FEASIBILITY STUDIES IN PPPS

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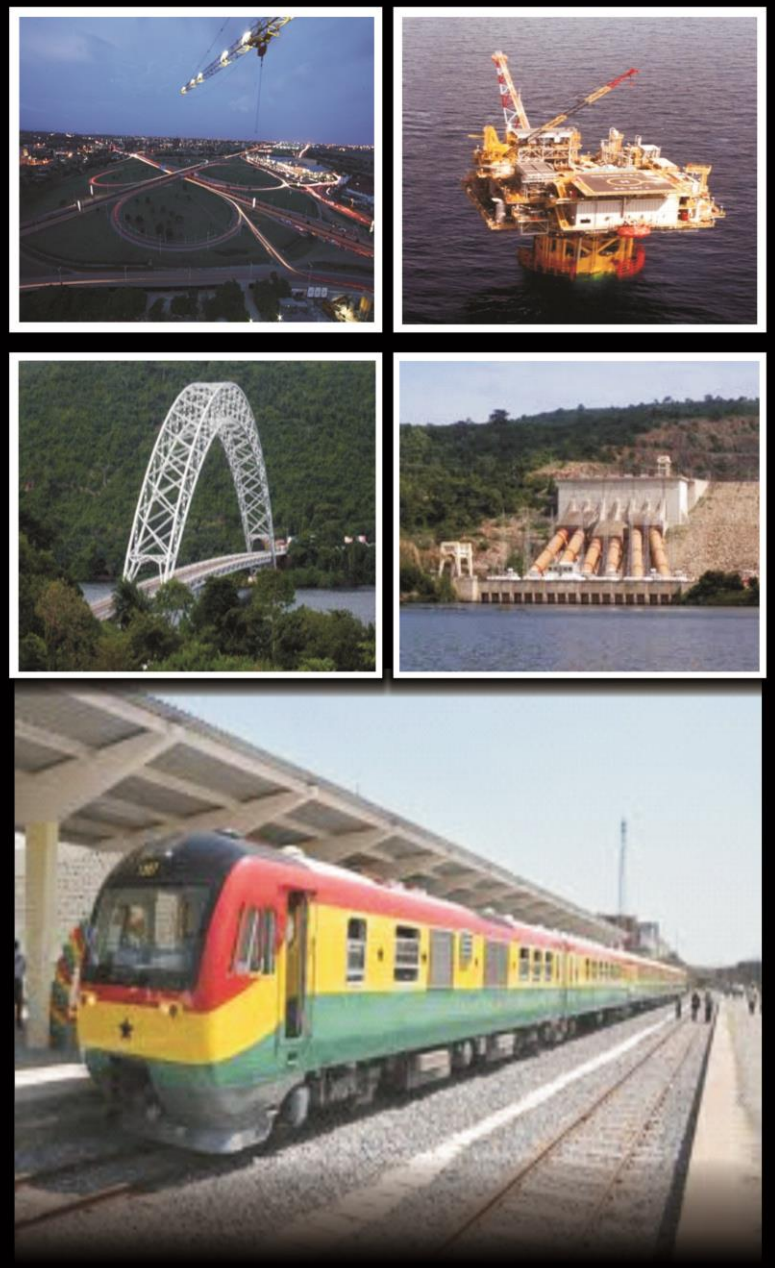


Outline of Presentation

Introduction

What is Feasibility Studies

Why Feasibility Study

Questions & Classwork

Stages & Content of Feasibility Studies

Who Does Feasibility Studies

Benefits of Feasibility

What is a Feasibility Study

- **Operational Definition**? -
- An analysis and evaluation of a proposed project to determine if it (1) is technically feasible, (2) is feasible within the estimated cost, (3) legally feasible, (4) environmentally sound, (5) will be profitable(financial, economic & commercial) and (6) managerial feasibility.
- Feasibility studies necessary where public funds, large or multi-interest are at stake/involved.
- Referred sometime as cost benefit analysis.

