

Programme for Infrastructure Development in Africa

(PIDA)

General Terms of Reference

Prepared by



African Union



African Development Bank Group



NEPAD

ACRONYMS

AAP	AU/NEPAD African Action Plan
ADB	African Development Bank
AICD	African Infrastructure Country Diagnostic Study
AU	African Union
AUC	African Union Commission
CAEC	Central African Economic Community
CEMAC	Economic and Monetary Community of Central Africa
CEN-SAD	Community of the Sahel-Saharan States
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Community
ECOWAS	Economic Community for West African States
ICA	Infrastructure Consortium for Africa
ICT	Information and Communication Technologies
IGAD	Intergovernmental Authority for Development
MDGs	Millennium Development Goals
MLTSF	Medium to Long-Term Strategic Framework
NEPAD	New Partnership for African Development
PPP	Public Private Partnership
REC	Regional Economic Community
SADC	Southern African Development Community
SC	Steering Committee
SSATP	Sub-Saharan Africa Transport Programme
STAP	Short Term Action Plan
TAH	Trans-African Highway
TC	Technical Committee
ToR	Terms of Reference
UEMOA	West African Economic and Monetary Union
UMA	Maghreb Arab Union
UNECA	United Nations Economic Commission for Africa
UNTACDA	United Nations Transport and Communications Decade for Africa

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1. Context of the Programme

1.1 Infrastructure in Africa

1.1.1 Infrastructure plays a key role in economic growth and poverty reduction. The lack of infrastructure (quantitatively, qualitatively, physically and in terms of services rendered) leads to increased production and transaction costs, which lessens the competitiveness of businesses, and therefore the possibility of implementing economic and social development policies. Furthermore, the business environment will be less conducive, making it less attractive for foreign direct investment. In a nutshell, inadequate infrastructure results in reduced service options and quality available to the population, particularly the most vulnerable segments.

1.1.2 The lack of infrastructure in Africa is widely recognized. A Note by the ADB and the United Nations Economic Commission for Africa clearly sums up this deficit¹:

- Access to electricity for 30% of the population compared to rates ranging from 70 to 90% for other major geographical zones of the developing world (Asia, Central America and the Caribbean, Middle-East and Latin America).
- Transboundary water resources constitute approximately 80% of Africa's freshwater resources. However, current levels of water withdrawal are low with 3.8% of water resources developed for water supply, irrigation and hydropower use, and with only about 18% of the irrigation potential being exploited.
- Access to water and sanitation for 65% and 38% respectively of the population compared to rates of water access of 80 to 90% for the other geographical zones²
- A telecommunications penetration rate of about 6% compared to an average of 40% for the other geographical zones, and a very low penetration rate for broadband services
- A road access rate of 34% compared to 50% for the other geographical zones.

1.2 Continental Infrastructure Development Initiatives

1.2.1 Several initiatives have been carried out to address the problem of infrastructure deficit and to ensure the integration of the continent. These include:

- a. **New Partnership for Africa's Development (NEPAD):** One of the major objectives of (NEPAD) is to promote infrastructure development as a driving force for Africa's integration and development. Within this framework, one of the first actions initiated under NEPAD was the formulation, in 2002, of a Short-Term Action Plan (STAP) in the area of infrastructure, including priority measures and projects. The ongoing programmes and initiatives of the Regional Economic Communities (RECs) and sector organizations constitute the base of this Action Plan. However, the Action Plan was only the first phase, and was to be followed by the formulation of a Medium to Long-Term Strategic Framework (MLTSF). The purpose of the MLTSF was to articulate policies and strategies, outline priorities, and contribute to the establishment of partnerships geared towards promoting economic integration and supporting the development of trade and commerce (through strengthening Africa's links with regional and global markets).
- b. **African Union Initiatives:** The African Union Commission (AUC), which is responsible for coordinating, harmonizing and providing leadership in the continent's economic and social development and physical integration, has, since becoming operational in 2003, committed itself to the development of infrastructure (transport, energy, water, telecommunications and ICT), in particular. Consequently, the AUC must develop continental sector policies and master plans based on the regional policies and master plans developed by the RECs. In the accomplishment of this mission, the RECs have been designated as the pillars of this integration on which the Commission must depend. The most recent meeting of the Heads of State and Government of the AU at Addis Ababa (1-3 February 2009) expressed its concern about the slow implementation of the NEPAD infrastructure STAP, recalled the lead role

¹ 'Infrastructure Development and Regional Integration: Problems, Opportunities and Challenges', Joint Note of the ADB and United Nations Economic Commission for Africa; 2006.

² A Snapshot of Drinking water and sanitation in Africa ; UNICEF and WHO; 2008

entrusted to the AUC in building an economic infrastructure for Africa's development and the 'decisive role of the Regional Economic Communities and Specialized Institutions' in the implementation of infrastructure programmes. The Heads of State and Government reiterated its support to PIDA in their declaration.

