

## **Appendix №1**

### **Public Investment Management Guidelines**

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## Chapter I

### Key Concept of Public Investment Management Guidelines

#### Article 1. General Provisions

1. “Public Investment Management Guidelines” (hereafter the "Guidelines") are designed to assist budgetary organizations to evaluate capital investment proposals in a consistent and comprehensive manner and to prioritize competing projects, which is an essential part of the national and sector economic entity’s strategic planning and budget preparation process.

2. The Guidelines determine specific criteria in order to ensure consistency and standardization in the project pre-selection, appraisal and selection/budgeting process.

3. The Guidelines define the overarching framework for public investment projects, on the basis of which the Minister of Finance of Georgia approves the "Methodological Manual for Public Investment" as part of the capital budgeting methodology.

4. The Guidelines provide rules and procedures for developing investment projects and define the roles and responsibilities of bodies involved in each stage of the PIM process prior to implementation of a capital investment project. The Guidelines enable to evaluate different capital investment proposals in a consistent manner and to prioritize competing projects in a strategic planning and budgeting process in the context of the national, sectoral and regional economics.

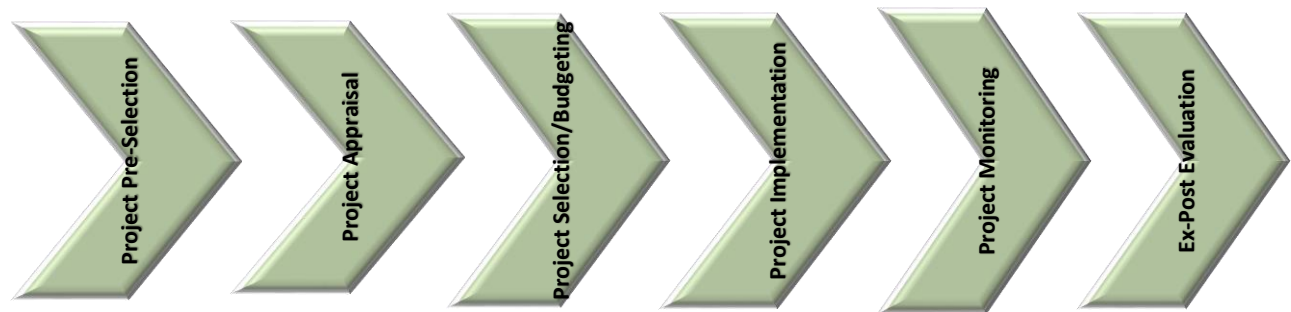
#### Article 2. Key Stages of Public Investment Management

1. According to the best international practices<sup>1</sup> Public Investment Management process consists of six essential features: project screening/pre-selection, project appraisal, project selection/budgeting, project implementation, project monitoring and ex-post evaluation (see Figure №1). All stages shown on the Figure №1 are discussed in the Guidelines. These stages will be discussed in more detail in the Methodological Manual.

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<sup>1</sup> The World Bank has developed a diagnostic framework for PIM, which provides a systemic view over each of the steps of the public investment cycle. The framework is designed to assist government units with responsibility for PIM to ensure that there are no loopholes that can affect the quality of capital spending. The framework identifies “eight must-have” features of the PIM cycle with corresponding desirable institutional arrangements for each stage to provide a degree of assurance that there are no systemic shortcomings and that public monies are used efficiently and effectively. The eight features are: project screening/pre-selection, project appraisal, independent review of appraisal, project selection/budgeting, project implementation, project adjustment, project monitoring, and ex-post evaluation. The World Bank's eight features framework will be used as a model, which was adapted in accordance with the Public Investment Management system in Georgia (both in terms of the legal framework and the actual practice) and was transformed into six features framework. It means that the ‘independent review’ function forms part of project appraisal and ‘project adjustment’ forms part of project implementation. For more detailed information on the World Bank PIM eight features, see the document: „*The Power of Public Investment Management: Transforming Resources into Assets for Growth*“, A. Rajaram, Tuan Minh Le, Kai Kaiser, Jay-Hyung Kim, and Jonas Frank, Directions in Development, World Bank, 2014.

**Figure 1: Key Features of the Public Investment Management Process**



2. Procedural requirements, key roles and responsibilities of the involved parties, as well as the roles of a project proposer/planner, an appraiser, a reviewer, and/or a decision maker are stated in the Guidelines.

3. According to the Guidelines, investment projects are all **financially significant public investment projects that are financed (or co-financed in cases determined under the Guidelines)** with funds provided by the budget and all projects, considered as such, **with an estimated total project cost of GEL 5.0 million or more.**

4. Regulations set out in this Guideline do not apply to the projects financed by donors under the ratified agreements through observing the basic principles of investment project management.

5. The Government of Georgia may temporarily limit the application of this rule for certain projects.

6. Public investment project implies capital expenditure through a project made by or on behalf of central government, a local self-government, budget organizations of Autonomous Republic and / or through their own budgets.

7. For projects co-financed with the State Budget or the budget of Autonomous Republic through cooperation with private sector, the Guidelines apply only when the total project cost is GEL 5.0 million or more, and the size of co-financing born by the relevant budgetary funds is or exceeds 30% of the total cost.

8. The guidelines do not apply to the projects relating to the liquidation of the consequences of natural disasters.

### **Article 3. Definitions**

1. Some definitions applied in the Guidelines are:

**a) A Capital Project** is a group of activities with clearly defined objectives and outputs implemented over a fixed time schedule and through a temporary organizational structure. It should encompass all the activities and resulting outputs required to deliver sustainable benefits to the targeted final beneficiaries.

Investment Project is a large-scale investment project, the final product of which becomes an integral part of the economic activity or significantly facilitates economic development. Capital Project involves the creation of important infrastructure or significant and substantial improvement of the existing one.

While identifying the investment project, it is essential that the project should be linked to the deliberate investment decision that can be taken at any time and that is independent of the asset's condition. The project is expected to significantly increase the performance or capacity of the asset, or the life expectancy and the cost of the asset. Investment (capital) projects are distinguished from maintenance, repair and rehabilitation of the existing assets. Investment projects include the rehabilitation of fully depreciated assets.