Why Feasibility Study

- To Follow International Best practice

- Know what?- Preparing for project
  - ❑Needs assessment- Explore objectives, preferences, constraints,
  - ❑Examination of options, structuring, PPP concept
  - ❑Major stakeholders can have an *informed* opinion
  - ❑Determine reward scheme, benefits, concession periods,
  - ❑Important risks and potential obstacles can be identified,
  - ❑An idea about cost, tariff levels and needed financing,
- Initial scrutiny and screening before more expensive stage

- **Practical Examples – 3 Ghanaian cases studies**

My Questions

Questions

- **Classwork**

(i) Which aspect of the feasibility study – you are doing or did well ;

(a) as private? (b) as public?

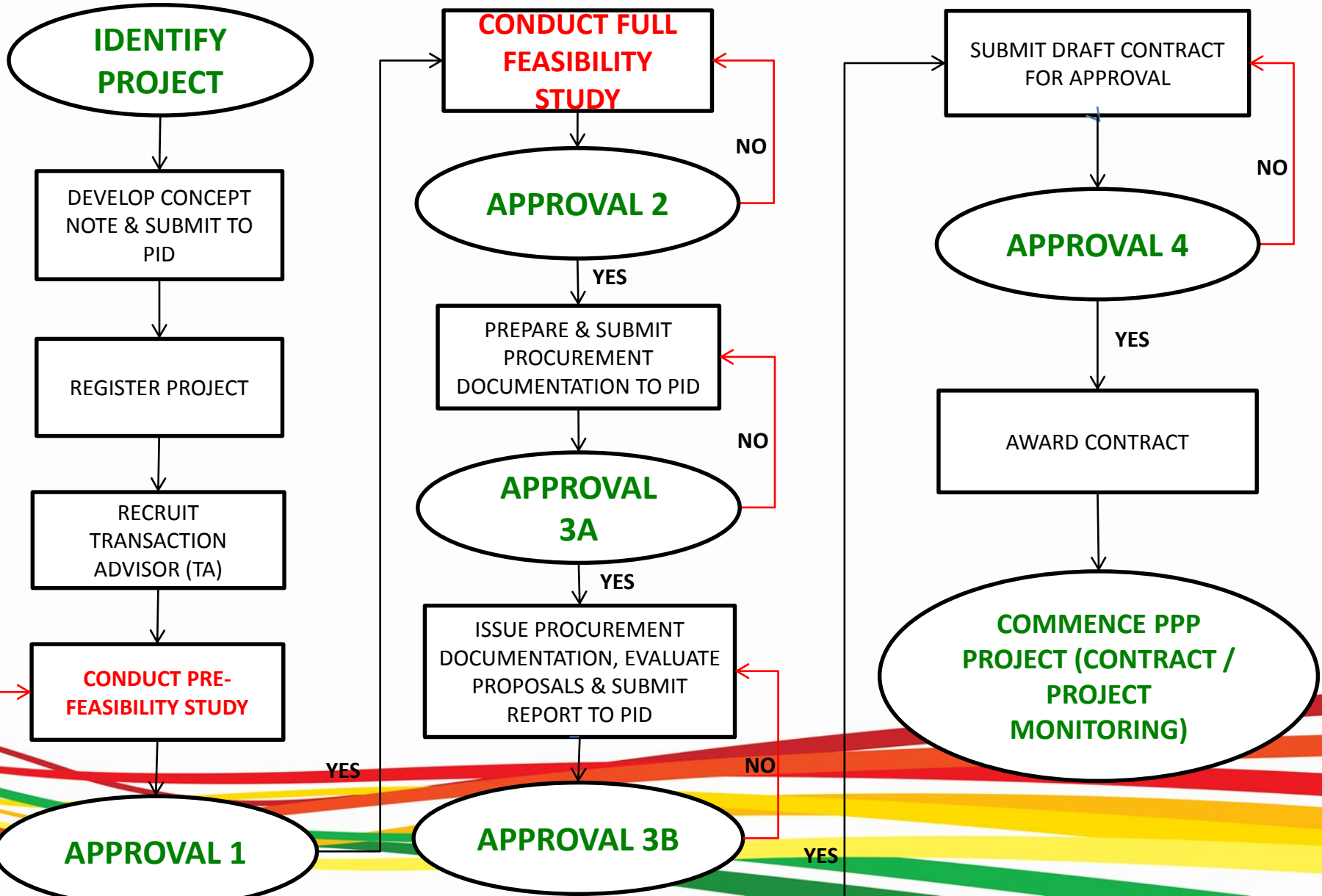
(i) Which aspect of the feasibility study- are you doing or did well;

(a)as private? (b) as public?

