



International Conference on the Great Lakes Region

Regional Programme of Action for Economic Development and Regional Integration

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Feasibility Study on the Regional Oil Pipeline

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Preamble

In their Dar – es – Salaam Declaration for the Great Lakes Region adopted in the United Republic of Tanzania on 20 November 2004, the Heads of State and Government expressed commitment to promote peace, stability and unity in the region through promotion of economic growth. The Declaration encourages closer cooperation by the countries themselves through common use of available resources and facilities. The Heads of State also undertook to promote regional integration by encouraging the countries in the regions to collectively cooperate in operating common infrastructure, including oil pipelines.

The proposed Regional Oil Pipeline Project is conceived to directly address the above concerns and meet the aspirations of the Heads of States. The following countries Burundi, DR Congo, Uganda and Rwanda are dependent on the existing pipeline, currently confined within Kenya borders, to meet their requirements for oil products. These countries have expressed strong wish to have the pipeline extended so that they do not have to rely on road transportation, which is more expensive and less efficient. Constructing the pipeline will call for political commitment to raise the resources required and also to solicit the cooperation from all parties involved, to enable the project to be implemented. Similarly, the operation of the pipeline will call for continued dialogue and cooperation between the countries.

The experience gained in the implementation process of this project and its management thereafter, will help to cement the bond between the countries involved, hence promote regional integration, thereby contributing towards the common vision set for the Great Lakes Region as enshrined in the Dar-es-Salaam Declaration.

Executive Summary

Kenya has almost completed the substitution of road transportation by pipeline, of most of its requirements and the pass-through oil products. Currently the pipeline runs from Mombasa to Eldoret with an extension to Kisumu. Pipeline transportation is cheaper, less hazardous and more environmentally friendly. From Eldoret to as far as the Democratic Republic of Congo (DRC), transportation of these products is still reliant on road tankers. In order to respond to the growing markets for these products and also eliminate the serious problems associated with transportation of petroleum product by road, Kenya and Uganda agreed to extend the pipeline from Eldoret to Kampala in Uganda. In this regard, discussions are well advanced and an agreement will be finalized soon, so that the work on the pipeline from Eldoret to Kampala can start by early 2006. The project will take approximately three years to implement.

The other countries in the region, and which also get most of their oil products through the Port of Mombasa, are seriously considering the next extension phase of the pipeline so that each of them including Rwanda, Burundi and DRC can benefit from the cheaper mode of transportation. Proposals have been made to extend the pipeline to as far as Kisangani deep in DRC. Besides savings on the cost of transportation, implementation of such a project would offer an excellent opportunity for regional cooperation and integration. It

would harmonize the delivery and control of distribution of the petroleum products in the whole region. This would translate to efficiency of delivery and cost savings. Such reduction in transportation costs would translate to cost savings by the end users of these products, thus impacting and contributing directly to the reduction of poverty in the region.

However, the project requires preparation before implementation can start. A feasibility study is required to define the optimum pipeline solution for the delivery of the petroleum products to the furthest corner of the region. The study will also explore the best financing arrangements for the project and most suitable institutional arrangements for its operation and management. It is estimated that it will take approximately seven months to carry out the study, and cost approximately US\$1,175,400. It will be carried out in a consultative manner, allowing sufficient feedback from the stakeholders.

One of the challenges posed by the proposed feasibility study is sourcing the substantial funding required for its execution. It is therefore important that this issue of funding be addressed as early as possible in order not to unduly delay the project. One would bear in mind that that someday not too far into the future, some of these countries could start exploiting their newly found petroleum resources. With peace in the region, petroleum products could also start flowing from Southern Sudan to the Great Lakes Region (GLR). Equally possible is the fact that some of these petroleum producing countries could set up refineries for their crude. That means that the region has the possibility of also becoming a net exporter of the oil products. The proposed feasibility study shall take all these factors into account in its recommendations.