**b) Capital expenditure** is the expenditure on the acquisition of fixed assets. Fixed assets include tangible assets (buildings, structures, machinery, equipment) and intangible assets (information, communication, IT systems). Capital expenditure extends to major improvements (renovations, reconstructions or enlargements) of existing fixed assets. Capital expenditures are distinguished from maintenance and repair, because they require a deliberate investment decision that is independent of the asset's condition. Such expenditures significantly increase the performance or capacity of an existing fixed asset or significantly extend its previously expected service life, thus increasing the value of the asset. Major rehabilitation of a poorly maintained asset is considered as capital expenditure.

**c) Total project cost** - all costs and expenses required for a capital investment project, the total amount of financial resources necessary in order to achieve the envisioned results/outputs of an investment Project, regardless of funding source (state budget funding, donors funds, loans and/or contributions of the beneficiary).

**d) Final beneficiary** - End-user of a new or improved product and/or service delivered through a public investment project.

**e) Project pre-selection** - a process by which a preliminary assessment of a project's strategic case, rationale, budgetary impact affordability and viability is made. This constitutes the first stage in the PIM process and involves preparing a project concept note as a basis for decision-making.

**f) Project appraisal** – a process for making a decision on the project (including doing nothing) with the highest social and economic viability on the basis of a feasibility study.

**g) Project prioritization / selection** - a process of comprehensively ensuring the most preferred option and making recommendations to final decision.

**h) Project concept note** - An outline of the project concept prepared at pre-selection stage, after project identification and before a decision to undertake an in-depth feasibility study.

**i) Feasibility study** - An analytical study prepared at appraisal stage, combining technical, economic and financial, as well as environmental and social assessments of a project proposal and carried out to reach conclusions on the overall feasibility and sustainability of a potential capital investment project.

**j) Cost-benefit analysis (CBA)** - quantitative assessment of costs and benefits of the project in monetary terms on the basis of alternative cost estimation.

**k) Cost-Effectiveness Analysis (CEA)** – determination of envisioned results of the project and choosing a project strategy to deliver them that minimizes total discounted capital and recurrent costs. This method is used where it is difficult or costly to place a monetary value on benefits or for choosing between alternatives that will deliver the same or very similar benefits/outputs. CEA can also take the form of calculating the cost per unit of output (that is, the non-monetized benefit).

**l) Net present value (NPV)** - sum of the discounted annual values of the net benefits of a Project (benefits minus costs).

**m) Internal Rate of Return (IRR)** - discount rate that gives an NPV of zero for a particular set of annual net benefits. This is the rate, which equalizes the sum of the discounted costs and the sum of the discounted benefits.

**n) Benefit cost ratio** - The ratio of total discounted benefits over a project's life to total discounted costs.

**o) Environmental impact assessment (EIA)** - Consistent with the meaning defined by Georgian Legislation and prepared in accordance with the Georgian Legislation.

**p) Social impact assessment** - an assessment of a project's potential negative and positive social consequences, such as effects on income distribution, poverty, unemployment, gender equality and others. A social impact assessment looks at who loses or gains from a project rather than the total value to society of the losses and gains (these are captured through the social cost-benefit analysis).

**q) Opportunity cost** - the value of a resource in its best alternative use. In economic analysis, the opportunity cost of a purchased input to a project is its marginal social value in its best alternative use (not related to the project), or its value in use (measured by willingness to pay) if it is a final good or service.

**r) Shadow price** – the opportunity cost of a good or service, which can be different from its market price or a regulated tariff. Shadow prices are used in economic analysis to better reflect the real resource costs to society and the real benefits of the outputs.

**s) Resource Cost** – the true economic cost of a good or services. It differs from a 'cost', such as a tax or customs duty, which is not a cost to the economy as a whole, but merely a transfer payment from one group of society to another.

**t) Externalities** - a cost or benefit of a project which does not accrue directly to the entity undertaking the project (that is, it cannot be reflected in the financial accounts because there is no market valuation) and which cannot be directly attributed to the project in terms of financial flows. Externalities can be both positive and negative.

**u) Project Performance** - performance of a project is measured in terms of its economy, efficiency and effectiveness. Economy means project inputs will be acquired at an acceptable quality standard and the lowest cost. Efficiency means the quantity of inputs used to produce a given project result/output will be minimized. Effectiveness means the project results/outputs will contribute to the successful achievement of the project purpose (and by extension the goal). It may take some time before there is sufficient evidence to demonstrate that a project has been effective.

**v) Discounting** - the process of reducing future values of costs and benefits for reflecting the value which is given to the costs and benefits in comparison to the existing value. „Discounting rate”

is an annual rate similar to the negative interest rate, on the basis of which future costs and benefits are reduced in order to determine comparable current values.

## **Chapter II**

### **Project Pre-Selection Stage**

#### **Article 4. Key Concept and Goal of the Project Pre-Selection Stage and Mechanism for Revealing a New Project**

1. Project pre-selection is a process by which an overall assessment of the project's strategic objectives, rationale, viability and budgetary impact is made.

2. The goal of the project pre-selection process is to exclude such projects, which are not consistent with the priorities of the Government or a particular sector, region or municipality, or which are probably not cost-effective and/or are less effective from economic point of view due to budget constraint.

3. The pre-selection process ensures:

a) Determination of the project's rationality in terms of logistics, risk and sustainability;  
b) Exclusion / rejection of alternatives not suitable for the project and identification of suitable alternatives for further consideration.

4. Possible mechanisms through which a new project can be identified:

a) Obtaining information on the condition and remaining service life of specific state assets through the asset management systems and identifying those assets that will require a replacement / modification in the nearest future;

b) Priority fields for public investment will be revealed through various regional and sectoral strategic plans, which will contribute to the identification of the Project;

b) Identification of specific projects and their priority sequencing is possible through general plans developed for the major fields of infrastructure;

c) Involvement of relevant stakeholders, including local communities.

5. The pre-selection process includes preliminary assessment of the project's strategic importance, validity and impact on the social environment and the budget.

6. The pre-selection stage allows examining various options for addressing a given problem/issue and to shortlist several options, one of which is to examine what the outcome will be if the project is not implemented.

