminal appears to face relatively low commercial risks
	Size of private investment and % of project costs to be privately funded	€1.5bn (50% of project costs) split between a number of companies
	Additionality (would the project happen without agency involvement)	The project is entirely the result of a Government initiative
	Affordability (income stream through user charges and their willingness to pay)	Not known. Private companies should recoup their investment costs eventually, but the position in respect of public sector costs is less clear
Business Climate	Institutional framework	TMSA is a "one stop" developer responsible for all aspects of the project . It has signed concessions for individual terminals with APMT/Akwka (CT1 and eventually CT4), Eurogate/MSC/CMA-CGM (CT2), Marsa Maroc (CT3), Emirates National Oil Co, and Renault. Tug services are to be provided by the French company Boluda.
	Political climate (long term political stability)	Reasonably stable
	Investment Climate	Reasonably good
	History of private investments in sector	These are the first major common-user private investments in the ports sector in Morocco
	Macro-economic growth and stability	Good, but reliance on transhipment traffic creates additional revenue risks
	Transparency	Reasonably good
Project setup	Enabling implementation agencies/administrative capability	TMSA has acted very professionally, and produced results very quickly

	Institutional reform, regional regulatory frameworks	Tanger Med has been developed independently of the rest of the ports system, with its own legislation. The reform process in other ports lags well behind.
	Procedure for selecting private investor	Competitive tendering, but with a "beauty contest" form of evaluation based on experience, willingness to invest and ability to generate additional cargo rather than financial returns to government
	Safety and environment factors	Safety not an issue. Environmental issues were mainly addressed at the planning stage
	Market potential (for growth)	Transhipment market still growing, but quite volatile due to competition from other ports
	Has there been any Technical Assistance? Who was this provided by and funded by?	TMSA has appointed experienced international professional advisers, but has not used donor-funded T/A to any large extent
	Precision of scope and requirements offered to private sector	Construction requirements were tightly specified by TMSA, and construction work closely supervised to ensure achievement of project delivery times. The concession agreements are fairly standard, and are explicit about operational requirements
	Precision of obligations of government/public authority	Government made commitment to implementation of Port Master Plan within a relatively short time period, and has largely achieved this.
	Dependence on success of another related project?	No
Level of project preparation /readiness	Sophistication of current landlord/owner	TMSA is a modern, technocratic organisation which functions more like a private corporation than a State entity
	Greenfield or brownfield (incl state of current infrastructure)	Greenfield
	Current operational levels and growth rates	In 2010 Tanger Med handled 2.06m TEU of container traffic. Other terminals are still in the start-up phase
	Profitability and future opportunities	Unknown
	Target date for start of construction	2005

	Existence of feasibility studies	Project is the result of Morocco's economic development strategy, rather than a detailed feasibility study
Outcomes	Lessons learned (for past projects)	1) Middle East style "big bang" port development is possible in Africa if the conditions are right 2) Creating a new, independent government agency for port development at a greenfield site enables things to move quickly, providing it is correctly staffed and funded, has all of the legal powers it needs, and is trusted by Government 3) Projects with large breakwater, dredging or land reclamation requirements are not suitable for private sector funding on a "whole port" basis unless potential profits from terminal operation are extremely high 4) Location is an important success factor for new ports
	Risks and issues (for projects going forwards)	1) Transhipment terminals are relatively high risk ventures if built from scratch. In this case it is sensible to transfer the concession - and the investment risk - to the shipping lines(s) which intend to use the terminal
	Causes of successes and failures (for past projects)	**Success factors** 1) Division of capital costs between public and private sectors in such a way that the private sector can make a reasonable financial return on its investment, whilst enabling the public sector to make a satisfactory economic return on its share of the costs 2) Clear separation of public and private sector rights and responsibilities in all contract documents 3) Public sector acceptance of responsibility for driving the project through to completion on time and in budget 4) Competent technical supervision of the project 5) Willingness to let private investors go if changed in circumstances reduce their enthusiasm for the project (PSA Corp in the case of Tanger Med)
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	Tanger Med is a project of global significance with a large impact on the Morocco economic through the stimulus to industrial development it is creating in the north of the country. It has also had an impact on international container shipping movements, particularly to West Africa
	Impact of private investment in sector	Project could not have been implemented as a pure public sector project. Private companies have provided expertise as well as capital, and vertical linkages to associated industrial development projects

AIRPORT PPP CASE STUDIES

Enfidha and Monastir Airports

Project description	Project Name	Enfidha and Monastir Airports
	Location	Tunisia
	Project description	Build Operate Transfer to 2047
	Project purpose	To build a new tourist airport at Enfidha and to rehabilitate and maintain the existing airport at Monastir
	Key dates	Project started in 2004, but was delayed due to an unrealistic construction project it was relet in 2006, awarded in 2007, financial close in 2008 and new airport opened in December 2009, Concession runs to 2047
	Project size (total cost, breakdown if available)	Concession payment of between 11% and 26% of revenues between 2010 and 2047 (after opening of Enfidha), Construction cost of €550 million (source TAV)
	Project status	Enfidha has been built and opened, there are on-going disputes about labour relations
	PPP model and involvement type	40 year concessions based on specification of investment required and revenue sharing. Enfidha Build Maintain Operate Transfer, Monastir, Maintain Operate Transfer Concessions
	Institutions involved	TAV, the Turkish airport operator won the concession from the Tunisian Government. TAV's finance was provided by a number of institutions including the IFC, EIB and Pan African Fund for development
Project viability, desirability	Intermodal connectivity	Road connectivity only
	Links between natural resources supply chains and regional corridors/high value export products	Airports are mainly used for point to point tourist traffic with limited cargo
	Economic viability	The airport is aimed at introducing mainly tourist inflows but also to develop improved connectivity for the local population. ADFDB assessed the project as economically and financially sound when deciding to provide financial support.
	Financial viability	The concession was awarded following a strong competition. It is operating to date as envisaged by the concession

	Allocation of risks	Revenue and construction risk passed fully to the concessionaire.
	Size of private investment and % of project costs to be privately funded	€550 million investment by TAV, lending from IFC and EIB, IFC signed up for €28 million (15%) equity stake (implying total equity of around €190 million), in 2009. Financing package of €398 million arranged with contributions from IFC arranged a full financing package of €398 million, including direct long-term senior and subordinated loans of €135 million and a €255 million syndicated loan, underwritten by ABN, Société Générale, and Standard Bank. Other participant banks included: Banco Espirito Santo, Financiere Oceor Proparco, OPEC Fund for International Development (OFID), European Investment Bank, African Development Bank. TAV Airports' equity contribution amounts to €135 million.
	Additionality (would the project happen without agency involvement)	This is not clear, however with the IFC's role in providing equity and being the lead arranger, it seems less likely that this project would have happened without agency support.
	Affordability (income stream through user charges and their willingness to pay)	Income stream from passenger user and landing fees and other commercial income streams to both airports.
Business Climate	Institutional framework	Government of Tunisia owner, TAV private sector operator, OAGC was the government owned airport operator which operated 7 airports in Tunisia, the airports under concession needed to be split out from that government entity. The OACA remains a government department which takes to role as regulator and also the operator of the remaining 5 airports.
	Political climate (long term political stability)	Tunisia's recent changes in political environment introduce some risk to the concession
	Investment Climate	The Tunisian investment code means there is a structure for foreign direct investment, the investment climate has until recently being attractive. The World Bank complemented Tunisia in 2010 on it openness to foreign investment However, the political instability may have reduced this on a temporary basis.
	History of private investments in sector	This was the first concession of its type combining new build with an existing airport to run
	Macro-economic growth and stability	3% 2009, 3.7% in 2010, expected to slow to 1.1% in 2011 reflecting the lower growth in the European region before rebounding to 4% growth in 2012. over the period 2003-2009 there was strong growth of between 3% and 6% real GDP growth per annum
	Transparency	Award of contracts was subject to international supervision from IFC, AFDB and EIB
Project setup	Enabling implementation agencies/administrative capability	Not clear whether there was any enabling work [to be investigated]

	Institutional reform, regional regulatory frameworks	OACA was the government owned airport operator which operated 7 airports in Tunisia, the airports under concession needed to be split out. Regulatory separation has still not happened.
	Procedure for selecting private investor	There was a shortlist of bidders: 'Aeroports de Paris* Hochtief AirPort* Aeroports de Nice-Cote d'Azur * American International Airports* Airport Company South Africa* Tepe Insaate & Akfen * And a Mexican consortium, they were then invited to prepare their BAFO and TAV was chosen as the preferred bidder
	Safety and environment factors	Both factors were taken into consideration when preparing the concession agreement. Tunisia's aviation safety record is relatively strong in an African context
	Market potential (for growth)	2010, 3.9 million passengers across both airports, the concession is let on the expectation of rapid growth the development of tourism and north African hub
	Has there been any Technical Assistance? Who was this provided by and funded by?	The Masterplan was prepared by Aeroports de Paris the level of technical assistance unknown
	Precision of scope and requirements offered to private sector	A precise concession agreement was issued with the tender
	Precision of obligations of government/public authority	A precise concession agreement was issued with the tender
	Dependence on success of another related project?	Related to the success of the Tunisian Tourism industry
Level of project preparation/ readiness	Sophistication of current landlord/owner	Not applicable
	Greenfield or brownfield (incl state of current infrastructure)	A combination of a new Greenfield site and renovation of an existing brownfield site
	Current operational levels and growth rates	3.9 million in 2010 across the two airports, has grown in 2010 by around 5%
	Profitability and future opportunities	TAV expect significant opportunities for future growth, as it is in the early stages of the concs
	Target date for start of construction	Construction started in 2007 and was completed in 2009
	Existence of feasibility studies	Legal Adviser to sponsor Clifford Chance (Paris) Financial Adviser to sponsor Rothschild Legal adviser to banks Allen & Overy Technical adviser Mott McDonald on technical, traffic and environment. Tax and Accounting Adviser BDO
Outcomes	Lessons learned (for past projects)	labour relations

		political stability at the time of letting the concession is no guarantee of it later the original specification for the airport was too ambitious (30 million passengers) during the bid process a sensible staged building programme was agreed. Need to make the masterplan realistic for private sector bidders Working across a number of agencies made a complex and large project possible to finance
	Risks and issues (for projects going forwards)	1. traffic will not grow as expected by TAV in their concession bid 2. political instability in the region reduces the attractiveness of Tunisia as a tourist destination 3. greater competition from other airports in the region with stronger host carrier to provide a north African hub 4. Regulatory risk with the national regulator still operating as a Government department
	Causes of successes and failures (for past projects)	Clear concession, multiple banks, open competition, high level of project preparation
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	The implementation of the concession involved reduction in staff numbers and this has caused some social issues. The tourism and connectivity improvements have the potential to improve the development of the region.
	Impact of private investment in sector	Traffic has increased, in difficult economic times. The site presents itself as an international airport providing facilities to high ICAO standards

Durban Airport

Project description	Project Name	Durban (DUBE Trade port)
	Location	Durban, South Africa
	Project description	Group 5 led construction, with ACSA South Africa as the operating partner on a 10 year management contract
	Project purpose	The building of a greenfield airport in Durban South Africa, which involved the relocation of the original downtown airport to an out of town greenfield site and sale of the land downtown
	Key dates	Feasibility and analysis 2004-2006, award of contract was subject to legal challenge before finally being awarded in 2007.
	Project size (total cost, breakdown if available)	US$946 million contract
	Project status	New airport opened on 1 May 2010, associated cargo and business facilities continue to be buit to establish the DUBE Trade Port concept
	PPP model and involvement type	A number of PPP models were considered but in the end that there was a construction contract with Group 5 leading the build of the new airport and ACSA South Africa providing the long term management of the airport under a separate management contract for 10 years
	Institutions involved	Funding was eventually provided by the RSA Government, after a number of PPP models were examined but not found to be value for money.
Project viability, desirability	Intermodal connectivity	Cargo terminal and land connectivity surface road and proximate port locations
	Links between natural resources supply chains and regional corridors/high value export products	Fruit, vegetables and flowers are the main export produce. There are also some high value electrical parts. Durban is a regional airport supporting a large area of Kwazulu-Natal. The extent that it was able to support its own development rather than being a spoke in the hub at Johannesburg was a major issue of consideration for the potential success and feasibility of the project.
	Economic viability	Economic impact studies were produced which showed the positive impact of the relocation
	Financial viability	Financial feasibility studies were produced with updates to traffic projections as the project was delayed and in the meantime, the level of traffic grew very rapidly,

	Allocation of risks	After much discussion, only the construction cost risk was passed to the private sector partner
	Size of private investment and % of project costs to be privately funded	Limited
	Additionality (would the project happen without agency involvement)	In the end Treasury South Africa took over the project when it became apparent that the private sector were not able to provide the level of funding.
	Affordability (income stream through user charges and their willingness to pay)	The existing airport had established income streams from aeronautical and commercial income sources. Following its closure there was also the proceeds from downtown land sales. However, at the time of making the decision to build the airport the volume of traffic and projected volume did not support the cost of new build of the airport and some Federal subsidy would need to be provided.
Business Climate	Institutional framework	Involvement of RSA Treasury, as well as regional government of Kwazul-Natal Province. Dube Tradeport company was established by KZN to assist with the development of the airport and supporting cargo and business infrastructure
	Political climate (long term political stability)	Relatively stable climate, strong regional government interest in the development of the project to serve local economy combined with federal support to provide new infrastructure in time for the World Cup.
	Investment Climate	South Africa is seen to have a mature PPP and private sector investment market
	History of private investments in sector	The partial sale of ACSA South Africa (with a minority 20% stake bought by Aeroporti di Roma was not deemed a success). There have also been limited success with other airport PPPs at Kruuger Mpumulanga. There have been more successful PPPs in the roads and rail sector and the maturity and size of the South African banking market.
	Macro-economic growth and stability	GDP growth has averaged 3.5% in RSA, but fell in 2009 and 2010 linked to the global economic crisis. In 2011 modest GDP growth has returned. The country is seen to provide relative political stability in Africa.
	Transparency	From very early in the process a large amount of information was available on the DubeTradeport web site. The establishment of a specific organisation tasked with making the project happen helped with the transparency of the project.