(iii) If different focus and emphasis why?

Answer all questions, start work

At What Stage for Feasibility Study



Stages of Feasibility Studies- Pre-Feasibility Study

To determine whether the proposed PPP is in the best interest of the Government, the Contracting Authority must undertake a pre-feasibility study that:

- Makes a business case in terms of the strategic and operational benefits of the proposed PPP for the Contracting Authority in line with its strategic objectives, and demonstrates the alignment of the project with the NIP and Government policy;
- Describes in specific terms nature of the Contracting Authority's function that will performed by a private party; and if any state property is being used, a description of the state property concerned;
- Indicates the possible location(s) and provides estimates of broad project costs, and an initial indication of whether the project is likely to be viable and affordable.

Approval I: ***No Contracting Authority may proceed with the full feasibility phase of a PPP without a prior written approval of their sector Ministry-PMU and a concurrent review by MOFEP-PID of the pre-feasibility study.***

Stages of Feasibility Studies- Feasibility Study

A Contracting Authority shall undertake and submit to MOFEP-PID a full feasibility study and appraisal of the proposed project. The full feasibility report should –

- Set out the proposed allocation of financial, technical and operational risks;
- Demonstrate if the PPP is affordable;
- Determine if the PPP requires any fiscal support
- Demonstrate the anticipated value for money to be achieved by the PPP;
- Provide detailed estimates of viability gap; and
- Determine the viability and bankability of the PPP

Approval II: ***A Contracting Authority shall not proceed with the procurement phase of a PPP project without a prior written approval of the PPP Approval Committee (and relevant Approval Authority depending on the size of the PPP***

Stages of Feasibility Studies- Feasibility Study

- This stage provides the basis for taking the decision on whether to conduct further study or to advance with the Design and Construction Phase of the Project;

- **Features**

❑ Accurate and thorough technical study of all the aspects of the project
❑ Forms the basis for the project investment decision

- **Purpose**

❑ To refine the Pre-feasibility study in a more conceptual manner
❑ To analyze the complete scope of the project including the capital investments and operational cost estimates, the detailed plant design and the complete economic model
❑ To describe the project scope and required service outputs in RFP stage based on the specifications developed in the Feasibility Study (*in case the Project is recommended by the Feasibility Study*)

Who should Undertake Feasibility Study

- The Organization (*itself*) –
  - Only if the organization has the technical capacity to undertake the study;
- External Consultants/Transaction Advisors –
  - Appointed in case the organization lacks the technical capacity to undertake the study;
  - Object analysis by third party to avoid a potential conflict of interests;

Contents of Feasibility Report

- Executive Summary
- The Project
- Basic PPP concept
- Responsibilities of the different parties
- Legal & Regulatory due diligence
- Technical aspects
- Financial
- Estimated capital costs
- Output specifications
- Payment mechanism
- Risk identification and allocation, including preliminary risk matrix
- Indexation and other change mechanisms (e.g. for extraordinary events)
- Other key commercial terms

Contents of Feasibility Study

- **Executive Summary**

- ❑ legal and regulatory framework,
- ❑ the technical, social and environmental
- ❑ Financial, including the government fiscal commitment or potential liability,
- ❑ administration and management structure,
- ❑ and the recommendations or conclusion of the study

The Project

- Background and origin of project idea
- Preliminary considerations
  - ❑ Needs and objectives, relation to sector strategy, national objectives,
  - ❑ Comparison of project options and selection of the preferred option or options
  - ❑ Suitability of project to be procured as a PPP (as opposed to a conventional public-sector project)

