Workshop on project preparation process with reference to EU and WBIF requirements

Overview of Pre-feasibility Studies and Feasibility Studies

Assen Antov, JASPERS 30 November 2023, Belgrade





European Investment Bank





Topics to be discussed



- Approach to the preparation of Pre-feasibility Studies (PFS) and Feasibility Studies (FS)
- Scoping of PFS and FS typical contents and requirements regarding:
 - Relevance of planning documents
 - Terrain studies (investigation works)
 - Identification and comparison of alternatives
 - Climate change vulnerability and risk assessment
 - Qualitative risk assessment
 - Demand analysis
 - Environmental analyses
 - CBA (and cost-effectiveness)
 - Design work
 - Cost estimates

Stages of project preparation



- Pre-feasibility studies
- Feasibility studies (often with preliminary design)
- Detailed design
- Environmental and Social Impact Assessment (ESIA; often at the stage of FS)
- Other administrative activities

Pre-feasibility Study



- Project context and study scoping
- Definition of objectives
- Study of the constraints
- Definition of alternatives
- Comparison of alternatives

Problems: limited time and resources devoted to this stage; poorly defined objectives; poorly performed comparison of alternatives

Feasibility Study (1/2)



- Definition of objectives and study scoping
- Terrain studies
- Environmental study
- Climate change vulnerability and risk assessment
- Road safety impact assessment
- Qualitative risk analysis
- Design of alignment options
- Cost estimates

Feasibility Study (2/2)



- Demand forecast
- Option analysis
- Preliminary design of preferred option
- Road safety audit
- Cost-benefit analysis (preferred option)
- Environmental procedures

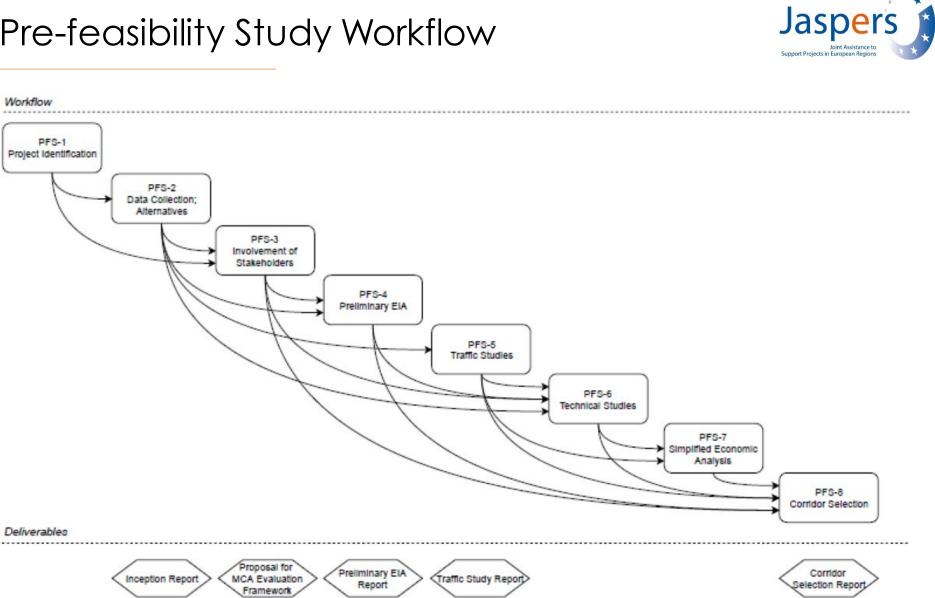
Problems: limited time and resources devoted to the stage (hence poor terrain studies); poorly defined project objectives; poorly performed comparison of alternatives