FESEABILITY STUDY - TERMS OF REFERENCE

1. Introduction and Background

The countries of the Great Lakes including Uganda, Rwanda, Burundi and Democratic Republic of Congo (DRC) (eastern parts), have always relied on the Port of Mombasa for supply of oil products to meet their needs. To a much lesser extent these countries also import smaller quantities transported through the Central Corridor (Dar-es-Salaam – Mwanza Railway). Initially, the bulk of oil products to meet the demand for these countries including Kenya, was transported by roads using oil tankers. This mode of transportation of these products by road is expensive, hazardous, costly, and is environmentally unfriendly. To overcome and eliminate all these risks associated with road transportation, Kenya has resulted to transportation of the products via a pipeline. The Kenya Oil Pipeline was first constructed from Mombasa to Nairobi and commissioned in 1978. This was later extended in 1994, to Eldoret with a branch to Kisumu. As the next phase of these developments, Uganda and Kenya have agreed to extend the pipeline from Eldoret to Kampala. Discussions about this extension have now almost been completed and construction of the pipe is expected to start early 2006. Construction is expected to take a total of 36 months. The other countries of the Great Lakes have expressed interest and are keen to get the pipe eventually extended westwards from Kampala so that they are all covered.

The extension of the pipeline first to Uganda is one of the projects included in the NEPAD's Short-term of Action. Several financiers including the African Development Bank (AfDB) have already been approached to finance this next extension. The proposed further extension of the oil pipeline to the countries of the Great Lakes is the subject of this paper. The information from which the paper has been prepared, include discussions with and documents made available by the Kenya Pipeline Company Limited (KPC).

2. Situation Analysis

From the above introduction on the genesis of transportation of the oil products in the region, it is evident that these countries including Kenya are bound and will continue to share the same destiny as far as the delivery of these products is concerned. Before the construction of the oil pipeline, transportation of the products from Mombasa to the furthest part of the region was mostly by roads. All roads in the transportation corridor therefore suffered the same fate. The development of the pipeline has contributed to continued reduction of damage and carnage on the Kenyan roads. In the meantime, damage has continued on the roads beyond the current pipeline distribution points. The proposed extension of the pipe into Uganda is driven both by the growing markets of these products in the region and by the urgent need to reduce the current high cost transportation mode of delivery of the oil products. It is expected that with time, pressure will continue to have the oil pipeline extended so that the rest of the countries in the region are all directly so by the pipeline.

The inherent design for the pipe capacity from Mombasa to Nairobi, then Nairobi to Eldoret has been to allow for the delivery to meet the local and pass through demand for each distribution point. For example, the pipeline up to Kampala has been designed for a maximum capacity of 965,000 m³ per annum. This volume includes the estimated demand for the countries beyond Uganda, which have relied on the same common source of these products. An 8 inches diameter pipe has been proposed for the section Eldoret – Kampala, the same size as for the Nairobi –Eldoret section.

While development on transportation of finished oil products has been concentrated on the Northern Corridor axis, soon there might be alternative sources of these products to or from the GLR. Both Uganda and DRC have discovered oil deposits, which could eventually be developed to supply the region and beyond. At the same time, with peace prospects in to Southern Sudan, the developed oil resources in that area could soon start to flow southwards into the GLR. In addition, supplying oil products to the GLR by constructing a pipeline passing along the Central Corridor has also been considered as a feasible possibility. All these alternatives need to be analyzed while studying the possibility of extending the present oil pipeline to the region of the Great Lakes.

2.1 Project Area and Beneficiaries

The area of the proposed project covers the main transportation corridor between Kampala through Rwanda, Burundi and on to the DRC. Due to the proximity to and convenience of easy transport facilities, transportation corridors have by nature always attracted much higher population densities compared to areas further removed from such facilities. The pipeline route usually follows the main transportation corridor; hence the same settlement

phenomenon applies to the project area. Most of the main towns in these countries are located along the main transportation routes. This further contributes to increased traffic required to carry other commodities and people to meet the demands for these urban areas. This scenario of high population spread along main transportation routes is typical in all the covered countries. This puts more people at risk whenever there are accidents or from other environmental hazards associated with transportation of oil products by road.

2.3 Major Problems to be Resolved

The main problems to be solved by the proposed regional oil pipeline shall include:

- i) High costs and uncertainty as well as the other risks associated with road transportation of oil products;
- ii) Road hazards including road carnage, and damage to the pavements;
- iii) Adverse environmental hazards associated with transportation of oil products by roads including spillage and fires during accidents;

2.4 Major Constraints to be Overcome

The major constraints to be overcome in order to implement this project include:

- i) Need for full cooperation by all countries, i.e. those already serviced by pipeline and those which need the pipeline to be further extended;
- ii) Resistance from those special interests, which might prefer maintaining the status quo.

