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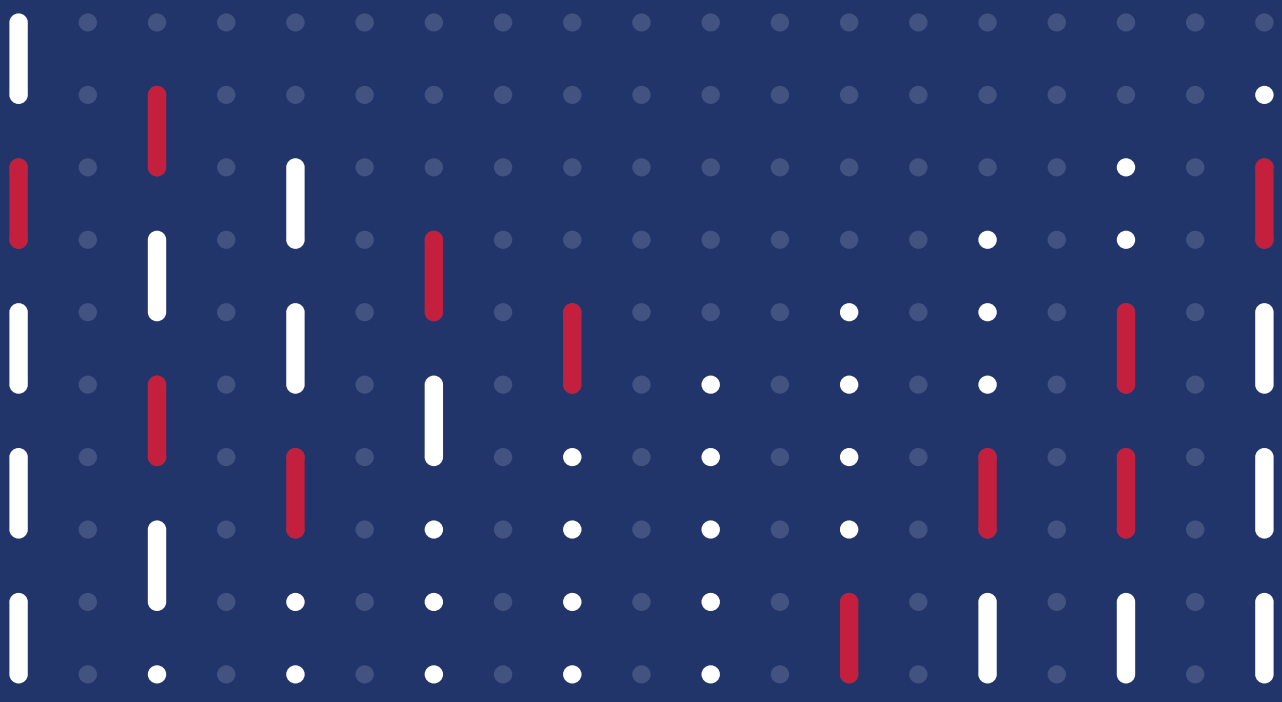
GEORGIA GOOD GOVERNANCE INITIATIVE

RIA Manual for Practitioners



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AA	Association Agreement
AC	Administrative Cost
ALMP	Active Labour Market Policy
APMA	Agricultural Projects Management Agency
CBA	Cost Benefit Analysis
CE	Cost-Effectiveness
CEA	Cost Effectiveness Analysis
CSO	Civil Society Organization
CVS	Contingent Valuation Survey
DALY	Disability Adjusted Life Years
EC	Effectiveness-cost
EMC	Human Rights Education and Monitoring Center
EU	European Union
FAQ	Frequently Asked Questions
FSP	Financial Service Provider
GA	Georgian Amelioration
GDP	Gross Domestic Product
Geostat	National Statistics Office of Georgia
GFA	Georgian Farmers' Association
GIA	Georgian Insurance Association
GNERC	Georgian National Energy and Water Supply Regulatory Commission
GoG	Government of Georgia
GWP	Georgian Water and Power
ILO	International Labour Organization
IHS	Integrated Household Survey
IRBM	Integrated River Basin Management
LFS	Labour Force Survey
MCA	Multi-Criteria Analysis
M&E	Monitoring and Evaluation
MENRP	Ministry of Environment and Natural Resource Protection

MoA	Ministry of Agriculture
MOESD	Ministry of Economy and Sustainable Development
MoF	Ministry of Finance
MoIDPLHSA	Ministry of Internally Displaced Persons From Occupied Territories, Labor, Health and Social Affairs
MNO	Mobile Network Operator
MRDI	Ministry of Regional Development and infrastructure
NARMA	National Agricultural Risk Management Agency
NBG	National Bank of Georgia
NEA	National Environment Agency
NFA	National Food Agency
NGO	Non-Government Organization
NPV	Net Present Value
OECD	Organization for Economic Cooperation and Development
PV	Present Value
QALY	Quality Adjusted Life Years
RFF	Resource for the Future
RIA	Regulatory Impact Assessment
SCM	Standard Cost Model
SDG	Sustainable Development Goals
SDR	Social Discount Rate
SME	Small and Medium Enterprise
TEV	Total Economic Value
UWSCG	United Water Supply Company of Georgia
VAT	Value added Tax
VLY	Value of Life Year
VSL	Value of Statistical Life
WACC	Weighted Average Cost of Capital
WFD	Water Framework Directive
WTP	Willingness to Pay

1. INTRODUCTION

Under Ordinance No. 35, Tbilisi, 17 January 2020, Georgia formally institutionalized the Regulatory Impact Assessment (RIA) ("On the Approval of Regulatory Impact Assessment (RIA) Methodology").[1] The ordinance also aims to implement the changes introduced in the Law on Normative Acts by the amendment #4607, from 29 May, 2019[2], which promotes enhanced evidence-based, participatory decision-making in the country.

In order to strengthen the capacity of the Government of Georgia (GoG) in conducting evidence-based policymaking, this formal act has finalized the RIA institutionalization process, which began several years ago with the support of various international donors. Over the years, the capacity of public servants, select civil society representatives, and academic institutions have been built around training cycles, hands-on coached pilots, and donor-funded grants that conduct RIAs for chosen reform initiatives.

The provisions defined in the law on normative acts, and the related implementing decree, outline the information requirements for RIA reports, and a more detailed discussion of the methodology is provided within an Annex, however, **relevant stakeholders have been expressing the need for a more specific and hands-on manual to support future RIA practitioners in the implementation of the latest provisions.**

This initial manual for Regulatory Impact Assessment practitioners is based on the methodology approved by the Government of Georgia (GoG). It has been designed to address stakeholder needs by building on the Georgian-specific expertise that has developed in recent years, and to assist potential RIA practitioners and other interested parties, both in the implementation of the governmentally approved RIA methodology and in the assessment of correspondences between existing and future RIA documents and such methodology.

As such, this manual is structured according to the following three main chapters:

- **Chapter 2** – discussing the logical structure of an RIA and providing an overview of the RIA process;
- **Chapter 3** – outlining the mechanics of RIAs;
- **Chapter 4** – providing a review of the structure of a finalized RIA report.

Chapters 2 and 3 include sections that explain the importance of the various analytical steps described, and outline the core methodologies required to perform a requested task. In addition, each section contains references to real-life RIA exercises and thereafter highlights valuable lessons from such experiences. These "practical subsections" have been developed to help the reader consolidate the concepts discussed in each section, and to offer direct exposure to the challenges faced by analysists in the process of conducting RIAs in Georgia, while also considering select approaches to tackle these issues. This should ideally allow readers to develop a more practical understanding of the process, and help them develop a proactive and creative approach (while also providing a few realistic solutions) in dealing with any challenges they might encounter during RIA exercises.

A series of technical Annexes, including a select Cost-Benefit Analysis Bibliography, completes each of the core elements within the manual.

The remaining components of this introduction briefly review:

[1] Hereafter "RIA methodology".
[2] The law defines the scope and hierarchy of any normative act prepared in Georgia.

- Concepts linked to high-quality decision-making and governmental intervention;
- A definition of RIAs;
- The main differences between standard RIAs and in-depth RIAs (as defined by Georgian legislation).

1.1. HIGH-QUALITY PUBLIC INTERVENTIONS AND REGULATION

Quality policymaking benefits from a process that is predictable, transparent, participatory, and accountable. This type of process helps make decisions that are legitimate, justified, effective, and proportionate.

It is important to note immediately that **regulation is only one possible option** available for governmental intervention in society and the economy (see Box 1 for a definition of regulation). This view is fully incorporated in article 30 of ordinance No. 35, according to which:

- If, on the basis of a draft RIA report, it has been established that the best option to resolve a problem/issue is legislative regulation, an authorized official of the initiating agency shall make a decision on including the issue in the plan for the preparation of draft laws by the agency;
- If, on the basis of a draft RIA report, it has been established that the best option to resolve a problem/issue is a non-regulatory option, or it is advisable to regulate the problem/issue with a subordinate normative act or an individual legal act, an authorized official of the agency shall assign to an appropriately authorized structural unit the task of preparing a plan for resolving the problem/issue.

This manual identifies how to explore an issue that could require intervention and to assess the likely impacts, reviews, and consultancy for various types of public policy intervention – not only regulation – both in theory and in practice.

Box 1 – What is "regulation"?

Public policy interventions derive from the intentional use of an institutional authority that affects the behavior of individuals, groups, or stakeholders in a given jurisdiction. Such interventions may have a regulatory or non-regulatory status.

For the context of this manual, regulation refers to any set of provisions that generate binding requirements on third parties. Under this definition fall legislative measures (laws) as well as various forms of implementing rules and by-laws (e.g., decrees, ordinances, circulars, etc.).

When addressing public policy interventions – whether to elaborate the new or evaluate those already in force – one should critically consider all their many forms. If opting for regulatory intervention, the choice must be clearly justified.

A number of principles, if applied, contribute to improved public policy interventions. In regulation, high-quality measures should abide by the following **Principles of Good Regulation:**

- **Necessity** – the authorities only promulgate regulations that are made necessary due to compelling public need, such as private market material failure, or to protect or improve the health and safety of the public, the environment, or individual well-being. Secondary regulations must be allowed by law or be necessary to interpret the law;

- **Effectiveness** – regulation must achieve its intended policy objectives and must advance national priorities. Regulation should be supported by the best available evidence;
- **Proportionality** – regulation must strike a balance between the benefits and the costs of an intervention. Typically, the latter should be kept to a minimum, and not exceed or at least be justified by the former. The costs and benefits of a proposed solution should be comparable with other regulatory and non-regulatory alternative measures and with the option not to intervene;
- **Predictability** – the regulatory framework provides a stable objective and timely environment, enabling all those affected to anticipate the context for future decisions and to make long-term investment decisions with confidence;
- **Transparency** – the public should be granted the greatest possible access to information, both in the decision-making steps and in the rationale for, and nature of, an adopted intervention;
- **Accountability** – the authorities issuing a policy and regulatory intervention are clearly identifiable and responsible for its design, assessment, and implementation. Regulations must also be subject to appeal and possible redress;
- **Simplicity** – a regulation should be simple to use and understand. It should be as detailed as necessary and as straightforward as possible;
- **Participation** – participation by and consultation with all interested parties or those involved prior to the drafting stage are the first requirements of transparency. This participation should itself satisfy the transparency criteria.

1.2. WHAT ARE REGULATORY IMPACT ASSESSMENTS?

A Regulatory Impact Assessment (RIA) is a core tool for regulatory quality. It is a **systemic approach that structurally defines policy issues and critically assesses likely positive and negative effects of proposed regulatory and non-regulatory alternatives.**

The completion of an RIA report is the result of a structured process that should follow a number of steps. RIAs generate, validate, organize, and process **evidence** that underpin governmental decisions on the nature (type, magnitude, and evolution) of societal or economic problems, as well as on the advantages and disadvantages of possible policy options by assessing their potential impacts – see Box 2. It is important to highlight that **RIA support does not replace political decision-making.**

Box 2 – Typical analytical RIA steps

Ordinarily, RIA analyses should unfold under the following logical steps:

- Identification and definition of the problem;
- Spelling out the desired objective(s);
- Elaboration of the different regulatory and non-regulatory options (including the "no action" option);
- Assessment of the likely costs, benefits, and distributional effects (wherever possible in quantitative terms);
- Comparison of the options and recommendation of the preferred option;
- Indications of monitoring, evaluation, and reporting requirements.

Additional, integral parts of an RIA, those which unfold during the entire process, are:

- Open and public consultation with external stakeholders and experts;
- Desk research and data collection.

RIA analyses ought to start as early as possible to best inform the decision-making process. One reason being that emphasis must be placed on understanding exactly what is to be addressed – in the problem definition and situation analysis stage – as opposed to hastily creating yet another legal draft, with the risk of missing the target and having to repeat the process after the RIA analysis. A second reason for starting the RIA process early is because carrying out an RIA is an investment in both financial and analytical resources – with internal and external expertise; and data collection, validation, and processing tasks. These each require time, which needs to be planned and managed. Finally, whenever an RIA analysis commences after significant resources and time have already been invested in the preparation of a legal draft, one can expect reduced effectiveness of the RIA exercise and a stronger resistance to the suggested ameliorative changes.

1.3. WHEN ARE RIAS MANDATORY IN THE GEORGIAN REGULATORY FRAMEWORK?

A new article – 171 – was added to the Organic Law of Georgia on Normative Acts on the basis of Ordinance 35. The article sets conditions for when Regulatory Impact Assessments should be implemented. An RIA is mandatory:

a) In the course of preparation of a draft law on amendments to the legislative acts, those included in the list of such acts, determined periodically by decree of the Government of Georgia (Annex 1), if a draft law is initiated by the Government of Georgia;
b) In certain cases, by decision of the Government of Georgia during the preparation of a draft law by the executive body.

RIAs may also be performed when preparing any draft normative act (including a subordinate act), on the decision of the author/initiator, the Georgian government, or the state institution of the executive authority of Georgia. In this case, the initiator of an RIA is authorized, in respect to a particular initiative, to elaborate a specific regulatory impact assessment process, in compliance with this ordinance.

Regarding exceptions, laws referring to state security, budgetary issues (including the annual budget law), defence, penitentiary, non-custodial sentences, and probation issues are not subject to RIAs. Furthermore, they do not apply to amendments that are related to terms; terminology; technical issues; the ratification of defects of legal acts that do not change their general principle provisions; or those which ensure compliance with Georgian law, supreme legislative acts, constitutional agreements, international agreements, or the decisions of the Constitutional Court of Georgia. Lastly, an exception applies to those amendments that are part of a legislative package accompanying a draft law that does not include issues covered in the main draft.

The ordinance also specifies that, after deciding to carry out an RIA, a working group is to be created within the initiating agency. A working group may consist of "representatives of one of the structural units of the agency or of other employees, as well as the representatives of other ministries, state subordinate agencies and legal entities under public law, if the issue to be regulated requires the engagement of other agencies". In addition, stakeholder and international organization representatives, as well as experts, may be invited to participate in the working group. The responsibility of the coordination of working group activities is assigned to the representative of the agency initiating the RIA.

