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Capital budgeting

PAD 642

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Features of capital assets

- Time duration: capital assets have the capacity to provide benefits for the future. The construction of capital assets usually takes several years.
- Large size of expenditure
- Debt financing
- Multi-year planning
- Future impact
- Intergeneration equity
- Irreversible once built

Examples of capital projects



Parks and recreation facilities..



Office buildings and equipment..



Water, sewer, waste, utility facilities..



Roads, bridges, ports, parking facilities..



School buildings, hospital buildings..



Business centers, sport stadiums..



Public buses, railway, airports..



Broadband, internet, 5G..

Why infrastructure is important?

- Foundation for economic development
- Essential for public service delivery
- Safety issues
- Equity and accessibility issues

The importance of financial management with capital projects

- Capital projects are expensive and risky.
- It takes multiple years to construct and usually requires continuous maintenance.
- Long term financing tools are used to pay for capital projects.

A separate capital budget

- Different types of expenditures: expenses vs. investments
- Different funding sources: general tax dollars vs. debt financing
- Different levels of risk: low vs. high
- Timing requirements: annual vs. long term
- Monitoring: allows cost analysis and monitoring

Development of a Capital Investment Plan

- Step 1: Identifying present service characteristics.
  - Inventory of existing facilities: age, condition, capacity, degree of use
  - Replacement cycle
  - Legal and professional standards
- Step 2: Identifying environmental trends.
  - Estimated future service requirements
  - Strategic plan

Development of a Capital Investment Plan

- Step 3: Developing service objectives.
  - Efficiency and equity
  - Health, safety, environment, social impact
  - Economic effects
  - Political feasibility, public support, citizens' inputs
  - Uncertainty and risk
- Step 4: Preliminary listing of capital projects and costs estimates.
  - Rehabilitation of existing facilities
  - Replacement of existing facilities
  - Adding new facilities.

Development of a Capital Investment Plan

- Step 5: Identifying financial resources.
  - Tax
  - Donations
  - Intergovernmental grants from federal and state governments
  - User fees, and special impact fees.
  - Debts: GO or revenue bond
  - Tax increment financing (TIF)
  - Capital reserve fund
  - Public private partnership (PPP)
  - Infrastructure bank
  - Capital lease, or Certificate of participation

Development of a Capital Investment Plan

- Step 6: Analyzing and selecting projects for the plan.
  - Cost-benefit analysis
  - Rate of return analysis
  - NPV or NPC analysis
  - Annualized costs
  - Payback period

Development of a Capital Investment Plan

- Step 7: Identifying implications for future recurrent costs.
  - Planning and feasibility study
  - Environmental and professional service
  - Land acquisition
  - Construction and development
  - Improvements, maintenance costs
  - Contingency funds, furniture, equipment
  - Staffing
- Step 8: Including the first year of the capital investment plan to the budget.
  - Hearings
  - Legislative approvals

Asset Management

- Asset decline
  - Diminished role of federal assistance for capital investment.
  - State and local fiscal stress impacts on capital investment.