3. **The Regional Oil Pipeline Project**

3.1 Project Objectives

The overall goal of the proposed Regional Oil Pipeline is to facilitate regional integration and promote cooperation through development and use of a common infrastructure. The overall objective of the proposed project is to provide a cost effective and environmentally friendly means of transportation of the oil products to the countries of the Great Lakes.

3.2 Project Description

The project will entail construction of a pipeline to deliver oil products from Kampala to Rwanda, Burundi and DRC. It will comprise the following components:

- i) Construction of a pipeline, whose length and diameter will be determined during the study;
- ii) Construction of pump stations, storage tanks and loading facilities;
- iii) Construction of workshops, stores and provision of operating equipment and plant;
- iv) Provision of utilities including access and maintenance roads, power supply, water and sanitation;

- v) Setting up of appropriate institution(s) to manage and ensure smooth operation of the extended pipeline.

In order to define the project, its scope and costs, a feasibility study is required. Details are given in the section which follows.

4. The Proposed Feasibility Study

4.1 Background

The transportation mode of the oil products to the countries of East Africa and those of the Great Lakes Region continues to shift from the road tankers to the pipeline. If everything goes as planned, the oil pipeline from Mombasa could reach Kampala within the next three years. Therefore, it is only logical that the construction of the pipeline continues beyond Kampala so that all the countries of the regions are covered. With all the countries beyond Uganda expressing strong interest for the pipe to continue, it is just a matter of time before all the countries are benefiting from the same facility. A feasibility study building on the experience gained from building and management of the existing pipeline is required to determine the feasibility of this final extension of the line into the region.

4.2 Study Objectives

The objective of the study is to examine and determine the most cost-effective solution of transporting oil products by pipeline from Kampala mainly to the land-locked countries of Rwanda, Burundi and DRC.

4.3 Description of the Services (Terms of Reference)

A firm of consultants will carry out the study. It is expected that the consultant will liaise closely with the parties concerned, and take advantage of the experience gained from the development and operation of the present oil pipeline systems in the region. The consultant will also closely involve the project countries in a consultative manner in order to ensure cooperation and ownership of the proposed project. The consultant will carry out the tasks briefly described below.

- i) Carry out market evaluation and demand forecasts through survey of existing consumption patterns and collection of data on the existing markets for oil products for the countries of the Great Lakes Region including Western Uganda, North-West Tanzania, Rwanda, Burundi and DRC extending all the way to Kisangani. Based on historical data, projections will be made of future demands for the products in the region, commensurate with alternative growth scenarios of the economies of these countries.
- ii) Also carry out other studies on current and future alternative sources and transportation routes of oil products to and possibly from the region, including development of petroleum resources in both Uganda and the DRC, as well as the possibility of the products coming from Southern Sudan. The Central Corridor as an alternative route for the oil pipeline to the GLR shall also be investigated;