- c. **Coordination Mechanism:** The AUC, the African Development Bank (ADB) and the NEPAD Secretariat, have established a coordination mechanism for the development of infrastructure in Africa. Through this mechanism the different African stakeholders, under the leadership of the Commission, have a consultative framework among themselves and an instrument of dialogue and interaction with Africa's development partners. Indeed, with such a mechanism, African infrastructure development stakeholders could speak with one voice and have a common agenda.
- d. **African Infrastructure Country Diagnosis Study (AICD):** AICD is a program implemented by the World Bank that combines studies on major topics of strategic importance to the infrastructure sectors in Africa with a major data collection exercise to set the baseline against which the renewed efforts to address the infrastructure challenge can eventually be assessed. The AICD is aiming to provide an overview of the status of public expenditure, investment needs, and sector performance in each of the main infrastructure sectors including energy, ICT, irrigation, transport, water and sanitation in Africa. The first phase focuses on 24 countries that together account for 85 per cent of GDP, population, and infrastructure aid flows in Sub-Saharan Africa. In July 2008, the AU, NEPAD, ADB, and World Bank held a meeting to discuss collaboration between PIDA and AICD, at which the AICD team agree to: (i) Make AICD databases available for transfer to ADB, AU and NEPAD information systems, together with training team members in their use.; (ii) Provide the PIDA team with original AICD documentation including Concept Note, Terms of Reference and Manuals; (iii) Explore repackaging AICD results into REC level infrastructure briefs as an input to PIDA; (iv) help identify remaining data gaps for PIDA that cannot be filled from AICD data sources; (v) More generally act as a sounding board for the PIDA team.
- e. **Revision of the AU/NEPAD African Action Plan (AAP):** A study is currently being undertaken to revise the AAP, which primarily comprises priority programmes and projects with a high potential impact for accelerating regional integration in Africa, and which require co-ordination at the continental level. The present AAP covers a range of sectors of which infrastructure is just one. The study is expected to be completed in early April 2009, so that the results should be available for this PIDA study.
- f. **Implementation progress review of the NEPAD STAP:** This is a further study which is being undertaken, the results of which will be relevant to this PIDA study. The primary objective of this review study is to assess performance of the STAP by detailing the progress made since the last review in 2004, identify constraints to efficient project implementation, and make appropriate recommendations to advance implementation performance in the future.

1.3 The Programme for Infrastructure Development in Africa (PIDA)

1.3.1 The AUC, NEPAD Secretariat and ADB are jointly leading an initiative named the Programme for infrastructure development in Africa (PIDA). The overarching **objective of PIDA** is to facilitate increased regional integration in Africa through improved regional and continental infrastructure. More specifically PIDA will:

- (i) Establish a strategic framework for the development of regional and continental infrastructure in four sectors (Energy, Transport, Information and Communication Technologies (ICT), and Transboundary Water Resources), based on a development vision for Africa, strategic objectives and sector policies;
- (ii) Establish an infrastructure development programme over a time horizon up to 2030 using the strategic framework/sector policies; and
- (iii) Prepare an implementation strategy and processes, including in particular a priority action plan.

1.3.2 PIDA is partly a successor to NEPAD's planned Medium to Long-Term Strategic Framework (MLTSF), but it also addresses a request to the AU to prepare Infrastructure Development Master Plans at continental level. Further background information to PIDA is given in the PIDA Concept Note.

1.3.3 **The main components of PIDA** are the following:

- a. The **sector consultancy studies** ('the sector studies') which is the subject of these ToR. Unless otherwise specified, the term 'Consultant' will refer in these ToR, to the consulting firm(s) contracted by ADB for the execution of the sector studies.
- b. **Panel of experts:** In addition to the Consultant, PIDA will engage five high level experts to assist in developing a vision for the development of regional and continental infrastructure in Africa, and in the identification of key issues in each sector. The aim of this Panel is to supplement and complement the work of the Consultant by providing a vision and high level strategic framework for PIDA. The Panel will also provide high level peer review of the Consultant's outputs at key points in the study to strengthen quality control, and help identify any essential issues that might have been overlooked or be a source of contention. Further information on the work of the Panel can be found in their ToR. The Consultant and the Panel are expected to work together to the extent necessary.
- c. **A database** to support the implementation and monitoring processes. This database will be developed as an exercise distinct from the sector studies. Its objective will be to provide the parties involved in the implementation and monitoring of PIDA with a set of reference data regarding PIDA's design, content and recommendations. It should be noted that this study only includes a task to assess the adequacy of the existing database as a monitoring mechanism and to make recommendations for improvements to the extent that they are assessed to be necessary. The Consultant will also be requested to supply to the Client files of data used or collected in the course of the study.
- d. **An Audit.** This audit is a standard requirement for any operation carried out by ADB, and will involve the preparation of an audit of expenditure by an independent audit firm.

1.3.4 **The key stakeholders** in PIDA, and their main expectations from PIDA, are:

- **African Heads of State:** who want to have a strategic vision of regional integration in Africa, and how regional and continental infrastructure can contribute to the implementation of this vision to boost economic and social development.
- **Programme sponsors** (i.e. AUC, NEPAD and ADB): who want a strategic framework that will provide a solid base for prioritising, harmonising and implementing effective regional and continental infrastructure projects and programmes, based on the summit declaration of Heads of States and Government of the AU and vision of the RECs.
- **RECs:** who want to have implementable regional projects and programmes that will secure buy-in from their member states, and will contribute to the economic and social development of their region with support from development partners and the private sector.
- **AU specialized institutions and other sector organizations:** which were formed to give advice on issues such as policy formulation, strategy and programming.
- **Development partners:** who want soundly prepared and articulated projects and programmes, that have been prioritised on rational criteria, and have the necessary political support for speedy implementation.

1.3.5 The PIDA is structured in a way that enables the maximum participation and consultation of the different centres of decision making (see Section 3).

1.3.6 PIDA will be implemented by the RECs, working closely with their member states and AU specialized institutions and sector organisations. RECs are therefore the lynchpins in implementation, being responsible for both overall implementation, and securing the cooperation of member states. PIDA has been designed to ensure the fullest participation of the RECs as key stakeholders. Before the Consultant commences its consultancy services, missions from the programme sponsors will visit each REC to inform them about the progress in launching PIDA, discuss these ToR and issues arising

from them, and reinforce coordination and communication arrangements. A series of meetings and consultations will be organized at regional level during the course of PIDA to ensure maximum participation of the actors. Additionally the regional level is represented in the Steering Committee by the RECs.

1.4 Background documentation.

1.4.1 Annex 1 to these ToR gives a list of reference documents that provide the context of this study. Further sector-specific reference lists are given in the accompanying sector-specific ToR.