Contents of Feasibility Study

- **Basic PPP concept**
- The description of the concept, type of PPP, type of contract,
- The PPP Parties – assessment/evaluation of each party
- Options Analysis :
- Assessment of alternative options - conventional procurement and PPP
- Evaluation & Recommend Preferred PPP options
- The PPP guiding principles- how the project meets/satisfies the guiding principles- Proposed and preferred PPP Payment Mechanism
- Determination of government support required for the PPP project - make recommendation

Contents of Feasibility Report

- **Legal - Feasibility**

- ❑ Assess the legal backing for the contracting authority to undertake the project,
- ❑ Assess the legal backing for the private party to undertake the project,
- ❑ Evaluate the legal basis for the project,
- ❑ Assess if the parties are of good standing /reputation; no blacklist, no international sanctions, embargo, not bankrupt, etc.
- ❑ Assess if there is or will be the need for any change in policy or law to make the project feasible,
- ❑ Assess international laws, regional protocol, conventions and declarations

- **Regulatory Procedures**

- ❑ Assess if the project has followed the processes in the PPP law or relevant laws
- ❑ Assess if the appropriate authorities have consent to the project and the relevant approvals, permits, licences, no objections have been granted or will be granted.
- ❑ Legal opinion
- ❑ Any tax exemption, waivers, holidays, amnesty etc
- ❑ Any national security concerns?

Contents of Feasibility Report

- **Technical aspects**
- Provision and availability of land, utilities,
- Cleaning, clearing, removal, resettlement, compensation
- Survey, geotechnical analysis
- Employer's requirements, specifications, scope of work, list of equipment, standards, models, brands, versions, designs
- Designing and engineering- who approves it,
- Drawings and miniatures – who approves it
- Technology to be used – appropriate technology, brand, model, version- who approves it
- Upgrade in technology and new make who is responsible for upgrade? And what time /period,
- Any patent, rights or exclusivity, licenses, permit required for the use of the equipment or technology – who is responsible to acquire?
- Warranties, guarantees- who has the right or how is it transfer/assign to user
- Any performance bond- which type- bank or insurance, corporate, etc.
- **Construction**
- The EPC Contractor, its experience, track record,
- The consultant, who employs and pays the consultant,
- Supervision- who supervise the work of the contractor and the consultant,
- Period of construction, execution, installation, furnishing etc
- How are the contractor and the consultant paid, - loan disbursement – who finally approves, budget – what are the documents certifying payments;
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Contents of Feasibility Report

- **Operation and Maintenance**
- Who is the operator, its experience and track record,
- Who supervise the operator?
- What are the operational standards, performance benchmarks, indicators, scheme,
- How is the operator paid, what are the terms, fees, commission based, shares
- Any penalty or reward regimes,
- Expansion in volume, capacity, size, enhancement etc.
- What items or parts are subjected to maintenance, renewal, or upgrade?
- What are maintenance terms and conditions?
- What is the timing for maintenance?
- Any handing over or transfer? What is the period?
- What handing over conditions, for asset, or property,
- What criteria are used to evaluate the handing-over conditions?
- Who hand over to whom?
- Any salvage to be paid? How is it determined?

Contents of Feasibility Report- Financial

- **Assumptions**

Cost

- ❑ Project cost components; such as; EPC cost; any pre-construction cost not included in EPC cost, Pre-operative expenses, interest during construction etc.
- ❑ Project expenditure phasing during the construction period
- ❑ O & M Expenses for period and routine maintenance,
- ❑ Any cost for replacement, upgrade, rehabilitation

