CONCEPT

Cost-Benefit Analysis and Economic Appraisal of Public Investment Projects

31 January – 4 February 2027
Riyadh - KAFD district five-star



Cost-Benefit Analysis and Economic Appraisal of Public Investment Projects

Ref: 913_21295 **Date:** 31 January – 4 February 2027 **Location:** Riyadh - KAFD district five-star **Fees:** 20000 SAR

Introduction:

Public investment budgets are often committed to projects whose economic case was never tested: financial returns are mistaken for economic value, transfers are counted as benefits, the counterfactual is left undefined and time, safety and environmental effects go unpriced. This Core Concept course equips appraisal, planning and investment staff to carry out cost-benefit analysis to an advanced standard, from shadow pricing and the social discount rate to economic NPV, EIRR, switching values, distributional and fiscal analysis. Participants produce a Cost-Benefit Appraisal Report with a working economic model for a public infrastructure case.

Course Objectives:

- Separate financial from economic appraisal and place each within the stages of the public investment cycle
- Define project options against a with-and-without counterfactual and isolate incremental economic costs and benefits
- Convert market prices to economic values using shadow prices, conversion factors and the removal of transfers
- Monetise non-market effects such as travel time, accident reduction and environmental change with recognised valuation techniques
- Calculate economic NPV, EIRR and the benefit-cost ratio at a justified social discount rate and test them with switching values
- Rank competing proposals in an investment pipeline using distributional, fiscal and multi-criteria evidence alongside the economic results

Target Audience:

- Public investment and capital budgeting units that screen and approve project proposals
- Planning bodies that prepare sector investment programmes and multi-year project pipelines
- Finance and treasury departments that assess fiscal exposure and value for money of spending requests
- Development agencies and lenders that appraise infrastructure and social sector operations
- Line agencies that prepare economic analyses for transport, water, energy and urban projects

Course Outline:

Day 1: Economic Appraisal Foundations and the Public Investment Cycle

- Financial Versus Economic Appraisal: Perspective, Prices and Transfer Payments
- Public Investment Management Cycle: Identification, Appraisal, Selection and Implementation
- Appraisal Stage Gates: Concept Note, Pre-Appraisal Screening and Full Economic Appraisal
- Problem Definition, Objectives Tree and Stakeholder Incidence Map
- Ex-Post Evaluation Findings as Feedback Into Appraisal Parameters

Day 2: Options, Counterfactual and Shadow Pricing

- Long-List Option Generation and the Do-Minimum Counterfactual
- With-and-Without Incremental Economic Flow Framing
- Traded Goods at Border Prices and the Standard Conversion Factor
- Shadow Wage Rate for Surplus Labour and the Foreign Exchange Premium
- Stripping Taxes, Subsidies and Transfers From the Economic Flow Statement

Day 3: Monetising Benefits and Computing Economic Returns

- Willingness to Pay: Revealed Preference and Stated Preference Techniques
- Travel Time Savings, Vehicle Operating Costs and Accident Reduction Values
- Environmental Externalities: Hedonic Pricing, Travel Cost and Benefit Transfer
- Social Discount Rate: Opportunity Cost of Capital, Time Preference and the Ramsey Formula
- Economic NPV, EIRR and Benefit-Cost Ratio Spreadsheet Computation

Day 4: Risk, Distribution, Fiscal Impact and Pipeline Ranking

- Sensitivity Tables, Switching Values and Scenario Combinations
- Expected Economic NPV From Probability-Weighted Parameter Ranges
- Distributional Analysis: Gainers and Losers Table and Distributional Weights
- Fiscal Impact Statement: Capital Outlays, Recurrent Costs, User Revenues and Contingent Liabilities
- Multi-Criteria Analysis and Ranking a Capital Pipeline Under a Budget Ceiling

Day 5: Capstone: Cost-Benefit Appraisal of a Public Infrastructure Case

- Case Brief: Intercity Road Upgrade and Water Supply Scheme With Competing Options
- Economic Model Build: Conversion Factors, Valued Benefits and Residual Value
- Results Table: ENPV, EIRR, Benefit-Cost Ratio and Switching Values for the Preferred Option
- Distributional and Fiscal Annex Drafting for the Case Project
- Cost-Benefit Appraisal Report Defence Before a Mock Investment Committee

Skills You Will Gain:

- Economic Price Conversion
- Counterfactual Specification
- Non-Market Benefit Valuation
- Discount Rate Justification
- Switching Value Analysis
- Distributional Incidence Analysis
- Fiscal Exposure Assessment
- Investment Pipeline Prioritisation

Why Attend This Course:

- Leave with a Cost-Benefit Appraisal Report and a working economic model built on a public infrastructure case
- Challenge proposals that count transfers as gains, omit the counterfactual or understate recurrent costs
- Explain to decision makers which assumptions would reverse a recommendation, using switching values
- Compare appraisal practice with planning, finance and development agency peers from transport, water, energy and urban sectors

Conclusion:

A public project earns its place in the budget when its economic benefits, valued at prices that reflect scarcity, exceed its economic costs under a clear counterfactual. The course moves from the investment cycle and the financial-economic distinction, through shadow pricing and benefit valuation, to economic returns, risk, distributional and fiscal tests and pipeline ranking. The final day applies the whole method to an infrastructure case and produces a Cost-Benefit Appraisal Report defended before a mock investment committee.