#### **Article 5. Project Concept Note**

1. In order to carry out the pre-selection procedure, a project concept note (PCN) should be prepared for each project alternative, which brings together basic project information including the following parameters:

- a) Administrative information - name of the project, persons involved in the preparation of the project concept note, responsible persons and others;
- b) Determination of the project rationale and assessment of need (intervention logic, needs assessment, project scope);
- c) Strategic case for the project;
- d) Preliminary economic case and analysis of alternatives;
- e) Budgetary impact and potential affordability;
- f) Implementation arrangements may be defined by considering the content of the project (procurement procedures, in consideration of the public-private partnership model, expected results);
- g) Sustainability issues may be defined by considering the content of the project (Financial and institutional sustainability, Environmental and social sustainability);
- h) Approach to further studies and consultations.

2. „Project Concept Note” should include information about the project based on internal analysis and reflection. It entails building consensus around the project and should involve both the relevant sector-specific technical expertise and specialized project analysts. Building consensus on a project also involves consulting with relevant external stakeholders, as well as those within government, and this should be reflected in the preparation of the PCN.

3. During the course of preparing the PCN, some project concepts may be dropped as it becomes clear that they do not meet the pre-selection criteria. It is normal, therefore, that some PCNs will be begun, but not completed. This should not be viewed as a waste of time and resources, but as a saving in terms of further project development costs.

4. Methods necessary to be used during feasibility study, if the project moves to the appraisal stage, should be determined in the Project Concept Note.

## **Article 6. Roles and Responsibilities of Key Players and Decision-Making in Project Pre-Selection Stage**

1. At the pre-selection stage, initiator of the project proposal is the relevant economic entity and its structural unit and budgetary organization responsible for solving the problems identified in the relevant field. The head of an economic entity is responsible for overseeing the preparation of a Project Concept Note (PCN) describing the parameters of a project. Budgetary unit<sup>2</sup> of the economic entity should be actively involved in the PCN preparation process. The head of an economic entity may delegate the responsibility for preparing the PCN to its subordinated structural unit or the head of the budget organization.

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<sup>2</sup> Budgetary unit - in accordance with the "Programme Budget Methodology" prepared and approved by the decree №385 of July 8, 2011 of the Minister of Finance.

2. A list of the projects that are found to be strategically relevant and potentially viable and affordable will be submitted to the head of the budgetary organization;
3. The head of the relevant budgetary organization evaluates PCNs and delivers its views by taking into account the likely spending and implementation capacity for the relevant programming period.
4. Budgetary organization should submit project concept notes to the Ministry of Finance of Georgia, except those cases defined by Paragraphs 5 and 6 of this Article.
5. In case of the projects to be implemented by the municipalities' own funding sources, PCNs should be submitted to the financial body of the relevant Municipality.
6. In case of the projects to be funded by the economic entity of the autonomous Republics, PCNs should be submitted to the financial body of the Autonomous Republic.
7. The Ministry of Finance of Georgia delivers its views to the submitter of the PCN, reflecting the economic feasibility of the project in consideration of the current estimated economic and fiscal parameters. In case of the projects funded by the municipalities, views on the economic feasibility of potentially viable and affordable projects will be submitted to the initiator by financial body of the relevant municipality, while in case of the projects funded by autonomous republics - financial body of the autonomous republic will be responsible for submission of its views.
8. The head of the budgetary organization will review a list of project proposals that could be potentially viable and affordable and decide which projects should move to the appraisal stage, taking into consideration the views delivered by the Ministry of Finance of Georgia, or by the relevant financial bodies defined under this Article in case of the projects to be implemented by the autonomous republics and municipalities.
9. During the decision-making process, the head of the economic entity reviews the findings prepared by the Ministry of Finance of Georgia, or by the financial bodies defined under this Article in case of the projects to be implemented by the autonomous republics and municipalities. However, the project may move to the next stage even if prospect of the project is not positively assessed in the findings.
10. Anticipated decisions are: "Accepted", "Rejected" or "Needs to be resubmitted for further consideration".
11. The project pre-selection stage is considered to be completed after being approved to move to the Appraisal Stage by the budgetary organization.
12. The Ministry of Finance of Georgia will be notified about the pre-selection decision, except those cases defined under Paragraphs 13 and 14 of this Article.
13. In case of the projects to be implemented by municipalities, decision notification should be submitted to relevant financial body and City Council.
14. In case of the autonomous republics, decision notification should be submitted to the financial body of the Autonomous Republic.
15. The Pre-selection decision may be made any time in the budget calendar.



## Chapter III

### Project Appraisal Stage

#### Article 7. Key Concept and Goal of the Project Appraisal Stage

1. Project appraisal is a process for assessing the potential socio-economic benefits and the social, environmental and budgetary impacts of proposed project.
2. At the project appraisal stage, by taking into account available data and resources, it is important to define:
  - a) What is the objective of the proposed project;
  - b) Whether there are better ways of achieving the given objective in comparison with the proposed project;
  - c) Whether there are some other ways to make better use of resources to be used for the proposed project.
3. At the project appraisal stage, all the effects associated with an investment project are identified and, where possible, costs and benefits are valued in monetary terms, so that the projects eventually selected by government for funding will provide the maximum net benefit to Georgian society.

#### Article 8. Methodological Approach to Project Appraisal

1. The methodological approach to project appraisal is broken down into 7 steps.
  - a) Define the Project Objectives and Scope:**
    - a.a) This is a review and confirmation of the project concept note (PCN) as defined in the pre-selection stage. This includes a review of the project rationale, the project's strategic case and a description of the project goal, purpose, results /outputs and activities (actions to deliver outputs).
    - a.b) The strategic relevance of the project is a central component of the PCN and a core criterion for the Pre-Selection decision. It will be important to verify the continued strategic relevance of the project to take account of any changes of policy direction that may have occurred at Government, Ministry or Municipality level. The strategic case for the project as set out in the approved PCN should therefore be reviewed.
    - a.c) Once the problem and rationale for government intervention are justified, it is important to have a clear statement of the objectives of the project so that appropriate alternatives for achieving these can be considered.
    - a.d) For appraisal, the scope of the project described in the PCN must be reviewed and given more detail. This involves setting out all the project outputs/results (i.e., what will be delivered by the project upon completion) and the main activities required to accomplish these outputs.
  - b) Identify and Choose Project Alternatives for Appraisal:**

Project appraisal involves assessment of project alternatives in order to carry out the cost-benefit analysis of the project in case of its implementation, over the lifetime of the project. Project promoters should refine the alternatives that have been shortlisted in the Pre-Selection Stage and should consider introducing new alternatives that may not have been considered at Pre-Selection. These options will

then undergo further analysis in the Feasibility Study. An analysis period must be decided upon, over which the benefits and costs of the reference project and those of its alternatives will be assessed. The analysis period should normally correspond to the useful life of the fixed asset created.