The ordinance also specifies cases in which an agency initiating a draft law might submit a substantiated proposal on the appropriateness of being released from the commitment to perform an RIA to the parliamentary secretary.

The government, on the basis of such a proposal, may release, in whole or in part, the relevant institution of the executive authority from its commitment to perform an RIA.

The amendment to the organic law on normative acts defines the specific scope of RIAs and the main topics that must be reflected in an RIA report, which are:

a. The essence and an analysis of the existing problem, the solution which the draft law identifies, and its causes;
b. The objective that is planned to be achieved with regulation;
c. Alternative options for achieving the goal, their analysis and impact assessment, including the expected outcomes of regulating the issue using non-normative methods, or leaving the existing situation unchanged;
d. Arguments affirming the advantages of the selected alternative for achieving the goal; the expected economic, fiscal, social, environmental, safety-related, and other outcomes or risks in the draft law, regarding the expected outcomes and risks of regulating the issue with non-normative methods or leaving the existing situation unchanged;
e. Other important factors and circumstances that have led to the preparation of the draft law and on which the draft law will have an affect;
f. A detailed description of the draft law preparation process; a brief analysis of the main opinions expressed during the consultation process and a summary of the consequences of their consideration and those in consideration;
g. Methods of law enforcement, and the role and function of bodies or institutions responsible for enforcement;
h. Ways of monitoring and evaluating law enforcement.

1.4. THE MINIMUM REQUIRED STANDARD RIA VS. THE IN-DEPTH RIA

According to the RIA methodology, an RIA exercise includes the following steps:

1. Identification and definition of the problem;
2. Setting policy objectives;
3. Elaborating alternatives;
4. Assessing impacts qualitatively and quantitatively;
5. Comparing the options;
6. Setting a monitoring and implementation plan.

The amount of time and resources invested in these steps is dependent on the relevance, the complexity, and the degree of controversy characterizing the issue subject to the RIA.
According to ordinance No. 35 there are two main typologies of RIA exercise that may have to be conducted:

- Standard RIA (minimum requirement);
- In-depth RIA.

The rationale behind this choice is that resources are scarce; the political agenda is pressing; and not all governmental initiatives require the same type or depth of analysis. It is therefore necessary to target analytical efforts to ensure that investments in a more evidential basis are proportionate and are made wherever they add the greatest value. RIAs should thus be as detailed as possible to clearly answer any major concerns of stakeholders and to inform governmental decisions. The more significant the impacts are likely to be, and the more uncertain or controversial

they are, the deeper the analysis should be, involving greater efforts in data collection, stakeholder consultation, and quantification of these impacts. Consequently, the government may decide, based on relevance of the initiative or the significance of expected impacts, whether to conduct a full (more detailed) RIA, on top of the otherwise mandatory standard, "lighter" appraisal. The scope of application should be strategic and proportionate, narrowing the production of fully-fledged RIAs down to a fairly limited number of the most important proposals, possibly on the basis of government-wide checklists. Agenda 2030 rationales could also become one of the leading criteria for prioritizing analyses.

In principle, all government departments are expected to conduct a scoping analysis – "light" RIAs, which are in certain cases to be complemented by a more in-depth, "full" RIA. As a general rule, the level of detail within an initial assessment should be commensurate with the size of the potential impact of the proposed regulatory measures. Specifically, RIA drafters should invest in additional analysis if they believe that the marginal benefits will yield changes in the RIA findings.

- A standard RIA is a high-level overview of an identified problem. It is conducted when a policy objective is first identified in order to explore possible mechanisms which achieve this objective. Its main role is to facilitate a decision of whether or not to regulate. It provides statements of the policy objective, formulates problems the state may face, and specifies a range of options for consideration. The scoping RIA should typically involve some level of consultation with relevant stakeholders and affected groups, including other government departments, in order to assess and further develop the assessment of the pros and cons associated with each option. The expected impacts (the costs, benefits, and risks associated with each option) should be expressed at least in qualitative terms. In general, the wider the consultation that takes place, the more buy-in there is likely to be from those affected by any regulation and the lower the likelihood of unforeseen impacts during regulatory proposals. Moreover, light RIAs should be publicly disclosed as early as possible to facilitate further discussion, before legislative work is finalized, to identify the need for a more detailed (full) analysis;
- An in-depth RIA engages in a detailed analysis of all the options under consideration, considering the social, environmental, and economic costs and benefits alongside the risks associated with each option. These factors are based on information obtained during an initial consultation process, and other information-gathering and analytical techniques (including, but not limited to, economic analysis). An in-depth RIA should aim not only at quantifying but also at monetizing impacts.

Article 8 of the ordinance regulates cases for which an in-depth RIA report is to be prepared:

a) When the necessity of an in-depth study of an issue is revealed the drafting of a standard RIA report, without which the expected outcomes of the regulation are not sufficiently clear from the report;
b) When drafting a standard RIA the estimated cost of implementing a selected option exceeds 10 million GEL over three consecutive years following entry into force of the law (the enforcement of regulation of its major part)[3];
c) When drafting a standard RIA it is determined that the selected option will have a significant impact on any sector or sub-sector thereof;
d) When the issue or problem has caused a substantial disagreement between stakeholders on key issues, or if such a dispute is expected.

A guide to define the type, depth, and minimum requirements of RIA analysis is provided in Table 1 below:

[3] The phrase above is taken from the official English version of the Ordinance provided by MATSNE. We interpret it as follows: The in-depth RIA is mandatory, if it is estimated that the costs of the selected options would exceed 10 million GEL over the three consecutive years after the enforcement of the major part of the regulation.

Table 1 - Framework for the light and the full RIA process

Section of the RIA report	Minimum requirements for the preparation of a Standard RIA	In-depth RIA
I. General information on the initiative and responsible ministry	Mandatory	Mandatory – Including an **Executive Summary** of the RIA findings
II. a) Problem definition	– Mandatory identification of the main problem, its causes, and the foremost direct consequences – **Qualitative** description of the magnitude of the problem	– Mandatory identification of the main problem, its causes, and the foremost direct consequences – **Quantitative** description of the magnitude of the problem
II. b) No-action option (baseline scenario)	Mandatory – **Qualitative** description of the scenario	Mandatory – Description with **quantitative** elements of the scenario
II. c) Objectives	Mandatory – General and specific objectives	Mandatory – General and specific objectives
II. d) Option elaboration	Mandatory	Mandatory – Inclusion of at least one non-regulatory option
II. e) Impact analysis (for each option)	Mandatory characteristics – Economic, social, environmental, public finance, and on sector specific sub-categories – Direct (and indirect if possible)	Mandatory characteristics – Economic, social, environmental, public finance, and on sector specific sub-categories – Direct and indirect
	– **Quantitative** assessment of the direct compliance costs and public finance costs – **justification is required if only qualitative** – **Qualitative** assessment of other direct and indirect impacts (economic, social, environmental, and on sector specific sub-categories)	– **Quantitative** assessment of all the direct costs and benefits (economic, social, environmental, public finance, and on sector specific sub-categories) – **Quantitative** assessment of all the indirect costs and benefits (economic, social, environmental, public finance, and on sector specific sub-categories) – **if it is not possible to assess the impacts quantitatively, the reasons should be well demonstrated, and the impacts should be assessed using alternative qualitative methods**
II. f) Option comparison	Mandatory analytical methods – Multi-criteria analysis	Mandatory analytical methods – Multi-criteria analysis, incorporating the results of a: – Cost-effectiveness analysis, or – Cost-benefit analysis
II. g) Monitoring and evaluation plan (for preferred option)	Mandatory	Mandatory
III. Public consultation process	Mandatory – Description of the process – Summary of the inputs received and how they have been taken into account	Mandatory – Description of the process – Summary of the inputs received and how they have been taken into account
IV. Accreditation (RIA "sign-off")	Mandatory	Mandatory
V. (Technical) Annexes	Optional	Optional

2. THE LOGICAL STRUCTURE OF A REGULATORY IMPACT ASSESSMENT

2.1. RIA: AN INCREMENTAL AND INTERACTIVE PROCESS CHARACTERIZED BY NOTABLE FEEDBACK LOOPS

Despite usually being depicted as a sequence of steps, RIAs are quite different from purely linear processes (see Figure 1). Even though, logically, the identification and definition of problems precede setting policy objectives, elaborating alternatives, impact assessment, and a comparison of options, in reality each of these steps interact with each other in a biunivocal manner, directly and – most importantly – indirectly, via ongoing feedback to and from stakeholder consultation, desktop research, data gathering, and data analysis.

Thus in practice, even after a problem has been identified and discussed, problem definition might still be modified to reflect new insights from stakeholder consultation, the acquisition of fresh information, or new analytical results. In turn, this can affect the definition of operational (and even general) goals, targets, and indicators, and even suggest a replacement for certain alternatives previously identified alongside those found to be more relevant and feasible. Therefore, until a report is completed, an RIA analyst should remain flexible and open to incorporating new insights in the assessment.

Nevertheless, following the logical sequencing of RIA steps remains critical, as each step (illustrated in greater detail in the following chapter) provides a direct and essential input into subsequent actions.

Figure 1 – The RIA process is iterative

Consultation, data collection, and data analysis, as represented in Figure 1, take place from the very first moment, accompanying initial efforts to identify and define the problem, until the creation of a Monitoring and Implementation Plan, providing extremely valuable inputs into every phase of the work. Because of their relevance and all-encompassing nature, we will be discussing these elements in greater detail prior to a discussion of RIA mechanics.

2.2. STAKEHOLDER CONSULTATION

A "stakeholder" may be defined as being:

- Individuals, groups, or organizations whose interests are affected by an issue, and those whose activities strongly affect the issue, or who might be affected by a potential intervention. Stakeholders might include governmental or public administration parties (e.g., ministries or independent regulatory authorities);
- Those who possess the information, resources, and expertise required for impact assessment, strategy formulation, and implementation;
- Those who control the relevant implementation instruments.

Stakeholder consultations constitute an integral and fundamental component of any participatory and evidence-based decision-making. Consultation implies a **dialogue**, that which seeks views or evidence to **inform and influence** policy formulation and implementation, alongside reporting which, and how, inputs have been taken into account.

The **consultation process** should be considered **bi-directional,** as it involves **both** making information available to stakeholders (e.g., communicating the intention to reform a certain piece of legislation, the policy approaches being considered, discussing potential goals, as well as any trends identified via desk research) **and** offering stakeholders an opportunity to present their view on the issues, share the data at their disposal, and express their hopes and concerns on both the status quo and the proposed reform.

2.2.1. Planning for consultation

Stakeholder consultation should not, and cannot, be improvised. Elaborating a Consultation Plan is essential to reap the full potential offered by the exercise. This, however, requires time and careful consideration – largely because resources are limited and need to be allocated efficiently. A Consultation Plan is an internal working document that underpins the preparation of the consultation and provides structure to your thought process, in terms of the objectives to be pursued and the means to be deployed.

A plan may be more or less formalized, though it should consist of sections that clearly address the following operational questions:

- **WHEN should I consult?** – The answer being – as early as possible, when policy officials are ready to provide sufficient information on the public domain that enables an effective and informed dialogue. Never consult after a decision is taken.
- **ON WHAT should I consult?** – The answer being – it may be on specific elements of the RIA, to validate ideas or seek further input, or on the whole policy design, each depending on the stage of the analysis. Spell out your consulting goals and pinpoint your target.
- **WHO should I consult?** – The answer being – not all sectors of the economy, but sub-population groups or the geographical areas that are equally affected or involved. The target audience should be broad rather than narrow. When envisaging the type of stakeholder, you want to reach out to, you must consider two distinct but equally relevant factors:
    - First, the consultation exercise is a means for public participation in decision-making, hence it should never exclude anyone with valid interests;
    - Second, the consultation must serve your purpose – i.e. verifying and strengthening your draft RIA. Accordingly, you should also think in terms of your specific needs.

- **WHY should I consult them?** – The answer being – regardless of the significant amount of information that can be collected by experienced and thorough researchers via desk research, and the depth of insights obtained by reviewing existing literature on any given issue, stakeholders directly affected by the problem at hand and by the proposed policies generally provide unique and critical perspectives to researchers, which complements other sources and greatly contributes to the realization of a high-quality RIA. As not all stakeholders are equally affected, or able to influence the reform process, researchers should allocate the existing resources in a way that ensures the involvement of the most relevant participants in the consultation process. This can be most easily achieved by developing and utilizing a "matrix" as a reference point that differentiates stakeholders in terms of their interests, their capacities, and influence (point 2.2.2 discusses how to construct and use a stakeholder matrix to help structure the consultation process).
- **HOW should I consult?** – The answer being – many forms and various channels are at your disposal, depending on the targeted stakeholders, the stage of policy formulation, and the resources available. Often, a mixture of approaches is most desirable. Using plain language is also recommended (point 2.2.3. below provides further insights into the methods and channels used to reach out to stakeholders).

To address each of these questions and better plan stakeholder consultations, an RIA team can initially use the table below (Table 2). This offers a complete list for stakeholders, alongside their position on the problem or issue you are working on. It should show their stake; the official/public position regarding the policy at stake (if available); the type of information that could be expected from them; and the interests of different stakeholders concerning the identified policy problem (hence, possible biases to manage). One can identify stakeholders by reviewing the relevant literature (including reports and studies from other countries), meeting key stakeholders, holding workshops, and communicating generally with people operating in the area. This information should all be internally elaborated and validated at a later stage in the consultation process. The final column, the Quadrant (approach), relates to the position of a stakeholder within the stakeholder matrix (introduced below). The approach of the RIA team towards a specific stakeholder should be adjusted to whichever quadrant they are assigned to within the stakeholder matrix. This aspect is discussed in greater detail when the stakeholder matrix is introduced below.

Table 2 – Summary of the stakeholder engagement plan

Stakeholder	Stake	Official position	Type of information	Interest / bias	Quadrant (approach)
Org. A					
Org. B					
…					

If your purpose is clearly geared towards **procuring and collecting (scientific) evidence**, it is important to be aware that a fully-fledged public consultation might not be necessary – or may well not be the most appropriate interaction with stakeholders. Box 3 elaborates on this vital point.

Box 3 – Consultations vs. data collection

It is important to formally differentiate between public consultation and the process of collecting, validating, and using (scientific) expertise. The two are two distinct exercises, which serve different purposes and abide by different governance principles. The first pivots around inclusiveness and representativeness, whereas the latter is driven by acquiring, as a rule, the best available evidence.

Differentiating between the two processes appears particularly relevant and topical if you need to elaborate on or assess governmental interventions that aim to curb harm to public health, safety, or the environment. In such cases, **risk assessment** studies should, in principle, rely on facts, while the societal acceptance of risks, benefit-risk, as well as socio-economic considerations, concern the more policy-based **risk management** phase.