Project setup	Enabling implementation agencies/administrative capability	Establishment of DUBE Tradeport. Long discussions between KZN, RSA and ACSA as the airport operator of the original Durban airport - this caused some difficulties with introducing perceived risk into the transaction. Eventually a compromise was reached with the involvement of ACSA on a 10 year management contract with the option to buy the airport at the end of the 10 year management contract
	Institutional reform, regional regulatory frameworks	See above
	Procedure for selecting private investor	A tender for the construction took place in 2006/2007 for which there were a number of bidders. International advisors were used to assess the tenders. Local and empowerment criteria were taken into consideration in the process of choosing the preferrred bidder. Four bidders were shortlisted for the construction of the airport. One of the losing bidders (Aveng Africa and 12 other companies) in the contract to build the new airport did seek an injunction to set the decision to award the contract aside and seek a review because the Indiza consortium was unfairly disqualified as a bidder. There was a delay in the construction but the matter was settled and the timeline of 2010 was achieved.
	Safety and environment factors	There were a number of key safety and environmental factors, not least the agreement to use the original airport site (proximite to an oil refinery) was an important environmental consideration
	Market potential (for growth)	The potential for growth was envisaged, however the feasibility studies in hindsight underestimated the growth in the aviation market in RSA, due to the explosion of low cost carriers in the country, and the very high growth in the economy and propensity to fly with an increase in the RSA middle classes providing greater pressure for use of aviation services.
	Has there been any Technical Assistance? Who was this provided by and funded by?	The KZN financed a team led by PricewaterhouseCoopers to develop a feasibility study, economic impact and obtain RSA Treasury approval for support of the project. In addition, World Bank sponsored consultants (SH&E) reviewed the project and the feasibility study.
	Precision of scope and requirements offered to private sector	One of the difficulties with obtaining a sustainable PPP structure was a lack of precision of scope for public and private sector and the investment and legacy issues. This ultimately led to a more plain vanilla involvement of the private sector in a turnkey construction contract.
	Precision of obligations of government/public authority	The eventual contractual obligations were a relatively standard construction contract and a separate management contract with ACSA. The key role of the RSA and KZN throughout was clear.
	Dependence on success of another related project?	The link to the Football world cup was a key driver of the timing of the delivery of the project. A number of associated intermodal transport projects have been developed (cargo, business parks) after the core airport facility was operational on May 2010.

Level of project preparation/ readiness	Sophistication of current landlord/owner	No information
	Greenfield or brownfield (incl state of current infrastructure)	Greenfield new airport
	Current operational levels and growth rates	4,8 million to April 2011, 10% growth on previous year (some impact from world cup here)
	Profitability and future opportunities	No information
	Target date for start of construction	May 2010 was met
	Existence of feasibility studies	See above
Outcomes	Lessons learned (for past projects)	No information
	Risks and issues (for projects going forwards)	the uncertain role of ACSA (it has the option to buy the airport after 10 years of operating the management contract) the viability of the concept depends on the build up of Dube Tradeport - to become a freight hub and business location - this is still in the embryonic phases of development
	Causes of successes and failures (for past projects)	In the end the PPP was not possible because the financial feasibiltiy of the new airport was difficult to prove. This could have been solved by appropriate structuring but unrealistic expectations at the start of the process influenced the possible approach. Where new and unproven concepts (such as the tradeport) are not proven it is very difficult to persuade the providers of feasibility studies and the private suppliers of finance that this is feasible.
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	Large employment impacts from development of the new airport and a large amount of associated activity. The airport has managed to attract direct services to the UK and freighter only services to improve the connectivity of KZN as a consequence and the potential benefits for development associated.
	Impact of private investment in sector	Mainly that the construction and operation of the new airport was ready for the May 2010 opening when the the contract was only decided in 2007, therefore the private sector help deliver a very difficult project,

Republic of Congo Airports

Project description	Project Name	Brazzaville, Pointe Noire and Ollombo Airports Concession
	Location	Republic of Congo
	Project description	Development, operation and maintenance of Brazzaville, Point-Noire and Ollombo international airports.
	Project purpose	Egis will operate the three airports for 25 years: - Brazzaville is to be refurbished, including an Airbus A380 compatible runway, taxiways, parking stands and a 50,000sqm terminal
	Key dates	Contract signed with the French Egis Group on 14th December 2009. The concession commenced on 1st April 2011.
	Project size (total cost, breakdown if available)	Funding of new terminal in part from $160m loan from Export-Import Bank of China. New Ollombo airport did cost $62m and was undertaken by China Jiangsu International Economic Technical Cooperation Corporation.
	Project status	Concession began on 1st April 2011
	PPP model and involvement type	BDOT arrangement
	Institutions involved	The concessionaire is AERCO (Aeroports de la Republique du Congo). More generally, ANAC (Agce National de L'aviation Civile) manages airport transport in the country
Project viability, desirability	Intermodal connectivity	The Congo River and its tributaries, especially the Ubangi, provide the nation's main transportation routes. The Congo-Ocean Railway links Brazzaville, a major port on the Congo River, with Pointe Noire, a large Atlantic port. A spur line runs north from Loubomo to the Gabon border. The Congo's river and rail transport system forms an important international trade route; it is used extensively by several nearby countries. The Congo's road system is generally poor.
	Links between natural resources supply chains and regional corridors/high value export products	The Congo is primarily an agricultural country. Most of the people live by growing yams, cassava, plantains, and other subsistence crops on small plots. Sugarcane, cacao, tobacco, palm nuts, peanuts, citrus fruits, and coffee are among the leading cash and export crops. Petroleum production and exporting are of major importance to the Congo's economy. Lumbering is also a significant economic activity contributing to the Congo's export earnings. Manufacturing consists mainly of the processing of agricultural and forest products and the making of basic consumer goods.

	Economic viability	Agencies such the World Bank and the IMF deemed Ollombo airport to be non-profitable.
	Financial viability	No information
	Allocation of risks	No information
	Size of private investment and % of project costs to be privately funded	Construction of Ollombo airport was funded by the government. The improvements to Brazzaville are included as part of the concession.
	Additionality (would the project happen without agency involvement)	Agencies such the World Bank and the IMF deemed Ollombo airport to be non-profitable. It is unlikely therefore that a package including all three airports where improvements are required would occur purely based upon private investment.
	Affordability (income stream through user charges and their willingness to pay)	Brazzaville handled 800,000 passengers in 2008 and 75,000 tons of freight. Pointe-Noire handled 650,000 passengers and 85,000 tons of freight. The new Ollombo international airport is located in Northern Congo in an area that should benefit from a strong economic growth fostered by the mining industry.
Business Climate	Institutional framework	ANAC (Agce National de L'aviation Civile) manages airport transport in the country
	Political climate (long term political stability)	Since March 2003 when a final peace accord was signed, the country has remained relatively calm and stable.
	Investment Climate	Since the end of the war there has been a gradual restoration of the overall economic conditions necessary for privatisation of private investment. Congo is a member of CEMAC thus offers more liberal terms anf investment guarantees than some other African nations.
	History of private investments in sector	Recent indicators show an increase of business exchanges between the Republic of the Congo and People's Republic of China. An increasing number of large public works projects, including roads, dams, railroads and general construction, are being allocated to Chinese companies. Many other Asia companies are investing in the forestry sector.
	Macro-economic growth and stability	Congo's GDP in 2010 was estimated at $13.8b. THe economy saw 10.2% growth in 2010, with 8.4% expected in 2011. The oil industry is key to the economy, providing 88.5% of it's export earnings. Following years of war, there has been a return of stability in Congo leading to increased foreign investment. President Sassou-Nguesso sees the industrialization of the Congo as a key component of his plan to modernize the country, with mineral extraction being a key growth sector.

	Transparency	Transparency in the government's economic management system is an ongoing concern. The Public Finance Law of 2000 governs transparency and public management. Recognizing that sustained progress in good governance is a key condition to the country's development, the government continues to work on a "Transparency and Good Governance Project," after receiving a grant of USD $37 million in 2001 for post-conflict recovery assistance. Despite these initiatives, there is still need for improvement in the areas of transparency and economic management. IMF and other international organizations remain critical of the government's inability to explain budgetary and oil revenue spending.
Project setup	Enabling implementation agencies/administrative capability	ANAC manages multiple airports throughout the country. Historically international standrads of management were not adhered to with ANAC specifically set up to ensure this in future.
	Institutional reform, regional regulatory frameworks	No information
	Procedure for selecting private investor	There was a comprehensive concession process which spanned almost three years.
	Safety and environment factors	The Congo basin is the worlds second largest "green lung" after the amazon and has great environmental importance. Any expansion of transport infrastructure therefore needs to take this under consisderation. Congo has been a peaceful nation now for almost a decade, though historically safety concerns were very large.
	Market potential (for growth)	Agencies such the World Bank and the IMF deemed Ollombo airport to be non-profitable.
	Has there been any Technical Assistance? Who was this provided by and funded by?	Lufthansa Consulting provided advise to the Government on all areas of strategy development, the tendering process, the search for investors and negotiation of the final concession agreement.
	Precision of scope and requirements offered to private sector	No information
	Precision of obligations of government/public authority	No information
	Dependence on success of another related project?	N/A
Level of project preparation/ readiness	Sophistication of current landlord/owner	No information
	Greenfield or brownfield (incl state of current infrastructure)	No information
	Current operational levels and growth rates	Brazzaville currently processes 800,000 passengers and 75,000 tonnes of freight pa. Pointe Noire processes 650,000 passengers and 85,000 tonnes of freight pa.