**c) Define Demand for the Services of the Project:**

c.a) Demand analysis is an important part of the project appraisal stage. Demand analysis is essential for designing appropriately sized capital assets, with the necessary capacity for current and future users, and for making reliable cost and benefit estimates for the project.

c.b) As part of the project appraisal, project promoters must develop a quantified forecast of the expected demand for the defined services of the project, including the expected growth in this demand over the lifetime of the project. Depending on the nature of the project, these forecasts may cover things such as school enrolment, hospital caseloads, road traffic, water consumption, solid waste generation, etc.

c.c) The level of detail in demand forecasts may vary depending on the scale of the project and the extent to which it is innovative. Over-optimistic forecasts of demand are a worldwide cause of poor public investment decisions. This systematic phenomenon, referred to as optimism bias, should be guarded against wherever possible. It is therefore advisable to subject demand forecasts to independent external scrutiny, especially for major projects.

**d) Do Economic Analysis:**

d.a) Economic analysis is the core element of a project appraisal because it provides a means to assess the economic viability of a project and to rank project alternatives to facilitate the efficient allocation of resources.

d.b) It assesses the costs and benefits of investment projects in economic terms and looks beyond the narrower effects on the financial position of the operating entity to include costs and benefits to Georgian society as a whole including those for which there are no directly observable market prices. These costs and benefits are identified, valued, analyzed and ranked according to net economic benefit.

d.c) The two techniques mainly used for economic analysis are: Cost-Benefit Analysis<sup>3</sup> and Cost-Effectiveness Analysis.

d.d) Cost-Effectiveness Analysis is particularly applicable to projects with strong community or social welfare objectives the benefits of which may be difficult to value in monetary terms. It expresses the benefits in physical units rather than in monetary units (where the output of the project cannot be readily assigned a monetary value).

**d.e) There are three stages in an economic analysis:**

**d.e.a) Identify Relevant Costs and Benefits:**

1. The main types of relevant costs and benefits should be identified. Evaluations should be based on the additional cost to the State of undertaking the particular project. Costs which would have been incurred anyway should be excluded. The stream of costs should cover the life of the proposed investment item.

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<sup>3</sup> Sometimes referred to as social cost-benefit analysis in recognition of the wider perspective adopted.

2. The degree of accuracy in identifying costs will vary with the significance of the project and the availability of data. Assumptions underlying all capital and recurrent cost estimates should be made explicit in the evaluation, including assumptions regarding, for example, real labor costs, real energy costs, demand growth or real charges/rates.

3. It is important that estimates of costs be undertaken on a consistent basis to enable meaningful comparisons to be made between competing options and projects. Also valuation of costs should be on the same basis as benefits. Benefits should be valued in monetary terms wherever possible, e.g. by using actual or estimated market prices. Often some financial measures will be available, but in some cases valuation may be excessively expensive and the results produced may be uncertain. Hence, organizations should use discretion as to the worth of undertaking such valuations.

4. Multipliers, which measure the secondary or indirect effects of a project on the economy, should not be included as benefits in an economic analysis.

5. Requirements for environmental and social analysis/impact assessment should have been identified at pre-selection stage. Environmental and social costs and benefits should be identified, valued and included in the calculation of costs and benefits as part of the economic analysis, wherever possible. If this is not possible every effort should be made to quantify costs and benefits (in terms of their scale and the number of people affected) and to introduce them qualitatively into the analysis.

6. The other dimension of environmental and social analysis relates to assessing differential impacts on certain ecosystems/localities or groups in society distinguished by geography, social status, income, ethnicity, gender, etc. In assessing a project and its alternative options, these differential impacts must be looked at separately from the net effect on society as a whole, because they may fall disproportionately on one group or another, and this will need to be taken into account when reaching a final decision on feasibility.

7. If certain environmental or social costs/dis-benefits fall unacceptably heavily on a particular ecosystem or group, it may be necessary to identify suitable mitigation measures in order to make the project environmentally or socially sustainable. The costs of mitigation measures as well as any amelioration they deliver in aggregate should be part of the economic analysis.

#### **d.e.b) Value Relevant Costs and Benefits:**

1. The values of all relevant costs and benefits should be estimated in real terms. Basic principles for valuing costs and benefits are:

**a) Proportionality:** Depending on the nature of the project, valuing costs and benefits can be resource intensive, requiring surveys and in-depth analytical work. It is not generally expected, therefore, that the same depth of research and analysis will be carried out for a project costing, say, GEL 5.0 million as for a project costing, say, GEL 50.0 million.

**b) Incremental Benefits and Costs:** Costs and benefits should be estimated incrementally by reference to the do-nothing alternative. This means that relevant costs are those in excess of what would be spent in the absence of the project and relevant benefits are those received in excess of what would be delivered in the absence of the project.

**c) Use of market prices:** While adjustments may often have to be made, the default assumption is that market prices are the best starting point for valuing costs and benefits.

**d) Use of real prices:** Benefits and costs must be expressed in real terms. Benefits and costs should be valued in the prices of a common base year, which must be declared in advance to all analysts and decision-makers. The base year is usually the current year.

**e) Adjustment for taxes, subsidies and transfers which are likely to materially affect the choice of preferred alternative:** Indirect taxes (VAT for example), subsidies and social transfers (social security benefits, for example) do not entail the consumption or creation of economic resources, but merely represent the redistribution of resources from one part of society to another (from households to government and from government to households). As such, they should, in theory, be excluded from the valuation of costs and benefits.

#### **d.e.c) Calculate Net Present Values:**

1. Net present value is the difference between the streams of costs and benefits of a project, both discounted to present values. The concept of net present value is used to facilitate comparison between project alternatives with different profiles of costs and benefits. For Cost-Effective Analysis, a present value should be provided for costs alone.

