Feasibility Studies

Feasibility studies must include four sub-sections presented in the following table:

Table 1.1. Feasibility Study Format

Category	Factors and Questions Considered
A. Economic and financial analysis	A1. What is the expected breakdown of project costs?
	A2. What is the breakdown of costs over time?
	A3. What is the expected breakdown of benefits? State benefits in monetary terms if possible.
	A4. What is the expected breakdown of benefits over time?
	A5. If benefits cannot be measured in monetary terms, what is the expected breakdown of the costs over time of two main alternative projects that would achieve similar goals?
	A6. How will the main financial impacts of the project be managed and monitored?
B. Technical analysis	B1. What is the rationale for the selected technical design or approach?
	B2. How well does the technical approach conform to standards?
	B3. What are the technical and managerial risks for implementing the project effectively?
C. Social Impact	C1. What are the opportunities, constraints, impacts and risks arising out of the socio-cultural and political context?
	C2. Other social issues important in the project? If so, how?
D. Environmental Impact	D1. What are the expected environmental impacts and mitigation plans?

The first category, economic and financial analysis, focuses on understanding the costs and benefits of the projects, which could enable a preliminary cost-benefit or cost-effectiveness analysis. It also asks for an explanation of the financial management aspects of the project. The questions in this category are focused on identifying the following:

- A1.What is the expected breakdown of project costs? Feasibility studies (FS) have to describe in a detail manner the breakdown of all costs related to the project. The proposal must specify and briefly describe what are the sources of each costs, and what is their total estimated value (in current prices). Note that some projects have infinite annual costs of maintenance, which should also be specified For

example, a project consists of the following total costs over time, denoted in IQD millions, using 2014 prices)

- Cost of Engineering and Design Services - 2,050
- Cost of Construction: Machinery, Workers, etc. – 30,000 Cost of Legal and Accounting Services – 3,500
- Cost of Marketing for the project - 2,000
- Cost of Maintenance of the Project over time – 5,000 Annually

The proposal must include a brief explanation of each item and sum up the total costs.

- A2.What is the breakdown of costs over time? FS must incorporate a description of the costs of the project though time. The categories described in the previous question must be identified through time. A useful way to present this would could be seen in Table 4.2:

Table 1.2. Example of Breakdown of Costs over Time in a Feasibility Study (IQD millions, 2014 prices)

Item	2015	2016	2017	2018	2019	2020 and Beyond
Engineering and Design Services	1,000	1,000	50			
Construction		10,000	10,000	10,000		
Legal and Accounting Services	1,000	1,000	500	500	500	
Cost of Marketing for the project			1,000	1,000		
Cost of Maintenance of the Project over time					5,000	5,000 Annualy
TOTAL	2,000	12,000	11,550	11,500	5,500	5,000 Annualy

- A3.What is the expected breakdown of benefits? FS state benefits in monetary terms if possible. It is convenient to list all categories affected by the project and add a monetary value (positive or negative). For example, if the proposed project is a tunnel

that will connect to cities, the expected breakdown of benefits could be related to the estimated amount of money that potential beneficiaries could save in terms of time to travel from one city to another or the job creation associated with it. It is important to specify clearly when benefits are expected to continue occurring periodically in the future. For Example:.

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    - Expected Benefits (IQD millions, 2014 prices):
        - Save of Travelling time: Annual benefit of 10,000 starting 2017.
        - Job Creation: Benefit of 19,000 until 2017, and annual benefit of 2,000 starting 2018.

MOP will provide guidance on the methodologies to be used for quantifying benefits. This will include instructions on how to estimate the average value of a time unit or a job.

- A4.What is the expected breakdown of benefits over time? The breakdown of benefits in the previous question has to be detailed through time similarly to the breakdown of costs. Table 1.3 provides an example.

Table 1.3. Example of Breakdown of Benefits over Time in a Feasibility Study (IQD millions, 2014 prices)

Item	2015	2016	2017	2018	2019	2020 and Beyond
Time Savings			10,000	10,000	10,000	10,000 Annually
Job Creation	5,000	5,000	5,000	2,000	2,000	2,000 Annually
TOTAL	5,000	5,000	15,000	12,000	12,000	12,000 Annualy

- A5. If benefits cannot be measured in monetary terms, what is the expected breakdown of the costs over time of two main alternative projects that would achieve similar goals?

This question refers to only a small subset of projects that their benefits cannot be specified in monetary terms. For example: building 1 large hospital can that can treat 10,000 patients annually could be contrasted with 2 medium-size hospitals that treat 5,000 patients each, with each hospital specializing in a different area of medicine. Assuming the benefits to the population are similar, the costs of the two options should be contrasted.

- A6. How will the main financial impacts of the project be managed and monitored? FS must describe how the project will monitor the financial impacts of the project through time. Financial indicators, internal and external evaluations could be incorporated to monitor the financial impacts of the project.

The second category "Technical Analysis" focuses on understanding the central technical aspects of the proposed project. These will enable an assessment of potential risks to the effective and timely implementation of the project.

- B1. What is the rationale for the selected technical design or approach? FS must describe the reason behind the decision to select a specific technical design or approach. If the selected approach is not the one that is normally used for this type of projects the FS must document the reason for selecting this alternative compared to the standard.

- B2. How well does the technical approach conform to standards? FS must include technical information on how the technical design or approach conforms to national or international standards. Other good practices or innovations that could impact the project must be documented.

- B3. What are the technical and managerial risks for implementing the project effectively? FS must describe if the technical design or approach compromises the implementation of the project and its outcomes, using a 4-letter scale.
    - High Risk (H)—greater than 75 percent probability that the outcome/result will not be achieved.
    - Substantial Risk (S)—probability of 50 - 75 percent that the outcome/result will not be achieved.
    - Modest Risk (M)—probability of 25 - 50 percent that the outcome/result will not be achieved.
    - Low or Negligible Risk (N)—probability of less than 25 percent that the outcome/result will not be achieved.

A suggested format for describing these risks appears in table 1.4:

Table 1.4. Format for Assessing Risks in a Feasibility Study (IQD millions, 2014 prices)

Source of Risk	Level of Riskiness to project implementation	Level of Riskiness to project outcomes	Risk Mitigation Measures	How does the technical design or approach compromise the implementation of the project
Engineering Design	M	N		
Financial Soundness of Contractor	M	N	Loan Guarantees to Contractor	
Corrupted management of facility	N	S	Monitoring System	

The third category related to the social impacts asks to map the opportunities, constraints, impacts and risks that appear in the social, cultural and political context. These factors are usually non quantifiable and therefore are not covered in category A, although they may be key for the success of the project.

- C1. What are the opportunities, constraints, impacts and risks arising out of the socio-cultural and political context? FS must describe if the project poses risks, creates opportunities, constraints or there could be social impacts due to its implementation. For example, vulnerable populations

- C2. Are any of the following social issues important in the project? If so, how?
    - Differential access to project benefits
    - Traditional rights or entitlements
    - Conflicting demands on the same resources
    - Positions of expected winners and losers
    - Risk of adverse social impacts of the project
    - Social risks to the project
    - Public perception and degree of voice in governance
    - Adequacy of targeting and delivery mechanisms

Finally, the environmental assessment category asks to explain the effects such a project could have on the physical environment and how these effects should be mitigated. A more detailed environmental assessment will be required separately, as explained in the next section of this report.

- D1. What are the expected environmental impacts and mitigation plans?