- **Revenue**
- Forecast pricing scheme, fees, rates, fares
- Growth in forecast pricing, fees, rates, fares, etc,
- Volume of production, generation, traffic count, demand, sales,
- Revenue : % realised, total, levels, growth in revenue levels,
- Analysis on revenue level – does it reflect the assumptions, it is realistic, is revenue sources comprehensive (main and other sources), cash-flow analysis, any recommendations
- **Financing**
- Project funding structure; % of grant, debt & equity and their disbursement schedule, structured financing scheme
- Mode of debt repayment or repayment schedule,
- Interest rate regimes, fees, interest capitalisation, returns, coupons etc
- Tenor: grace/moratorium, amortisation periods,
- Rev. realization depending on traffic forecasts comprising of local and through traffic and the section
- Analysis of the financing

- ❑ Determination of appropriate concession period/PPP period/O&M Period/Contract period

Contents of Feasibility Report

- Quantitative appraisal
  - ❑Financial appraisal (including an Excel financial model of the envisaged PPP project)
  - ❑Economic appraisal (value for money)
  - ❑Stakeholder impacts
  - ❑Public sector comparator
  - ❑Affordability of user charges, if any
  - ❑Budget requirements and assessment of budget sufficiency
  - ❑Fiscal impact and treatment of the PPP project in national accounts

Contents of Feasibility Report

- Implementation arrangements and next steps
  - ❑ Intended project team, governance (for project development), external advisors
  - ❑ Government clearances, approvals, and permits (already obtained or to be obtained)
  - ❑ Land acquisition issues (if relevant)
  - ❑ Social & environmental assessments
  - ❑ Envisaged bidding process, including major bid evaluation criteria
  - ❑ Project implementation schedule
  - ❑ Institutional arrangements for the monitoring and oversight of the PPP project after contract signing (both construction and operation phases)
  - ❑ Risks during project development and how they will be managed
  - ❑ Conclusion

Contents of Feasibility Study - Financial

- **GOG fiscal Commitments and liability,**
- Identification of assumed , direct and indirect financial commitment and contingent liability Including:

- ❑ Viability Gap Schemes ; buying down CAPEX, debt service support
- ❑ Guarantees : form of ;PNs, sovereign, bonds, Notes (MTNs or LTNs, CDOs, SKRs, WRs, derivatives instruments; hedging, SWAPs, securitisations)
- ❑ Letters of Credit (L/Cs)
- ❑ Performance Bonds
- ❑ Revenue or cashflow shortfalls and guarantees
- ❑ On-lending
- ❑ Commercial undertaking; including: **off-taking agreement, supply** (commodity raw or semi-finished/finished) **Contract or obligations**

Contents of Feasibility Study - Financial

- **Social and Environmental assessments**

- ❑ EPA permit
- ❑ Health & safety permits
- ❑ Possibility of depriving section or group of people from economic activities/livelihood,
- ❑ Possibility causing epidemic, out of diseases or effects,
- ❑ Possibility of causing floods, bush fires, forest and water or river degradations,
- ❑ Possibility of annihilation of special breed or spices of plants, animals or life,
- ❑ Possibility of causing social strives, civil war, genocides, etc.
- ❑ Possibility of infringing on cultural practices, prohibiting the use of cultural sites or performing cultural or ancestral rites.

Contents of Feasibility Report

- **Risk Considerations**
- Risk assumptions and identification of potential risk profile,
- Quantification & measurement of risks
- Methodology & mechanism for allocation, sharing and mitigation of risks
- **Procurement**
- Which Procurement method is adopted? Donor or local?
- Do the relevant authority approves of the method?
- Which institution, agency is in charge of procurement?
- Is there need for any procurement law waiver? Is it in line with relevant laws?
- **Management and Implementation of the Project**
- The management structure of the project,
- Governance issues
- Administrative issues; including HR policies, labour concerns,
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Benefits & Consequences

- **Benefits**
  - Stage within Budget
  - Avoid legal complications, litigations
  - Realize objectives of project
- Consequences
  - Project failures - during operations due to weak demand analysis or incorrect estimation of user willingness,
  - Adhoc preparation, procurement or delay projects and increase costs
  - Incorrect determination of scope of work may delay completion & realization of project
  - Poor feasibility study may lead to wrong choices – associated cost , time, legal, credibility & social consequences

THANK YOU