2. Objectives, broad scope, and guiding principles for the study

2.1 Objective of the study

2.1.1 The Consultant will provide consultancy services to:

- (i) Establish a strategic framework for the development of regional and continental infrastructure in four sectors (Energy, Transport, ICT, and Transboundary Water Resources), based on a long-term, social, and economic development vision, strategic objectives, and sector policies;
- (ii) Establish an infrastructure development programme articulated around priorities and over the short, medium, and long-term horizons; and
- (iii) Prepare an implementation strategy and processes including, in particular, the improvement of institutional arrangements (such as regulatory and administrative processes); a Priority Action Plan; and financing options including measures for promoting, attracting and sustaining private sector participation in infrastructure development.

2.1.2 **The strategic framework:** the definition of a strategic framework will involve:

- The development of the overarching principles which should guide policy orientations and decisions on regional integration;
- The identification of the major challenges to the development of regional and continental infrastructure;
- Development of the strategic objectives and orientations, and the policies to be implemented at the regional and continental levels to meet the challenges.

2.2 Broad scope of the study

2.2.1 Formulation of an infrastructure strategic framework and development programme:

This consists of development of a pipeline of infrastructure projects and programmes, including soft interventions/studies, over the PIDA time horizon that is consistent with the strategic framework and sector policies. The projects and programmes can involve the extension or improvement of existing infrastructure, and the construction of new infrastructure. The projects and programmes will be prioritized in relation to the objectives that they are expected to help achieve. There will also be preliminary assessments to determine the relative importance of the expected project impacts and highlight possible conflicting objectives. The prioritization is essential, as it should help to focus efforts on a realistic core of projects, and to build consensus among all stakeholders (including financing partners) around that core. Evaluation and prioritization criteria will be proposed and progressively refined by the Consultant based on thorough discussions with Programme sponsors, RECs and other stakeholders. Ultimately they will be agreed by the Programme sponsors

2.2.2 The study will cover four infrastructure sectors: energy, transport, information and communication technologies (ICT), and transboundary water resources. More specifically:

- **Energy:** electricity (including nuclear), gas, petroleum products and renewable energy
- **Transport:** air, road, rail, maritime, river-lake, and multimodal systems.
- **ICT:** telecommunications and ICT networks and infrastructures
- **Transboundary waters:** primarily irrigation, hydropower, and lake and rivers transport.

2.2.3. Much of the detailed work programme will be conducted on a sectoral basis, but the Consultant shall have due regard to **cross-sectoral linkages and synergies**. Examples are hydropower, for which energy and transboundary waters are likely to overlap, and inland waterways and lake transport, but there could be other examples.

2.2.4 PIDA has been designed as an integrated exercise, and the work for each sector will be carried out according to the same framework, objectives, and timeline. However, each sector has its own set of characteristics and issues, and, for the sake of clarity, part of the scope of work is set out in accompanying sector-specific ToR. The full ToR for this study are these general ToR and the four sector-specific ToR together.

2.2.5 The sector studies will only cover the **regional and continental dimensions** of these sectors. The focus of the study will be issues such as regional or continental interoperability, market access, interconnections of networks, backbone infrastructure, international traffic corridors, bottlenecks at border crossings for international traffic; and the harmonisation of regulatory, institutional and legislative frameworks. National dimensions of whatever character (eg physical infrastructures, national policies, institutional and regulatory frameworks, technical norms and standards) will be considered only insofar as they have an impact on, or may be affected by, the regional and continental dimensions.

2.2.6 **The implementation strategy and processes:** The successful implementation of the infrastructure development programme will depend on building a consensus among all stakeholders around a realistic platform of measures and projects. The PIDA will therefore involve the development of priority measures, resources and tools (which together are referred to as the 'implementation strategy and processes') to support the successful implementation of PIDA, including:

- a. **Consensus-building around a Priority Action Plan:** The Priority Action Plan is intended to cover the short-term physical investment programmes, as well as the different types of supporting measures for successful implementation (political, institutional, regulatory, financial, administrative, etc.). Its aim is to replace the NEPAD STAP with a roll-over plan of action, drawn up initially to cover the 2010-2015 period. Building a consensus among policy decision-makers around this Priority Action Plan and its management constitutes a key objective of PIDA.
- b. **Developing more efficient institutional arrangements** to enhance the development and delivery of infrastructure services at the national, regional or continental levels.
- c. **Mobilizing financing and private sector participation**, including realistic projections for the mobilization of resources, and innovative approaches for resolving this recurrent problem.
- d. **Defining an implementation and monitoring process:** This involves proposing to stakeholders, the mechanisms and tools to: (i) review and update over time the strategic framework and infrastructure development programme; and (ii) actively manage the roll-over Priority Action Plan. This process will include recommendations on capacity building and the adequacy of the present monitoring mechanism.

2.2.7 **Timescales:** The sector studies will consider the period up to 2030. This horizon is broken up into the following phases: 2010-2015 (short-term), 2016-2020 (medium-term) and 2021-2030 (long-term). The Priority Action Plan will cover the short term period, and the infrastructure development programme will be less detailed for the medium and longer term.

2.3 Guiding principles for the study

2.3.1 The emphasis of the study should be on strategic thinking, and how to ensure that PIDA is successfully implemented. Some additional data will need to be collected, but, as far as possible, the Consultant should rely on existing sources of information and data. For example, the AICD study has

already accumulated a large data base on infrastructure in Africa at the national level, and the AICD team is ready to work with the Consultant to help identify gaps that might need to be filled at the regional and continental level, as well as sharing their models for projecting future needs. In addition the RECs and other regional bodies (eg Power Pools) already have substantial information on needs and projects/programmes at the regional level. There have also been several studies on the causes of delay in regional projects, and on other issues relevant to the study.