- iii) Carry out technical studies to determine the most economical route for the pipeline taking into account topography, geological and climatic conditions. Factors of land availability, accessibility, proximity to the supply areas, presence of other infrastructure including roads and railways shall also be taken into account. The consultant will carry out optimization of the pipeline; determine the number and location of pump stations, storage and loading points. Alternative pipe routes and destinations will be explored and compared. The fact that the region is prone to seismic activities will be a major determinant in deciding the pipeline route. Preliminary details of recommended facilities will be prepared including all ancillary works (utilities, operation and maintenance facilities and equipment). The necessary phasing of these works will be indicated.
- iv) Assess how the proposed pipeline would be affected by likely developments of the potential oil resources in the region (i.e. in DRC, Uganda and Southern Sudan). Recommendations shall be made on the possibility of the proposed pipeline technically accommodating changes in direction of flow of the products emanating from such developments. The possibility of having to pump crude oil in the opposite direction instead of finished products on one hand, and that of refineries being set-up in the region so that the region is a net exporter and not an importer of the finished products shall be explored;
- v) Carry out socio-environmental studies in order to determine significant positive and negative social and environmental impacts by the proposed project. This will include but not limited to the impacts from possible oil spills, on agriculture and other land uses, wetlands and other areas of sensitive biodiversity, historical sites, and availability of land for the project sites, soil erosion, employment creation as well as impact on other alternative methods of transportation of the commodities. The consultant will elaborate in details the impacts of the project on the most vulnerable members of society including the poor, the women and the youth. Recommendations will be made on the means and cost of mitigation of identified significant adverse impacts. In particular, the consultant will pay special attention to the identification and analysis of the projects impacts, and the risks it will pose in aggravating the HIV/AIDS epidemic within its zone of influence. Detailed recommendations on the mitigation measures including clearly defined project components shall be elaborated;
- vi) Preparation of estimates of capital costs and of operation and maintenance of the proposed project, clearly broken down into various components; pipeline, pump stations storage, depots, ancillary works and facilities, distribution points, land acquisition and utilities. The operations and maintenance costs will also be estimated;
- vii) Considering the investment requirement for the project and risks involved, carry out an assessment of alternative project financing modalities including both private sector financing, soft loans and public funding. The consultant shall assess the impacts of the project source of financing on the recommended institutional arrangements for implementation and thereafter management of the facilities;
- viii) Noting that besides other factors, the economics of the project will eventually determine how far the oil pipeline can be extended, the consultant shall carry out economic cost benefit analysis of the project by considering other alternative modes of transportation (e.g. roads and railways) of the oil products. Sensitivity

analysis will be carried out based on demand variation scenarios. Similarly, cost benefit analysis shall be carried out comparing the alternative pipe routes i.e. the proposed extension from Kampala, or a new pipeline from Dar es Salaam, passing a long the Central Corridor up to Lakes Victoria and Tanganyika, or the products coming from Southern Sudan instead. The least cost solution shall be recommended. Financial analysis as well as sensitivity analysis shall then be carried out of the selected least cost solution, assuming different market conditions (tariffs).

- ix) Prepare an implementation schedule fitting the recommended implementation strategy, clearly showing the duration of different activities, important milestones and the institutional arrangements to oversee the execution of the work. Requirement for evaluation and monitoring of the implementation process will be elaborated.
- x) Analysis of project risks and major issues to be addressed to facilitate implementation will be made as well as elaboration of the way forward in order to ensure speedy achievement of the project outputs. As pointed out in (ii) above, the risk of natural disasters in the volcanic prone regions of eastern DRC shall be carefully analysed and their likely impacts on the scope and cost of an oil pipeline project clearly demonstrated. Furthermore, the significant risks posed by development of the oil resources in the region shall also be given special attention.

4.4 Study Outputs

The main outputs from the study will include:

- (v) Recommended optimum mode of delivery of oil products to the Great Lakes Region by a pipeline;
- (vi) Project's significant socio-environmental impacts and corresponding mitigation measures including the related costs;
- (vii) Recommended most appropriate project financing and implementation modalities;
- (viii) Recommended institutional arrangements for both project implementation and management of the facilities.

4.5 Estimated Costs of the Study

The Study is estimated to cost US\$ 1,175,400. A summary breakdown of the same is shown in the table below.

Table 4.1 Regional Oil Pipeline Project Feasibility Study – Summary Cost Breakdown (in US\$)