2. Discounting takes account of the fact that initial investment costs are borne up front, while benefits and/or operating costs may extend far into the future. Discounting reflects the concept of social time preference of money which is relevant even in the absence of inflation. The calculation of present value requires the use of a discount rate.

3. In a Cost-Benefit Analysis, Net Present Value (NPV) is the preferred decision criterion. Complementary decision criteria and the circumstances in which they are used are discussed in the Manual. A project is viable if the Net Present Value is greater than zero, i.e., the total discounted value of benefits is greater than the total discounted costs. For Cost-Effectiveness Analysis, Net Present Cost (NPC) is the key decision criterion used to rank projects on the basis of cost and to show the lowest cost alternative.

4. Cost-Benefit Analysis focuses on looking at the dimensions of project that can be expressed in monetary terms. There may be significant costs/disbenefits and benefits that cannot be monetized. Often these are social effects or environmental externalities.

#### **e) Risk Analysis and Management Planning:**

e.a) The extent and nature of the risk analysis should be commensurate with the nature of the issues involved. The NPV calculation in economic analysis was performed as if the underlying values of benefits and costs are certain. In the real world, these values will be uncertain due to unavoidable measurement and estimation errors and due to perfectly reasonable assumptions not turning out as anticipated. The quantified economic analysis is therefore not complete without a systematic analysis of the risks behind a project and an assessment of their likelihood and impact.

e.b) A risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on a project. Risks exist as a consequence of uncertainty concerning key parameters of a project (e.g., cost, implementation time, demand for services, etc.).

e.c) Risk analysis will begin at Pre-Selection Stage with the drawing up of the PCN, but it will be extended to quantitative risk analysis as part of project appraisal. Quantitative analysis of risk may involve sensitivity analysis and/or the calculation of switching values (will be discussed in the Manual). More advanced quantitative analysis should be employed for major projects or highly innovative projects which are likely to be replicated. This involves the measurement of uncertainty attaching to critical parameters, for example, cost, time and demand estimates and the probabilistic combination of individual uncertainties to arrive at an expected outcome for the project.

e.d) Risk management involves the formulation of management responses to the main risks. The immediate response is to alter the project plan so that the identified risks are mitigated or removed. The contingency response is to make provision in the project plan for actions to be implemented only if any of the identified negative risks should materialize.

e.e) Risks can be categorized as follows:

e.e.a) Construction risk - Asset not completed on time, to budget or to specification;

e.e.b) Demand risk - Demand for services does not meet forecasts;

e.e.c) Design risk - Design cannot deliver services at the required performance or quality standards;

e.e.d) Economic risk - Project costs or benefits affected by economic influences, e.g., inflation or exchange rate movements;

e.e.e) Environmental risk - Negative environmental impacts cause major objections from Public;

e.e.f) Funding risk - Availability of funding delays project or changes scope;

e.e.g) Legislative risk - Changes in legislation increase costs, e.g., tightening of environmental standards;

e.e.h) Operation & maintenance risk - Costs of operating and maintaining new facility differ from planned budget;

e.e.i) Procurement risk - Shortfall in capacities of contractors or contractual disputes;

e.e.j) Technological risk - Services provided using non-optimal technology because of rapid technological change.

**f) Affordability and Sustainability Analysis** - An initial identification of the preferred project option will be made on the basis of the results of the economic analysis using the NPV or the net present cost (for cost effectiveness). Other things being equal, the project with the highest NPV (lowest NPC) should be preferred as a preliminary position. Quantitative economic analysis alone presents limitations, because it does not capture potentially significant costs and benefits that cannot be monetized and because it does not consider the vital issue of project sustainability. It is for this reason that in order to arrive at the final decision about the preferred option the Feasibility Study needs to be completed by undertaking the following steps:

**f.a) Financial Analysis of the Project to Determine Financial Profitability and**

**Sustainability:**

1. Determines whether the project will contribute positively to the financial objectives, and whether it is sustainable over the longer term.

2. Financial analysis is applicable to revenue earning projects, for example: Investment by public sector energy and water utilities or by public transport operators. For non-revenue earning projects, for example, in the health, education, justice and roads sectors, a meaningful financial analysis may not be feasible and therefore may not be required. However, some important financial issues should be investigated for non-revenue projects.

**f.b) Financial Analysis of the Operating Entity to Assess its Financial Sustainability:**

1. The need for the project is determined in relation to the costs. This is important when the project is implemented by the state or municipal enterprise or following the implementation of the project it was transferred to the private sector. Financial analysis of the operating entity looks at its financial strength as a whole and at its capacity to meet negative cash flow requirements of the project, if any, and, by inference, the extent and timing of any requirements for subsidies from the State budget.

2. Usually, a capital investment project will be carried out by an existing entity, which will be performing other on-going operations. In these cases, the financial analysis of the entity as a whole will be relevant to assessing financial sustainability (especially important when the project is implemented by the state enterprises). Sometimes a project is carried out in isolation and a new entity is created (e.g. State Enterprise) to operate it. In these cases, the two dimensions of financial analysis effectively merge into one.

**f.c) Budgetary Analysis of the Project:**

1. The impact on the budget will be determined with respect to the maximum volumes of appropriations. Budgetary analysis must be performed for all projects to determine the net impact on the national budget during implementation and operation, and to assist in establishing whether an investment is affordable from the fiscal perspective. Budgetary analysis enables affordability to be assessed in relation to projections of expenditure ceilings and available fiscal space during budget preparation.

2. The minimum requirements for demonstrating the budgetary impact are shown in Table below, which identifies total budgetary costs, projected revenues (if any) and the net impact. Costs for budgetary impact analysis must be in current prices. Economic entities promoting projects must use projections of the medium term macro-fiscal parameters or must consult with the Ministry of Finance to obtain forward estimates of inflation. If annual operating and maintenance costs are expected to be very similar, the post-implementation analysis period can be truncated and estimated annual averages presented “Post-Year X” as it is shown in Table below.