	Profitability and future opportunities	The development of an "Airport City" at Brazzaville airport has already been agreed as a follow-up project. Additional infrastructure will be developed in front of the terminal, including a commercial centre and a conference venue. A hotel is already under construction. In addition, the Government will establish a governmental control unit to monitor AERCO, the new operator of the three airports.
	Target date for start of construction	Currently operational
	Existence of feasibility studies	No information
Outcomes	Lessons learned (for past projects)	No information
	Risks and issues (for projects going forwards)	No information
	Causes of successes and failures (for past projects)	The working relationship between the Congo government and Lufthansa consulting successfully delivered the concession. This relationship is expected to continue for future potential work
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	No information
	Impact of private investment in sector	No information

Abidjan Airport

Project description	Project Name	Abidjan Houphouet-Boigny Airport
	Location	Cote d'Ivoire
	Project description	15 year concession from July 1996: operation and development. Concession renewed in 2010 with a 20 year period.
	Project purpose	Upgrade and extend facilities at Abidjan airport. Bid required a investment program to upgrade and extend the airport infrastructure over the period 1996 - 2000 to the extent necessary to consolidate Abidjan's position as the major hub airport in Francophone, West Africa. The authorities also anticipated that the concessionaire would undertake significant commercial development on the airport and in areas adjacent to the airport. New concession obligation: develop an airport city of 3,700 ha (as well as operating airport and investing in airport as required/requested by authorities).
	Key dates	Project started in 1994, proposals received 1995, negotiations concluded early 1996, concession began July 1996. Renewed with new concession period of 20 years which started 1 January 2010 (lasting until 2029).
	Project size (total cost, breakdown if available)	Concession fees approximately €3m per year (approx 25% of airline revenue). Capital investment over 20 year concession expected to be €120m (source: airport revenue and loans). No funds from Government
	Project status	Second concession underway
	PPP model and involvement type	20 year concession. Contained provisions for the Ivorian state to hold up to 20% of AERIA's share capital
	Institutions involved	AERIA is part of Egis group, which is 75% owned by the Caisse des Dépôts (CDC), a French government agency, 25% employee shareholder. AERIA was set up in 1996 to operate and develop Abidjan airport. At the time, shareholders were Marseille Chamber of Commerce (who operate Marseille airport), Sofréavia (later taken over by Egis), some private companies, some institutional investors including BNP and AFD. at time of original concession AERIA was controlled by SEGAP For the Second Concession, the technical partner changed from Marseille to Egis Airport Operation, which manages 11 airports across the world A consortium led by Aéroports de Paris also put forward a proposal

Project viability, desirability	Intermodal connectivity	Road connectivity only. Ministry of Economic Infrastructure has a vision for the airport, which encompasses free trade zones, links between the ports and the airport, and a railway system
	Links between natural resources supply chains and regional corridors/high value export products	Airport mainly used for point to point tourist traffic with limited cargo
	Economic viability	No information
	Financial viability	AERIA reported interviews that they are making money on the concession. Revenues: airline revenue in 2011 was €12m. Source of revenue split aeronautical 80% to non-aeronautical 20%. Non aero is mainly duty free shops and car parking. Hope to generate more revenue by leases on land marked for new development. Will change aero/non-aero revenue ratio
	Allocation of risks	No information
	Size of private investment and % of project costs to be privately funded	New concession period – requirement to invest CFA80bn (€120m), over four 5 year plans, developing infrastructure according to needs and requests of Government. Capital comes from Egis's own resources (revenue generated, and loans) – no funds from Government
	Additionality (would the project happen without agency involvement)	No information
	Affordability (income stream through user charges and their willingness to pay)	Income stream from passenger user and landing fees and other commercial income streams
Business Climate	Institutional framework	Government of Cote d'Ivoire owner, AERIA private sector operator
	Political climate (long term political stability)	Recent civil war (2011) in Cote d'Ivoire introduces some traffic and security/safety risk to the concession. However the previous concession weathered a civil war in 2002. Throughout the civil war crisis the airport was always protected by the UN, the Ivorian military, and the French force legion
	Investment Climate	No information
	History of private investments in sector	This is the second concession at this airport (same concessionaire)
	Macro-economic growth and stability	No information
	Transparency	No information

Project setup	Enabling implementation agencies/administrative capability	Not clear whether there was any enabling work [to be investigated]
	Institutional reform, regional regulatory frameworks	Until 1996, all airports in Côte d'Ivoire and ATO services at airports other than the major international airport at Abidjan were owned and operated by Agence Nationale de l'Aviation civile et de la Meteorologie (National Agency for Civil Aviation and Meteorology (ANAM)), which also acted as a national regulatory agency for air transport. Following the winding-up of ANAM, that agency's regulatory and policy development responsibilities for the aviation sector were transferred to the Agence Nationale pour l'Aviation Civile (National Civil Aviation Agency (ANAC)). ANAC also retained certain of ANAM's operational responsibilities for providing airport terminal security (passenger and baggage screening) at Abidjan H-B. ANAC's responsibilities have recently been reviewed by the Ivorian Government, partly to achieve an even clearer separation of regulatory and operational responsibilities between ANAC and le Service Météorologique National de la Côte d'Ivoire (National Meteorological Service of the Ivory Coast (SODEXAM)).
	Procedure for selecting private investor	The authority received outline proposals based on the concessions model of PSP from SEGAP and from a consortium led by Aéroports de Paris, and entered negotiations with both parties in 1995. SEGAP was identified as the preferred bidder primarily on the basis of the quality and depth of its proposals, in particular, concerning the investment program during the early years of the concession period. Negotiations were concluded early in 1996, and a special purpose company, AERIA was established as concessionaire
	Safety and environment factors	No information
	Market potential (for growth)	2011: 640,000 passengers. Before civil war, passenger volume was at 900-950k. Expect to return to pre-civil war figures in 2012, then 1m by 2013 Government currently planning new national carrier Air Côte d'Ivoire, to launch March/April 2012, with Air France as the industry partner. Air Ivoire was previously 35% of traffic and airport therefore supportive of new national airline
	Has there been any Technical Assistance? Who was this provided by and funded by?	No information
	Precision of scope and requirements offered to private sector	A precise concession agreement was issued with the tender
	Precision of obligations of government/public authority	A precise concession agreement was issued with the tender
	Dependence on success of another related project?	Related to the success of the Government's plans to launch a new national airline (Air Côte d'Ivoire)

Level of project preparation /readiness	Sophistication of current landlord/owner	Since 1996 has been run by same concessionaire
	Greenfield or brownfield (incl state of current infrastructure)	Renovation of an existing brownfield site. Airport City development is a greenfield site (Airport City to be developed in conjunction with other property and hotel developers)
	Current operational levels and growth rates	Current capacity is 2m. Plans to increase to 3m and eventually 30m per annum. 2011: 640,000 passengers. Before civil war, passenger volume was at 900-950k. Expect to return to pre-civil war figures in 2012, then 1m by 2013
	Profitability and future opportunities	AERIA expect opportunities for future growth, as it is in the early stages of the concs and the country's recovery from the 2011 civil war is positive.
	Target date for start of construction	Construction on Airport City not yet started. Other airport construction required during the concession will be developed according to needs and requests of government.
	Existence of feasibility studies	No information
Outcomes	Lessons learned (for past projects)	1. It is not possible to have a strong African airline which is accepted by other African countries, and Open Skies agreements such as Yamassoukro are not effective at stopping protectionism as they are not enforced. There have been some limited successes, in particular Kenya Airways and Ethiopian
	Risks and issues (for projects going forwards)	1. political instability in the region reduces the attractiveness of Cote d'Ivoir as a tourist destination 2. European airlines have point to point routes between their hubs and francophone African countries, which limits the potential for long distance passengers using Abidjan (or another regional hub) transferring to regional flights. 3. greater competition from other airports in the region with stronger host carrier to provide a north African hub 4. Government now planning new national carrier Air Côte d'Ivoire, to launch March/April 2012, with Air France as the industry partner. Air Ivoire was previously 35% of traffic and airport therefore supportive of new national airline
	Causes of successes and failures (for past projects)	Clear concession, high level of project preparation Egis have significant experience managing airports in Africa and elsewhere.
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	No information
	Impact of private investment in sector	First concession: AERIA developed the terminal, extended runway, refurbished and extending cargo terminal and participated in project to develop a training academy. Some access and landside roads improved. Second concession: no investment yet - will develop infrastructure according to needs and requests of Government.

Other		Egis's investment in small airport has worked commercially. AERIA have provided the best infrastructure in West Africa, properly maintained according to international standards. The airport was kept open throughout the civil war. Company has managed to make money from it and shareholders were happy to see an extension to the concession. Banks also happy to lend to Egis as they know they will get their money back.

Lagos Airport Domestic Terminal

Project description	Project Name	Lagos Murtala Muhammed International Airport (MMIA) Domestic Terminal (MMA2)
	Location	Lagos, Nigeria
	Project description	BOT project was undertaken by Bi-Courtney Limited, a Nigerian company, and opened operationally on 7th May 2007. The project comprised an airport terminal building, a multi-storey car park and an apron. Bi-Courtney have a 36-year concession for the terminal.
	Project purpose	On 10th May 2000, the domestic airport of MMIA went up in flames and the terminal was destroyed. Given the increasing levels of air traffic, this necessitated the construction of a new domestic terminal.
	Key dates	In 2003, Bi-Courtney Limited was awarded the concession by the Federal Government of Nigeria to design, build and operate MMA2 and ancillary facilities on a land area of 20,000m^2.
	Project size (total cost, breakdown if available)	Funding came from Bi-Courtney Group's own equity and debt. In total N25bn in equity and N20bn ($150m) in debt was arranged. This debt was raised from local banks where the interest rates are very high.
	Project status	MMA2 opened on 7th April 2007.
	PPP model and involvement type	The Federal Government made a decision to redevelop the airport using private sector investment, under a PPP scheme. The plan transferred all development and operating risks to the private sector specifically on a BOT arrangement.
	Institutions involved	Bi-Courtney proceeded with support from Oceanic Bank International Plc. By March 2007, Zenith Capital Limited led six banks – Oceanic Bank International Plc., Zenith Bank Plc., GTBank Plc., First Bank Plc., First City Monument Bank Plc. and Access Bank Plc. - in arranging NGN20 billion part-financing for the completion of MMA2.
Project viability, desirability	Intermodal connectivity	No information
	Links between natural resources supply chains and regional corridors/high value export products	No information
	Economic viability	Initial expectation was that the investor would see a return on investment in 22 to 24 years, with a loan repayment period not exceeding 12 to 14 years.

	Financial viability	The cost of funding in Nigeria is very high and often unstable. There is therefore a requirement to make very high profits in order to afford financing in the country.
	Allocation of risks	All development and operating risks were transferred to the private sector.
	Size of private investment and % of project costs to be privately funded	Majority of costs privately financed
	Additionality (would the project happen without agency involvement)	No information
	Affordability (income stream through user charges and their willingness to pay)	The current revenue profile is failing to meet the projections above and Bi-Courtney are struggling to repay loans due. This is in large part because the terminal was designed to carry 5 million passengers annually, but is currently operating at just under half of that, processing approximately 2 million passengers annually. This is in large part due to Arik which still operates out of an alternate terminal and carries approximately 35% of all domestic passengers. Other specific revenue streams include: - Passenger Service Charge (PSC) - Concessioning operations within the terminal (cargo handling etc.) - Rent of site buildings - Advertising Revenue breakdown (60:20:20, PSC/Concessinging:Rent:Advertising)
Business Climate	Institutional framework	The Nigerian Federal Ministry of Aviation is the ministry of the Nigerian Government that regulates air travel and aviation services. Civil aviation in Nigeria is, in effect, administered by two state-owned bodies that report to the Minister for Aviation. The Nigerian Civil Aviation Authority (NCAA) is responsible for regulating the aviation market and providing air traffic management, and the Federal Aviation Authority of Nigerian (FAAN) is responsible for the management and development of all Nigeria's commercial airports.
	Political climate (long term political stability)	There is considerable concern about the financial viability of the development of the Nigerian aviation sector, given the inadequate financial position of the federal and state agencies and the high debt profile of local airlines operators.
	Investment Climate	Not much of a history of PPP, but seen as a country with more appetite for commercial risk than other African countries.

	History of private investments in sector	The construction of MMA2 had several issues in relation to financial support. This was because BOT financing for such a huge project, with a long-term repayment plan, was not commonplace in Nigeria. MMA2 is the first BOT infrastructure development project of its magnitude in Nigeria to be completed successfully by a Nigerian company.
	Macro-economic growth and stability	Foreign exchange rates, interest rates, inflation rate and budget deficits were stabilized, national debts were being eliminated, GDP growth rate was healthy, non oil contribution to the GDP was growing, Foreign reserves were growing.
	Transparency	There are on-going disputes over contractual arrangements and additional fees the government is trying to impose. Many people believe the on-going problems is a reflection of the governments' lack of transparency in the management of PPP projects, citing similar problems in the energy sector to back-up their case.
Project setup	Enabling implementation agencies/administrative capability	The Federal Airports Authority of Nigeria (FAAN) was the key government body involved. They are the organisation charged with managing all commercial airports in Nigeria.
	Institutional reform, regional regulatory frameworks	No information
	Procedure for selecting private investor	No information
	Safety and environment factors	There were no serious environmental or land use control hurdles. Safety and security however continues to be a primary concern at all Nigerian airports. Prior to 1999, and the election of President Olusegun Obasanjo, robbery, bribery and even gangs of criminals attacking planes, were commonplace. This has improved substantially however a level of concern remains.
	Market potential (for growth)	In terms of both passenger numbers and freight, Nigeria is by far the largest aviation market in West Africa. For passengers, it is the seventh largest in Africa. Consistent with significant growth in aviation across the African continent, Nigeria's airports are being subjected to rapidly increasing demand that is outstripping the current infrastructure provision. Total air traffic has grown from approximately 8 million passengers in 2007 to over 14 million passengers in 2010. MMIA specifically carried 5.6m passengers in 2009, which rose by 10% to 6.2m in 2010. MMA2 is expecting growth of 5% in passenger numbers in 2012, with growth between 3 and 6% year-on-year in the longer term
	Has there been any Technical Assistance? Who was this provided by and funded by?	No information
	Precision of scope and requirements offered to private sector	General way of working is to ask for private organisations to propose an approach, rather than government defining an approach and then running a competition.