2.3.2 To a large extent the work programme will be carried out on a sector basis, but there are many common issues and themes that cut across the sectors and should be addressed, at least in part, at a cross-sectoral level. Some examples are given below, but the Consultant may decide that there are other issues that are more effectively carried out on a cross-sectoral basis than by each sector team.

2.3.3 The ultimate goal of the study is greater regional integration. The Consultant should form and agree (together with the Client and the Panel of Experts) the guiding principles relating to regional integration that should inform their decisions during the study. For example, there should be clarity on concepts of regionalism, regional integration, regional cooperation and economic integration; and clarity on the concept of subsidiarity (ie which aspects of infrastructure are best dealt with at the continental, regional, sub-regional or national levels). It may be helpful to draw on successful examples of regional integration elsewhere in the world, such as the Initiative for the Integration of Regional Infrastructure in South America (IIRSA). In addition, the EU may provide valuable guidance on how the concept of subsidiarity can be effectively implemented.

2.3.4 It is well known that the efficacy of the physical integration of regional infrastructure networks ultimately depends on the harmonization of regulatory frameworks and administrative procedures so that services can be traded smoothly across national frontiers. Many of the highest impact regional integration projects fall within this category of "soft interventions". It will be important for the Consultant to incorporate these regulatory and administrative measures fully into their infrastructure development programmes.

2.3.5 A further factor that limits the efficacy of physical infrastructure projects is regional asset management and maintenance to ensure effective service delivery. Generally, asset management is more complicated than asset creation even in the national context, and much more complicated in the regional context (due to the involvement of multiple organizations, both national and regional). The proposals that are developed by the Consultant should have due regard to the institutional structure for both asset creation and asset management/maintenance.

2.3.6 Another important cross-cutting issue is the financing of regional and continental projects and programmes. The Consultant should develop projections of the likely financial resource envelopes for regional infrastructure projects, based on an analysis of past trends and other relevant factors. It is desirable to produce scenarios of future financial resources within which development projects and programmes can be prioritised in a realistic manner. For the short-term projections at least the current global financial crisis is likely to be a relevant factor. In this context, it should be noted that an explicit aim of PIDA is the mobilization of private sector participation in infrastructure development.

2.3.7 One of the critical outputs of the study is the Priority Action Plan, and how this Plan can be monitored and rolled forward over time. This is another cross-cutting issue with sector-specific characteristics.

3. The Client and Implementation Arrangements

3.1 PIDA is sponsored by the AUC, NEPAD and ADB, who are referred to in these ToR as the '**Programme sponsors**'. The **Client** for the study is ADB in its capacity as executing agency of PIDA (see below). The ADB will also be the Client for the Panel of Experts.

3.2 **The governance structure for PIDA:** The implementation of PIDA is subject to the following governance structure:

- a. **Steering Committee (SC).** The SC is the ultimate orientation and approval organ for PIDA. It gives strategic guidelines and determines the orientation to follow. It comprises representatives of the AUC, ADB, NEPAD Secretariat, RECs, and the Economic Commission for Africa (ECA). Other participants may be invited as observers. It is chaired by the AUC.

Secretariat services for the SC will be provided by the Programme management team (see below).

- b. **Technical Committee (TC).** The TC is a quality control organ. It comprises experts from the AUC, NEPAD Secretariat, ADB, ECA, and resource persons from the specialized regional and international institutions. The Technical Committee is chaired by the ADB. The Secretariat services for the TC will be provided by the Programme management team.
- c. **Executing Agency:** The ADB is the Client and the Executing Agency and is the institution responsible for the contractual, financial and administrative management of PIDA. It is responsible in particular, for procurement procedures, in conformity with its existing regulations, budget management and disbursements.
- d. The **Programme management team:** The Bank as the Executing Agency, shall be responsible for the execution and output of the study, and shall set up a project management team. The NEPAD Division Manager of the NEPAD, Regional Integration and Trade Department of ADB shall head the Project Management Team, which will undertake the technical and administrative management of the Programme. Other members of the project management team shall comprise of a programme co-ordinator and four sector experts appointed by the ADB and counterpart sector experts appointed by the AUC/NEPAD Secretariat, a procurement officer assisted by support staff for the day-to-day management of the Study. The NEPAD Division Manager of the ADB shall serve as a contact point for the Consultants during the Study execution and will co-ordinate all study execution issues with the programme sponsors.

3.3 The specific responsibilities of the programme management team are:

- supervising the Consultant and the Panel of Experts;
- communicating the status of PIDA implementation;
- coordinating the various PIDA activities;
- submitting consultants' reports to the Technical Committee, and receiving the TC's feedback;
- providing secretariat services to the Steering and Technical Committees.

3.4 The Bank, represented by the NEPAD Division Manager is the single representative of the Programme sponsors, and shall be in charge of relationships with the Consultant for the Sector Studies and Panel of Experts on all matters involving study content.

3.5 **Consultation with RECs and other stakeholders.** An essential aspect of the Consultant's work will be to develop their findings in a consultative and participative manner. The arrangements for these consultations will be as follows:

- a. This study requires close contact with RECs and other regional and continental entities. The Programme sponsors will take measures necessary to ensure their involvement in the study, and to facilitate contacts with such institutions. The Consultant shall be responsible for the administrative and technical organization of all meetings and workshops related to the study, including logistics (although, as noted above, the Client will be responsible for organizing Technical and Steering Committee meetings). Programme management team members may participate in meetings between the Consultant and regional organisations as necessary.
- b. Contact with national entities (e.g. sector or finance ministries of some countries) may be necessary. The Programme sponsors, in cooperation with the RECs, will facilitate such contact as far as possible.
- c. The Programme sponsors shall be informed, through the Client, of contacts required with development partners such as the European Union, World Bank, and other donor members of the Infrastructure Consortium for Africa (ICA), and will take measures necessary to organise these contacts. The consultant shall provide the Client with brief summaries of all these meetings.