Two critical junctures should be considered concerning data collection and scientific expertise:

- One the one hand, regulators are expected to clearly explain the role they intend "science" to play throughout decision-making and, consequently, which type of scientific evidence ought to be used. International good practice recommends setting criteria for **scientific excellence**, establishing standards that ascertain compliance with the scientific method, and relying on, for instance, Systematic Review mechanisms;
- On the other hand, when procuring and accepting expertise, good scientific governance implies proper management of conflicts of interests and biases in order to reduce the risk of capture by vested interests. Scientific experts involved in decision-making must operate **impartially**, i.e., they must work in the public interest, while private concerns, beliefs, ideologies, ambitions, and interests should have no influence on regulatory science.

International experience reports on various forms of **good practice** to ensure effective, inclusive, and meaningful consultation, including:

- **Accessibility** – consultation documents are freely available; follow standardized, user-friendly templates; are drafted in plain, clear language (without jargon); are concise; and include all the necessary information. The accessibility of consultation documents necessitates that you clearly state the purpose of your consultation and what is needed or expected from the stakeholders – for instance, in terms of the scope, type, and content of their inputs. Box 4 below provides basic guidance in this respect.
  You must also clearly indicate how stakeholders can contribute both in terms of the communication channels available to them (links to webpages, email addresses, phone numbers, or postal addresses; and the timing (deadlines) of the consultation period.

Box 4 – Explaining the consultation exercise

To maximise the participation and effectiveness of a consultation, stakeholders need to be well-informed on the purpose and scope of the exercise. The level and detail of information you should provide depends on the stage of the exercise. Depending on the stage of the RIA process, you should consider informing stakeholders about one or more of these four core issues:

- **About this consultation** – This section can be used to explicitly extend an invitation to the public to participate using comments; be clear as to whether there are specific or targeted issues for

continue

which greater feedback is desired; moreover, consider participation from the public in advance, and commit to providing a public response at the end of the commenting period. This information should always be provided. These given details will differ as the consultation process progresses, as more information becomes available, and new questions arise.

- **Purpose of this regulation** – This summary aims to share details of the regulatory proposal with interested parties; the problem that is being considered; and how the regulatory proposal aims to help address the problem. This information can be provided only after performing a preliminary assessment of the nature of the problem and demarking a preliminary definition of the objective(s) of the policy action. Sharing this information with the stakeholders will help elicit informative feedback about the quality and thoroughness of the completed analysis, thus allowing stakeholders to point out biases, mistakes, or omissions. It will also offer interested stakeholders the chance to propose additional alternatives, and ways to strengthen or improve previously selected options.
- **Affected stakeholders** – This summary aims to clarify who – according to the analysts – are the key stakeholders affected by the regulatory proposal. Affected stakeholders may include specific industries or economic sectors; groups of professionals; groups of citizens; regions; government agencies; or a combination of these and others. This information can only be provided after a preliminary assessment of the nature of the problem and a preliminary definition of the objective(s) of the policy action. Obtaining feedback from stakeholders (those affected) on the issue is vital to ensure that no affected stakeholder is overlooked or ignored.
- **Expected impact** – This final summary aims for a regulator to explain the expected impact of the regulatory proposal; how it will affect any stakeholders mentioned in the previous section; and whether alternatives (regulatory or not) were considered. This information can be shared and discussed with stakeholders only after a preliminary impact analysis of the selected alternatives on affected stakeholders. Ideally, preliminary results are presented and discussed with a broad group of stakeholders to verify that no major aspect has been overlooked; that previous stakeholder feedback has been correctly incorporated into the analysis; and that no main point of controversy remains. Every point raised at this stage should be thoroughly reviewed and addressed by the RIA team prior to finalizing the exercise.

- **Inclusiveness** – sufficient publicity is given to the exercise. All relevant target groups are notified in a timely manner and provided with the set minimum consultation period to prepare and engage, while also considering their means and exigencies.
- **Targeting** – consultation tools and channels are adapted to a target audience. This includes, for instance, facilitating (physical) access to hearings or meetings for disadvantaged groups and people with special needs.
- **Reporting** – unless confidentiality provisions apply, stakeholder contributions are made public and a formal acknowledgement is provided – collectively or individually – reporting and explaining which inputs have and have not been taken on board, and why.

To address each of these points, it is highly recommended that an RIA team always prepares consultation questionnaires for different groups of stakeholders to facilitate organized and structured discussions. This will also help the RIA team in summarizing the results of stakeholder consultations (more details on methods of consultation can be found below).

Once a draft RIA is completed, a new consultation phase begins, where the public is informed of the details and offered a chance to provide additional feedback. In cases where a draft legal text has already been produced, be

aware that submitting the legal text to public consultation alone is insufficient and could be misleading. Such a text may be difficult to understand for laypersons; may not reveal the underlying rationale and analyses; nor offer insights into alternative options; and thus may be perceived as "confrontational". **At this stage, is certainly good practice to accompany a draft proposal with a draft RIA.**

Box 5 provides further resources for designing a Consultation Plan.

Box 5 – Examples for guidelines of a Consultation Plan

- European Commission – Better regulation: guidelines and toolbox. Available at: http://ec.europa.eu/smart-regulation/guidelines/tool_50_en.htm
- Australia – Best Practice Consultation Guidance Note (2020). Available at: https://www.dpmc.gov.au/sites/default/files/publications/best-practice-consultation.pdf
- Canada – Guidelines for Effective Regulatory Consultations (2007). Available at: http://www.tbs-sct.gc.ca/rtrap-parfa/erc-cer/erc-cer-eng.pdf

2.2.2. Stakeholder mapping

A good consultation process encompasses the views of **all stakeholders** with **significant** interests, those with **relevant** information and a **role** in implementation.

While a **poor** consultation process **restricts** access to only dominant, powerful, or well-connected stakeholders, and is undifferentiated and passive.

To ensure good consultation processes, mapping stakeholders is key. To map stakeholder strategically and efficiently, the so-called **"stakeholder matrix"** approach should be used. In which, stakeholders are classified along four quadrants in relation to the level of their "affectedness" to the policy dossier (interest), and their capacity to mobilize advocates autonomously (influence). Table 3 provides an example of how a stakeholder matrix should look and how stakeholders can be regrouped on the basis of their interest and influence.

Interest / influence	Low influence	High influence
Low interest	The (general) public	The invisible (but influential)
High interest	Interested parties	Partners

How do you use an interest/influence grid? – Firstly, you should place the stakeholders where they actually stand, and not where they (or you) would like them to be. Once you have identified a stakeholder within the grid, you can consider which category they fall under and manage their placement accordingly.

The time and resources available for stakeholder consultation should, in descending order (from higher to lower involvement – reflecting the quadrants in Table 3), be allocated to:

- *Partners (actively involve)* – institutions and individuals with high interest and higher influence, who typically have strong preferences regarding the direction a reform should move in; who generally proffer key information on an issue; and who can significantly impact the shape of the reform and its expected

impact (e.g., government institutions, or influential national and international organizations who are influential and actively engaged in the proposed reform);

- *Interested parties (consult)* – despite having a lower capacity to affect reform design or the expected impact, these stakeholders are also very familiar with the issues discussed and can greatly contribute to the understanding of the nature of a problem and to the identification of potential solutions (e.g., small NGOs operating in the field, affected stakeholders, field experts, or private companies);
- *The invisible (make an extra step)* – while relatively indifferent to the issue at hand, these stakeholders should be informed and consulted with, as unintended side-effects of a reform might affect their attitudes, thus potentially, the success or failure of the reform (e.g., other influential government bodies, as well as powerful non-governmental institutions whose sphere of activity is only indirectly related to the issue at hand, whose actions can nevertheless be impactful);
- *The public (inform)* – given low levels of interest and influence, stakeholders classified within to this category might be excluded from early consultation stages and involved only when a draft impact assessment is made public to elicit additional feedback before its finalization.

Concrete examples of the different types of partner are provided in point 2.2.5. below.

2.2.3. Methods and channels

Once engaging on an RIA exercise, you should establish lines of communication with the relevant stakeholders as soon as possible and keep those lines open for the entire duration of the consultation exercise.

Selecting the right method and channels to reach stakeholders increase the chance of meeting the objectives of the consultation exercise. Transparency and inclusiveness crucially encourage genuine and representative dialogues and build trust in the policy process, but in order for your consultation to be credible and effective, you need to engage with stakeholders in a way that is relevant and convenient for them.

Although open and comprehensive consultation should be your aspiration, in certain circumstances being overly consultative can compromise your policy goals. At times, being public-wide on an indiscriminate basis – for instance using online platforms and channels – might backfire, despite the illusion of being open and instantly reachable. For example, social media can be a good way of generating discussion and feedback, however it may not be appropriate or even available for certain groups. Moreover, such a format might prevent substantive exchanges, or might make it difficult to manage spamming or capture.

Three options for consulting stakeholders – in light of the above, judgement is required to strike the right balance between being consultative and being decisive. Therefore, you may consider the following three consultation options:

- **Full public consultation** – in an ideal scenario this is the default form of consultation, since it brings the benefits of encouraging openness and trust in decision-making processes. Your task is to consider the most appropriate forms: a full public consultation is easier and more realistically implemented when an RIA starts early and there is sufficient time for planning and conducting, to help inform the problem definition stage. As a second-best scenario, when the time available for the RIA is limited, public consultations should be held, at least, when a first draft of the problem definition has been developed;
- **Targeted consultation** – when a stakeholder group is in a well-defined geographic area or reflects a specific categorization, targeted consultation may be the most cost-effective way of achieving your objectives. Often, targeted consultations are organized on top of, rather than instead of, full consultations – with the clear aim of reaching out to individual types of stakeholder, those which might otherwise be

left behind. Targeted consultations are crucial when full public consultations are not possible prior to the problem definition stage, as they allow limited time and resources to be focussed on the most influential and interested stakeholders;

- **Confidential consultation** – sensitive issues may require discreet handling in a consultation process. This may be due to the sensitivity of a situation, or to avoid triggering needless concerns, confusion, or other unintended consequences. This approach should not pave the way for risks of capture or bias, and requires careful management.

Table 4 summarizes the various options.

Table 4 – Consultation options

	Description	Consultation options
FULL PUBLIC CONSULTATION	• This is the default approach when transparency and public accountability in decision-making are the most important priorities; • When the integrity of the decision process will not be compromised by early public scrutiny; • In ideal conditions (when there are enough time and resources).	• Public hearings and briefings; • Calls for submission (e.g., using online tools and websites); • Direct communications with affected entities; • Media and advertising, including social media activities.
TARGETED CONSULTATION	• When specifically affected stakeholders are in a well-defined geographic area, social condition, group, or business sector; • When consultation should be contained so that effort (and time) is not wasted by involving unaffected parties.	• Face-to-face meetings, telephone calls, or street-level surveys / interviews of the affected people; • Industry or sectoral meetings and briefings (e.g., SMEs); • Targeted social media activities; • Direct public engagement of peak bodies or other representative groups.
CONFIDENTIAL CONSULTATION	• When the sensitivity of the issues requires you to gauge public sentiment or inform the affected entities discreetly without triggering needless widespread concern, anger, or confusion among affected households or businesses.	• Narrow or on-camera consultation of select groups of opinion leaders or peak bodies; • Quantitative research into the general views and likely responses of affected entities or areas in which a two-way dialogue is not sought; • Alternative forms of consultation must be followed by broader post-announcement consultations on transition or implementation issues.

It is possible that, despite your efforts, the consultation round does not deliver the feedback or information you require, or its quality is unsatisfactory. Table 5, below, highlights the problems that might emerge when reviewing stakeholder contributions and the possible ways to address them.

Table 5 – Addressing challenges in public consultation

Problem	Possible way out
Low response rate	A common problem with passive forms of consultation (e.g., mail surveys, calls for submissions). If you have time, choose more proactive and dialogue-based consultation methods (e.g., in person interviews or surveys).
Lack of understanding of the key questions	Simplify and clarify your consultation material, and resubmit them with a Glossary / FAQ annexes. Consider direct meetings with stakeholders.
Responses irrelevant to the issue, outside the scope of consultation	Put them aside and explain why in the summary of the consultation.
Low quality responses (details or evidence, subjective opinions)	If time allows, specify what you need. If not, search for alternatives or proxies (e.g., from surveys).

2.2.4. Managing consultation findings

You are responsible for using the received inputs in an efficient and objective manner. This may not always be as simple as it seems. When carrying out a consultation and then using the subsequent information, you should be aware of a few pitfalls that may introduce a bias into the results. In particular:

- **Distinguish facts from opinions** – when you use consultations to gather data, you should carefully verify that the method used is correct and appropriate, and also try to validate the robustness of the results. Peer-reviewing, benchmarking with other studies, and sensitivity analyses can significantly enhance the quality of data. You moreover should explore the risks and consequences related to interest group positions regarding the issue at stake. If certain stakeholders' positions are clearly subjective, biased, or contradicted by existing evidence, such opinions should be reported but not necessarily incorporated into the analysis. In these instances, however, immediately after mentioning that the position has not been incorporated, a clear motivation for the choice should be provided;
- **Weight representative inputs** – not all interest groups are equally able to take part in consultations or express their views with the same force. You may need, therefore, to make specific efforts to ensure that all relevant stakeholders are both aware of and able to contribute to the consultation. In this case, the RIA team can prepare a short summary of the major points of the reform and send them to the consultation party before an engagement. You should also be careful drawing conclusions if there are only a small number of responses or if they come from a narrow range of interests. At the same time, you should give responses their due weight if they represent a large number of citizens or stakeholders.

To ensure accessibility of the stakeholder consultation results, the following table must be used within an RIA report:

Table 6 – Summary of the consultation (mandatory under ordinance No. 35)

Stakeholder	Method of consultation	Summary of the results	Comments
Name and size of the stakeholder/group of stakeholders	For example: interviews (with date); review of the consultation documents; inquiry	Brief description of the data/ options collected during the consultation process	Whether or not the answer was taken into consideration; why?; etc.
....			
....			

2.2.5. Practical examples and lessons from the Georgian experience

This subsection has been developed to help the reader consolidate the previously discussed concepts and to offer direct exposure to the lessons RIA analysists have learned in the process of conducting stakeholder consultations in the Georgian context, as well as at select approaches for tackling these problems.

Repeat interactions with stakeholders and institutions, whenever required
At times, to benefit from a comprehensive picture on certain issues and to increase the quality of the RIA analysis, it becomes necessary to arrange several meetings with the same interested parties or with individuals covering different roles within the same institution.

This was the case, for example, during the implementation of the RIA on the Draft Law on Water Management. A short discussion of what prompted the realization in this particular RIA is provided in Box 6. While, Box 7 provides a brief summary of the stakeholder consultation process during the RIA, and it highlights the instances in which multiple meetings were required.