	Precision of obligations of government/public authority	No information
	Dependence on success of another related project?	N/A
Level of project preparation/ readiness	Sophistication of current landlord/owner	There is a large deficit in local human capital development, with limited capacity and experience of aviation experts locally. Problems which have been seen within this and other projects are attributed by some as a result of the underlying lack of knowledge and lip service which the government gives to the concept of PPP leading to failure to comply with conditions and terms of agreements. Consequently, there are opportunities for external specialists and suppliers to assist in the development of much-needed improvements to Nigeria's aviation market. There is a recognition that external management companies may be able to offer great value.
	Greenfield or brownfield (incl state of current infrastructure)	Brownfield - built on existing site
	Current operational levels and growth rates	MMIA as a whole carried 5.6m passengers in 2009, which rose by 10% to 6.2m in 2010. However MMA2 is currently operating at just under half of that, processing approximately 2 million passengers annually.
	Profitability and future opportunities	Additional capacity is required to address the rapidly-growing traffic demand in Nigeria, particularly for international passengers. Notwithstanding the fact that the Federal Government has given approval for the expansion of the departures and arrivals halls of the Murtala Muhammed International Airport, initial thoughts are being explored for a new terminal building. At MMA2 Bi-Courtney has recently announced expansion plans for regional flights from its airport terminal and they are looking for UK solutions providers in the areas of transport (aviation services), technology and operations and in particular are keen to explore partnership opportunities with leading UK providers of airport security services and equipment within the context of global collaboration with aviation stakeholders. In addition Bi-Courtney is seeking suppliers to introduce and offer new IT infrastructure/equipment for premium and scalable airline operations services.
	Target date for start of construction	The project was undertaken to expected timescales (of revised June 2004 agreement, which extended the construction period from 18 to 33 months), with financing secured in 2003 and construction completed in 2007.
	Existence of feasibility studies	No information
Outcomes	Lessons learned (for past projects)	Inadequate experience of PPP Would have benefited from political involvement at the implementation level

		Asymmetry of knowledge between concessionaire and Government Not enough due diligence by contracting authority Project preparation not thorough
	Risks and issues (for projects going forwards)	Doubts remain about the ongoing viability of the project; it appears as if some of the concession commitments have not been adhered to. For example, Arik Air uses an alternative facility for its domestic flights, whereas the Concession Agreement stipulated that all domestic flights would be directed to MMA2. Safety and security continues to be primary concerns at all Nigerian airports. Although Bi-Courtney are currently profitable at an operational level, when finance costs are incorporated this is not the case. Nigeria is looking at refinancing to grow business and free themselves from high interest rates. Nigerian and International finance markets are under consideration. This was looked at previously but doubts about profitability caused difficulties. Now that these doubts are gone, they are expecting more success with the banks. Other opportunities includes the Lagos International Terminal and Lekki airport, though doubts about both as to whether they will go ahead or be made available for PPP. Kwara State, Abuja, Owerri, Port Harcourt and Kano all offer potential investment opportunities within Nigeria.
	Causes of successes and failures (for past projects)	There is large potential for success in the growing Nigerian aviation market, however the inexperience of the governing authorities in relation to PPP and failure to comply with conditions and terms of agreements has caused issues with existing projects.
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	No information
	Impact of private investment in sector	Nigeria's airports are generally considered to be seriously lacking in facilities and services which exist in other African airports. The investment in MMA2 has managed to produce an airport to good international standards within the timeframes set out.

Dakar Airport

Project description	Project Name	Aéroport International Blaise Diagne
	Location	Dakar, Senegal
	Project description	Design Build Operate Transfer (DBOT)
	Project purpose	To build a new airport in Dakar with a capacity of 3 mppa, replacing the existing airport
	Key dates	Project started in 2006 with the formation of AIDB, a wholly owned government agency whose purpose was to promote the airport project. Interim financing was achieved by 2008 and longer term finance was signed in September 2011.
	Project size (total cost, breakdown if available)	Financing of €406m ($529m) has been raised to deliver the project.
	Project status	Construction of the new airport began in the first quarter of 2008, but has been slowed down by financing issues. It is now expected to accelerate following signature of the long-term forecasting deal. No official opening date has been provided, but comments on websites indicate opening will be at the earliest in 2014.
	PPP model and involvement type	The current airport departure tax has been hypothecated by law to the funders of the project - Airport Infrastructure Development Charge (AIDC), set at €45 per international departing passenger (€2 domestic). Not clear on the term of this hypothecation, but already in place. Although originally intended to include some private financing, it is now understood that all funding has come from the public sector.
	Institutions involved	The airport is being constructed by the Saudi BinLaden Group (SBG) and will be operated by FRAPORT under a concession (not clear how long). Financing: Lead arranger is BNP Paribas, BMCE (Morocco's second largest private bank) also mentioned. Financing from the following agencies: AfDB €70m, Agence française de développement €70m, Industrial development corporation €35m, West African Development Bank €23m, Infrastructure Crisis Facility €23m; also BAD, BOAD, BID, SDF et Fonds de l'Oepp.
Project viability, desirability	Intermodal connectivity	Road connectivity via new toll road being developed as PPP
	Links between natural resources supply chains and regional corridors/high value export products	Key focus is on passenger traffic.

	Economic viability	Economic viability dependent on continued growth in passenger traffic, which in turn is based on three sectors: business traffic, driven by GDP, inbound tourism driven by the French leisure market and connecting traffic using Dakar as a hub. Inbound tourism could be vulnerable to recession in France or competition from other destinations such as Tunisia. Connecting traffic is dependent on successful operation of a hub at Dakar, which is partially dependent on the success of the national airline, Air Senegal, which has historically been dependent on government subsidy and protection of route access for its survival. However the target traffic levels of 3mppa are reasonable.
	Financial viability	Funding has now been put in place, with a significant proportion of this coming from multilateral banks and aid agencies.
	Allocation of risks	It is assumed that revenue and construction risk passed fully to the concessionaire.
	Size of private investment and % of project costs to be privately funded	Funding as stated above: Financing from the following agencies: AfDB €70m, Agence française de développement €70m, Industrial development corporation €35m, West African Development Bank €23m, Infrastructure Crisis Facility €23m; also BAD, BOAD, BID, SDF et Fonds de l'Oepp. It is understood that no private equity is involved.
	Additionality (would the project happen without agency involvement)	It is clear from the funding arrangements that the project would not have been successfully financed without multilateral support.
	Affordability (income stream through user charges and their willingness to pay)	Income stream from airport aeronautical and non-aeronautical charges assumed to accrue to concessionaire; however passenger departure fee hypothecated to lenders.
Business Climate	Institutional framework	Government of Senegal owner. FRAPORT is operator - term of concession not known.
	Political climate (long term political stability)	Senegal has had a stable political environment with regular elections and a legal system of law based on the French system.
	Investment Climate	No information
	History of private investments in sector	First of its type
	Macro-economic growth and stability	GDP growth rate 4.2% (2010, real) - source World Fact Book
	Transparency	No information
Project setup	Enabling implementation agencies/administrative capability	Government agency AIDB (Aéroport International Blaise Diagne) established to manage project. This has had stable management over the last few years.

	Institutional reform, regional regulatory frameworks	No information
	Procedure for selecting private investor	FRAPORT selected from shortlist of 7 bidders (from the following countries: Germany, France, Turkey, South Africa. SBG (construction company) selected from list of 19 bidders.
	Safety and environment factors	No information
	Market potential (for growth)	Passenger numbers expected to be in the range 3-4mppa by 2020.
	Has there been any Technical Assistance? Who was this provided by and funded by?	No information
	Precision of scope and requirements offered to private sector	No information
	Precision of obligations of government/public authority	No information
	Dependence on success of another related project?	Related to the success of the Senegalese tourism industry and the success of Air Senegal as a hub airline.
Level of project preparation/readiness	Sophistication of current landlord/owner	Government agency AIDB agency appears effective
	Greenfield or brownfield (incl state of current infrastructure)	Greenfield
	Current operational levels and growth rates	1.7mppa at current Dakar airport
	Profitability and future opportunities	No information
	Target date for start of construction	Construction started in 2008. Completion date unknown but anticipated not before 2014.
	Existence of feasibility studies	STUDI, 2005
Outcomes	Lessons learned (for past projects)	Timescales cannot be well defined until financing put in place (construction started when only interim finance involved) Dependence on national airline as generator of traffic is risky (earlier incarnation of Air Senegal bankrupt)
	Risks and issues (for projects going forwards)	1. traffic will not grow as expected 2. recession in France will reduce inbound tourism

		3. weakness of Air Senegal will undermine potential of Dakar as a hub airprot
	Causes of successes and failures (for past projects)	Strong government commitment and well-resourced agency to lead project. Strategic partnership with BNP Paribas. Other advisors: Compagnie Benjamin de Rothschild, Nodalis, Norton Rose.
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	Not yet known as not operational
	Impact of private investment in sector	Evidence of solid project management in construction and credible operator in place.

Bugesera Airport, Rwanda

Project description	Project Name	Bugesera Airport
	Location	Rwanda, 25km to the south-east of Kigali the Capital
	Project description	Greenfield new build airport
	Project purpose	To build an airport which is not capacity constrained and is built to international standards
	Key dates	Not applicable
	Project size (total cost, breakdown if available)	Phase 1 capital spend in the region of US$500-700 million
	Project status	As shortlist of prequalified bidders has been announced and the preparation of bids will start in early 2012
	PPP model and involvement type	Under discussion but likely to involve a BFMOT, Build, Finance, Maintain, Operate, Transfer over a 25 year concession period
	Institutions involved	The Government of Rwanda, Ministry of Infrastructure, Rwandan Civil Aviation Authority (regulator), financial advisors (PricewaterhouseCoopers Africa)
Project viability, desirability	Intermodal connectivity	Connectivity will be provided through roads and potentially through an as yet not built regional railway link between Kigali and Dar es Salaam
	Links between natural resources supply chains and regional corridors/high value export products	One of the reasons for building the airport is to support a Central African regional hubbing product with Rwandair to develop its regional connectivity. Air cargo is currently relatively small but has the potential for further development as the current airport constrains the use of cargo aircraft
	Economic viability	A Economic analysis find significant potential benefits
	Financial viability	A financial feasibility analysis has been undertaken
	Allocation of risks	The aim is to transfer most of the build, finance, maintain and operate risk to the private sector
	Size of private investment and % of project costs to be privately funded	As large a proportion as is feasible

	Additionality (would the project happen without agency involvement)	Not clear yet as bidders will need to assess the feasibility of the project. There are likely to be a number of institutional reforms as a consequence of the implementation of the PPP.
	Affordability (income stream through user charges and their willingness to pay)	Income stream through passenger and airline fees, and commercial fees paid by users at the airport. The income streams have a track record of payments and levels
Business Climate	Institutional framework	See above, Government of Rwanda as owner, Civil Aviation Authority as regulator
	Political climate (long term political stability)	Recent elections and the experience since 2003 has been much greater stability in Rwanda
	Investment Climate	Relatively attractive, but with only a limited track record of completed transactions
	History of private investments in sector	Only limited
	Macro-economic growth and stability	High growth in GDP and GDP per head of 8.4% real over the 2005-2010 period. Forecasts of 7.2% pa growth over the 2011-2015 period (National Bank of Rwanda), IMF slightly less at 6.9% over the same period
	Transparency	The government has a commitment to transparency as a part of its plans and vision for 2020
Project setup	Enabling implementation agencies/administrative capability	Rwanda is in the process of enacting a PPP law to provide an "international standard" framework for international investment
	Institutional reform, regional regulatory frameworks	Currently the airport is consolidated in the Civil Aviation Authority and therefore income streams and organisations will need to be split out to implement the PPP. New civil aviation legal framework has been introduced to clarify responsibilities following the ICAO audit. A dispute resolution procedure is in place.
	Procedure for selecting private investor	Open competition in the early stages of evolution, Invitation, shortlist of pre-qualified bidders, preferred bidder, award
	Safety and environment factors	As Rwanda is a very hilly country the location of the airport has needed to take into consideration significant safety, operational and environmental factors. Recent ICAO audit has led to reform of the civil aviation regulations.
	Market potential (for growth)	The combination of growth in tourism, Rwandair transfer product and high population and GDP growth provides an opportunity for significant growth potential
	Has there been any Technical Assistance? Who was this provided by and funded by?	There has been financial advice provided by PricewaterhouseCoopers Africa. The cost of the construction of the airport has been estimated by TPS. This advice has been procured by the Government of Rwanda (funding source not known).