| No | DESIGNATION | NUMBER | | Unit Price \$ | Total Amount \$ |
|-----|---|----------|-------------|---------------|-----------------|
| | | Field | Home Office | | |
| 1 | HONORARIUM | | | | |
| 1.1 | Key Staff of the Consulting Firm | | | | |
| | Project Director (at the Consultant's Headquarters) | 0.5mm | 1 mm | 10,500 | 15,750 |
| | Study Manager (Chemical Engineer) | 5 | 2 | 10,500 | 73,500 |
| | Mechanical/Electrical Engineer | 4 | 2 | 10,500 | 63,000 |
| | Instrumentation Engineer | 2 | 1 | 10,500 | 31,500 |
| | Civil Engineer | 4 | 1 | 10,500 | 52,500 |
| | Structural Engineer | 4 | 1 | 10,500 | 52,500 |
| | Geo-technical Engineer/ Geologist | 4 | 1 | 10,500 | 52,500 |
| | Hydrologist | 1 | 0.5 | 10,500 | 15,750 |
| | Finance Specialist | 1 | 1 | 10,500 | 21,000 |
| | Socio-Economist | 3 | 1 | 10,500 | 42,000 |
| | Environmentalist | 3 | 1 | 10,500 | 42,000 |
| | Legal and Institutional Specialist | 1 | 1 | 10,500 | 21,000 |
| | | | | | |
| 1.2 | Support Personnel | | | | |
| | Secretary | 14 | - | 1,500 | 18,000 |
| | Driver | 14 | - | 1,200 | 14,400 |
| | Messenger | 7 | - | 1,000 | 6,000 |
| | SUB TOTAL HONORARIUM | | | | 511,400 |
| 2 | ACTIVITIES AND FIELD WORKS | | | | |
| | Topography | | | | 80,000 |
| | Cartography | | | | 30,000 |
| | Geo-technology | | | | 50,000 |
| | Miscellaneous | | | | 10,000 |
| | SUB TOTAL FIELD WORKS | | | | 170,000 |
| 3 | PER DIEM, LOGISTICS AND TRAVELS | | | | |
| | Per Diem | 960 days | 250 | | 240,000 |
| | Air Transport | 22 trips | 2000 | | 44,000 |
| | Surface Transport | | | | 50,000 |
| | Computers and related office work | 10 units | 1500 | | 15,000 |
| | Reproduction and Documentation | | | | 25,000 |
| | Office Accommodation | 7 | 2500 | | 17,000 |
| | Communications | | | | 40,000 |
| | | | | | |
| | SUB TOTAL ITEM 3 | | | | 431,000 |

| | | | | | |
|---|-----------------------------------|--|--|--|------------------|
| 4 | STAKEHOLDERS SEMINARS & WORKSHOPS | | | | 30,000 |
| 5 | COORDINATION AND MANAGEMENT | | | | 25,000 |
| | Miscellaneous | | | | 8,000 |
| 6 | TOTAL COST (1+2+3+4+5) | | | | 1,175,400 |

4.6 Study and Project Financing

For the proposed extension to Kampala, the expected blend of financing will be resources from both the Governments of Uganda and Kenya, as well as from the private sector. The proposed extension is likely to attract the same type of financing. However, it is likely that the private sector's perception of the risks involved in implementing the project will influence the overall project costs and the ratios of the blend from these two sources of funding. As for the financing of the study, this is likely to come from donor and public funding only. The project sponsors should consider submitting a request to NEPAD, for the study financing under the NEPAD's Infrastructure Project Preparation Facility.

4.7 Study Implementation Schedule

The study is expected to take a period of seven months to complete, following the recruitment of a firm of consultants. However, the study commencement will depend on how fast the required financing can be put in place. The following are tentative milestones based on a fast-tracked implementation schedule:

Table 4.2 – Implementation Schedule Milestones

| | Activity or Event | Responsible Party (ies) | Target Date |
|----|---------------------------------------|--------------------------------|--------------------|
| 1. | Project Sponsoring Countries/Donor | Burundi, DRC and Rwanda/Donors | May 2007 |
| 2. | Secure sources for funding | Concerned Countries | August 2007 |
| 3. | Recruitment of the Consultant | Concerned Countries | November 2007 |
| 4. | Commencement of Study | Consultant | December 2007 |
| 5. | 1 st Stakeholders Workshop | Consultant & Stakeholders | March 2008 |
| 6. | Donors/Financiers Meeting | Consultant | April 2008 |
| 7. | 2 nd Stake Holders Meeting | Consultant & Stakeholders | May 2008 |
| 8. | Completion of the Study | Consultant | July 2008 |

4.8 Institutional Arrangements

Since the proposed project is already included within the NEPAD list of projects for the region, it is proposed that with the agreement of the beneficiary countries, coordination of the implementation of the study be entrusted to one of the RECs in the region. The REC will

appoint the right people to implement the study, and thereafter the project. All important decisions will be referred to a study Steering Committee, comprising representatives of the project countries. The Committee will provide feedback to the consultant's work and take important decisions timely to enable the study to continue.