3.6 The meetings and workshops for which the Consultant will assist with their administrative and technical organisation will include (see Section 4 below):

- The kick-off workshop to be held after the Inception Report has been produced
- The validation workshop (for basic assumptions) to be held in Phase I
- The four strategic sector workshops to be held in Phase II
- The high-level meetings to be held in Phase III.

This assistance will include: (i) all administrative arrangements for the organisation of the meeting or workshop; (ii) preparation of the agenda; (iii) ensuring, in consultation with the Client, that there are sound facilitation arrangements; (iv) collection and assembling of materials to be submitted ; (v) selected presentations as required; (vi) drafting of the minutes and summary conclusions.

3.7 For the purposes of the study, the RECs will be grouped into five geographical regions as indicated below. The RECs of each region will agree on the mechanisms for coordinating their participation in the study.

Region	REC
North Africa:	<i>UMA, CEN-SAD</i>
West Africa	<i>ECOWAS, (WAEMU), CEN-SAD</i>
Central Africa	<i>ECCAS, (CEMAC)</i>
East Africa	<i>COMESA, EAC, IGAD</i>
Southern Africa	<i>COMESA, SADC</i>

4. Scope and Duration of Work

4.1 Introduction to scope of work

4.1.1. The work programme is divided into an Inception Phase, followed by three phases of work – Phases I, II and III. The scope of work for the Inception Phase and Phase III is given entirely in these General ToR. The scope of work for Phases I and II is outlined below, but detailed in the accompanying sector-specific ToR for each of the four sectors. Although Phases I and II follow the same structure for each sector, the differences between them in terms of detail are sufficiently numerous to indicate that the scope of work for these phases will be clearer in four separate sector-specific ToR.

4.2 Inception Phase

4.2.2 The Inception Phase shall outline the consultant's organisation and programme of work, methodology, approach and the schedule of inputs, all revised to reflect the result of contract negotiations, and the Consultant's initial findings.

4.2.3 There is already a large amount of data and information available, and it is essential that the Consultant uses existing information and data wherever possible. The Inception Phase should be used to make contact with stakeholders to identify the nature and scope of existing information sources, so that gaps that need to be filled can be more precisely identified, and the Consultant's analysis and strategic thinking can start from information that is already available. Examples of potential sources of information include:

- The STAP and other information from NEPAD;
- Policies and development programmes of the RECs and other regional bodies and specialised institutions (eg Power Pools). The REC and Power Pool regional infrastructure plans are currently being updated (for 2010-2015), and will be made available to the Consultant;

- The AICD study; and the AICD team have indicated a willingness to share both data and methodologies (see para 1.2.1 d. above);
- Part 1 study outputs from the MLTSF;
- AUC policies and development programmes, including the Energy and Transport Sector Project Matrix produced with the Declaration at the end of the AU Summit held in Addis Ababa in early February 2009;
- ‘Revision of the AU/NEPAD African Action Plan’ study;
- ‘Implementation progress review of the NEPAD STAP’ study.

4.2.4 The Inception Report will give:

- a detailed description of tasks to be undertaken, the schedule of activities and resources allocated to each task;
- a detailed identification of data necessary for the analytical work as well as the data collection strategy;
- the proposed analytical framework to be used in the analysis of current policies and strategies, and in the formulation of sector policies and strategies for this study;
- a proposed methodology for the analysis of on-going and pipeline programmes, and in particular the definition of stages (milestones) defining their development stage;
- a first outline of the methodology to be used for projections, as well as trends and factors underpinning the future sector outlook;
- the decisions to be made by the client and the proposed associated schedule;
- a proposed calendar for field visits, meetings and workshops;
- the proposed structure for key reports³; and
- any other issue to be brought to the attention of the client in order to facilitate, monitor and control the Consultant's work.

4.2.5 The Inception Report will be delivered 6 weeks after the commencement of work.

4.2.6 The Inception Report will be discussed at a kick-off workshop 7 weeks after the commencement of work. In addition, the Panel of Experts will present at the workshop a preliminary draft of a Vision and Framework paper, which is intended to cover topics such as:

- Identification of key issues relating to: regional and continental infrastructure development in Africa for each of the four sectors; the potential contribution of infrastructure to African integration objectives; the constraints encountered in infrastructure development in its integrative role; and any lessons that can be learned from experience in other continents.
- The major factors that are likely to determine Africa's potential needs for regional and continental infrastructure up to 2030, e.g. growth paths, demographics, technological trends, emergence of development poles in Africa and the world, changes in international transport routes, economic trends, impact of climate change.
- The major infrastructure development challenges (regional and continental) in terms of land-locked countries, economic integration, growth, and poverty reduction.
- The challenges that regional and continental African stakeholders must overcome in order to implement a bold regional and continental infrastructure development policy, e.g. enabling environment; financing; budgets and trade-offs between national, regional and continental projects; the role of supranational bodies, sector governance.

³ Refer to the description of deliverables in section 5.

4.2.7 The purpose of this paper is to provide an initial view of a macro framework, and vision for regional integration in Africa together with the contribution of each infrastructure sector to this regional integration, for discussion at the kick-off workshop. The outcome of these discussions should subsequently inform the Consultant's assumptions and projections. This outcome will either emerge in the form of a consensus between the Panel of Experts, the consultants, and the Client; or, in the event that no consensus emerges, the final decisions will be made by the Client.

4.2.8 After the kick-off workshop the Consultant will finalise their Inception Report to take account of comments made at the workshop.