	Precision of scope and requirements offered to private sector	Under development
	Precision of obligations of government/public authority	will need to be defined in the concession agreement - however not yet fully defined
	Dependence on success of another related project?	To an extent dependent on the country's tourism policy and the development of Rwandair as a regional carrier serving transfer passengers
Level of project preparation/ readiness	Sophistication of current landlord/owner	Currently Government of Rwanda owned, moderate sophistication and needing international experience to improve the offer.
	Greenfield or brownfield (incl state of current infrastructure)	Greenfield new build airport to replace current airport which is capacity constrained
	Current operational levels and growth rates	310,000 passengers in 2010, CAGR of 15.4% between 2003 and 2010
	Profitability and future opportunities	As the financials were part of the CAA, it is difficult to be definitive about the potential profitability of the future project. The current airport is profitable, and the high growth projections provide the potential for future profits
	Target date for start of construction	Late 2012 (which is probably ambitious)
	Existence of feasibility studies	Yes from TPS (a tender reference design) and PricewaterhouseCoopers (financial and transaction advisors)
Outcomes	Lessons learned (for past projects)	Not applicable
	Risks and issues (for projects going forwards)	1. high traffic growth predicated on economic growth and government policy 2. some uncertainties about the construction costs, will be able to be addressed by the private sector 3. some institutional reform will be needed 4. the use of the existing airport need to be constrained in the concession agreement 5. PPPs in Rwanda unproven
	Causes of successes and failures (for past projects)	Not applicable
	Positive social and developmental impact (e.g. performance improvement, labour force reductions)	Improved connectivity will have a significant potential to improve labour productivity and foreign direct investment
	Impact of private investment in sector	Will allow public investment to be recycled to other projects

APPENDIX

C

BIBLIOGRAPHY

BIBLIOGRAPHY

C1.1 Appendix Table C.1 provides a full bibliography of the literature consulted during the course of our study.

APPENDIX TABLE C.1 BIBLIOGRAPHY

Title	Author, Year
Corridor Diagnostic Study of the Northern and Central Corridors of East Africa	Nathan Associates, 2011
Africa Infrastructure Country Diagnostic (AICD) study; Africa's Infrastructure: A Time for Transformation	World Bank et al (Vivien Foster and Cecilia Briceño-Garmendia, Eds.), 2009-2010
AICD Background Paper 16: An Unsteady Course: Growth and Challenges in Africa's Air Transport Industry	Heinrich C. Bofinger, 2009
Attracting Investors to African Public-Private Partnerships	World Bank, PPIAF and ICA members, 2009
Doing Business in the East-African Community	World Bank, 2010
Preparatory Survey for Southern Africa Integrated Regional Transport Program, March 2020	PADECO for JICA
Analytical Comparative Transport Cost Study Along the Northern Corridor Region	CPCS Transcom for Northern Corridor Transit Transport Coordination Authority (NCTTCA); June 2010
Definition and Investment Strategy for a Core Strategic Transport Network for Eastern and Southern Africa, PPP Strategy Report	Nathan Associates for PPIAF-World Bank, 2010
PPP Legal Framework in the FEMIP Region	EIB (on-going study)
Africa Finance Corporation	AFC (overview of organisation)
1st and 2nd Africa Public Private Partnership Conferences, Presentations and outcomes	December 2009 and 2010; Tunis
Financing transportation projects in Africa	emea finance, April 2008
Public-private partnership relationships in urban transportations in Nigeria	Oni, S, 2004
Attracting Investors to African Public-Private Partnerships	Jerome, A, 2008
Nigeria: A 12 steps recovery programme from oil addiction - Transportation reforms	Sterling & Greenback, 2009
Nigerian banks and the perception of risk in PPP project delivery	Akinyemi et al, 2009

Title	Author, Year
Case studies: Private sector participation in infrastructure in Uganda, Ghana and Nigeria	African Development Bank, 1999
Public Private Partnerships: Practice and regulatory policy in Kenya	Spellman & Walker Ltd, 2005
Reforming transport: maximising synergy between public and private sectors	World Bank, 2007
Partnering public and private investment for development	UNCTAD, 2011
Bricks, Mortar, Policy and Development: Aid and Building African Infrastructure	Mills, G, 2006
EIB APPROACH TO THE TRANSPORT SECTOR IN THE MEDITERRANEAN	EIB
EAC (East African Community) study on Maritime Transport Study	N/A
ICA Annual Report 2010	ICA members
ICA Infrastructure Investor: Africa an Intelligence Report	ICA members
Study on Programme for Infrastructure Development in Africa (PIDA), Phases I, II and III (Draft, Transport)	SOFRECO Led Consortium : SOFRECO –MWH –NATHAN – SOFRECOM –SYSTRA –ASCON – CABIRA, 2011
Port specific documents	
Tanzania Ports Master Plan	Royal Haskoning, 2009
Mombasa Port Master Plan	Mwaniki Associates, 2009
Why Does Cargo Spend Weeks in African Ports	World Bank Policy Research Working Paper 5565, 2011
Review of the Effectiveness of Port and terminal Concessions in the SADC Region	Alan Harding/USAID, 2009
Droit, Économie et Finances Portuaires	J. Grosdidier de Matons, 1999
Observations on PPP Models in the Ports Sector	Dr S. Farrell, 2010
Special Focus- The Port of Mombasa; Edition No.2	World Bank Group, June 2010
Port and Maritime Transport Challenges in West and Central Africa; Working Paper 84; Sub-Saharan Africa Transport Policy Program	World Bank
ICA Transport Forum "Financing Transport for Growth in Africa", presented ports projects (Nigerian Ports, Mohammedia Port Morocco & Port of Mayumba)	3-4 Dec 2007 in Tunis

Title	Author, Year
African Development Report 2010: Ports, Logistics & Trade in Africa	AFDB
Resources on ports sector	IFC
Airport Specific documents	
Open Skies for Africa- Implementing the Yamoussoukro Decision	Charles Schlumberger, World Bank, 2010
Investment in Air Transport Infrastructure - Guidance for developing private sector participation	World Bank and PPIAF, 2010
Airport Benchmarking in Latin America and the Caribbean: Assessment of the Evolution of Airport Performance, Regulatory Governance, Airport Tariffs and Private Investment	World Bank, 2010
Conference- Airport Expansion and Development Africa 2010	Presentations
ICA Transport Forum "Financing Transport for Growth in Africa", presented airport project (Enfida Airport Concession)	3-4 Dec 2007 in Tunis
Developing & Improving Air Traffic into Africa, The Role of Private Sector Investment in Aviation Infrastructure	Paper to US-Africa Infrastructure Conference, Washington
Infrastructure Action Plan, Nigeria	2011
Conference- Airport expansion and Development Africa	29/11 – 2/12 2010, Nairobi
Tunisia's Enfidha Airport - Leveraging Public-Private Partnership for Development	From Conference- Airport expansion and Development Africa
PPP Projects and airports: Experience and state in world regions	Tomova, A, 2009
Success Stories - Kenya Air	IFC
IFC Public Private Partnerships Seminar: Airports Overview, assessment and recommendations for improvement	IFC
Nigeria Aviation Report	African Development Bank, 2011
Airport Expansion and Development in Africa	European Investment Bank, 2010
Airports in Africa – Capital Investment Programmes, 2012	Brooks Market Intelligence, 2012
Fact-Finding Mission to Ghana and Nigeria	UK Trade and Investment, 2011

APPENDIX

D

PORTS – LONG LIST DETAILED ASSESSMENT

D1 PORTS LONG LIST – PROJECT ASSESSMENT BY CATEGORY

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P1A	Algiers - Ténès area, new deepwater port	Algeria	Facilities still to be decided	Large domestic market close to Europe with industrial development potential	3.3	Algeria has established ports PPP agency (SOGEPORTS). Scale of project may result in need for IFI assistance	3.6	Early stage	3.0	Ports privatisation agency (SOGEPORTS) with past experience of PPP projects	4.0	3.5
P1B	Cap Djinet new deepwater port	Algeria	Car import terminal, container terminal and multipurpose berths serving new 5,000ha industrial area behind port. Investor identified (Cevital). Projects 1 & 2 may be alternates	As above. Development of heavy industry would add value to local gas reserves	3.3	As above. Attitude of local investor (Cevital) is unknown. Korean funding may be available	3.6	Investor identified. Reasons for lack of Government support unknown. Viability of industrial zone affected by global economic crisis	3.0	Ports privatisation agency (SOGEPORTS) with past experience of PPP projects, but project dependent on high-level political decisions	3.8	3.4

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P2	Oran container terminal expansion	Algeria	600m of quay + 24ha yard	Scope for improving port efficiency but need for additional capacity unknown	2.5	SOGEPORTS already has experience of very similar PPP at Beijaia	2.8	Project reasonably well defined, and similar PPP project already executed at Beijaia	3.5	Ports privatisation agency (SOGEPORTS) with past experience of PPP projects. Similar project already successfully developed at Beijaia	4.5	3.3
P3	Barra do Dande new deepwater port	Angola	Two new dock basins requiring major breakwater protection, with land to north for logistics/industrial development. Overspill facility for Luanda	Large & rapidly growing market attracting strong private sector interest. Existing port at Luanda, is inefficient, expensive and congested	3.6	Size and complexity of project makes IFI assistance desirable. Private investors may seek IFI involvement to reduce political risks	3.5	Early stage	3.0	Control of ports highly centralised, with mixed success with PPPs. Scale of project may require creation of separate project implementation unit	2.5	3.1

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P4	Lobito modernisation & expansion	Angola	New dry dock, container and minerals terminals	Large scope for productivity gains. Recent improvements to Benguela Railway will open up access to Zambia & DR Congo	3.4	Government attitude towards private investment unclear	1.6	Port modernisation has already begun with Chinese assistance, and rehabilitation of Benguela railway is almost completed	3.7	Control of ports highly centralised, with mixed success with PPPs. No previous experience of PPPs at Lobito	2.7	2.8
P5	Namibe mineral berth + container terminal	Angola	Second phase of Japanese-funded rehabilitation programme	Small local market. Iron ore exports require railway rehabilitation	1.6	Technical assistance and financing (if any) likely to be provided by Japan	1.3	Rehabilitation of Moçâmedes railway required to develop iron ore exports. Phase 1 rehabilitation of port (funded by JICA in 2010) may provide sufficient interim capacity	2.0	Control of ports highly centralised, with mixed success with PPPs. No previous experience of PPPs at Naome	2.7	1.9

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P6	Caio (Cabinda) oil supply base + commercial port	Angola	Two berths (Phase 1) expandable to six later, with 150 acres of land. Potential investor (identity confidential)	Small market (enclave) with desire to reduce dependence on Pointe Noire (Congo Braz). Offshore oil drilling is accelerating development need	2.4	Cabinda appears more welcoming to private finance and IFI assistance than other parts of Angola	4.2	Potential investor has already commissioned engineering studies	4.0	Unsolicited bid. Enclave status may increase importance of provincial government in project implementation	2.3	3.2
P7	Seme-Kpodji new deepwater port	Benin	Overspill port for Cotonou	Immediate needs may be reduced by tightening of border controls, completion of first container terminal in 2013, and competition from other ports. 84% of port traffic is for other countries	2.1	Private sector risks potentially high. IFC advised on first port PPP project	3.5	Project has been around for many years with little action	2.0	Concessioning of Cotonou container terminal successfully completed with IFC assistance, but port authority is not meeting its obligations to this PPP	2.7	2.6

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P8A	Kribi new deepwater port (Grand Batange)	Cameroon	One container berth and one multi-purpose berth, requiring major breakwater protection (Phase 1). Will eventually be expanded to 20 berths. One major user already identified (Rio Tinto Alcan)	Linked to oil & gas and mining projects. Will stimulate local economic growth, and in longer term open up corridors to Bangui (CAR) and Kisangani (DRC)	3.6	Project is proceeding with Chinese funding, and terminal operator may also be Chinese	2.8	Construction work started October 2011 but operating arrangements are still to be decided	3.5	Project is being handled at highest level in Government as part of wide-ranging programme of economic reforms	2.8	3.2
P8B	Kribi Iron ore jetty (Lolabe)	Cameroon	Single berth iron ore jetty for ships of up to 300,000dwt. Investor identified (Sundance Resources)	Large integrated mine-rail-port project	3.4	Project will not proceed without private investment. Current sponsor has insufficient resources, but has received take-over bid from a Chinese company	3.6	Technical assistance (if needed) will be required in next 12-18 months. Financial assistance will depend on outcome of take-over bid	2.5	Transactions will be dominated by mining issues, with procurement based on negotiations rather than competitive tendering	2.3	3.0