4.9 Study Justifications

The proposed study will address the important issue of how far the East Africa Oil Pipeline can economically be extended. It will provide details of the most cost effective extension of the pipeline westwards from Kampala. The study will explore and recommend the most appropriate project funding including; public or government funding, private sector funding, etc, of what could be the last extension of the oil pipeline as well as suitable post-construction institutional arrangements to manage the pipeline operations.

5. Risks and Mitigation Assessment

There are no serious technical risks associated with the proposed extension of the existing pipeline to the Great Lakes Region. The proposed extension will build on the experience gained in the construction of the pipeline from Mombasa to Nairobi, and thereafter to Eldoret. Similarly the operation of the new facility should not be substantially different from that of the existing pipeline. Nevertheless, depending on how fast the project is implemented, it faces the risk of potential changes in both the sources and markets for the oil products. Future development and production of potential oil resources within or close to the Great Lakes Region could impact on the future flow of finished products. The proposed study is expected to factor such developments into its recommendations. In addition, some of the project areas are prone to seismic activities. In such cases, demand areas for the products and economics might not be the only major factors in influencing the pipeline destinations.

Great Lakes Region has a history of conflicts. It is unlikely that an oil pipeline would operate in a volatile situation and conflicts are not brought to an end. The study together with the project will require substantial capital outlay to implement. While project implementation and thereafter the management of the pipeline is likely to attract private funding, it is most probable that public and donor funding are likely to be the only sources of financing for the proposed study.

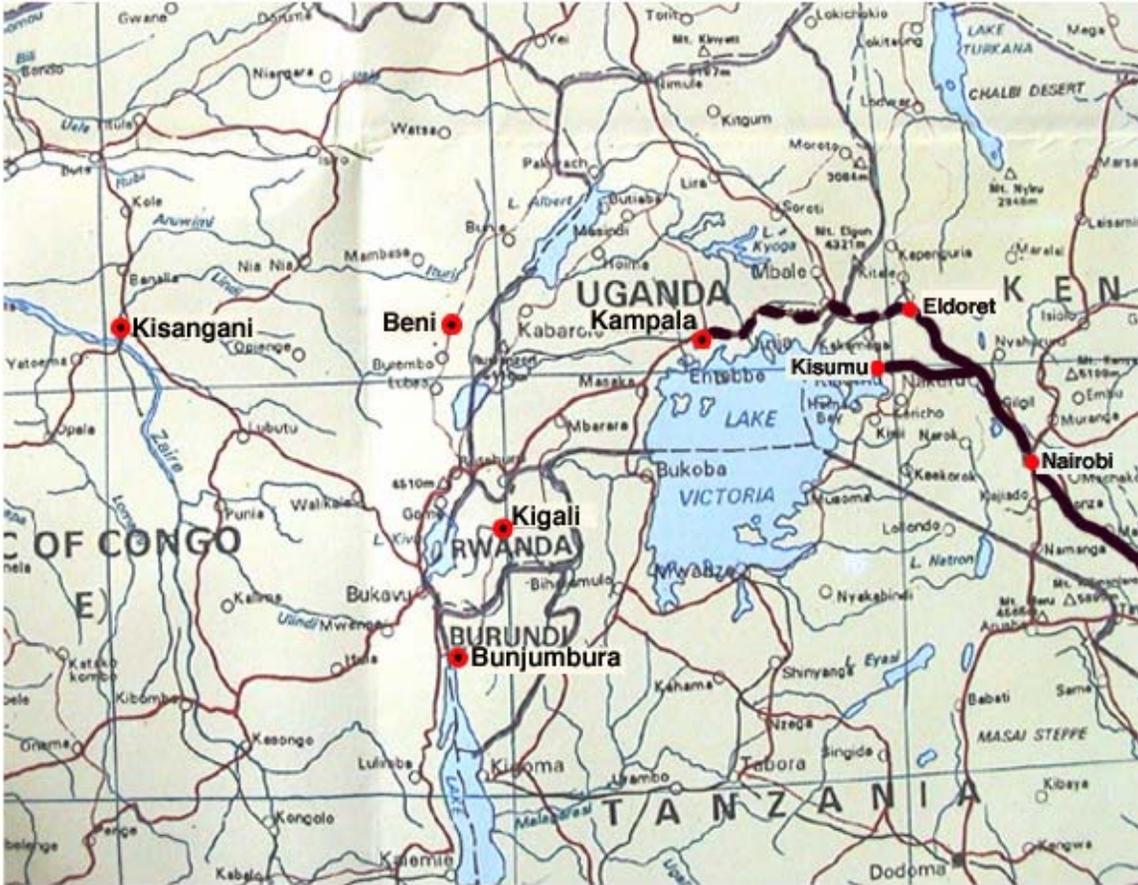
And finally, as a regional project, several countries will be involved in its implementation including the proposed study. The project will therefore call for close collaboration and commitment among the beneficiary countries, as well as among these and those others already benefiting from the delivery of the oil products by pipeline. Political commitment and goodwill, as well as willingness to contribute towards the cost of the project, are therefore essential to move it forward, to operate it as an integrated system for it to be efficient and effective.