4.3 Phase I

4.3.1 The scope of work for Phase I is detailed in each of the four sector-specific ToR. There are four components of the work (which may overlap to some extent):

- Establishment of an outlook for the future, in the broad context of the preliminary vision and framework agreed at the kick-off workshop. The Consultant's parameters and assumptions used for their projections will be discussed at a validation workshop which is expected to take place around 12 weeks after the commencement of work. The Consultant shall deliver a methodological brief for the workshop a week earlier. The Consultant will then finalise their projections for the Phase I report.
- Analysis of choices and challenges.
- Review and evaluation of regional and continental policies, institutional and regulatory frameworks.
- Analysis of existing regional and continental infrastructures, those under implementation, and those in the project pipeline, to assess their performance and contribution to the regional and continental policies and strategies.

4.3.2 The output of Phase I will be a report covering each of the four components above and all four sectors, and presenting an outline programme for the development of regional and continental infrastructure covering physical investment and soft issues. This Phase I report will be delivered 20 weeks after the commencement of work.

4.4 Phase II

4.4.1 The scope of work for Phase II is detailed in each of the four sector-specific ToR. The purpose of this phase is to consult with stakeholders on the findings of Phase I, in order to develop a draft strategic framework, infrastructure development programme, and implementation strategy and processes. There are broadly two components to Phase II:

- A series of workshops to consult with RECs and other stakeholders on the Phase I findings;
- Preparation of a draft final report containing the three outputs required from the study.

4.4.2 Full engagement with the RECs will be essential, as the RECs, working closely with national governments, will be the main implementers of the final output of PIDA. It will also be important to engage with stakeholders at the continental level, for example the NEPAD Head of States and Government Implementation Committee.

4.4.3 The Phase II report will be delivered 24 weeks after phase I validation.

4.5 Phase III

4.5.1 The main purpose of Phase III is to secure ownership of the study results by stakeholders, and to finalise the outputs of the study.

4.5.2 The process of **securing ownership** and supporting internalization of the findings are crucial. This phase will entail greater Client involvement. The Consultant should assume the support role, and assist the Client to lay the groundwork for a consensus among the various stakeholders. A key stage during the summary phase will be the holding of a further series of meetings with the PIDA

implementers, notably the RECs. These meetings will aim at initiating the internalisation of continental policy and strategy proposals, infrastructure development programmes, and implementation strategies and processes, including the Priority Action Plan, and recommendations on the monitoring mechanism. The specific scope of work for the Consultant will include:

- Assist the Client to prepare meetings with the RECs (and other stakeholders as necessary). These meetings might be sector-specific or cross-sectoral depending on the stakeholder.
- Presentation of the drafts from Phase II to policy implementers, such as the draft strategic framework; infrastructure development programme; and implementation strategies, including the Priority Action Plans and recommendations on the monitoring mechanism.

4.5.3 Under the supervision of the Client, the Consultant shall consider the remarks and suggestions made during the meetings with the RECs (and any other stakeholders). Subsequently, the Consultant will prepare their **final report**. This report should summarize all the analyses made during the study, and present for each sector the strategic framework, infrastructure development programme, and implementation strategies and processes.

4.5.4 The Consultant shall also, under the supervision of the Client, present a synthesised version of their final report.

4.5.5 At the end of the study, the consultant will be requested to hand over to the Client the following:

- a. **Collected data:** all statistical data and other quantitative information collected or used during the study. This transfer will be made in an electronic format (e.g. CD) and using appropriate software (e.g. Excel). Data will be complemented by a Note describing exhaustively: (i) the nature of transferred data (type, frequency of use, series horizon); (ii) information sources and/or data collection strategy; (iii) remarks on reliability of data; and (iv) any other comments that could help the Client use and update the transferred data. The Consultant will also be required to deliver a list of documents used in the study. A specific form will be agreed with the Client for this purpose.
- b. **Models used in the sector studies:** all models and specific software used in the course of the studies. This delivery will be complemented by adequate documentation that should enable the client to use the models and update projections and simulations conducted by the Consultant. In the case of proprietary software, the Consultant will mention the cost in their proposal.

5. Reporting Arrangements and Outputs

5.1 Reporting

5.1.1 The Consultant shall prepare and submit to the Programme manager, the reports discussed below. The reports shall be packaged in a format to be agreed with the Client. All reports shall initially be submitted in draft form for review and comments, and subsequently finalized to reflect as appropriate the comments made. At the request of the Programme manager, the reports will be presented to the Technical Committee in a PowerPoint format. Comments on draft reports will be submitted to the Consultant within a period of 2 weeks. Final reports, after taking into account any comments, shall be submitted within 2 weeks after expiry of the deadline for submission of comments.

5.1.2 As far as possible the Consultant's work programme should continue while draft reports are being reviewed. The continuity of work during such periods shall be agreed with the Programme manager.

5.2 Deliverables

5.2.1 The Consultant shall submit in electronic format the following reports, according to the timetable shown below. The table also indicates the numbers of hard copies required, but the numbers are indications only at this stage. The need for hard copies, and the numbers, will be agreed with the programme manager at the inception stage.

Deliverables	Timing	Hard copies draft - (indicative) (E=English) (F= French)	Hard copies final - (indicative) (E=English) (F= French)
Inception Phase			
Inception report	6 weeks after commencement of work as contractually defined	E30, F30	E30, F30
Phase I - Work			
Methodological brief on the establishment of the outlook for the future	11 weeks after commencement of work as contractually defined	E30, F30	E30, F30
Phase I report including: - Report on the Evaluation of regional and continental policies and strategies - Report on Programmes (Infrastructure) - Report on the outlook for the future and challenges in infrastructure development - Report on an outline of infrastructure development programme (physical investment & associated services/measures)	20 weeks after commencement of work.	E30, F30	E30, F30
Phase II - Work			
Briefs for the preparation of sector workshops	5 weeks after Phase I validation	E30, F30	E30, F30
Proceedings of sector workshops	Within 1 week of workshop being completed	E30, F30	E30, F30
Phase II report including: - Draft strategic framework - Draft infrastructure development programme - Draft implementation strategy and processes	24 weeks after Phase I validation	E30, F30	E30, F30
Phase III - Work			
Final report on: - Strategic framework - Infrastructure development programme - Implementation strategy and processes	12 weeks after Phase II validation	E30, F30	E30, F30
Synthesis of final report	12 weeks after Phase II validation	E30, F30	E30, F30
Data files and methodological Note(s)	12 weeks after Phase II validation	E10, F10	E10, F10
Models and methodological Note(s)	12 weeks after Phase II validation	E10, F10	E10, F10