PFS and FS – a comparison



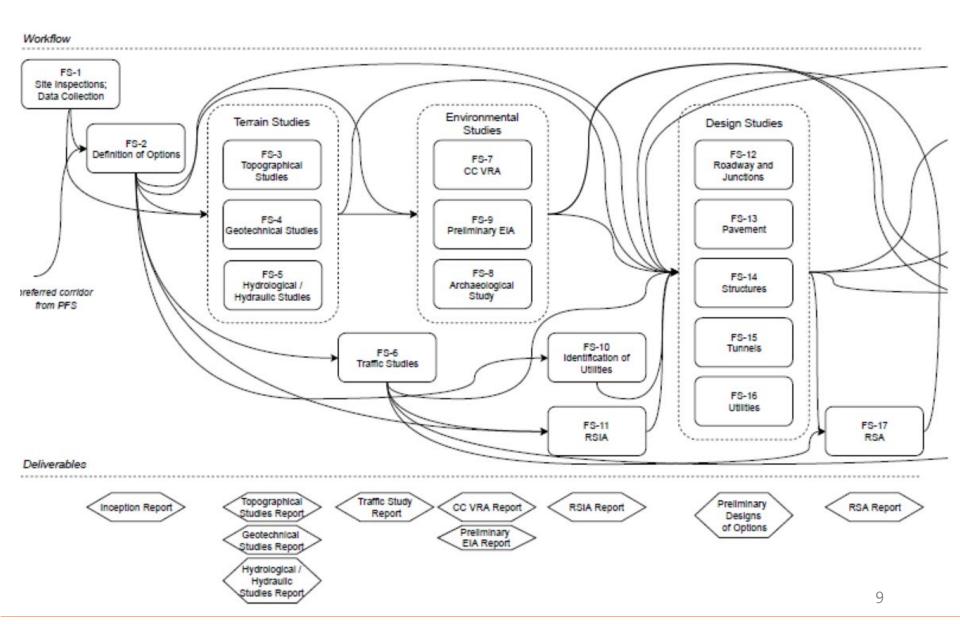
_	Prefeasibility Study (PFS)	Feasibility Study (FS)
Definition	An overview study aimed at studying the objectives	Detailed analyses of economic and technical feasibility of options
Policy Analysis	Examination of macro aspects of the project	Not applicable in most cases
Economic Analysis	Simplified analysis to determine the scope of detailed FS	Precise and detailed analysis of two or more options; demonstrates the feasibility of the preferred option
Technical feasibility analysis	Mostly based on existing literature and studies	Detailed technical analyses, e.g. topographical, geotechnical, hydro- geological, hydraulic; costs estimation; environmental impacts
Options	Fundamentally different; should be possible to differentiate between them using mostly qualitative criteria.	The options should be similar enough to allow comparison using quantitative criteria

Pre-feasibility Study Workflow



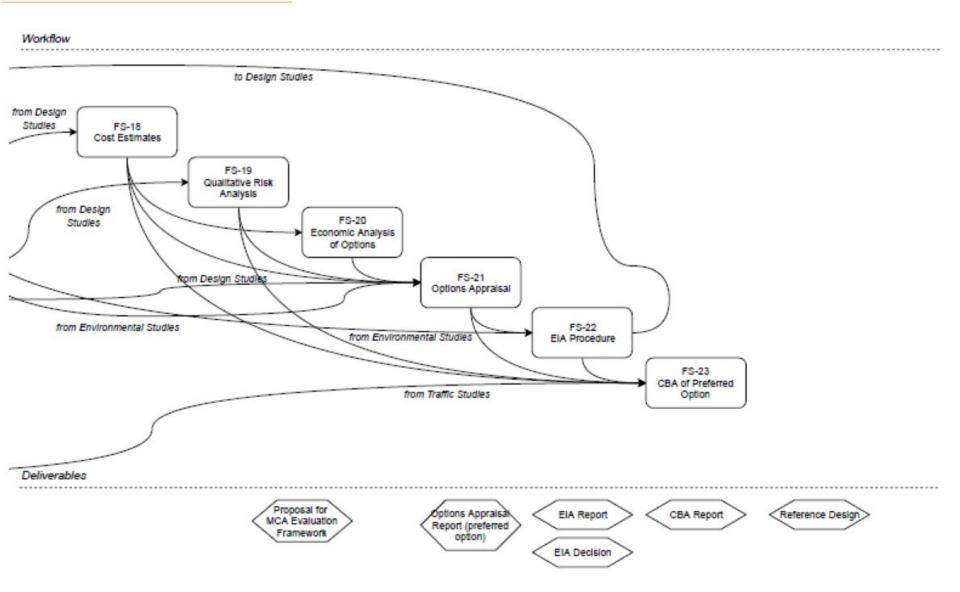
Feasibility Study Workflow (1/2)





Feasibility Study Workflow (2/2)







Coffee break