REGIONAL OIL PIPELINE FEASIBILITY STUDY MATRIX

| Narrative Summary (NS) | Verifiable Indicators (OVI) | Means of Verification (MOV) | Important Assumptions |
|---|--|---|---|
| <p>Project Sector Goal:</p> <ol style="list-style-type: none"> To contribute to economic development and regional integration by providing easy access of oil products to the countries of the Great Lakes Region. | <ol style="list-style-type: none"> All the oil products to the Great Lakes transported by pipeline; Reduction of cost of transportation of these products, as well as that of road carnage and environmental degradation arising from road transportation of these products. | <ol style="list-style-type: none"> Statistics from the Government of the Great Lakes Region | <p>(Goal to Supergoal)</p> |
| <p>Study Objectives:</p> <ol style="list-style-type: none"> To elaborate the least cost means of transportation of oil products to the countries of the Great Lakes Region via a pipeline and prepare the project. | <ol style="list-style-type: none"> 1.1 Recommendations of the study adopted and preliminary designs prepared for the pipeline; | <ol style="list-style-type: none"> Study Progress Reports Supervision and audit reports | <p>(Project Objective to Goal)</p> <ol style="list-style-type: none"> Adequate commitments by the concerned governments and demonstration of strong political will; Strong commitment for public and private funding for the project; |
| <p>Outputs:</p> | | | <p>(Output to Project Obj.)</p> |

| | | | |
|--|---|--|---|
| <ol style="list-style-type: none"> 1. Recommended optimum mode of delivery of oil products to the region of the Greats 2. Socio-environmental assessment and identification of all issues and significant impacts, mitigation measures and related costs; 3. Recommendations of the most appropriate project financing and implementation strategies; 4. Recommendation on the most suitable institutional arrangements for project implementation and management of the pipeline. | <ol style="list-style-type: none"> 1.1 Feasibility study report accepted and recommendations adopted. 1.2 The Socio-environmental analysis report accepted after consultation with stakeholders; 2.1 The recommendations accepted and adopted, and project funding secured; 2.2 The recommendations accepted and adopted; | <ol style="list-style-type: none"> 1. Study progress reports 2. National statistical reports 3. Audit reports | <ol style="list-style-type: none"> 1. Timely adoption of the study recommendations; 2. Keen participation in the stakeholders' seminars and adequate consultations during study duration. |
| <p>Activities:</p> <ol style="list-style-type: none"> 1. Sourcing of Funding for the study. 2. Recruitment of Consulting Firm. 3. Execution of the study; 4. Stakeholders seminars; 5. Donors/Financiers conference on project financing. | <p>Inputs:</p> <p>Total study costs: US\$ 1,175,400 million</p> <p>Resources: TBD</p> <p>Financing Plan: TBD</p> | | <p>(Activity to Output):</p> <ol style="list-style-type: none"> 1. Timely sourcing of funding and commencement of the study. |

REGIONAL OIL PIPELINE PROJECT LOCATION MAP



KEY

- Areas of Consumption/ Off-loading
- Existing Oil Pipelines
- Proposed Eldoret /Kampala Oil Pipeline