Table

	<b>Year 1</b>	<b>Year 2</b>	<b>Year ...</b>	<b>Year X</b>	<b>Post- Year X</b>
<b>Budgetary Costs</b>					

Capital Costs					
Net Recurrent Costs*					
Operations					
Maintenance					
<b>Total Costs</b>					
Projected direct budgetary revenues (if any)					
<b>Net Budgetary Impact</b>					

Note:\* For instance: Taxes

3. A full budgetary analysis can be employed to estimate the total budgetary impact in present value terms (whether it is overall positive). This is wider in its perspective than the financial analysis (but not as wide as economic analysis) because it takes account of all direct and indirect financial flows that impact on the public finances and not just those that affect the projects operating entity. A full budgetary impact analysis should only be prepared for major projects with significant direct revenue earning potential or substantial tax effects.

**f.d) Assess Environmental and Social Sustainability of the Project:**

1. Depending on the nature of the project, environmental and social sustainability of the project may be determined and any significant risks that could threaten sustainability may be identified.

2. The notion of sustainability extends beyond financial and budgetary sustainability. Project appraisal should also verify that projects are, on balance, environmentally sustainable and that they do not have unduly unbalanced impacts on different groups in society that could put into question their social sustainability. Decision-makers will therefore need to be provided with adequate evidence on the environmental and social sustainability of a project and made aware of any significant risks that could threaten sustainability.

3. Infrastructure projects frequently have significant environmental and social impacts arising from construction and operation. Depending on the scale and nature of the project, and the likely importance of these effects, a formal environmental impact assessment and/or social impact assessment might be necessary.

4. In cases defined under the Georgian Legislation, Environmental Impact Assessment (EIA) report is prepared according to the rules and procedures determined by the Georgian Legislation.

5. Preliminary assessments<sup>4</sup> will need to be conducted early in the Appraisal Stage and prior to completion of the Feasibility Study so that the findings can be incorporated in the quantified economic analysis and broader feasibility assessment. Once identified, significant environmental and social benefits and costs should be accounted for in monetary terms at the economic analysis stage, where feasible. Failing this they should at least be identified in quantitative or qualitative terms and their relative importance compared to monetized benefits and costs as assessed at the economic analysis stage.

6. The current guideline is not intended to provide comprehensive guidance on conducting environmental and social impact assessments. Economic entities promoting projects are advised draw

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<sup>4</sup> Assessments will need to be finalised when the detailed design of the project is completed following a positive appraisal decision.

on external expertise to carry out such assessments where they are required by law or are indicated because of an expectation of significant impacts. The Ministry of Environment and Natural Resources Protection should be consulted where necessary.

**g) Identification of the Preferred Project Alternatives and Preparation of Recommendations for Decision-Makers:**

1. Includes the determination of the feasibility of the project on the basis of a quantitative analysis taking into account the relative importance of costs and benefits.
2. Involves identifying the preferred alternative on the basis of a comprehensive appraisal of all factors and arriving at a decision on whether or not to proceed with a project proposal. This decision must be based on a balanced evaluation of the findings of the analyses performed above.
3. In addition to quantitative economic analysis, the determination of the economic viability of a project should also consider intangible benefits and costs that cannot be monetized. The environmental and social impact of the project, i.e., upon which ecosystems or groups in society the costs and benefits fall, also needs to be considered. The sustainability of the project from a number of different perspectives, both during implementation and during operation, also needs to be confirmed.
4. Project promoters should decide, on the basis of the quantitative economic analysis, whether the project as conceived is preferred over the alternatives considered including doing nothing. In making this decision, the robustness of the quantitative economic analysis should be taken into account.
5. A 2-stage appraisal process is recommended for a project for which it has been possible to estimate the NPV:
  - a) Take a position on the economic viability of the project according to quantified economic analysis;
  - b) Adjust this position depending on whether or not the affordability and sustainability factors contribute to the implementation of the project, and taking into account the relative importance of costs and benefits that may not have been captured in monetary terms, but which have been analyzed qualitatively at the project's environmental and social sustainability assessment stage.
6. Findings and recommendations of the above analysis should be presented in a project appraisal summary table as an aid to making an informed judgement. The table is also an important tool for presenting the basis for recommendations to decision-makers.
7. If all the above mentioned analyzes are carried out, recommendation should be made based upon the findings with respect to economic viability combined with the findings on risk, affordability, sustainability and non-monetized effects. When the findings from the economic analysis and from affordability and sustainability/intangibles analysis all point in the same direction, the recommendation can be safely presented. If the risk, affordability and sustainability analyses and economic analysis point in different directions, then the final recommendation must be carefully presented giving a full explanation of the reasoning and the relative weights given to the different factors in arriving at the final conclusion.
8. In the case of projects subject to Cost-Effectiveness Analysis, the decision should be made based on which of the project alternatives is likely to be the most efficient, i.e., delivers a unit of output at lowest expected cost. In reaching a final conclusion on whether to proceed with the preferred alternative, an informed position on the scale of benefits in relation to costs must be taken, either implicitly or explicitly when a view is reached on the relative importance of the non-monetized



benefits assessed qualitatively. This is important when deciding whether the least-cost option, once identified, represents a better use of public finances than doing nothing at all.

### **Article 9. Additional Step of Project Valuation in Case of Public-Private Partnership (PPP)**

1. Once a project has been appraised as feasible according to the 7-step procedure outlined in Article 8, economic entities must proceed to deciding the most appropriate procurement method, which may include a public-private partnership (PPP) if the project has characteristics that are favorable to this procurement approach.

2. If an economic entity is considering the Public-Private Partnership (PPP) procurement option, however, further steps need to be undertaken at the Appraisal Stage in order to evaluate the desirability of a PPP option. For this purpose, economic entities considering the PPP procurement option should undertake a procurement option pre-test, select the most appropriate PPP modality and then perform a Value for Money (VfM) Analysis to verify the desirability of the PPP option over the traditional public procurement option.

3. Within the context of the procurement option pre-test for candidate PPP projects, the following elements should, inter alia, be examined:

a) A comparison of the finance, construction and operation costs in each alternative method of procurement over the entire lifetime of the project;

b) The existence of sufficient interest from potential private investors with a good track record of service delivery and the level of competition in the market;

c) Whether the risks of the project can be clearly defined, identified and measured and whether the right types of risk can be transferred in to the private partner;

d) The possibility of covering all or part of the contractual payments to the private sector partner from end user charges;

e) Whether the size of the project is large enough to justify the transaction costs entailed in a PPP project.