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P9	Banana new deepwater port	DR Congo	Two container and three general cargo berths.	Market small but likely to grow rapidly once peace is established. Existing facilities at Matadi and Boma and in poor condition, and have serious draft restrictions	3.4	Private operation is desirable, but funding for basic infrastructure may come from China or Korea	2.8	Project is gathering speed. Requires road improvements between Banana and Matadi	2.7	Government institutions are still very weak. No previous experience of PPPs	1.7	2.6
P10	Ile de Boulay new deepwater port	Cote d'Ivoire	1,500m quay with 950ha logistics/industrial zone. Container transhipment hub + real estate development once bridge to mainland has been completed	Demand for container transhipment facilities in West Africa may be faltering, and existing port at Vridi has scope for expansion	2.9	Project is complex and highly political, depending on expansion of existing port and assignment of development rights for commercial and residential land	2.8	Consensus still required on final shape and financial structure of project	2.3	Government still weak, with high risk of political interference in allocation of development rights	2.0	2.5

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P11A	San Pedro container terminal	Cote d'Ivoire	700m quay with 10ha container yard.	Small local market, but could serve parts of Mali, Liberia and Guinea which are difficult to access from larger ports	2.7	Terminal will require private funding. Need for IFI assistance will depend on how the project is packaged, and the identity of the preferred investor. Port authority appears receptive to IFI assistance	4.4	Well-advanced, but viability as PPP project will depend on IFI financial assistance. Substantial improvements to regional road network are require to extend catchment area	2.8	Autonomous port authority appears reasonably competent, but is subject to higher level political intervention. Not clear how existing MSC concession will affect new terminal	2.8	3.2
P11B	San Pedro ore terminal	Cote d'Ivoire	New ore terminal for manganese, iron ore and nickel.	Linked to development of Klahoyo and Nimba iron ore and Biankouma nickel deposits. Reserves are large, but timetable is uncertain and requires large railway investments	3.2	Need for private finance and IFI assistance will depend on scale and timing of project, and identify of preferred investor	4.0	Timing linked to various small-medium scale mining developments and (possibly) construction of a new rail line	2.8	Policy framework for minerals development is still unclear. Project will require co-ordinated response for several different government organisations	2.3	3.1

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P11C	San Pedro mineral jetty	Cote d'Ivoire	New ore jetty for larger ships than those at the ore terminal. Projects 14B and 14C may be alternates	Serves same market as 14B, but on a larger scale, with higher risks and rewards	3.0	As above. Larger scale of this project increases the need for private finance and IFI assistance	4.8	Timing linked to large individual mining developments and (definitely) construction of a new rail line	1.5	Policy framework for minerals development is still unclear. Project will require co-ordinated response for several different government organisations	2.3	2.9
P12	Mayumba new deepwater port	Gabon	Three berths for palm oil, timber and general cargo. Potential investor identified (Olam Group)	Small local market dependent on forestry and palm oil plantations. Traffic may take some time to build up	2.2	Funding gap likely. Potential investor does not have port operating experience. Need for port to be developed as a common user facility to maximise local benefits	3.6	Timing will depend on outcome of National Ports Master Plan (TOR issued February 2012), speed of palm oil planting, and paving of regional road network	2.3	National Agency for Major Projects is being created and supervised by Bechtel. Two previous whole port PPP projects have been successfully implemented at Owendo and Port Gentil	3.7	2.9

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P13	Tema container terminal	Ghana	Second container terminal of around 1.5m TEU pa capacity to relieve congestion at first terminal	Existing terminal working at close to capacity, but uncertainty about way forward due to exclusivity rights in first container terminal concession, and option of converting existing general cargo berths	2.7	Project still to be specified. Port authority not enthusiastic about PPPs. Scope for action may be limited by exclusivity clause in existing container terminal PPP	2.2	KFW-funded study (2012) will determine likely timing. Project has been given medium priority in Government's infrastructure proposals	3.0	Existing Tema container terminal is already operated as a PPP, but port authority seems unenthusiastic about allowing it to expand. Exclusivity rights in existing contract may limit scope for appointing a second, competing operator	2.8	2.7
P14A	Takoradi minerals berth	Ghana	Two new mineral jetties to replace existing lighterage operations for manganese and bauxite ores. Significant modifications to	Existing lighterage operations very inefficient with adverse environmental impact. Scope for substantial increase in mineral exports once alongside berthing is	3.4	Chinese funding already committed for first stage of project, with Chinese mining companies amongst the	2.4	May be too late for IFI assistance	2.0	Port authority is institutionally weak, with limited enthusiasm for PPPs	2.5	2.6

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
			breakwaters required	available		main beneficiaries						
P14B	Takoradi container terminal	Ghana	1,000m quay which may also be used for general cargo and RoRo traffic	Small local market	2.3	KFW study about the start. Need for further assistance will depend on outcome, and identity of preferred terminal operator	2.8	Project is still far from ready for technical or financial assistance.	3.0	Port authority is institutionally weak, with limited enthusiasm for PPPs	3.0	2.8
P15	Matakang Island iron ore jetty	Guinea	Part of integrated mine-rail-port project. Investor identified (Rio Tinto plus possibly Bellzone/China Investment Fund)	World-class iron ore project, which could result in second and third berths if companies with rights to adjoining blocks agree to share infrastructure	3.3	Private investor has expertise and resources to complete the project without assistance. IFI advice to Government on legal framework	3.4	Timing linked to completion schedule for mine and rail link	3.3	No national ports authority. Only past PPP (Conakry container terminal, prematurely terminated in 2011) is now the	2.0	3.0

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
						for shared infrastructure (especially rail) might be useful				subject of legal action in France. Private investor (Rio Tinto) supports EITI		
P16	Bissau port rehabilitation	Guinea-Bissau	Conversion of general cargo berths into container terminal, with dredging & general rehabilitation work	Small port with serious siltation problems. 25% of potential cargo already moves via Banjul or Dakar (400km away)	2.1	Project unlikely to go ahead without private finance. Government has already been talking to IFC about port privatisation options, which will require T/A. Financial assistance likely to be required for the project itself, and possible labour	3.8	Technical assistance could begin as soon as Government commits to privatisation	3.5	Recent World Bank study suggests the national ports authority (APGB) is extremely weak	1.3	2.7

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
						retrenchment scheme						
P17	Buba new bulk port	Guinea-Bissau	Bulk berth for bauxite exports, requiring 100km rail link. Investor identified (Angola Bauxite)	Size and commercial viability of bauxite deposits still to be determined. Unable to serve Mali, southern Senegal and northern Guinea without substantial road improvements	2.5	Project unlikely to go ahead without private finance but government attitude towards PPPs unknown. IFI financial assistance unlikely to be needed	3.4	Mining likely to begin soon, but insufficient attention has been paid to environmental impact of port development and rail link to mine has not yet been built	3.3	Recent World Bank study suggests the national ports authority (APGB) is extremely weak	1.3	2.6

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P18	Mombasa container terminal (Kipevu West Phases 2 & 3)	Kenya	Extension of Kipevu West Phase 1 container terminal currently under construction with Japanese funding.	Phase 1 of new container terminal (already under construction) should provide sufficient capacity to meet needs up to 2020	2.8	Long-term nature of project makes PPP opportunities difficult to assess. Project is suitable for PPP but previous container terminal PPP proposals have encountered strong political and trade union opposition.	3.3	This is a long-term project which is unlikely to be needed before 2020	2.8	Kenya Ports Authority has been exposed to a high level of political interference, and past experience with PPP projects has been mixed	2.3	2.8
P19	New deepwater port at Lamu	Kenya	Development of new corridor to Ethiopia and South Sudan including a new port, rail line, road network, oil pipeline, oil refinery, airport and three resort cities.	Port being built for strategic reasons to provide alternative outlet for South Sudan oil, and reduce Ethiopia's dependence on Djibouti. Market is small and will take time to develop. Commercial risks are very high	3.1	Funding arrangements still unclear. Size and complexity of project presents opportunities for IFI assistance, with Chinese funding the main	3.0	First three berths to be tendered in next 12-18 months, but success of PPP will require massive investments in associated infrastructure (roads, rail links,	2.0	Project is being handled at a high level in Government, with supporting institutions still to be created	2.3	2.6

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
						alternative		pipelines)				
P20	Noukchott container terminal	Mauritania	New container terminal being built as part of a larger port expansion plan, with oil and dry cargo berths likely to be Chinese funded	Small but fast growing market. Insufficient capacity to meet current needs. Existing layout and operations very inefficient	3.2	IFC/World Bank already engaged. Small traffic base suggests probable funding gap. Need for IFI financial assistance will depend on preferred terminal operator and size of public funding needs. Chinese funding available for other projects in the same port	4.6	IFC/World Bank technical assistance about to start, with target of reaching financial close in 12-18 months	4.0	National Transport Sector Multi-Modal Strategy has identified major institutional weaknesses. No previous PPP experience, but is likely to receive World Bank/IFC assistance	3.0	3.7

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P21	Casablanca container terminal 3	Morocco	520m quay with 30ha yard area, capacity 0.6m TEU pa	First two terminals have sufficient capacity to accommodate several years' traffic growth	2.3	Project economics and short-list of potential operators suggests IFI assistance is unlikely to be needed	2.0	Construction of public sector infrastructure has already started, with target completion date of 2013	4.0	Port reform process has already started. Casablanca has three existing PPP projects	3.3	2.9
P22	Mohammedia container terminal	Morocco	Overspill facility for Casablanca, now on hold. 600m of quay in Phase 1	Original need has been superseded by further terminal development at Casablanca. Now looks like a very long-term project	2.1	PPP structure likely, but project insufficiently advanced to define IFI assistance requirements	3.0	Project likely to be put on hold following construction of additional capacity at Casablanca and Tanger med	2.8	Port reform process has already started. The successful Tanger Med project, with its own separate agency, could provide a model for Mohammedia	3.3	2.8

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P23	Maputo modernisation & expansion	Mozambique	Regrouping of port activities between Berths 3-12 to create a series of specialist modern terminals	Port redevelopment to improve performance, increase capacity and allow the use of larger ships	3.9	PPP (a JV between CFM and Grindrod/DPW) is already in place but may need financial assistance to complete Phase 1 investment programme on time	4.0	PPP has already begin implementing Port Master Plan	4.0	Experienced private investors already in place. Public sector partner (CFM) lacks financial and managerial resources	3.7	3.9
P24A	Nacala container terminal	Mozambique	PIDA project, still undefined.	Small market with strong growth linked to mining and infrastructure development. May be scope for improving productivity of existing facilities first	2.9	PPP structure for port already in place, but private partner (Vale) is strongly focused on coal terminal. IFI involvement would ensure common user facilities are designed to meet wider regional needs	4.2	Not known, but could move quite quickly if additional capacity is required to support mining developments, as port is badly congested	3.0	Port is already concessioned to a public-private JV (CFM/Vale). CFM lacks management skills but Vale is a very experienced operator	3.3	3.3

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P24B	Nacala coal terminal	Mozambique	Coal terminal capacity 18m tons pa (Phase 1) expandable to 30m tons pa. Investor identified (Vale)	World class coal project to which private investor now appears strongly committed. Timing will depend on Phase 2 mining operations and the construction of a new rail link	4.0	Private investor has expertise and resources to complete the project without IFI assistance. However IFI advice to Government on legal framework for shared infrastructure (especially rail) would be useful	3.4	Private investor appears keen to get started, but timing will be affected by need for new rail link. New for government approvals and funding for associated public sector investments may slow down project	3.3	Port is already concessioned to a public-private JV (CFM/Vale). CFM lacks management skills but Vale is a very experienced operator and will be largely responsible for the development of the coal terminal	3.5	3.5
P25	Beira and/or Chinde coal terminal(s)	Mozambique	Coal terminal(s) for Riversdale/Rio Tinto and several smaller mining companies. Location and size still to be determined	Mozambique is set to become one of the world's largest coal producers, with 5-10% of world exports.	3.8	Need for professional advice on best way of providing shared rail and port infrastructure for several different mining companies	4.3	Several mining projects are still at an early stage, with infrastructure requirements still to be decided	2.5	Key decisions on coal terminal concessioning are likely to be taken at Ministry level, where there is little experience of strategic decision-making	3.0	3.4