Box 6 – The RIA on the Draft Law on Water Management

(implemented between January-June 2017, when the Ministry of Environment and Natural Resource Protection (MENRP) still existed)

The Georgian government began to change water management legislation to meet the obligations of the Association Agreement (AA), signed with the European Union (EU) in June 2014. Within the activities performed under the agreement, the new Law on Water Resource Management was prepared. The draft law introduced several changes in the water resource management system, including:

- Classification of rivers;
- Definition of the qualitative status of water bodies;
- Revision of the permits system on water use;
- Introduction of river basin management organizations.

After a preliminary analysis of the issue, the RIA team agreed with the main stakeholder, MENRP, to focus the analysis on the economic and social implications of the following specific (high interest) aspects of the reform:

- The introduction of the Basin Management System;
- The introduction of new economic instruments for water resource management;
- Changes in the permit system;
- Changes in monitoring practices and procedures.

Box 7 – The stakeholder consultation process during the Draft Law on Water Management RIA

The law on Water Resource Management of Georgia was expected to affect many parties. For simplicity, they were divided into two main groups: the private sector (including civil society) and the public sector. The main stakeholders were identified and categorized within the influence-interest matrix format (see below). The matrix was updated whenever new stakeholders were identified or more precise information about their interest or influence was collected.

Interest-Influence Matrix

Influence / interest	Low influence	High influence
Low interest	• National Association of Local Authorities of Georgia; • Local municipalities.	• Ministry of Economy and Sustainable Development (MoESD); • Ministry of Finance (MoF); • Local municipalities; • Ministry of Internally Displaced Persons From Occupied Territories, Labor, Health and Social Affairs (MoIDPLHSA); • Georgian parliament.
High interest	• Private citizens; • Industrial water users; • Hydropower developers; • Thermal power plants; • Georgian Water and Power (GWP); • Local water suppliers; • Environmental Protection of International River Basins Project; • NGOs.	• Department of Environmental Supervision; • Georgian National Energy and Water Supply Regulatory Commission (GNERC); • Ministry of Environment and Natural Resource Protection (MENRP); • Ministry of Agriculture (MoA); • National Environment Agency (NEA); • United Water Supply Company of Georgia (UWSCG) – a state owned company; • Georgian Amelioration (GA) – a state owned company; • National Food Agency (NFA); • Ministry of Energy.

Due to the complexity of the problem, the RIA team had to arrange consultations with the main stakeholder - representatives of MENRP - several times:

- The aim of the first stakeholder meeting with the ministry was to explore the main directions of the draft law, identify the current problems, and explore the potential objectives of the RIA;
- Following the problem definition and objective definition phases, another meeting was held to identify the directions of the draft law that would be the focus of the RIA and to explore major policy options.

More meetings were subsequently held during the impact assessment phase:

- The RIA team held multiple consultations with the Department of Environmental Supervision, under MENPR. Department representatives gave a complex overview of how new regulations would affect their internal management system, as well as the management systems of affected stakeholders;
- Following these meetings, the team also arranged a meeting with the financial department and were given detailed information about all possible costs the public sector was expected to incur under proper functioning of the updated internal management system, such as: hiring new employees, purchasing new equipment to ensure smooth implementation of the additional activities introduced with the reform, etc.

Finally:

- MENRP representatives were also the first group of stakeholders to whom the RIA team presented the draft findings of their analysis. Based on their feedback, the draft was further improved.

Identify and utilize the best mix of stakeholder consultation methods for optimal results

Depending on the information sought, and the type of stakeholder you need to interact with, it can be useful to design a consultation strategy that makes use of multiple techniques. This was the preference for the team working on the RIA on the Draft Irrigation / Drainage Tariff Methodology reform. The main goal of this RIA was to support the Georgian government in its attempt to reform the amelioration system (irrigation and drainage) in Georgia (more details on this RIA exercise are provided below in Box 8).

Box 8 – The RIA on the Draft Irrigation / Drainage Tariff Methodology

(implemented between November 2015-February 2016)

The reform of the amelioration system required elaboration of the development strategy for the sector, the introduction of the new Law on Amelioration, and the establishment of a methodology for irrigation and drainage tariffs.

The RIA exercise was mainly focused on proposing the most suitable tariff design for irrigation and drainage services. The main reasons behind the development of the new methodology were to improve the reliability of the water supply system; ensure the financial sustainability of the amelioration service providers; certify efficient allocation of water resources among alternative users; and to increase the competitiveness of the Georgian agricultural sector by providing reliable drainage and irrigation services at reasonable prices.

Various methods were used during the stakeholder consultation process, the most salient aspects of this process for the RIA on the Draft Irrigation/Drainage Methodology are summarized in Box 9.

Box 9 – The stakeholder consultation process during the RIA on the Draft Irrigation/Drainage Methodology

The changes in the methodology for irrigation and drainage tariffs were expected to affect several actors, including farmers, Georgian Amelioration LTD., and the government. The identified stakeholders were categorized within the influence-interest matrix format. Several meetings were held with these stakeholders to gather a comprehensive overview of the irrigation system in place, to reveal existing issues and problems faced by each stakeholder, and to identify possible solutions.

Interest-Influence Matrix for the RIA

Interest-Influence Matrix for the RIA

Influence / interest	Low influence	High influence
Low interest	• Local government representatives.	• Parliament of Georgia.
High interest	• Farmers; • Georgian Farmers' Association (GFA).	• Georgian Amelioration (GA); • Amelioration and Land Management Department of the Ministry of Agriculture; • Amelioration reform working group.

continue

During the stakeholder consultation process, multiple methods were used:

To obtain information on farmers' willingness to switch to modern irrigation technologies, average yields of rainfed and irrigated crops etc., focus groups and phone-interviews were conducted with various farmers.

The RIA team arranged two **focus group meetings** with farmers in the Akhmeta and Marneuli municipalities, with the help of regional agricultural extension centers. The agenda for the meetings with stakeholders included the following items:

- Views on the current situation;
- Levels of satisfaction about the service (water supply);
- Loss estimates during past water shortages (if any);
- Concerns about future possible changes, estimated price responsiveness, etc.

Telephone surveys were also utilized to determine farmers' willingness to pay for irrigation/drainage services. The RIA team conducted these interviews with the help of the Georgian Farmers' Association (GFA). The questionnaire and the sample design for the survey were developed and presented to the GFA within a day of the agreement, and thereafter the farmers' survey took place.

Moreover, several (sometimes repeated) in-depth interviews were carried out with the stakeholders, including:

- Georgian Amelioration – to understand ongoing issues and challenges to the sector; the current constraints and problems related to tariff payments; and the company's view on the proposed tariff methodology.
- External consultants – to discuss the current amelioration system in Georgia and share international experience related to amelioration tariffs.
- The Ministry of Agriculture – the main purpose of the meeting was to understand the government's view on the reform process.

The collected information complemented the details provided by experts working with the RIA team and was successfully incorporated into the RIA report.

Follow-up initial consultations for unique and useful data

During the initial round of consultations, you may at times realize that your analysis could benefit greatly from data and information gathered by stakeholders; which transpired during implementation of the RIA on Crop Insurance Reform in Georgia. During this RIA exercise, focus group interviews were actively used to consult the sector stakeholders (a brief overview of the RIA is provided in Box 10).

Box 10 – The RIA on Crop Insurance Reform in Georgia
(implemented between June-November 2015)

Under the crop insurance reform, the intention of the Georgian government was to introduce a national insurance program to achieve the following objectives:

- Develop the agricultural insurance market in Georgia;
- Support agricultural production and increase the competitiveness of farmers;
- Support the income of citizens involved in agricultural activities and minimize their risks.

In the initial stage of the reform, two pilot projects were implemented by the GoG (in 2014 and 2015), which on average subsidized 94% and 55% of the insurance premiums, respectively. Alongside these pilot projects, the government initiated the development of a sustainable long-term crop insurance policy and regulatory framework. The purpose of the RIA on Crop Insurance Reform was to evaluate the alternative insurance model schemes and recommend the selection of the best policy option.

A summary of the relevant highlights of the stakeholder consultations performed during the RIA on Crop Insurance Reform is represented below in Box 11.

Box 11 – The stakeholder consultation process during the Crop Insurance Reform RIA

The introduction of the Crop Insurance Reform was expected to affect several groups. These included farmers, insurance companies, the Georgian Insurance Association (GIA), and the Agricultural Projects Management Agency (APMA) of the Ministry of Agriculture (MoA). For the RIA, the main stakeholders were identified and categorized within the interest-influence matrix.

Interest-Influence Matrix for the RIA

Influence / interest	Low influence	High influence
Low interest	• National Environmental Agency.	
High interest	• Georgian Farmers Association; • Farmers; • Donor communities (e.g., USAID, KfW, SDC); • Agro businesses.	• Agricultural projects Management Agency (APMA) of the Ministry of Agriculture; • Insurance companies; • Georgian Insurance association (GIA).

Several meetings were undertaken with these stakeholders to develop a comprehensive overview on the current state of affairs and to suggest possible solutions to the identified problems.

During the consultation process, the RIA team conducted in-depth interviews the following stakeholders:

- An external insurance consultant (three in-depth interviews were carried out) – to discuss the functions of the National Agricultural Risk Management Agency (NARMA), the costs associated with NARMA, and compulsory and semi-compulsory insurance models;

continue

- The Agricultural Project Management Agency (APMA) (two in-depth interviews were carried out) – to discuss the main responsibilities of APMA, how they see the possible development of Agro-Insurance Reforms, and what the role of the government should be in the agro-insurance sector;
- Farmers and agro-business representatives were also interviewed to understand their problems, to see under which conditions they are willing to get insurance, and to what extent they require the government's involvement.

Insurance companies represented one of the key stakeholders for the RIA. To gather their views and suggestions regarding the reform, the team arranged a focus group meeting, with the support of the Georgian Insurance Association. During the focus group, it emerged that several insurance companies possessed private data about previous attempts to introduce agricultural crop insurance products. Following a data request from the researchers, to allow for better definition of the problem and possible options, the insurance companies agreed to share their private data. Ultimately, the data did help the RIA team in characterizing the problem and allowed research into how and why such attempts had failed; supporting the conclusion that the development of a fully private insurance market (in absence of governmental intervention) was – at that stage – extremely unlikely. The opinions expressed during the focus group, as well as insurance-generated data, were successfully incorporated into the report.

The RIA team also organized two workshops to share the preliminary results with stakeholders, and to collect their views and suggestions. The goal of the first workshop was to discuss the results of the consultation process with key stakeholders and to consult with participants to help define the specific objectives of the policy intervention and to select policy options for further analysis. In the second, final workshop the results of the study were presented to the stakeholders. Thereafter, feedback received during both workshops was taken into consideration and incorporated into the final report.

Adapt your strategy to overcome existing constraints and challenges

Constraints and challenges will occasionally force you to develop innovative plans to be able to consult with stakeholders. This happened, for example, during the RIA on the Domestic Workers' ILO Convention (C189), as the entire process was performed during the COVID-19 pandemic. Pandemic-related restrictions forced the RIA team to modify the stakeholder consultation process and perform all consultations remotely. Box 12 summarizes the main purpose of the RIA on the Domestic Workers' Convention, while a description of how the stakeholder consultation process was carried out is provided in Box 13.

Box 12 – The RIA on the Domestic Workers' Convention

(implemented between November 2019-November 2020)

The International Labour Organization's (ILO) convention on domestic workers (C189) aims to promote decent work for all and to ensure fundamental protections and rights to workers employed in private homes around the world.

According to C189, domestic work is defined as "work performed in or for a household or households". The definition of a domestic worker is: "any person engaged in domestic work within an employment relationship". Thus, the main distinguishable factor of domestic work, compared to other types of employment, is the workplace, namely in a private household. Domestic workers provide a variety of services: cooking, cleaning, childcare, care for elderly and disabled, gardening, driving, etc. Domestic work

continue

is typically undervalued and the workers – who often belong in the informal economy – are less likely to benefit from social protections that the law provides to formally employed workers, or to enjoy decent working conditions.

At the time of the RIA, the Convention had already been adopted by 29 countries, though Georgia had not yet ratified it. The RIA exercise was thus intended to support the national debate on the ratification of the Convention.

Box 13 – The stakeholder consultation process during the Domestic Workers' Convention RIA

The ratification of the C189 Convention was expected to have a significant influence on various parties, including domestic workers, employment agencies, and legal consultancy centers. During the RIA working process, the first step was to identify the stakeholders and categorize them in the Influence-Interest Matrix.

Interest-Influence Matrix for the RIA

Influence / interest	Low influence	High influence
Low interest	• Labour market experts; • Human rights NGOs / foundations (Human rights and monitoring center (EMC), Young Lawyers Association).	• Public defender; • Free legal aid service center.
High interest	• Private employment agencies for domestic workers; • Domestic workers; • Legal experts.	• MoIDPLHSA – Labour and Employment Policy Department; and Labour Conditions Inspection Department; • ILO representatives; • Trade unions; • UN Women.

The stakeholder consultation process took place largely between May-July 2020. During this period, due to COVID-19 pandemic restrictions, face-to-face communication with stakeholders was impossible. Thus, the RIA team held online consultations, and interviewed the stakeholders using Zoom, WebEx, and other online platforms. Several meetings were held with the stakeholders to secure a comprehensive overview of the existing working conditions of domestic workers; to reveal the current issues and problems domestic workers face; and to identify possible solutions to improve working conditions. To avoid missing relevant information due to, for example, internet connection problems, the meetings were recorded (after obtaining the permission of the respondents) and stakeholder interview transcripts were made based on these recordings.

Moreover, to analyze domestic workers' awareness levels, motivations, and attitudes, the RIA team conducted an online survey. The main purpose of the survey was to consider how domestic workers assessed their working conditions; their relationships with their employers; their awareness of legal rights; and their attitudes towards proposed policy alternatives. It should be noted that, as it was commissioned over Facebook, the survey sample was characterized by some selection bias towards the younger generation. This drawback was mentioned explicitly in the RIA document.

2.3. DATA COLLECTION AND ANALYSIS

2.3.1. Planning data collection

Once you have a rough idea of the nature and scale of a problem, and of the type of options you are envisaging or once you know which impacts an option is likely to produce, it is fundamental that you substantiate your arguments and reasoning as much as possible. To that end, you need evidence and data that is relevant and reliable. This is an essential component of any RIA, both for the qualitative and quantitative assessments.

Data collection is likely to be the most time-consuming activity in the preparation of an RIA. Your efforts should therefore be proportionate with the importance of the initiative.

2.3.2. Existing sources of information

The information available at hand may include:

- Monitoring or evaluation reports from previous or similar programs and initiatives;
- Earlier analyses from your department and consultation documents;
- Statistical data from the National Statistics Office of Georgia (Geostat), Eurostat,[4] and others;
- Studies and research from the government and EU agencies;
- Stakeholders sources (e.g., from previous hearings, conferences, press statements);
- National agencies and research institutes, as well as SINAPSE[5] (for scientific information);
- Online academic databases (e.g., JSTOR, ScienceDirect, EconLit, etc.);
- Examples and experiences from other countries, third parties, and international organizations (e.g., the World Bank, OECD).