4. If the results of the procurement option pre-test suggest that it is worth exploring further the possibility of undertaking a PPP procurement option, then the choice of PPP modality (type of PPP contract) must be considered.

5. As a next step, when the economic entity has decided on the PPP modality to use, a value for money analysis has to be undertaken. In this value for money assessment, the public sector comparator tool is used to determine whether implementing the project through a PPP would be more cost-effective than a traditional public investment. The net present value of the PPP option and the net present value of the preferred option as traditional public investment are compared. Implementing a project through a PPP, yields better value for money, if it results in a net positive gain to government which is greater than that which could be achieved through implementing the preferred option as a traditional public investment.

6. Economic entities shall review the result of value for money analysis, and submit the result of the proposed PPP to the Ministry of Finance of Georgia. The PPP procurement method will be selected if the VfM assessment is positive (i.e. implementing the project through PPP yields better value for money).

7. It is noteworthy that if the implementation of a project through PPP yields better value for money, risks defined under sub-paragraph "c" of Paragraph 3 of this Article, which can be managed more efficiently by the private sector, is entirely the responsibility of the private partner.

8. In case the methodology and regulations are determined for the management of the PPP projects by the State, regulations defined under this methodology should coincide with the general regulations.

### **Article 10. Roles and Responsibilities of Key Players and Decision-Making in Project Appraisal Stage**

1. Contingent on a positive pre-selection decision, responsible economic entity carries out the project appraisal process.
2. Appraisal stage involves the preparation of the feasibility study, development of preliminary engineering solutions and implementation of other supporting studies (based on the nature of the project), such as, for example, environmental and social impact studies.
3. Depending on the scale and complexity of the project and on the expertise required, this work may be carried out in-house or contracted out.
4. Circumstances and conclusion identified during the appraisal stage must be considered by the economic entity.
5. The senior management of the economic entity is responsible for making a final appraisal decision on the worth of the project.
6. Project Appraisal Reports for project with a positive appraisal decision should be submitted to the Ministry of Finance of Georgia, except those cases considered under Paragraphs 7 and 8 of this Article.
7. In case of the projects to be implemented by the municipalities, project appraisal reports and appraisal decision will be submitted to the financial body and the relevant city council.
8. In case of the projects to be funded by the economic entity of Autonomous Republics, project appraisal reports and information on the appraisal decision will be submitted to the financial body of the Autonomous Republic, which is supposed to submit the information about the project to the Government of the Autonomous Republic.
9. The Ministry of Finance of Georgia will examine the economic and social value of the project, in respect of the budgetary resources required for its funding and will submit the project with relevant conclusions to the Economic Council for further discussion.
10. Economic Council draws up a list of projects, which are considered appropriate for the next stage.
11. In case of the projects to be funded by the autonomous republics, decision on whether a project will move to the next stage is made by the Government of the Autonomous Republic, while in case of the projects to be funded by the municipalities decision is made by the Municipal Council.

12. The list of those projects that will be funded by the municipalities and autonomous republic and on which a positive decision has been made by the Government of the Autonomous Republic and Municipal Councils will be submitted to the Ministry of Finance of Georgia in accordance with the procedures established by the Georgian Legislation.

## **Chapter IV**

### **Project Selection and Budgeting Stage**

#### **Article 11. Key Concept and Goal of the Project Selection and Budgeting Stage**

1. The goal of the project selection and budgeting stage is to select those projects that will be funded from the budget of the particular medium-term period.

2. The list of projects that have received positive appraisal decisions and have been reviewed and confirmed by the Ministry of Finance may be updated from time to time over the year according to the progress of the appraisal and review process, but a definitive version will be prepared by a cut-off date of 1st March each year. Only projects included in the definitive list will be eligible for consideration in the forthcoming budget under preparation. Projects that enter the list after this date must be held back for consideration in a subsequent year's budget.

3. At the project selection stage, new projects are identified, funding of which should be reflected in the budget of a relevant year, through the budgeting process in accordance with the document of Government of Georgia on Basic Data and Directions, available fiscal space over the medium term and implementation readiness.

4. Continuity of funding for performing ongoing projects should be assured and funding for poorly performing projects should be re-assessed.

5. The projects that should to be implemented by the autonomous republics and municipalities (i.e., projects that will be financed by municipality's own funds, as well as by funds allocated from the state budget) will be also included in the final version of the document of Government of Georgia on Basic Data and Directions.

#### **Article 12. Roles and Responsibilities of Key Players and Decision-Making in Project Selection and Budgeting Stage**

1. Relevant budgetary organizations prepare proposals for new capital investment projects, which should be considered in the medium-term action plans prepared in accordance with the legislation and which should reflect:

- a) The link between projects and programs/sub-programs;
- b) Financial resources required for ongoing multi-year projects;

- c) Future financing needs of new project proposals throughout their implementation;
- d) Specific information about the project;

2. Proposals for new financially significant investment projects must be submitted as components of the action plan, clearly indicating the program and sub-program within the framework of which the project is implemented, how the project will contribute to the improvement of the performance of the given sub-program and why the project is significant for achieving the goal.

3. Along with the Document of Basic Data and Directions, the Government of Georgia must approve the list of those investment projects that will be implemented in the medium term. As a result, the Government of Georgia will make a final decision on financing new projects.

4. During the preparation and submission of budget application, budgetary organization reflects the investment projects with positive appraisal decision.

5. During the preparation of the budgets of municipalities and autonomous republics investment projects are reflected in the budget in accordance with the procedures established by the legislation.

## **Chapter V**

### **Project Implementation and Monitoring**

#### **Article 13. Key Provisions for Project Implementation**

1. Capital investment projects will be implemented in accordance with the Law of Georgia on State Procurement and the Georgian Legislation.

2. In case of donor-funded projects or an international tender, project must be implemented in accordance with the procedures agreed with donors.

#### **Article 14. Roles and Responsibilities of Key Players in Project Monitoring Stage**

1. Progress reports on the status of capital investment projects to be prepared periodically (quarterly and annually).

2. Progress reports must include at least the following:

- a) Name of the project;
- b) Start date of the project;
- c) Approximate date of completion;
- d) Percentage of works that have been completed;
- e) Source of funding;
- f) Planned budget and expenditures;
- g) Explanations for project delay, reduced or increased expenditures, financing and construction-related issues and planned measures.