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P26	Beira multi-purpose berths	Mozambique	Dry bulk or multi-purpose berths for fertilizers, clinker, sugar, containers and general cargo.	Beira Corridor, leading to Zimbabwe, Malawi and parts of Zambia, has considerable agricultural potential	3.2	PPP already in place, but with weak capital base. Has been receptive to donor aid in the past	3.6	Statements from port users suggest new facilities will be required in next 3-5 years	3.3	Small scale incremental developments should be within capabilities of existing PPP	3.3	3.3
P27	Walvis Bay tanker berth	Namibia	Replacement of existing tanker berth by one for larger ships.	Asset replacement/improvement. No urgent need to expand capacity	1.5	No clear rationale for either private finance or IFI assistance.	1.8	Namport wishes to begin construction in 2012, for completion in 2015	5.0	Namport operates like a private company, but has no previous experience of PPPs	3.3	2.9
P28A	Lekki port and Free Trade Zone	Nigeria	970m of container berths, 320m dry bulk berth, 1-2 oil berths. Located 60km east of Lagos. Investor identified (Tollaram Group)	Lagos is the largest multi-purpose port in Africa after Durban, and is experiencing rapid growth and serious congestion . Free Trade Zone is intended to increase and decentralise economic growth	3.3	PPP is at an advanced stage, with concession agreement in place, but may need financial assistance. Funding arrangements cannot be finalised until terminal	3.6	Concession agreement already signed and funding structure being developed by Standard Chartered Bank. Large associated public sector investments in road network	3.8	Conflict of interest between Nigerian Ports Authority's roles as national ports planning agency, investor in private sector projects, developer of public sector port facilities, and	3.0	3.4

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
						operators willing to commit to project have been identified		required		ports regulator. NPA still lacks many necessary skills, particularly in policy development		
P28B	Badagry	Nigeria	1,000m of container berths, 970m of dry bulk berths, two oil berths. Located 60km west of Lagos. Investor identified (Trilex)	Lagos is the largest multi-purpose port in Africa after Durban, and is experiencing rapid growth and serious congestion.	3.0	Project is less advanced than 34A, and will have more difficult attracting finance.	2.8	Land acquisition, detailed engineering design, environmental impact assessment and concession agreement still required	2.7	As above	3.0	2.9

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P28C	Olokola port and Free Trade Zone	Nigeria	180m container berth, 1,800m of dry bulk/multi-purpose berths. Located 120km east of Lagos. Investor identified (Rent-A-Port)	Olokola will attract less Lagos overspill traffic than Lekki or Badagry, but its Free Trade Zone is targeting capital intensive industries requiring low cost energy supplies	3.3	Project design is still evolving as major port users - industrial investors with associated terminal needs - are identified.	3.6	Planning less advanced than at Lekki. IFI financial assistance may be required as soon as first industrial investors have been signed up (identity/timing still unknown)	3.3	Project is being led by private investor with support of two State Governments. Involvement of Nigerian Ports Authority to date has been fairly small	3.3	3.4
P29	Koko port and Free Trade Zone	Nigeria	River port for fertilizers, petrochemicals, and other industrial goods. Potential investors identified (Xenel for petrochemicals and Nagarjuna for fertilizers)	Industrial complex based on use of waste gas for petrochemicals and other heavy industry	3.2	Project is still at a very early stage, with DFID technical assistance in place	3.2	Project still at an early stage, with DIFID-funded T/A in place for initial feasibility studies	2.3	Involves several public agencies with differing objectives, creating potential coordination problems	3.3	3.0

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P30	Mwambani Bay new deepwater port	Tanzania	One container berth, one dry bulk berth, and one multi-purpose berth (Phase 1) replacing lighterage operations	Replacement of small existing lighter port (Tanga) with deepsea berths. Eventual intention is to create a land corridor to Uganda, but that is many years away	3.0	Government enthusiastic about private finance, but project economics suggest a PPP will have to be carefully designed in order to attract private investors	3.2	Project is still at an early stage. T/A may be required to identify private investors, but these will be difficult to attract without significant public funding	2.0	Tanzania Ports Authority has no previous experience of managing a large BOT project, and lacks policy formulation and middle-level management skills	2.7	2.7
P31A	Dar es Salaam second container terminal (B13-14)	Tanzania	Second container (two berths with approx 600m of quay) to relieve congestion at first container terminal.	First container terminal is already working at well above capacity, causing serious congestion. 30% of container traffic is for land-locked countries	3.6	Transaction Adviser will be needed for structuring of the PPP. Basic infrastructure is likely to be Chinese-funded, and terminal operator (when selected) should be able to fund own investments	3.8	Technical assistance on structuring of the PPP is likely to be required in the next 12-18 months	3.8	Experience gained with first container terminal PPP is likely to be of value for this project	3.3	3.6

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
P31B	Dar es Salaam rehabilitation of Berths 1-7	Tanzania	Reconstruction of existing general cargo berths to increase water depth from 10m to 12m.	Reconstruction may improve layout and productivity, but is unlikely to generate substantial additional capacity	2.0	Operational benefits large, but PPP will be quite complex, and may not attract investors if it excludes container handling	1.6	Still at technical feasibility study stage	2.3	Complex project which Tanzania Ports Authority lack the skills to manage	2.3	2.1
P32A	Mtwara methanol and/or urea berth	Tanzania	1-2 berths for export of methanol and/or urea, to be produced in adjoining plants (still to be built). Investor identified (Wentworth Resources)	Viability of new gas-based industrial plants will depend on 2012-3 offshore drilling results, but prospects appear encouraging	3.0	Project would benefit from IFI financial assistance if it goes ahead	4.4	Financial assistance - if project goes ahead - will be needed in 2-3 years time	3.7	Project likely to be private-sector led with strong Government backing	3.8	3.7
P32B	Mtwara cement berth	Tanzania	1 berth for cement exports, to be produced in adjoining plant (still to be built). Investor identified (Dangote)	Viability will depend on growth of regional cement market, new capacity elsewhere in East Africa, and competition from other low cost producers. Cement trade tends to be	2.2	Government would benefit from technical assistance when implementing port development plan. Need for IFI	4.3	Project is almost ready to start, but delayed by land acquisition problems	4.0	Project may be delayed by conflicts between different Government agencies	3.0	3.4

No.	Project	Country	Project description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
				rather unstable		financial assistance unknown						
P33	Enfidha new port	Tunisia	1,500m of container berths and 1,120m of multi-purpose berths, with water depth -18m CD. (Phase 1). Requires major breakwater protection and dredging, but can be doubled in size in Phase 1 if associated industrial zone is successful	Container transhipment market weaker than when project was first proposed (2005). Interest in industrial zone has fallen because of political uncertainty	3.0	Project is unlikely to be viable as 100% privately-funded BOT, and IFI funding may be required for the public sector component	4.0	Project requires review and updating, and may not be financially viable in its present form	2.3	Capbility of relevant authorities unknown. No previous ports PPP experience	3.0	3.1

APPENDIX

E

AIR TRANSPORT – LONG LIST DETAILED ASSESSMENT

E1 AIR TRANSPORT INFRASTRUCTURE LONG LIST – PROJECT ASSESSMENT BY CATEGORY

No.	Project	Country	Description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
A1	Ouagadougou	Burkina Faso	New Ouagadougou International - new airport to be built 35km NE of city. Expected cost USD 450m of which public donors have pledged USD365m.	Relatively low passenger volumes, regional or competition benefits - airport unlikely to become hub. Project would provide significant capacity and service improvement.	2.7	High operational benefits but unlikely to achieve significant private investment. Scope for IFI technical and financial assistance high.	3.6	Medium readiness and viable financial structure in place. No major technical aviation issues and a PPP has been launched for construction of the road leading to the airport	3.8	Low country specific risk. Good experience of PPPs with no failures (but no PPP unit).	3.5	3.4
A2	Yaoundé	Cameroon	Possible expansion of airport. Long term development study appears to be still underway.	Very low passenger volume, no immediate need for expansion. Low regional or competition benefits. Likely to improve service quality.	2.0	Low financial benefits from private sector due market size. Medium scope for technical and financial assistance. Govt. support for PPPs unknown.	2.4	Low readiness - long term development study appears to be still underway - unlikely to achieve viable financial structure.	2.5	Medium country specific risk and capability. Procurement procedures unknown and 0/9 PPP failures and no PPP unit present.	3.3	2.6

No.	Project	Country	Description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
A3	Douala	Cameroon	Possible expansion of airport. Long term development study appears to be still underway.	Medium passenger volume and no immediate need for expansion. Additional capacity unknown but additional service quality likely to be significant. Low social, regional and competition benefits; airport not hub	2.3	Medium financial benefits of private sector involvement given medium market size. Medium-high scope for technical and financial assistance, although govt support for PPPs unknown.	2.6	Low readiness - long term development study appears to be still underway - unlikely to achieve viable financial structure.	2.5	Medium country specific risk and capability. Procurement procedures unknown and 0/9 PPP failures and no PPP unit present.	3.3	2.7
A4	Bangui	Central African Republic	Airport improvement project, extent not fully known but believed to include new terminal and security fencing. Runway has not been reinforced since 1987. IFC have previously investigated Bangui - pre-due diligence	Very low passenger volume, no immediate need for expansion but service improvements required. Low regional, and competition benefits; airport not a hub.	1.8	Medium operational, low financial benefits of private sector involvement given small market size. Govt support for PPPs unknown. High scope for IFI technical assistance and IFI financial assistance.	3.0	Low readiness and low likelihood of viable financial structure due to low traffic levels. No technical aviation issues and no local airline providing market support to project.	1.8	Medium country specific risk. Unknown authorities capability and procurement procedures. 1/4 PPP failures and no PPP unit present.	2.0	2.1

No.	Project	Country	Description	A. Desirability		B. Scope for an IFI-assisted PPP		C. Project status		D. Institutional capacity		TOTAL PROJECT SCORE
				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
A5	Kinshasa	Democratic Republic of the Congo	Project to enhance ANS, runway and terminal rehabilitation (part of $642m scheme for DRC)	Medium passenger volume with current facilities dilapidated. Additional service quality would be very significant. Medium low regional and competition benefits; airport not hub but has potential to be.	3.6	Operational benefits likely to be seen from private involvement but private financial support unlikely. Likely high govt support given existing request, and high benefits from IFI technical and financial support.	3.8	Medium readiness - there is a project works plan and estimates for overall investment required. Some ADF money has already been earmarked. Low financial viability, traffic levels low and country unstable. Technical aviation issues exist - all DRC airlines on EU blacklist and no complementary projects in place	1.8	High country specific risk (Very low GNI/capita, average ADB governance rating, average corruption score and worse than average MOIB score.). Low levels of experience and high failure rate mean procurement procedures likely to be uncertain or easily influenced. 2/7 PPP failures and no PPP unit present.	1.8	2.7
A6	Addis Ababa	Ethiopia	Expansion programme to address traffic congestion. Plans include increasing aircraft stands from 18 to 43,	High passenger volume, one of the busiest airports in Africa. Medium urgency and regional/competition benefits.	3.6	Operational benefits, but private sector not invited to invest. Possible scope for IFI technical assistance but no	2.0	Project being developed but not currently as PPP.	3.3	Medium-low country specific risk. Good authorities capability, procurement procedures	2.7	2.9

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				Comment	Score	Comment	Score	Comment	Score	Comment	Score	
			constructing new taxiways and resurfacing the existing runway			financial assistance requested.				unknown and 0/3 PPP failures but PPP unit present.		
A7	Libreville	Gabon	New concession after end of current one in 2018	Medium passenger numbers, urgency and capacity low as this would be a roll-over from the current concession. Social, regional and competition benefits likely to remain unchanged.	2.7	Operational benefits likely to be seen from roll over of current concession - financial also. Govt commitment high given existing concession, but scope for IFI technical and financial assistance low for same reason.	3.6	Not yet ready as current concession not over until 2018. Current financial model working well. Some technical issues, with all airlines apart from Gabon Airlines, Afrijet and SN2AG on EU blacklist. Good supporting infrastructure already in place.	3.8	Medium country specific risk (Relatively high GNI/capita, average corruption score and average MOIB score. No ADB rating). Good authorities capability and procurement procedures unknown. 2/12 PPP failures and no PPP unit present.	3.3	3.3

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A8	Accra	Ghana	Ghana Airports Company Ltd is being assisted by Investment and Gateway Programme to elicit financial assistance from private and public resources to increase capacity, including USD 402m for Accra Kotoka International	Relatively high passenger volume and urgency and additional capacity likely to be high. Improvements to service quality likely to be high but medium regional, social and competition benefits, potential to act as secondary hub for West Africa.	3.9	High operational benefits and medium financial benefit from private sector involvement - private sector unlikely to be able to finance full cost. Govt support high - they have requested assistance. High scope for IFI technical and financial assistance, given project stage (pre-feasibility) also	4.0	Reasonably readiness - at pre-feasibility stage. If well structured, part of project could be financially viable. No major technical aviation issues and good supporting infrastructure already in place	2.8	Very low country specific risk. Capability high. Good procurement process with few failures. 3/18 PPP failures and PPP unit present.	4.0	3.7
A9	Kumasi	Ghana	Ghana Airports Company Ltd is being assisted by Investment and Gateway Programme to elicit financial assistance	Very low traffic and unknown/unlikely urgency and additional capacity provided. Medium/low social, regional and competition benefits,	2.0	Medium operational benefits and very low likelihood of private sector financial involvement. Govt	3.2	Reasonably ready - at pre-feasibility stage. Low traffic numbers so unlikely to be easily structured to be financially viable.	2.5	Very low country specific risk. Capability high. Good procurement process with few failures. 3/18 PPP failures and PPP	4.0	2.9