The last point is particularly relevant: if data on Georgia is missing, it is pertinent to consider and compare data and analyses from equivalent countries. If you are not aware of any such research, you should seek support as early as possible within your department and from external experts.

2.3.3. Dealing with a lack of data

What if you do not have readily available data?

Box 14 – How to determine unknown figures

Several strategies allow you to obtain or extrapolate measurement indicators for your impacts, including:

Using reference sources

- Check exactly how the numbers were derived in the sources you are utilizing. Various sources may use different operational definitions;
- Use multiple sources, but ensure that your valuations are consistent, and perform sensitivity analyses to check whether the values estimated using different methodologies or operational definitions do not lead to significantly different conclusions. If this is the case, chose whichever methodology you consider the most appropriate and also highlight the implications of your choice in the report;
- Avoid, if possible, sources that do not offer operational definitions.

[4] https://ec.europa.eu/eurostat/web/main/home

[5] Scientific INformAtion for Policy Support in Europe (SINAPSE) serves as an e-community platform and as a e-library to promote better use of expertise in EU policymaking and governance. See http://europa.eu/sinapse/.

continue

Using surveys

- Survey systematically interested parties;
- If there are not time or resources enough to conduct an ad hoc survey, seek national or local surveys completed on a regular basis by well-known organizations (research centres, leading newspapers, etc.). Pay attention to the way questions are formulated and identify ex-ante (i.e., before processing the data) those that most closely match your needs. The analysis should fit the data, not vice-versa (never select data just to validate your priorities!).

Estimating or extrapolating

- Use rates that do not vary much from place to place to estimate an absolute number (e.g., to approximate the number of deaths, multiply death rates by a population – instead of compiling actual figures from population registries);
- Look if there are widely accepted rules of thumb;
- Use rates characterizing similar phenomena;
- Use a known variable to guess another when a relationship between the two is known (e.g., population growth as a function of time and previous growth rates);
- Set boundaries by reference to another variable (e.g., the maximum number of children using diapers cannot be larger than the population between birth and four years old);
- Employ triangulation, i.e., using several separate approaches and data sources to estimate a quantity and compare the results.

Using expert opinion

- Verify the credentials of experts;
- Use methods for pooling their estimates and lowering the margin of error of the estimate (e.g., the DELPHI method).

2.3.4. Methods of data collection

There are various methods available to collect relevant data. When opting for one method, bear in mind that you should consider whether:

- The method is efficient (i.e., it allows you to collect as much information as required at a justifiable cost);
- The data collected is valid (i.e., you are sure the data accurately reflects its measures) and is reliable (i.e., the same results would be obtained if one repeated the data collection and process exercise).

Data collection methods can be distinguished between qualitative and quantitative variants. Some of which are described in the table below.

Table 7 – Data collection methods

Qualitative methods	Description
Unstructured interviews	Normally used in the initial stages of policy identification and formulation processes, as they allow for preliminary investigation and scoping. The unstructured approach allows adaptation of questions to match respondents' intelligence, understanding, or beliefs. Unlike in structured surveys, however, replicability and comparability of the data is more complicated.
Brainstorming **DELPHI method**	These methods require creating groups of experts (internal or external to the public administration), who deliver structured opinions. Both methods are suitable for the problem definition and option identification stages. However, the purpose of brainstorming is generally to gather new ideas (while criticism and value judgments are not priorities), whereas the DELPHI method seeks to achieve increasingly sophisticated analyses by targeting questionnaires and making them more precise through a number of discussion rounds. (On the DELPHI method, see https://en.wikipedia.org/wiki/Delphi_method.)
Focus groups	This approach involves a free group discussion on a limited set of questions. A moderator typically guides the group through an agenda, but the interaction between members is as important as their expertise. Focus groups are often used to confront representatives of various stakeholders or experts in different disciplines. Finally, the moderator summarizes the proceedings and reports the main conclusions.
Case studies	This approach is used when the remit of the policy is relatively narrow, or there is limited access to data. In the latter case, a case study may allow for "reading-across" (i.e., applying definitions and conclusions from one case to other scenarios where less empirical evidence is available). Case studies may also allow for extrapolation and generalization – but in these instances any assumptions or logical argumentation applied must be explicitly reported.
SWOT analyses	This is probably the most common brainstorming tool for strategic planning, in which all four aspects are listed in a matrix. In which, SWOT stands for S – Strengths; W – Weaknesses; O – Opportunities; and T – Threats.
Quantitative methods	**Description**
Surveys	Surveys systematically collect primary data using questionnaires applied to representatives or a pre-selected sample of individuals. They are usually based on questionnaires with both open and closed questions. The systematic and standardized approach also allows for statistical techniques. Because of their widely acknowledged advantages, surveys are commonly used.
Statistics	Broadly speaking, statistics pertains to the collection, processing, interpretation, and presentation of data. Descriptive statistics are used to summarize and describe a collection of data. It considers measures of central tendency (mean, median, and mode); measures of dispersion (standard deviation and variance); and measures of association (correlation and regression). Inferential statistics deals with the modelling of patterns of data, and uses samples and populations to test hypotheses.

The impressive development of IT has provided researchers with additional, and extremely powerful, tools for gathering large amounts of accurate data in real-time or, at least, much faster than traditional data collection methods. Moreover, behavioral data collected via these methods is extremely valuable to researchers, as it provides information about genuine behavior (like experimental data, but on a much larger scale and extracted in a real context) as opposed to self-reported data collected through surveys. Examples of such tools are reported in Table 8.

Table 8 – Modern data collection methods

Method	Description
Data scraping and other methods of data extraction	Data scraping, often referred to as web scraping, is the process of importing information from a website into a spreadsheet or local file saved on your computer. Data can be extracted from various sources (like maps, images, or texts). Valuable data can also be obtained from digital (and non-digitalized) sources not freely accessible through web scraping. This type of data can provide information otherwise difficult or costly to collect (e.g., using satellite pictures of a country to monitor rates of deforestation, the access to electricity, etc.).
Social media monitoring	Researchers can extract and analyse social media data (Twitter, Facebook, etc.). These techniques are particularly useful to perform a so-called "sentiment analysis" – assessing the sentiment towards a company, brand, product, or political issue.
GPS tracking	Tracking the movement patterns of individuals through digital devices is becoming increasingly important; researchers are realizing that locations and in-context dynamics are key drivers of consumer decision-making.
Web tracking technologies	(Like cookies or meters) Allow researchers to monitor websites and record how long users spend online, when they visit, which links are clicked, and so forth. Through this, researchers can gain a deep understanding of how consumers behave online.
Other passive measurements	Almost any modern electronic device has the ability to capture data about its user. This can be useful for studying specific research questions or for nudging individual behavior in a particular way.
Transactional data	Financial service providers (FSPs), mobile network operators (MNOs), retailers, etc., collect many forms of transactional data, which can be extremely valuable for deriving information about determinants of individual behavior and the changes in behavior associated with new policies.

2.3.5. Practical examples and lessons from the Georgian experience

This subsection has been developed to help the reader consolidate the concepts previous discussed and to offer direct exposure to the lessons RIA analysists have learned in the process of data collection, as well as their methods used.

Be proactive and creative when gathering the data you need

During the implementation of the **RIA on the Draft Irrigation/Drainage Methodology** (discussed in greater detail in Box 8, above) several data collection methods were used; including gathering data from the relevant state institutions (i.e., GA and the Ministry of Agriculture), alongside desk research of local and international literature and national strategies. However, the RIA team also had to utilize other data collection methods to find information that was not readily available (see box 15 below for a summary of the methods used).

Box 15 – Data collection methods in the RIA on the Draft Irrigation / Drainage Methodology

In order to obtain a comprehensive overview of the problem the RIA team used multiple methods: desk research, requests for official data, focus group discussions, and a phone survey.

Description of the data and research methods

Data and information	Source/method used
• International experience on cost recovery and water pricing for irrigation and drainage.	• Desk research.
• Early data about the number of irrigation and drainage consumers, by covered area and region; • Historical data about irrigation tariffs; • Historical data of GA costs; • Annual billing data, collecting efficiency of irrigation and drainage tariffs.	• Requesting information from GA.
• Number of governmental subsidies for each year and future plans.	• Requesting information from GA and the Ministry of Agriculture.
• GA development plans.	• Requesting information from GA.
• Administrative, infrastructural, operational, and maintenance costs of GA.	• Requesting information from GA.
• Calculated tariff rates according to the proposed draft law for several amelioration systems.	• Requesting information from GA.
• Governmental plans and objectives to develop the Georgian amelioration system.	• Desk research, particularly an analysis of the GoG's 2020 Strategy and the Strategy for Agricultural Development in Georgia (2015-2020).
• Shares of eight major crop types, by total cultivable area, in the eleven target municipalities.	• Requesting information from the MoA's Regional Information Consultation Centers in target municipalities.
• Farmers' willingness to pay; • Average yield of rainfed and irrigated crops; • Crop financial gross margins for Georgian farmers; • Farmers' willingness to switch to modern irrigation technologies.	• **Phone surveys and focus groups with farmers;** • Desk research.
• Approximate change in irrigation technologies; • Investment cost of different irrigation technologies; • Optimal irrigation choice for different cultures; • Water usage for different irrigation technologies; • Forecasted change of cropping patterns from 2015-2020.	• **Requesting information from the consultant.**

continue

Highlight: the phone survey – For problem analysis, the RIA team needed information about farmers' willingness to pay for irrigation and drainage services. This data was not readily available for Georgia. Thus, the RIA team designed a telephone survey to find information on how much farmers were willing to pay. The survey was conducted with the support of the Georgian Farmers Association. During the survey, 119 farmers were interviewed; the questionnaire included 20 questions in total, both open and multiple-choice. The respondents were asked about their farming activities (their cultivated cultures, average ha. of cultivated land, income from agricultural activities), their irrigation needs and willingness to pay for a reliable irrigation/drainage service. The results of the survey were successfully incorporated in the RIA report (The questionnaire is presented in Annex 2).

Highlight: consultants and expert opinion – For an analysis of the expected impacts, the team needed information on the costs of alternative irrigation technologies in Georgia, as well as on the expected gains of switching from one irrigation technique to another (also associated with potentially switching crop). The main idea was that farmers would benefit from the rise in tariffs only if greater availability and reliability of water would allow an increase in profits, net the costs, for upgrading their irrigation technology. The information gathered in the literature review, however, was not relative to Georgia. Therefore, the RIA team asked their agricultural consultant to help adjust the existing information to the situation in Georgian. This allowed extrapolation of the expected impacts over the projected time horizon by identifying the circumstances in which switching to more modern irrigation techniques (and different crops) would prove profitable, and thus more accurate measurement of the estimated net benefits of the reform.

Under the scope of the **RIA on the Draft Law on Water Management** (more details in Box 6) the team collected and analyzed the data from multiple sources, including MENRP, Geostat, the Ministry of Finance, etc. However, to monetize the potential impacts (particularly the benefits) of the reform, the RIA team needed to assess the existing water quality in Georgian river basins, as well as water customers' willingness to pay for high-quality water. This information was not readily available for Georgia and the RIA team had to use several methods to gather the necessary data. A brief discussion of the data collection methods used during the implementation of the RIA is provided in Box 16 below.

Box 16 – Data collection methods used in the RIA on the Draft Law on Water Management

The RIA team used multiple methods to gather the information necessary for analyzing the problem, to assess the existing quality of water, and evaluate the impact of the reform.

Description of the data and research methods

Data and information	Source/method used
• Chorokhi-Adjaristskali River Basin action plan, budget	• Desk research
• Economic activity by sectors within the basins (production, emolument, turnover, etc.)	• Geostat
• Information about water resource management costs	• Different ministries and government agencies, MoF – the state budget
• Monthly household expenditure on water; • Basic water supply sources for households	• Integrated Household Survey (HIS), Geostat (2004-2015)
• Pesticides types and quantities used by agricultural holdings	• Sample survey of agricultural holdings, Geostat (2015)
• Statistics on water use by sectors and the Black and Caspian Sea Basins	• Monthly Bulletin, NEA

Highlight: assessment of Total Economic Value (TEV) of water – TEV refers to the maximum amount of goods and services – or monetary income – that an individual is willing to forgo (Willingness to Pay (WTP)) in order to obtain an outcome that increases their welfare. There had been no previous studies regarding the WTP for high-quality water in Georgia, and, due to time and resource constraints, a direct evaluation of the WTP for Georgian citizens via a contingent valuation survey (CVS) was ruled out. Instead, the WTP value for Georgia was extrapolated on the basis of a meta-analysis of 54 studies estimating the link between the WTP for improvements in water quality and several country characteristics, following the introduction of the relevant EU directive in a number of European countries. The RIA team kept all the non-relevant variables used in the meta-analysis constant (typically those associated with the design of the 54 studies) to their mean value, and plugged the actual values for the relevant basins for the following control variables:

- The expected water quality change in the basin (supported by water experts);
- The baseline quality levels in a basin (supported by water experts and Water Quality Monitoring data from NEA);
- The importance of irrigation in the basin (share of individuals in rural areas – Geostat data);
- The natural log of household income in the basin (Geostat data);
- The natural log of population in the basin (Geostat data);
- The natural log of total lake surface area (in ha.) in the basin (Geostat data).

continue

Highlight: evaluating baseline water quality – One of the key variables in the assessment of the WTP for high-quality water was the current qualitative status of the water (due to a lack of available data, the assessment was only completed on surface water sources). Such data was not readily available for Georgian river basins, thus, to assess water quality, the RIA team used the Water Quality Ladder, developed by Resource for the Future (RFF). According to the RFF Water Quality Ladder, water quality is defined in terms of suitability or ability to support specific recreational activities. The state of water is assessed on a range from 0 to 10 – the higher the number indicated, the better the water quality. Following this methodology, the RIA team asked water experts to attribute all Georgian River Basins a score from 0 to 10. The team also revised data obtained from water monitoring stations (NEA). The general quality of surface water was evaluated with respect to the following levels: nitrogen, phosphorous, and dissolved oxygen. (A detailed description of the Water Quality Ladder, as well as the results of the expert assessment is provided in Annex 3).

Under the RIA on the Domestic Workers' Convention (more details are available in Box 12, above) the team examined awareness levels of domestic workers, their motivation, and their attitudes. As data on these issues was not accessible from other sources, the RIA team decided to conduct an online survey to reach various domestic workers, including nurses, drivers, etc. A summary of the data collection methods used during the RIA and additional information about the survey are provided in Box 17 below.

Box 17 – Data collection methods used during the RIA on the Domestic Workers' Convention

The RIA team used multiple methods to gain a comprehensive overview of the existing conditions of domestic workers, to reveal current issues and the problems domestic workers face, and to identify possible solutions to improve their working conditions.