3. Reporting on projects funded from the state budget to be carried out within the time frame specified in the Budget Code and to be submitted to the Parliament of Georgia together with the quarterly and annual progress reports.

4. In case of the projects to be implemented by municipalities and autonomous republics, quarterly and annual progress reports should be prepared in accordance with the procedures established by the Georgian Legislation.

5. Information on the progress of projects financed with the budget of autonomous republics and municipalities will be submitted to the Ministry of Finance of Georgia in accordance with the procedures established by the Georgian Legislation.

6. The Ministry of Finance of Georgia is authorized to submit data on the progress of capital investment projects to the Economic Council.

7. The Ministry of Finance of Georgia will submit Annual Completion Report to the Economic Council on 1<sup>st</sup> of March of each year.

8. Economic Council may discuss the issue and make the recommendation for suspension, modification or termination of the project, if challenges occurred during the implementation phase substantially change the resource estimates required for the capital investment project implementation, time frames and / or the effect of acceptable outcome of the project on the users.

## **Chapter VI**

### **Ex-Post Evaluation**

#### **Article 15. Objectives of Ex-Post Evaluation and Main Provisions**

1. Ex-Post Evaluation - achieved objectives of the project are evaluated in terms of the used resources and environmental impact.

2. The ex-post evaluation has the following primarily goals:

a) Increase transparency by showing the effectiveness of the investments in relation to the reached financial, economic, environmental and social objectives;

b) Measure the effectiveness - the actual outcomes are compared with the forecasted ones or the achievements are compared with initial objectives in order to give a measure of the utility of the project;

c) Provide elements to improve the ex-ante assessments of future interventions - ex-post evaluation based on the reassessment of ex-ante appraisal is extremely informative and useful for understanding whether the conceptual forecasting model adopted before project implementation was adequate to support the investment decision. Furthermore it allows understanding where the efforts in improving the quality of project appraisals should be addressed;

d) Collect relevant information on similar to determine conceptual forecasting model and to support more accurate ex-ante assessments.

3. The major goal of ex-post evaluation is not to discover deviations. The understanding of the causes behind the deviations is the real target of the ex-post evaluation. Deviations identified at ex-post evaluation stage may indicate that not enough attention was paid to the possible unintended impacts (including external and partly internal unforeseen factors) at the initial stages of the project life cycle. Deviations may be caused by the project design, false information, ineffective decision and other general issues.

#### **Article 16. Ex-Post Evaluation Steps**

1. The path of a correct ex-post evaluation includes five steps. There are manifold challenges for each step. These steps are:

a) **Evaluate Planning Process** - It is important to evaluate ex-ante assessment and planning processes. It is difficult to determine exactly which analysis contributes to the decision-making at the ex-ante assessment stage. When the project documentation is not available or is incomplete, as well as in case of insufficient official documentation on the ex-ante assessment results and planning process, a transparent analysis of ex-post evaluation is complicated.

b) **Measure of the Project Outcome** - Collect ex-post information about projects performances is in general costly, so that it is important to concentrate on the main indicators and to use standard approaches. There is a danger that some of the important impacts of a project may not be covered by the stated objectives. An effective way to investigate on the possible cause of discrepancies between ex- ante and ex-post results is to interview experts.

c) **Comparison of the Project Outcomes with the Expected Outputs** - Determination of discrepancies between the observed outcomes and those expected in the appraisal stage and especially identification of the causes of such discrepancies is in fact an irrelevant concept, since in most cases expected outputs could never be identical to the observed outcomes. Even in those cases where no critical differences emerge, it is not possible to automatically conclude that the ex-ante appraisal methodologies were adequate and that no mistakes were done, since it may occur that exogenous factors which were not considered in the appraisal stage may have generated outcomes similar to those expected.

d) **Alternative Analysis** – Analysis is based on the ex-post evaluation. Analysis needs to look at the “after” opening situation against “after-without” the scheme. Study of differences between the ex-post and ex-ante assessment is important for comprehensive analysis of the project. The analysis may not include some projects that were implemented, but on the contrary - it may include some of the planned projects that were actually not implemented.

e) **Identify Endogenous or Exogenous Factors** - It is important to investigate whether the deviation between ex-ante and ex-post evaluations was caused by endogenous or exogenous factors. The effects of endogenous and exogenous factors are analyzed, which may not occur in case of not implementing the project, or an effect that may occur in case of project failure. This should be supplemented by qualitative research such as in depth interviews with stakeholders to understand and explain the observed changes.

f) **Costs Evaluation** –is one of the critical steps of ex-post evaluation. The methods used to obtain costs and the reasons behind the divergences between expected and actual costs are investigated. The main factors to be considered are: delays in the implementation, changes in the project specifications and design, changes in currency rates, changes in quantity and prices, changes in safety requirements, changes in environmental requirements, geological and technological risks.

g) **Process Evaluation** - Process evaluation looks at the reasons behind the difference between the observed outcomes and those expected in the appraisal stage from the decision-making process point of view. It involves the examination of aspects of the development and implementation of the project and focus on the strengths and weaknesses of procedures and how they were implemented. Process evaluation would identify problems arising from adopting “solution-specific” objectives rather than “pure” objectives and would also look at the role played by the environmental impact analysis, whether it played or not a proactive part in the project development process, at funding problems as well as stakeholder and public consultation.

h) **Measure the Effectiveness of the Investment** - Impact of the project on economic welfare on the basis of the observed outcome and outturns. Actual economic performance indicators (IRR and NPV) are recalculated through considering the actual outcomes and costs in order to compare them with the expected ones.

#### **Article 17. Roles and Responsibilities of Key Players in Ex-Post Evaluation Stage**

1. Within 1 year after the completion of the capital investment project budgetary organization will submit the ex-post evaluation report to the Ministry of Finance of Georgia.

2. In case of the projects implemented by the municipalities, the ex-post evaluation report will be submitted to the relevant City Council.

3. In case of the projects implemented by the Autonomous Republic, the ex-post evaluation report will be submitted to the relevant financial body.

4. The Ministry of Finance of Georgia will submit the ex-post evaluation report to the Economic Council.