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			from private and public resources to increase capacity, including USD 173m for Kumasi	this is a small airport		supports PPPs and high scope for IFI technical and financial assistance, given project stage (pre-feasibility) also				unit present.		
A10	Nairobi	Kenya	New Greenfield Terminal and second runway. KAA is at the procurement stage for a $1bn greenfield terminal and runway facility with 20m passenger capacity. This has been tendered and a preferred bidder selected in December 2011. Unlikely to be PPP - current intention is for KAA to operate.	Very high passenger numbers and urgency - project is at procurement stage. High additional capacity provided and high social, regional and competition benefits, Jomo Kenyatta acts as regional hub already and has established local airline using it as a hub	4.7	Operational benefits of private involvement high, financial would be high also given market size however KAA are providing funding for this themselves. High Govt support for PPPs but very low scope for IFI assistance given project appears to be structured not as PPP.	2.8	Low readiness for PPP given current procurement plans. However, would be viable if PPP structure adopted.	3.0	Medium country specific risk. High capability and good procedures. 1/5 PPP failures and PPP unit present.	3.5	3.5

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A11	Bamako	Mali	New terminal construction in progress, as well as runway upgrade and other airport enhancements, with Millenium Challenge funding - completion expected in Sep 2012. Concessionaire to invest USD 66m by until 2016. Concession let, but result disputed.	Medium passenger numbers. Significant capacity, but regional and competition benefits medium low (not a hub, but base for national airline).	3.0	High operational and financial benefits of private sector involvement (successful bidder expects to invest US 66m). High Govt support for PPPs but very low scope for IFI assistance given project has already gone ahead.	2.8	Project already gone ahead, so low opportunity, but tender demonstrates viable financial structure.	2.7	Medium country specific risk. Medium capability although low procurement procedure score as concession award is being disputed. 1/5 PPP failures and no PPP unit present.	2.5	2.7
A12	Fez	Morocco	New two-storey terminal building being considered at Fez-Saiss airport.	Medium-low passenger volume, urgency not great but additional capacity provided likely to be significant. Medium social benefits serving tourist market, but not hub.	2.9	Medium operational benefits and assumed private sector would be able to finance an airport of this size. Govt commitment to PPPs is good, medium scope for	3.4	Medium low readiness - project concept floated some years ago but no recent news. Tourism and traffic levels should mean it is a reasonably viable structure. No major technical aviation	3.0	Very low country risk (Medium- high GNI/capita, average corruption score and better than average MOIB score. No ADB score.). Authorities' capability high,	4.5	3.4

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						IFI technical and/or financial assistance		issues and supporting infrastructure already in place		procurement process good and 4/51 PPP failures and PPP unit present.		
A13	Lagos International (LOS)	Nigeria	Lagos airport international terminal. Government announced $120m for airport upgrades in April 2011 (11 terminals across the country to be renovated), but recognised that airports need international organisations and private sector to be more involved.	Very high passenger volumes and urgency due poor quality of facility. Additional service quality high, social, regional and competition benefits likely to be very high. Given Nigeria's size Lagos is the natural hub for West Africa.	4.8	Very high benefits from private sector operational and financial involvement due to market size. Govt support for PPPs medium - large numbers of PPPs but Abuja PPP withdrawn. Definite scope for technical assistance as well as financial assistance	4.6	Readiness low - unsure whether Govt wants to concession international terminal at all. Operationally, the financial structure would likely be. NCAA oversight is poor although no airlines on EU blacklist. Road access to airport could be improved.	2.3	High country risk. Medium capability levels of authorities and medium procurement procedures. 4/51 PPP failures and PPP unit present.	2.8	3.6

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A14	Abuja	Nigeria	Airport terminal upgrades. Abuja (ABV) currently preparing to move all domestic passengers to the international terminal to allow the domestic terminal to be renovated.	High passenger numbers, high urgency. Assumed significant improvement to service quality and capacity. Moderate regional and competition benefits.	4.0	Very high benefits from private sector operational and financial involvement due to market size. Govt support for PPPs medium - large numbers of PPPs but Abuja PPP withdrawn. Definite scope for technical assistance as well as financial assistance	4.2	Readiness low - unsure whether Govt wants to concession international terminal at all. Operationally, the financial structure would likely be. NCAA oversight is poor although no airlines on EU blacklist. Road access to airport could be improved.	2.3	High country risk. Medium capability levels of authorities and medium procurement procedures. 4/51 PPP failures and PPP unit present.	2.8	3.3

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A15	Lekki-Epe (Lagos)	Nigeria	Lekki airport PPP prequalification announced in Nov 2011. Greenfield construction. Concession expected to be 20 years. Request for proposals expected in 2012.	New airport - passenger volumes likely to be high given Nigeria's economy and population. Concession expected this year, regional, social, competition benefits likely to be high as second airport for Lagos. Urgency moderate, given would be second airport for Lagos.	4.3	Very high operational and financial benefits from private sector involvement in this greenfield airport. Medium commitment to PPPs (see also Abuja and Lagos). IFI technical assistance benefits likely to be higher than financial assistance benefits.	3.8	Readiness high as project currently being let. Operationally, the financial structure would likely be viable, assuming suitable finance available. NCAA oversight is poor although no airlines on EU blacklist. New greenfield airport likely to require additional access and operational infrastructure - unsure of status	2.8	High country risk. Medium capability levels of authorities and medium procurement procedures. 4/51 PPP failures and PPP unit present.	2.8	3.4

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A16	Bugesera, Kigali	Rwanda	Plans for new airport (Bugesera) to south of Kigali. Will initially have one runway with contingency for second. Phase one between 2015-2025; will carry 1m passengers and 150,000 tonnes of cargo. Estimated cost - $600m. Currently in pre-bidding phase. 11 firms pre-qualified with financial close planned for March. Airport due to open in 2015	Low, but fast-growing passenger volumes. High urgency for expansion due constraints at existing airport. Medium regional, competition benefits. Rwandan government pushing for Kigali to become hub linking DRC, East Africa and beyond.	3.1	High operational benefits from private sector involvements but new airport cost too high for private sector to fund. High Govt support for PPPs - project in bidding phase, but medium opportunities for IFI technical and financial assistance - dependent on success of bidding phase.	3.6	Project ready for assistance (in pre-bidding phase). Project financial viability not yet clear. Complementary projects (roads, power) would be required as is new build. These are not yet in place.	3.5	Low country level risk. Reasonable authorities' capability. Good procurement procedures, the process so far has run smoothly. 2/6 PPP failures and no PPP unit present.	3.5	3.4

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A17	Dakar	Senegal	New airport (Blaise Diagne) to replace existing Dakar airport began in 2007, not likely to be complete before 2014. Initially will have one runway with possibility for second. State funding with FRAPORT concessionaire	High passenger volumes, and new airport near completion. Significant increased capacity and social, regional and competition benefits. Dakar likely to become West African hub. Senegal Airlines (in partnership with Emirates) launched 2011 and used Dakar as hub	4.1	High operational benefits from private sector involvement (concession has been granted to FRAPORT) but low financial as govt providing funds for construction. Govt commitment to PPPs is high, and opportunities for technical support low as project has been concessioned.	3.2	Low readiness for assistance - project has gone ahead. Low viability for private sector funding. Connecting highway being built.	2.8	Low country level risk. Good capability of authorities and procurement procedures. 2/13 PPP failures and no PPP unit present.	3.5	3.4

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A18	Dar Es Salaam	Tanzania	Third terminal at Dar es Salaam being considered; funding currently being sought.	Moderate to high passenger volumes and urgency, funding currently being sought. Medium service improvement - in new but not existing terminal. Medium regional and competition benefits - objective to become hub but location near Nairobi and no strong airline.	3.4	High operational benefits from private sector involvement and medium financial - private sector finance being sought but success not guaranteed due to market size. Govt commitment to PPPs high and opportunities for IFI technical and financial support medium - high, given assistance may help attract other investors	3.6	Medium readiness - funding being sought. Medium viability: passenger levels may be sufficient to warrant private capital. No major technical aviation issues. Some complementary projects may be required.	3.3	Low country risk. Authorities' experience quite high, they have concessioned airports before, but has later ended in failure. Procurement procedures good. 3/21 PPP failures and no PPP unit present.	3.5	3.4

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A19	Kilimanjaro	Tanzania	Kilimanjaro currently privately owned but in final stages of repossession by TAA. Opportunity for PPP if airport is re-concessioned	Medium passenger numbers but no known enthusiasm for re-concessioning of this airport which has recently been returned to authorities. No additional capacity and medium regional, social and competition impact - operations likely to remain unchanged	2.3	Operational levels likely to be maintained from current concession and private funding not sought. Govt commitment low given concession being brought back under govt control. Scope for IFI assistance also low given re-concession unlikely.	1.4	Low readiness as govt has not indicated desire to re-concession. Low viability given current concession ended prematurely. No major technical aviation issues. Some complementary projects may be required.	2.5	Low country risk. Authorities' experience quite high, they have concessioned airports before, but has later ended in failure. Procurement procedures good. 3/21 PPP failures and no PPP unit present.	3.5	2.4
A20	Zanzibar	Tanzania	Zanzibar is currently privately owned. Construction of new terminal and runway extension underway, funded using Chinese loan facilities.	Medium-low passenger volume and high urgency as project is already underway. High additional capacity and increased service levels. Zanzibar not a hub and not likely to become one; regional, social and competition benefits medium to	3.1	High operational benefits but low financial of private sector involvement. High govt support but low opportunities now for IFI involvement given project has gone ahead.	2.4	Low readiness and high viability - project has gone ahead. No major technical aviation issues. Expansion/upgrade to existing airport so complementary projects likely to be in place already	3.0	Low country risk. Authorities' experience quite high, they have concessioned airports before, but has later ended in failure. Procurement procedures good. 3/21 PPP failures and no PPP unit	3.5	3.0

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				low						present.		
A21	Lomé	Togo	Major expansion to Lomé started Dec 2011. Includes new terminal, extra aircraft capacity, trebling the cargo centre size, development of large commercial centre for airport and Lomé city. Financed by China's Eximbank.	Low passenger volumes, project has begun however and will produce significant additional capacity and service quality. Lome not a hub however competition impact is medium as Asky are planning to use Lome as their new base.	3.1	High operational benefits - Public project with management contract, so private sector involvement is limited to operation (FRAPORT). High govt support but low opportunities now for IFI involvement given project has gone ahead.	2.2	Low readiness and high viability - project has gone ahead. No major technical aviation issues and ASECNA member. Expansion/upgrade to existing airport so complementary projects likely to be in place already	3.3	High country risk. Authorities experience good, have concessioned before. 1/6 PPP failures and no PPP unit present.	2.0	2.6

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A22	Entebbe / Kampala	Uganda	Expansion of passenger terminal, increase apron area and construction of modern cargo handling facility	High passenger volume and current facilities nearing capacity. Social, regional, competition impact is medium - existing competing hubs at Nairobi and Addis Ababa.	3.5	High operational benefits and medium financial benefits from private sector involvement. Master plan for investment and airport development currently being written. Unknown support for PPP for this project but track record good. High scope for IFI assistance when time comes	3.6	High readiness for technical assistance, not yet ready for financial assistance. Viability unknown as source of capital unknown. No major technical aviation issues. Fuel supply shortages an issue at Entebbe airport.	3.0	High country level risk. Authorities capability and procurement procedures good. 0/20 PPP failures and PPP unit present.	3.5	3.4

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A23	Lusaka	Zambia	New international terminal planned at LUN as well as existing terminal refurbishment. Funding of $200m being sought and PPP being considered.	Medium-high passenger volumes and urgency, plans are underway. Medium low competition, regional impact as Lusaka not a hub	3.3	Operational benefits from private involvement, medium likelihood of private sector funding, given market size. Medium support for PPP; govt is considering it. High scope for IFI technical and financial assistance	3.6	Ready - feasibility study has been conducted and PPP being considered. Unknown financial structure, with medium passenger numbers. Technical aviation issues in Zambia - all airlines on EU blacklist. Complementary projects unknown.	2.8	Low country level risk. Unknown authorities capability and procurement procedures. 0/8 PPP failures and PPP unit present.	4.0	3.4

CONTROL SHEET

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