Description of the data and research methods

Data and information	Source/methods used
• International experience on domestic workers working conditions	• Desk research
• Number of domestic workers, working conditions, including number of working hours, income, type of job, etc.; • Domestic workers' socio-economic and demographic characteristics	• Desk research, particularly an analysis of Labour Force Survey database, 2017-2019
• Recruitment procedures for domestic workers, type of contract and working conditions offered by employment agencies, problems domestic workers face, etc.; • Working conditions of domestic workers in employment agencies, including wages, working hours, paid leave, overtime reimbursement, fees paid to agencies, etc.	• In-depth interviews with employment agencies and gathering data from their websites
• Terms and conditions employers offer domestic workers: monthly working hours, daily working hours, working days per week, wages, and hourly wages	• Desk research, particularly gathering information from Facebook vacancy announcements regarding conditions employers offer to domestic workers
• Information about domestic workers: motivations for engaging in domestic work; • Satisfaction level on their working conditions; • Behavior of domestic workers when their working conditions are violated; • Attitudes towards their employers; attitudes regarding the formalization of domestic work; preferable income tax rate; attitudes regarding raising awareness of their rights; etc.	• **Online survey of domestic workers conducted by the RIA team**
• Number and nature of disputes initiated by domestic workers	• Requesting data from courts

Highlight: online surveys – The main purpose of the survey, designed and conducted by the RIA team, was to see how domestic workers assessed their working conditions and their relationships with their employers; their awareness of their legal rights; and their attitudes towards proposed policy alternatives. The questionnaire was shared on social media (via the ISET Policy Institute Facebook page and then advertised and boosted to reach a broader audience). In total, 184 respondents participated in the survey, though it must be mentioned that, as it was commissioned on Facebook, the survey sample was characterized by some selection bias towards younger generations (the team did check for apparent biases and found that the average age of the sample was, indeed, almost three years lower than in the Labour Force Survey – a difference that was statistically significant). The data gathered from various sources was thereafter analyzed and successfully incorporated into the RIA report. (The questionnaire from the online survey is available in Annex 4).

3. THE MECHANICS OF AN RIA

3.1. PROBLEM DEFINITION

3.1.1. What is meant by problem definition and its significance

Problem definition is arguably the most important step in the process of preparing an RIA. A problem must be characterized correctly if it is to be solved, as such problem definition is the basis for every following step. If your problem is not clearly defined, it is very unlikely you will develop the correct solutions. Moreover, poor definition might even lead to deterioration of a problem. In essence, no subsequent analysis – no matter how sophisticated – can compensate for weak problem definition. It is therefore critical that you dedicate adequate time and resources to this step.

Problem definition also constitutes a key stage as it can save significant time and resources; if, for instance, claims about a problem are unfounded, or if governmental intervention is unlikely to lead to a beneficial outcome for society. While stakeholders might be convinced that there is a problem, and feel strongly about an issue, this simply might not be the case. Each group of stakeholders has its own interests and specific set of incentives, thus what a stakeholder sees as a problem may in fact be beneficial to the rest of society. An analyst should never forget that an RIA is intended to help identify the best outcomes for society. Consequently, during the problem definition stage, there could be instances that an analyst might collect enough evidence to refrain from proceeding. For example:

- When a review of the existing data and literature on the topic indicate the absence of a problem;
- When there is strong evidence in the relevant literature that governmental intervention cannot lead to an improvement in the situation.

Your task at this stage of the RIA analysis is to identify the specific public policy problem you intend to address and appraise its relevance, magnitude, and urgency. It is also important to characterize where the problem sits in a policy context. A good RIA, while taking all stakeholder claims seriously and fully acknowledging those affected and those benefiting from both the status quo and the alternative policy options, should lead to the identification of the best solution for society, not that of a specific interest group. If there is no evidence of a problem, the RIA analysts should state as much.

Answering the following questions may aid you in this task:

- What is the issue or dilemma that has emerged?
- Who claims it to be a problem?
- Is there any evidence supporting such claims?
- What are the underlying drivers (causes) of the problem?
- Who (if anyone) is involved in causing the problem?
- Who is affected, in what ways, and to what extent?
- What are the consequences of the problem? How great, severe, and urgent are they?
- Given the nature of the problem, are there reasons to believe that public intervention can help address the issues and result in an improvement from the status quo?

In completing this step, you should clearly identify how the problem is linked to sustainable development, and how it hinders the achievement of strategic goals, societal aspirations, or commitments under international agreements – such as, the 2030 Agenda goals and principles.

3.1.2. Policy context

The problem definition section of an RIA document should begin with a brief description of the current situation and of the existing legal framework (relevant national and international legislation), as well as governmental plans and the country's international obligations. This short descriptive section, that should not exceed a single page in length, sets the scene and allows the reader to better understand the context in which the status quo is rooted. The situation is to be analyzed in greater detail in the problem definition section proper.

3.1.3. How to define a problem

Looking for causality

If a problem exists, in order to define an issue, it is necessary to consider both its causes and consequences. In this exercise, one key first step is to identify the drivers, or the main underlying causes, behind the challenge and establish how certain specific factors lead to the problem. During the process, you must always revert to definitive causes and **find objective, causal relationships.** The most direct way to achieve this is via the so-called **"problem tree approach"**; in this graphical method, problems can be branched out into the causes and consequences.

The problem tree approach thus helps:

- Specify all existing problems related to the subject area being analyzed (focus on real – current – problems, not potential or future);
- Differentiate between causes of the problem and its symptoms, i.e., the way it is manifested and its effects;
- Investigate cause-effect relationships;
- Identify affected groups;
- Set a hierarchy of problems.

Box 18 describes how to build a typical "problem tree".

Box 18 – The "tree approach" to problem definition

Typically, you can draw a tree by:

- Writing your problem statement in the middle – **this is the symptom**, what you intend to address;
- Listing all the direct and indirect consequences derived from the problem – these "branches" of the tree help you explain why it is indeed a problem (one which potentially requires state intervention);
- Identifying all triggering causes below the problem statement – these act as the "roots" of the tree and help you understand why there is a problem, and those which have to be tackled in order to address the core issue.

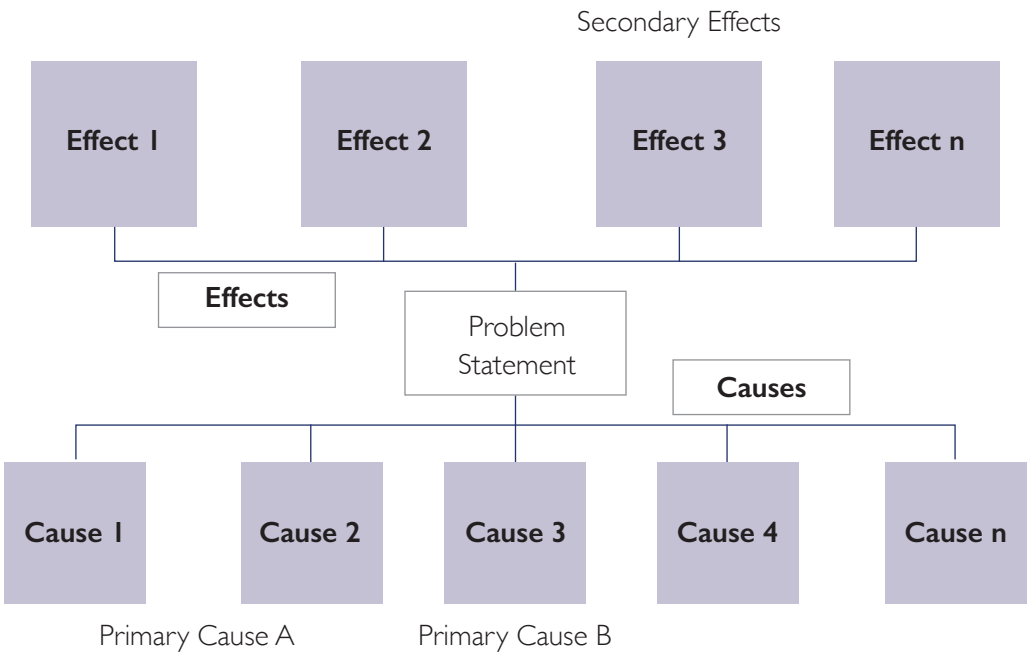
Which cause(s) to tackle in your RIA will depend on priorities, competences, and the means at your disposal.

The "problem tree" as a visualization is not mandatory within an RIA Report. Its main purpose is to structure the problem and causes for the drafter, thereby challenges can be described as a narrative in the report.

The figure below illustrates a generic example:

continue

The Problem Tree



The **causes of a problem** vary in nature, though in most instances they relate to economic aspects, such as failures in market structure or function (see Box 19).

Box 19 – Identifying regulatory and market failures

"Market failures" and "regulatory failures" occur when the market itself cannot efficiently allocate goods or services that the community requires in sufficient quantity and quality, or when the current regulatory framework generates the wrong incentives for resource allocation. This in turn decreases the welfare of the population. Their main forms include market and regulatory failures in competition, externalities, public goods, and information.

In economic theory, the following are considered the main market and regulatory failures:

- **Externalities:** when an agent performs actions that produce indirect effects on other agents, which are transmitted by means other than mechanisms within the market system (prices). A common example being vehicle pollution, as the price of gasoline does not include the environmental cost caused by CO_2 emissions. Thus, from a social perspective, the amount of gasoline produced and consumed is higher than desirable;
- **Public goods:** those which present two consumption characteristics, either non-rivalry or non-exclusion. The non-rivalry principle implies that one's consumption of a good does not affect or prevent the simultaneous consumption for others. While the principle of non-exclusion implies that the consumption of a good cannot be prevented to certain individuals. For this reason, as it is impossible to exclude those who do not fully contribute to their financing, often insufficient amounts of such goods are found on the market. One such example of a public good is street lighting;

continue

- **Information asymmetry:** which arises when consumer choice is inefficient because there is incomplete or incorrect information on certain products. For example, regularly consumers do not have enough information to be able to distinguish between products or services of different qualities, thus their willingness to pay for products or services of higher quality is lower than if they had all available information. Consequently, companies could lose interest in continuing such products, which therefore creates incentives to reduce the average quality of a good;
- **Imperfect competition:** when producers find obstacles to free competition in the market; the prevalent market structure shows an excessive concentration of suppliers, which does not generate the necessary incentives to compete. In these cases, it is common that a few industry powerhouses use their market dominance to create barriers to prevent new participant inclusion. To resolve this, authorities can use economic regulation to improve the efficiency of markets, as well as prevent unfair practices that harm welfare, and favor dynamic markets that meet consumer needs. For addressing other forms of market failure – externalities, public goods, and information failures – the authority may resort to social regulation;
- **Inefficient/distortive regulation:** a regulation can be defined as inefficient or distortive when it fails to address market failures properly or induces inefficiencies and distortions in the functioning of the economy, thus imposing additional costs on economic agents that are not justified by the associated benefits or by the need to achieve a higher (non-economic) societal goal.

If you are unfamiliar with economic literature and economic theory, you will probably want to ensure there is, at least, one experienced economist (ideally with at least a master's degree and a few years' experience) within your team. Based on the information available, discerning whether the current situation is characterized by one or more market or regulatory failures is no easy feat, even for trained economists. Nevertheless, being able to do so is vital for accurately identifying and defining the nature of the problem. Moreover, the presence of economists helps distinguish whether economic instruments can be used to alleviate or solve your problem, and help identify which are best suited for the purpose.

The participation of lawyers is also always advisable; they will be crucial in helping the team fully understand the implications of the existing legislations and in the definition of (particularly regulatory) options. If there is strong suspicion that part of the problem is due to regulatory failure (including gaps in the existing legislation), the inclusion of lawyers in your team is paramount.

Depending on the nature of the problem addressed, you could benefit from the inclusion of specific field experts in your team. For example, when considering a reform on water management, one would require hydrological experts within a team. In situations where the cause of a problem can be connected to "behavioral failures" (i.e., to the way in which individuals react in certain situations), you may wish to include behavioral experts (psychologists, sociologists, or behavioral economists) in the team. Ultimately, you will have to carefully consider the composition of your team at the start of the RIA process, and thereafter again during the problem definition phase when new information emerges.

Situation analysis

The second most important task when defining your problem is to describe, in a detail, the context in which the established causal dynamics operate, as identified through the problem tree. A situation analysis is fundamental and it sets the foundations for the baseline scenario investigation (see point 3.2. below). It is notable that such an analysis may be limited to certain qualitative information; appropriate, for instance, when reviewing the **current policy and regulatory framework.**

Considering the following questions may help identify your scope:

- Is the current legislation applicable to this issue?
- Is it part of a larger framework?
- Have any implementation problems been identified?
- Are there any gaps in the current legislations or the institutional structure?
- Is there uneven implementation across the country?

You should also bear in mind that a problem may be caused or affected by **various segments of the economy and different societal groups** in distinct ways. Therefore, your situation analysis should account for such distinctions. The table below helps you consider the different typologies of actor that can be considered in your problem definition.

Table 9 – Differentiating among actors

Societal differentiation				Economic differentiation
Age related groups	**Income related groups**	**Groups who suffer discrimination or other social disadvantages**	**Geographical groups**	
Example: • Children and young people; • Older people; • Specific age ranges.	Example: • People on low income; • Economically inactive; • Unemployed/ jobless; • People who are unable to work due to ill health.	Example: • People with physical or learning disabilities/ difficulties; • Refugee groups; • People seeking asylum; • Travelers; • Single parent families; • Gender-diverse individuals and other marginalized groups; • Black and minority ethnic groups (specify); • Religious groups (specify).	Example: • People living in areas known to exhibit poor economic and/or health indicators; • People living in isolated/over-populated areas; • People unable to access services and facilities; • Third country citizens.	Example: • Specific industrial sectors; • Size of economic actors (e.g., multi-national corporations, SMEs, individual entrepreneurs); • Value chain position (e.g., producers, transporters, processors, retailers); • Consumers; • Domestic or foreign operators; • Import or export related.

The most widely applied analytical tools for structuring and organizing a situation analysis are stakeholder analyses, and the analysis of Political, Economic, Sociological, Technological, Legal, and Environmental factors (**PESTLE**).

International evidence can reveal analyses and identification of similar problems in other countries, as well as revealing how such issues were resolved and, if appropriate, how the results were obtained. This will be valuable during much of the impact evaluation process; either as part of the analysis of alternatives, or because of a lack of empirical evidence, used to quantify the magnitude of the problem, where necessary the effects of the problem, and make extrapolations.

When it comes to appraising the **urgency of the problem**, you need to consider, for instance, the occurrence of unexpected situations, the sudden escalation of latent problems, or accidents. The urgency may also be appraised by considering the controversy of an issue among the public – i.e., the extent to which it addresses

societal interests as a whole, public security, whether relevant stakeholders have a particular conflict, or if there is widespread consensus about an issue. The political salience of the issue may be another determinant of urgency – for instance, whether it reflects a governmental strategic priority or affected public statements.

You should actively seek to substantiate your arguments in quantitative terms, and also provide specific references to the sources of evidence used. This includes drawing from statistics and analyses, either those already at hand or which you need to produce.