5.2.2 The structure, form and length of the reports will be agreed between the Consultant and the Programme manager at the inception stage. The Inception Report will be a single report, with annexes as necessary. Many of the subsequent reports may be in the form of a general overarching report with separate subsidiary reports for each of the four sectors. The structure of the reports should

be adapted to the intended target audiences (eg sector specialists will be looking for sector-specific reports, while high level decision-makers will be looking for shorter reports that synthesise the analyses and key findings).

5.2.3 A work schedule compliant with the above milestones and including a schedule of deliverables shall be presented in the Consultant's proposal.

5.3 Quarterly and monthly progress reports

5.3.1 Quarterly progress reports shall be submitted to the Programme manager in a format to be agreed with the Client during contract negotiations. These reports shall contain:

- A brief statement of the work carried out in the preceding months;
- Any challenges faced or findings that might affect the agreed approach and work programme, with proposals for necessary changes that may be required to achieve the objectives of the study.
- Any data and information mandatorily required by rules and regulations to which PIDA sponsors are subject.

5.3.2 These reports shall focus on measures and decisions that need to be taken by the Client or Programme sponsors and be delivered as electronic files through e-mails. The Consultant will have the obligation to raise at any time any matter or issues which may adversely affect the execution of the sector studies.

5.3.3 Monthly reporting can be agreed at contract negotiations. These are brief statements to support monitoring of the sector studies by the programme management team.

6. Composition of Team and Indicative Inputs

6.1 For this study, the Consultant is expected to mobilise top quality expertise, primarily from permanent staff. As indicated in the Letter of Invitation, the evaluation of proposals will take into account qualifications of staff assigned to the study, in particular in the positions indicated below. The Consultant's proposal shall include a detailed description of roles and responsibilities, as well as profiles of all team members. The team shall be able to work in English and French, particularly in meetings involving stakeholders.

a. Cross-sectoral work

6.2 **Programme leader.** This position will be assigned full-time to a senior permanent staff of the consulting firm, with an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics, and an experience of 15 years or more in infrastructure at Programme director level. The Programme leader might be an engineer or development economist, but shall have an excellent knowledge of the African context, and have led at least three complex studies with a budget of US\$ 5 m or more, of a duration of two years or more, and a team of 15 consultants or more. The Programme leader must have a strong regional infrastructure project experience, and have demonstrated through his/her previous assignments his/her capabilities to lead a consortium of consulting firms, conduct high-level policy dialogue and develop a long term vision and perspectives.

6.3 **Other non sector-specific positions.** The Consultant may propose other positions in addition to the sector teams set out below. The final composition of the team will depend on a variety of factors such as the extent to which cross-sectoral issues can be addressed by members of the sector teams who have both the sector-specific and other expertise and experience that are required, and the extent to which the Consultant intends to engage short-term specialists to address specialist cross-sectoral issues. The team is expected to include, inter alia, a development economist, social economist, environmentalist, financial analyst, institutional development specialist, and an expert on monitoring mechanisms. The Consultant should demonstrate that the team as a whole has both the spread of expertise and experience required, and that it can operate as an integrated team.

b. Energy sector expertise

6.4 **Sector Programme leader.** This position will be assigned full-time to a senior permanent staff of the consulting firm, with an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics, and an experience of 15 years or more in the Energy sector, at Programme director level. The Programme leader shall have an excellent knowledge of the African context and have led at least three complex studies with a budget of US\$1m or more, a duration of more than one year and a team of 10 consultants or more.

6.5 **Consultant in charge of strategy/policy work.** This consultant shall have an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics), and an experience of at least 10 years in the preparation and assessment of Energy policies. The consultant must have relevant experience in regional infrastructure. Experience shall include work in Africa, although not exclusively. The consultant shall have conducted at least three assignments similar to this one. Good knowledge of the African context is required.

6.6 **Consultant in charge of programmes.** This consultant shall have an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics), and an experience of at least 10 years in the financing and/or structuring of complex programmes, including PPPs. Experience shall include work in Africa, although not exclusively. The consultant shall have conducted at least three assignments similar to this one. Good knowledge of the African context is required.

6.7 **Consultant in charge of projections.** This consultant shall have an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics/econometrics, and a proven experience in long term simulation and projection work in the Energy sector. The consultant should have an excellent knowledge of mathematical tools (models) and software used for this type of work. The consultant shall have led at least three similar simulation and projection assignments. Although not a requirement, a good knowledge of the African context would be a plus.

c. Transport sector expertise

6.8 **Transport Sector Programme leader.** This position will be assigned full-time to a senior permanent staff of the consulting firm, with an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics, and an experience of 15 years or more in the transport sector, at Programme director level. The Programme leader shall have an excellent knowledge of the African context and have led at least three complex studies with a budget of US\$2m or more, duration of more than one year and a team of 10 consultants or more. The Programme leader must have regional infrastructure project experience.

6.9 **Consultant in charge of strategy/policy work.** This consultant shall have an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics and an experience of at least 10 years in the preparation and assessment of Transport sector policies. The consultant must have relevant experience in regional infrastructure. Experience shall include work in Africa, although not exclusively. The consultant shall have conducted at least three assignments similar to this one. Good knowledge of the African context is required

6.10 **Consultants in charge of sub-sector programmes** (rail, road, air, maritime⁴). Each specialist shall hold an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics, and shall have an experience of at least 10 years in the corresponding sub-sector. Experience shall include work in Africa, although not exclusively. The consultant shall have conducted at least three assignments similar to this one. Good knowledge of the African context and experience in regional infrastructure projects is required.