For instance, the **magnitude of your problem** may be appraised in various ways. Thus, to express the extent you may opt to focus on different metrics (indicators), such as:

- The number of businesses affected (overall, or as a proportion of the total businesses in a specific economic sector);
- The impact of the problem on Gross Domestic Product (GDP);
- The size of the population affected by the problem.

You may then choose a possible appraisal of the magnitude. For example, you may choose to define the problem as "small" if it affects no more than 15,000 active, registered businesses in Georgia; "medium" if up to 90,000 are affected; and "large" if over 90,000 active businesses are affected.[6] You should however restrict the discussion of a problem's magnitude to a limited number of indicators, without delving into an excessively deep analysis, which will instead be performed in the following section (on the baseline scenario, see point 3.2 below).

3.1.4. Practical examples and lessons from the Georgian experience

This subsection has been developed with the aim to assist the reader in consolidating the concepts discussed above and to offer direct exposure to lessons RIA analysists in Georgia learned during the problem definition stage.

During the implementation of the RIA on the Draft Law on Water Management, the team identified the main problem, its causes, and the consequences, each based on a relevant literature review, data analysis, and a stakeholder consultation process. While the urgency of action was not critical, as reported in the RIA, there was clear evidence that the problem, if not tackled, would lead to substantial environmental, social, and economic costs to Georgian society. A short summary of the policy context and problem definition sections of the RIA are provided in Box 20 below (for the full text please consult the **original document**).

[6] According to Geostat, by 1 January 2021, there were 763,400 registered business (commercial, not public) entities in Georgia, among which 188,900 were active entities.

Box 20 – Problem definition in the Draft Law on Water Management RIA

Policy context

Georgia has several laws and regulations governing the use of water resources, dating back to the late nineties, and which were partially amended after 2003. However, the changes have not always followed a clear or coherent strategy. Resultingly, the United Nations Economic Commissions for Europe (2016) described Georgian water sector regulations as an "unworkable and fragmented system". The GoG though have started to modify the existing legislation to meet EU Association Agreement requirements (signed with the EU in June 2014).

Problem definition

The changes in legislation were expected to affect various dimensions, however, the RIA team – in concert with the Ministry of Environment and Natural Resource Protection (MENRP) – focused mainly on the drawbacks of the water management system, that which hinders the efficient provision of water resources. Based on a literature review, data analysis, and stakeholder consultations, as well as expert judgement, the RIA team defined the problem in the following manner: ***The Georgian Water Management System is inadequate to ensure the sustainable and efficient provision of water resources to society.***

Causes

The water management challenges in Georgia were found to have roots specific to the country, its past, and its current socio-economic structures, alongside those of more general nature. Before delving into Georgia-specific challenges, the RIA team identified and discussed the social, physical, and economic features that make water a special resource and which produce challenges to water management systems all over the world:

- **Social nature of water** – the International Conference of Water and Environment, 1992, recognized that having access to the clean water and sanitation at an affordable price is a basic right of all human beings;
- **Physical nature of water** – water is difficult to identify and measure because it is mobile. It flows, evaporates, seeps, and transpires;
- **Economic attributes of water use** – some of the economic benefits that water provides (such as waste assimilation, fish and wildlife habitats, aesthetic and recreational benefits) are considered to be public goods (the use of which is potentially non-rival and hardly excludable – at least at reasonable costs), consequently, individuals have fewer incentives to contribute to any related management costs.

Among the main causes of the problem in the Georgian environment, the RIA team identified:

- **A lack of well-functioning infrastructure** to collect and transit water resources where needed;
- **An absence of adequate incentives to ensure that water is allocated and utilized efficiently** – the law tariff level, which is below the cost-recovery level; and flat rate tariffs, which do not create efficient water consumption incentives for water users;
- Pollution from the discharge of **untreated municipal and industrial wastewater;**
- **An absence of pollution taxes;**
- **Outdated water legislation** that does not reflect modern necessities;
- **Fragmentation of the water management system**, characterized by the existence of several administrative bodies responsible for various aspects of water resource management, and whose roles are not clearly defined within the existing regulatory framework.

continue

The drawbacks of the system were confirmed by various stakeholders during the consultation process.

Consequences

Because of the abundance of water resources and the limited level of economic development, the importance of a proper water management system had not yet been considered a burning issue. However, the existing trends (increasing water consumption - in the presence of substantial water losses - accompanied by a reduction in water quality), suggest that issues of water quality and availability are likely to emerge in the near future and prove critical for the sustainable development of the country, putting pressure on firms and households alike. Any development of the current trends, without relevant intervention, could lead to (and on occasion already have) substantial negative consequences, including:

- A relatively large number of citizens would not have full access to clean water;
- Abstraction of excessive amounts of surface and ground waters may lead to a reduction in the long-term availability of clean water for all;
- A continuation of untreated wastewater discharge into water bodies places increased, unnecessary pressure on water bodies, particularly on water quality;
- A lack of coordination among the various government bodies responsible for water management leads to less efficient management of water resources.

During the consultation process, sectoral stakeholder engagement played an important role in problem definition in the **RIA on the Draft Irrigation/Drainage Tariff Methodology.** In this case, the urgency of the issue was more evident to the stakeholders, especially the government and Georgian Amelioration. A short summary of the policy context and problem definition sections of the RIA are provided in Box 21 below (for the full text please consult the **original document**).

Box 21 – Problem definition in the Draft Irrigation/Drainage Tariff Methodology RIA

Policy context

The Law on the Amelioration of Lands was abolished in December 2010. Thereafter, the Georgian amelioration sector was regulated based on three decrees: GENERC Decree #2, on Setting Amelioration Tariffs; GoG Decree #409, on the Technical Regulation of Operation of Amelioration Systems; and GoG Decree #31, on the Technical Regulation of Exploitation of Reservoirs Used for Irrigation Purposes. Under the reform of the sector, the government introduced the new Law of Amelioration, which includes changes in irrigation and drainage tariff structure and levels.

Problem definition

After a thorough examination of the issue and consultations with Georgian Amelioration representatives, the RIA team identified and defined the main problem in the following manner: **the current irrigation and drainage tariffs in Georgia are set at such a low level that they cannot guarantee the cost-recovery of an amelioration service provider. The problem is made worse by the fact that the tariff collection rates in the country are low.**

continue

Causes

The amelioration sector is characterized by high investment, operation, and maintenance costs. Furthermore, to ensure food security and poverty reduction in rural areas, the government had attempted to keep tariffs low. Finally, farmers have limited ability to pay for expensive services.

Consultations with stakeholders allowed the RIA team to develop a more accurate picture of the issues characterizing the irrigation and drainage sector in Georgia. On one hand, consultations with Georgian Amelioration helped the team identify the main challenges that the company faced, their causes, and the possible solutions. While on the other hand, focus groups and phone interviews with members of farmers' associations revealed concerns about the quality of the service provided by GA, and their willingness to pay for good quality irrigation services (at most 300 GEL/ha., per year).

During the problem identification process, among the main factors making service fee collection problematic for GA, the RIA team identified:

- An absence of water-user associations managing collection, and secondary/tertiary channels;
- The Soviet legacy of receiving free water creates difficulties in the collection of service fees;
- Channels are mostly open-topped and concrete-lined, meaning that anyone can pump water out of a channel to their own property using private pumps and pipelines without significant restrictions;
- The existing problems in land registration creates uncertainties between farmers and GA.

Consequences

Each of these factors negatively affects the performance of GA and contributes to its total losses, which forces constant governmental subsidization for it to stay solvent, and thus generates a burden on the public budget. Moreover, the lack of financial resources threatens the condition of the irrigation infrastructure, potentially leading to deterioration in the quality of related services.

Furthermore, the existing tariff structure fails to discourage wasteful water use. This constitutes a problem in itself, because as the irrigable area increases, competition between irrigation, technical water users, hydropower plants, and drinking water supplies intensifies, and wasted water raises economic costs.
Due to low tariffs and poor collection rates, the sector was unattractive to private investors, which made it impossible to privatize GA.

Within the problem definition stage, the RIA team identified the main groups of society that would be affected by changes in the irrigation/drainage tariff methodology:

- Farmers (including commercial farmers, SME farmers (farms that are family owned and managed), etc.);
- Fish farms;
- Technical water users;
- Hydropower plants.

Implementing the RIA on the Domestic Workers' Convention, the team was supported by a legal expert, who was able to analyze the legal framework and identify challenges that required resolution for the ratification of ILO Convention 189. Notably, Georgia has no urgent obligation to ratify the convention. However, the RIA situation analysis revealed that it is important to start resolving domestic workers' problems immediately, especially considering the ongoing socio-economic changes throughout the country. Thus, with the help of the legal consultant, and based on a literature review, collected data, and stakeholder consultations, the team identified the main problem, its causes, and the consequences. A short summary of the policy context and problem definition sections of the RIA is provided in Box 22 (you can also find the problem tree developed for this RIA in Annex 5).

Box 22 – Problem definition in the Domestic Workers' Convention RIA

Policy context

Georgia does not define domestic work in its Labour Code. Therefore, an amendment of the law was considered essential for the ratification of the domestic workers' convention. Moreover, there were several issues underlined in the convention that were missing under the Georgian Labour Code, including: remuneration; a method of calculation and periodicity of payments; provision of food and accommodation, when applicable; a period of probation and terms of repatriation, if applicable; and terms and conditions relating to the termination of employment, including any period of notice by either a domestic worker or employer. Furthermore, changes in the Law on Funded Pensions and the Law on Labour Inspection were considered essential to ensure that domestic workers enjoy the same rights and benefits as other employees.

Problem definition

Domestic workers do not enjoy working conditions comparable to the formally employed, and they are represented as one of the most vulnerable categories of employee. The main problem identified within the scope of the RIA was defined in the following manner: **There are poor and unsafe working environments for domestic workers, thus a core solution is required to ensure decent conditions for this type of worker in Georgia.**

Causes

A review of the international literature, combined with the stakeholder consultations held in the scope of the RIA, suggested that the factors causing poor and unsafe working conditions for domestic workers could be grouped into the following four broad categories:

- Insufficient and ineffective legal protection;
- A lack of bargaining power for domestic workers;
- The informality of the sector (the COVID-19 crisis has highlighted how the informal nature of most domestic employment relations might lead to greater health risks for workers and society as a whole, particularly if informal domestic workers and their employers are reluctant to admit to a working relationship);
- A lack of awareness of civil and labor rights among workers.

continue

Consequences

When domestic workers cannot enjoy decent working conditions, their wellbeing and health are at risk and society itself can suffer severe aftereffects, including:

- The increased probability of abuse and exploitation;
- Payment of unequal and inefficient salaries;
- Unpaid overtime work, unsafe job conditions;
- Uncertainty of contract terms, and stresses in the constant search for other sources of income;
- Increased vulnerability to crises, poverty, old age, and health related issues.

The analysis of the current situation revealed that it is essential to address domestic workers' employment conditions immediately; in consideration of the ongoing socio-economic changes in Georgia, an increase in the demand for domestic workers is expected, and therefore the scale of the problem is likely to increase. The expected changes reviewed under the RIA potentially affect several groups of society, particularly domestic workers, employers of said workers, and other employers, households, and employment agencies.

3.2. BASELINE SCENARIOS

What is a scenario?

A scenario is not just a mere probabilistic forecast or a hypothetical concept. **It is a description of a possible future situation, including the path of development leading to that position.** Scenarios are the relationship between critical uncertainties, predetermined trends, and the behavior that actors are expected to take. They highlight the reasoning given behind underlying assumptions and judgments regarding the future. Moreover, they are selective and constructed around bound uncertainties that are considered to be inherent to the future.

In your RIA, the aim of the "baseline scenario" is to explain how the current situation would evolve **without additional public intervention** – the "no-action option" / "status quo". It also addresses the question: *What would happen if nothing else were done aside from whatever is already in place or is intended to be introduced independently of the policy option considered?*

Why is this step important?

Your RIA is a comparative exercise appraising what would likely happen further to governmental intervention, as opposed to what would occur without intervention. You should, logically, only recommend that the government take action if there is sufficient evidence that such a recourse would lead to better scenarios than the status quo. Alternative options' desirability and performance are therefore assessed by comparison with the baseline scenario.

Setting a baseline scenario is fundamentally linked to problem definition, as the expected evolution of the economy and of society is rooted in past trends, including those characterizing factors that gave rise to the problem. Once you have ascertained the nature of the problem, you must clarify how this can be expected to develop and whether addressing the situation requires governmental intervention. You must also demonstrate that the government has the capacity to intervene successfully.

3.2.1. How to set a baseline scenario

When defining the evolution of the current situation, if there is no specific policy addressing the identified problem, the baseline constitutes a continuation of "no policy". Though if a policy is already in place, the **baseline is the continuation of the current policy without any change** (i.e., without new or additional intervention). Accordingly, the no-action option includes the expected effects of legislation that has been adopted but not yet implemented.

Please bear in mind that **certain initiatives may already be in place**, stemming from the EU or neighbouring countries, that might contribute to the evolution of your problem. Also consider initiatives previously undertaken by the government in compliance with international agreements and initiatives – such as the those within Agenda 2030 – which may influence your problem. If identified, all initiatives ought to be mentioned within your baseline analysis and you should indicate the impact they have. Please note though, that merely having signed international agreements and initiatives does not amount to adoption or implementation of legislation.

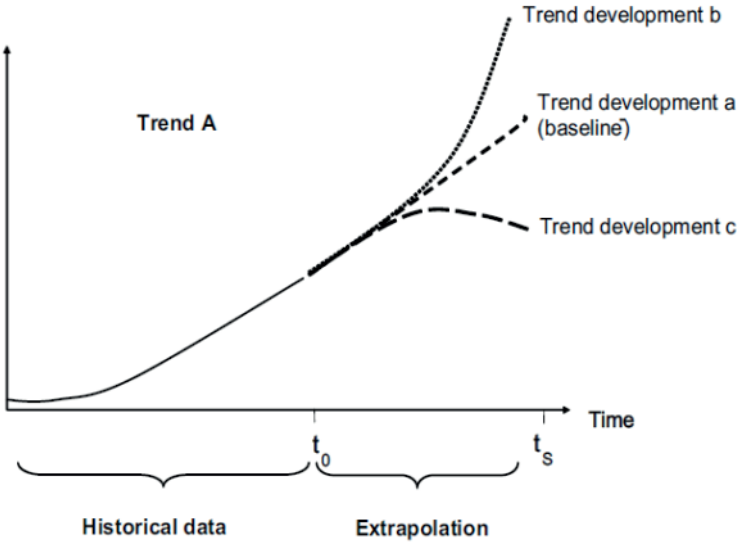
Setting the baseline scenario involves answering the following questions:

- Is it the problem almost resolved or becoming more serious? (When and why?)
- What are the probabilities of this scenario?
- Are there any irreversible consequences that make the problem at hand particularly serious or urgent?
- Which factors influence the evolution of the problem and its effects?
- What are the risks of not intervening?
- Have businesses, Civil Society Organizations (CSOs), or the citizenry, attempted to fix this problem before? With what outcome? What can be learned from this experience?
- Has the government attempted to fix this problem before? With what outcome? What can be learned from the experience?