6.11 **Consultant in charge of projections.** This consultant shall have an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics/econometrics, and a proven experience in long term simulation and projection work in the transport sector. The consultant should have an excellent knowledge of mathematical tools (models) and software used for this type of work. The consultant shall have led at least three similar simulation and projection assignments. Although not a requirement, a good knowledge of the African context would be a plus.

⁴ The river-lake sub-sector could be under the responsibility of the maritime transport specialist.

d. ICT sector expertise

6.12 **Sector Programme leader.** This position will be assigned full-time to a senior permanent staff of the consulting firm, with an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics, and an experience of 15 years or more in the ICT sector, at Programme Director level. The Programme leader shall have an excellent knowledge of the African context and have led at least three complex studies with a budget of US\$1m or more, duration of more than one year and a team of 10 consultants or more. The Programme leader must have regional infrastructure project experience.

6.13 **Consultant in charge of strategy/policy work.** This consultant shall have an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics, and an experience of at least 10 years in the preparation and assessment of ICT policies. The consultant must have relevant experience in regional infrastructure. Experience shall include work in Africa, although not exclusively. The consultant shall have conducted at least three assignments similar to this one. Good knowledge of the African context is required.

6.14 **Consultant in charge of programmes.** This consultant shall have an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics/econometrics, and an experience of at least 10 years in the financing and/or structuring of complex programmes, including PPPs. Experience shall include work in Africa, although not exclusively. The consultant shall have conducted at least three assignments similar to this one. Good knowledge of the African context is required.

6.15 **Consultant in charge of projections.** This consultant shall have an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics/econometrics, and a proven experience in long term simulation and projection work in the ICT sector. The consultant should have an excellent knowledge of mathematical tools (models) and software used for this type of work. The consultant shall have led at least three similar simulation and projection assignments. Although not a requirement, a good knowledge of the African context would be a plus.

e. Transboundary water sector expertise

6.16 **Sector Programme leader.** The position will be assigned full-time to a senior permanent staff (Water Resources Specialist) of the consulting firm, with an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics, and an experience of 15 years or more in Integrated Water Resource Management and in the transboundary water sector, at Programme director level. The Programme leader shall have an excellent knowledge of the African context and have led at least three complex studies with a budget of US\$1m or more, duration of more than one year and a team of 10 consultants or more.

6.17 **Consultant in charge of strategy/policy work.** The consultant shall have an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics, with experience of at least 10 years in the preparation and assessment of water sector policies including work in Africa. The specialist shall have conducted at least three assignments similar to this one. Good knowledge of the African context is required.

6.18 **Consultants in charge of sub-sector programmes** (Hydro-power specialist, Groundwater specialist, Water supply specialist, and an Irrigation Specialist). The consultants shall have an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics, and an experience of at least 10 years in the financing and/or structuring of complex programmes, including PPPs and TWRM work in Africa. The consultant shall have conducted at least three similar assignments. Good knowledge of the African context is required.

6.19 **Consultant in charge of projections.** This consultant shall have an advanced degree (PhD/Masters or equivalent qualification) in engineering or economics/econometrics, and proven experience in long term simulation and projection work in the water sector. The consultant should have an excellent knowledge of mathematical tools (models) and software used for this type of work. The consultant shall have led at least three similar simulation and projection assignments. A good knowledge of the African context would be a plus.

f. Indicative inputs

6.20. The total estimated inputs required for the study are around 195 person-months. The scope of work for each of the four sectors will vary. The transport sector is expected to require more inputs than the others as there are four sub-sectors to be considered. The next most resource-intensive sector is likely to be the energy sector.

6.21 As indicated in the general principles for this study, the Consultant is expected to make maximum use of existing information and sources, so that the Consultant's focus is on strategic thinking. The relative allocation of resources to the three main phases of work and the individual tasks should reflect this important principle.

ANNEX 1**INDICATIVE LIST OF REFERENCE DOCUMENTS**

This Annex gives an indicative list of cross-sectoral reference documents that will help the Consultant understand the context of the study. Separate lists of sectoral reference documents are given in each of the sector-specific ToR.

Documents related to PIDA

- 1 PIDA Concept Note
- 2 Terms of reference for the Panel of Experts for PIDA

Documents available through ADB

- 1 Part 1 Study Outputs of the Medium to Long-Term Strategic Framework (MLTSF) study
- 2 ADB Group Regional Integration Strategy, March 2009

Documents related to the African Union Strategy

- 1 African Union Commission, African Union Vision and Mission, May 2004, vol. 1 ;
- 2 African Union Commission, Strategic Framework 2004-2007, May 2004, vol. 2 ;
- 3 African Union Commission, Action Plan 2004-2007 – Programmes to speed up integration on the continent, May 2004, vol. 3;
- 4 African Union Commission, Strategic Framework 2004-2007, presentation, May 2004, vol. 4 ;
- 5 African Union Commission, Africa, Our common destiny, Guideline Document, May 2004, vol. 5 ;
- 6 The Declaration of the 12th session of the Heads of State of the AU on Transport and Energy development in Africa, February 2009

Documents related to the NEPAD infrastructure programme

- 1 The New Partnership for Africa Development (NEPAD) ;
- 2 STAP Main Report
- 3 STAP Review 2003
- 4 STAP Review 2004
- 5 STAP Review 2009
- 6 Review of the AU/NEPAD African Action Plan 2009
- 7 Background papers - Energy, Water, ICT, and Transport
- 8 Abuja Capacity Building Workshop Report, 2005
- 9 Abuja Meeting on private sector participation 2005