Methods for setting a scenario

Scenarios are determined by the development of a current trend, based on extrapolations from established data (see Figure 2).

Figure 2 – Trend extrapolation



Various approaches allow the extrapolation of future trends,[7] for instance you may:

- Use historical data and assume that the current framework conditions will not vary significantly in the future;
- Rely on analogies, i.e., take data from similar situations and equivalent conditions;
- Run simulations by generating data (e.g., field tests or control trials) and controlling for biases and inference;
- Benchmark against "extreme case" contingencies, i.e., identify critical uncertainties and create the worst- and best-case scenarios.

Data trends and extrapolations should not necessarily be graphical or numerical. It is acceptable to discuss trends in a qualitative manner, as long as the discussion is presented logically: offering arguments and assumptions behind any extrapolations; providing information about the main assumptions on key variables; and highlighting the linkages between the assumptions and the expected outcomes.

3.2.2. Practical examples and lessons from the Georgian experience

This subsection has been developed to help the reader consolidate the concepts previously discussed and to provide direct exposure to the lessons RIA analysists have learned in identifying and determining baseline scenarios in the Georgian context.

During the implementation of the **RIA on Crop Insurance Reform**, one of the main sources behind baseline scenario elaboration was data from pilot projects implemented between 2014-2015. Besides which, the RIA team incorporated information on the loss ratio of insurance companies from an insurance association, as well as details regarding the area of insured land, as provided by the Agricultural Projects Management Agency. The team also made certain assumptions in order to determine possible development trends without introducing any new interventions. A brief overview of the baseline scenario elaborated in the research is presented below in Box 23 (for more details on the process please review the **full RIA document**).

[7] Useful literature on the topic:
- https://www.researchgate.net/publication/258510126
- https://www.oecd.org/site/schoolingfortomorrowknowledgebase/futuresthinking/scenarios/

Box 23 – The baseline scenario section of the Crop Insurance Reform RIA

The main data used for setting the baseline scenario

Particularly notably within the baseline scenario, the RIA team analyzed past experience from the insurance market – income premiums and paid losses of agricultural insurance – before the introduction of an insurance pilot project (as shown in the table below).

Agricultural insurance in Georgia 2004-2010

Year	Premium income (GEL)	Paid losses (GEL)	Technical results (GEL)
2004	143,225	38,487	104,737
2005	214,069	108,961	105,108
2006	151,354	80,983	70,370
2007	144,237	61,542	82,694
2008	102,995	68,464	34,532
2009	39,373	36,045	3,328
2010	76,933	84,805	-7,872

Source: Georgian Insurance Association

Note: The details provided in the table represents the sum of data from two companies providing agricultural insurance at the time.

In 2014, the GoG decided to intervene in the sector and launched a pilot program; initially only four insurance companies (GPI Holding, ALDAGI, IC Group, and IRAO) participated. While in 2015, the pilot was continued with slight changes to the program and more insurance companies took part. The RIA team analyzed the insurance packages offered under the program over both years, considering the type of crops insured, the value of insured crops, the amount of government subsidy, area of land insured, etc.

Analyzing the evolution of the baseline scenario

The RIA team evaluated how the situation would have developed with zero intervention over ten years. For this purpose, the team used several assumptions:

- The government subsidy rate does not change between 2016-2015 (remaining in the 50-70% range, which amounts to 65% on average);
- No government money is invested in awareness campaigns;
- Insurance companies are not required to expand their sale or service capacities;
- Total premiums received by insurance companies (subsidy and farmers' payments) amount to 15% (the premium rate is extrapolated from international practice) of the total sum insured;
- In the starting year, insurance companies' operational and administrative costs amount to 24% of the total premiums collected (including the cost of loss adjustment activities) and reinsurance costs equal to 5% of the collected premiums. The resulting profit margin is 16% (including a target loss ratio of 55%). As time passes, the cost structure for insurance companies is expected to change, as they would cover increasingly more farms. The team thus assumed operational costs in 2025 would amount to 27% of collected premiums, and that this would be a gradual increase over the 10-year period. The percentage share of payments to reinsurers would not change. Therefore, in 2025, the profit margin of insurance companies was projected at 13%;

continue

- Insurance companies will receive reinsurance commissions from reinsurers, estimated to be 20% of reinsurance payments;
- There is no limit on the subsidy amount from the government;
- There is no restriction on the maximum size of land that could be subsidized.

The evolution of penetration rates among farmers and the number of hectares insured represented one of the main points of interest for the analysis. The RIA team assumed that the evolution of demand for agricultural insurance would be determined by the diffusion of information via individual networks, without any particular investment in awareness campaigns. Subsequently, the team estimated that 10% of small-holding farmers would be reluctant to change and would never be insured, and an additional 10% could not afford insurance (even at the 93.5% subsidy level). Thus, the potential demand for insurance for small farms was projected to be 80% (with maximum insurable land of 259,381 ha.) Whereas large-scale farmers are usually more aware, and sensitive to quality and information, and more entrepreneurial than their smaller counterparts. Regardless of high subsidy levels, they therefore may be reluctant to insure if they are dissatisfied with the quality of insurance products or the lack relevant information. This also emerged in the consultation with farmers' associations, moreover, 2014 data confirmed that the penetration rate of large-scale farmers was lower than in small farms. Consequently, the team estimated that the prospective demand for insurance on larger farms would only amount to 63% of their total land; the demand of insurance from large farms was estimated to be 138,111 ha., with a total potential insurance demand therefore being (259,831 + 138,111) 397,943 ha.

During the analysis, the potential demand for small and large farms was calculated, using all available information from the 2014-2015 pilot projects, in order to calibrate a simple model linking (approximate) changes in demand with changes in the insurance premium paid by farmers. Based on this assessment, it was assumed that small farmers were twice as responsive as large farmers, that is, the same change in the premium had twice the effect (positive or negative) on the demand from owners of large farms. It is noteworthy that changing this assumption, increasing or decreasing the relative responsiveness of small farmers to changes in the subsidy level, did not appear to have a significant impact on the final results in terms of hectares or number of farmers insured.

Based on the above-mentioned assumptions, the RIA team concluded that, by 2025:

- The maximum achievable penetration level in terms of land, under the current subsidy rates and insurance quality, would be 13.93% (the land insured in small farms would be 31,607 ha. against 44,149 ha. in large farms);
- The maximum achievable penetration level in terms of farmers would be 9.40% (the number of insured small-holding farmers being 66,017, and 2,213 of large-scale farmers);
- The total premiums collected by insurance companies would grow each year and would reach 68.2 mln. GEL by 2024 (during the analysis farmers who were willing to insure without government subsidies were ignored, as their reimbursement would take place in 2026);
- Insurance companies' profit margins would decrease from 16% of total premiums collected to 13% during the period;
- As more farmers would increasingly participate in the project, the government would have to gradually increase the subsidy amount to reach 44.3 mln. GEL by 2024.

The results obtained during elaboration of the baseline scenario were later successfully used in the impact assessment process.

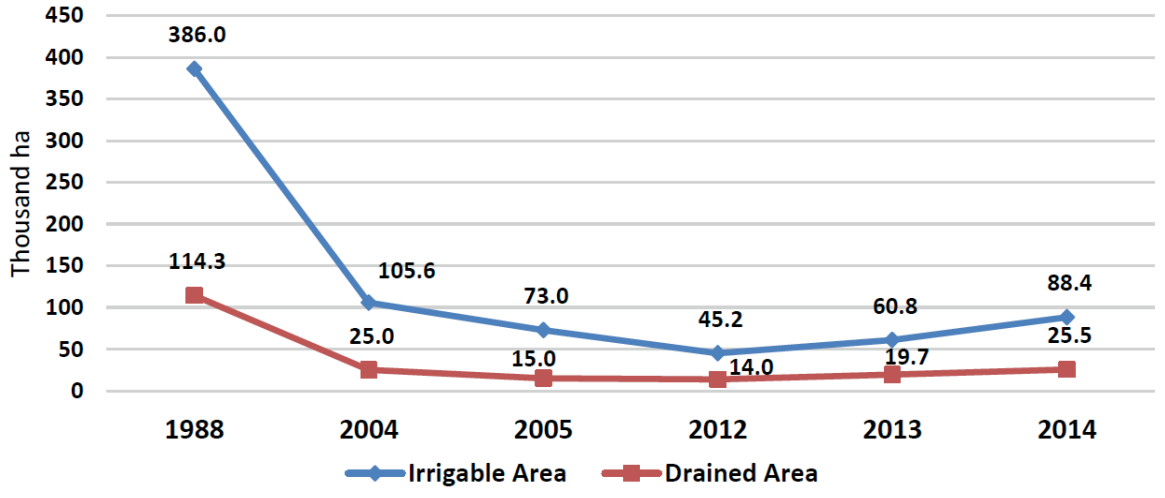
For the RIA on the Draft Irrigation/Drainage Tariff Methodology, the research team analyzed the existing data on irrigated and drained land area throughout the various regions of Georgia, alongside state investment in the sector. Moreover, in order to see consumer perspectives of the amelioration system, farmers' surveys and focus groups were conducted. An overview of the baseline scenario of the RIA is presented in Box 24 below (further detailed information can be found in the full RIA document).

Box 24 – The baseline scenario section of the Draft Irrigation/Drainage Tariff Methodology RIA

The main data used for setting the baseline scenario

During the elaboration of the baseline scenario, the RIA team used multiple sources of data. Firstly, the team reviewed the evolution of the irrigated and drained land area from the Soviet period until the point of the analysis (as allowed by data). As visible in the graph below, after the collapse of the Soviet Union, irrigated and drained land area was in constant decline. The trend was only slightly reversed after 2012; the reason for this was also examined – in 2012 Georgian Amelioration was established and the government started investing in amelioration infrastructure.

Evolution of irrigable and drained land area in Georgia (1988-2014)



Source: Georgian Amelioration

Moreover, during the analysis, state budget expenses on amelioration, the regional distribution of contracts, and ameliorated areas over the years were further examined. Under the baseline scenario, as they strictly related to the situation in terms of irrigated and drained land area, the peculiarities of climate and relief on different Georgian regions were also identified.

On top of which, to investigate customers' attitudes toward the services provided by Georgian Amelioration, and to ascertain insights towards expected trends in fee collections, the RIA team conducted a farmers' survey and specific focus groups (with the help of a farmers' association, as described above in Box 15).

Analyzing the evolution of the baseline scenario

The RIA team evaluated how the status quo would evolve (during the consecutive four years) in the

continue

absence of any governmental intervention – the new tariff methodology would not be introduced and the government would keep financing GA's losses, without making any investments to improve reliability. For this analysis, several assumptions were made:

- The government would not subsidize a switch to modern irrigation technology, like drip and sprinkle systems;
- Small farms were defined as those that possess an area of land up to 5 ha., and large farms with over 5 ha.;
- Farmers would choose the irrigation methods that would provide them the highest marginal profit for the crop they were cultivating;
- Compliance rates and irrigation choices would change depending on the marginal (net) gains from irrigation (i.e., customers would irrigate only if marginal gains from irrigation – excluding the tariff – were higher than the tariff they paid). The same criterion was applied to drainage;
- Customer revenues are generated from the production of eight major forms of cultivation: hazelnuts, potatoes, vegetables, orchards, vineyards, beans, maize, and wheat;
- The tariff rate for irrigation and drainage would remain unchanged: 75 GEL for irrigation in eastern Georgia; and 45 GEL for irrigation and 40 GEL for drainage in western Georgia;
- GA costs (operative, maintenance, administrative, and other) were assumed to be constant in real terms over the five years;
- The depreciation rate was assumed to be 3.1%;
- Profit tax (paid by GA) would remain at 15% over the five years.

Based on the survey and focus groups with farmers, the working group also assumed that the reliability of irrigation service would directly link to farmers' willingness to pay fees. Such reliability could be improved only through investments in infrastructural renovation and rehabilitation, as well as in new reservoirs.

Based on these assumptions, the team estimated the development of the baseline scenario, by 2020, in the following manner:

- The total command area for five irrigation system analyzed would amount to 35,600 ha.;
- The total command area for five drainage system would amount to 16,340 ha.;
- The irrigated land area would increase to 9,967 ha.;
- The drained land area would increase to 111,767 ha.;
- GA costs significantly offset the revenues, but the net benefits for the company would never go below zero as the government would continue subsidizing all company losses.

In performing the **RIA for the Draft Law on Water Management** the team analyzed multiple data sources in order to identify water consumption trends, as well as the environmental conditions of water bodies in Georgia. A short summary of the baseline scenario section is provided in Box 25 (further detailed information can be found in the **full RIA document**).

Box 25 – The baseline scenario section of the Draft Law on Water Management RIA

The main data used for setting the baseline scenario

During the elaboration of the baseline scenario, the RIA team identified the main water users, the estimated volume of water extraction for households, industries, and the agricultural sector, as well as wastewater discharges and water losses over the years (as represented in the table below).

Water extraction, use, and discharge (mln. cubic meters)

	2012	2013	2014	2015
Water extraction from natural water bodies, total*	29,209.5	28,632.1	32,080.8	30,615.9
for ground water bodies	367.8	403.2	399	498.5
Water use total*	28,570.9	27,436.8	30,407.8	29,831.5
for the following needs:				
Household	330.2	448.2	434.4	381.5
Industrial	362.5	324.6	1,924	354.8
Irrigation, agricultural and other*	27,878.2	26,664	28,049.5	29,095.2
of which just irrigation (for available years)		155.642	226.047	425.18
Wastewater discharge in surface water bodies, total*	27,235.1	27,144	30,090.6	29,202.4
of which is polluted*	475.3	438.2	477.7	93.4
Losses on water transportation	445.1	395.5	486.9	725.9
Cycling and secondary water supplies	224	309	316	226.8
* including water used by Hydro Power Plants (HPPs)				

Source: Geostat

While water availability was hardly considered a concern for the whole country, this was not true for all regions of Georgia. Therefore, using Geostat Integrated Household Survey data, the RIA team examined the availability of basic supply sources that provide potable and sanitary-hygienic water to the entire country, as well as separately for rural and urban areas. The team realized that it was important to identify the environmental trends characterizing water resources, such as wastewater disposal, water quality monitoring results, as well as concentration of hazardous materials in the Black and Caspian Sea basins. The analysis was performed using Geostat and National Environmental Agency data. Based on the analysis of the existing trends, the most problematic issues appeared to be the poor condition of water supply systems and the sanitation infrastructure.

Analyzing the evolution of the baseline scenario

To estimate further developments in the trends described in the baseline scenario, the team made several assumptions, including:

- Demand on water would grow at the same speed as GDP (the initial value of GDP growth by 2018 was 4%; the final value in 2040 – 2%);
- The inflation rate would remain at 3%, in line with the National Bank of Georgia (NBG) target;
- The population would grow as predicted, by the United Nations population estimates and projections for Georgia – by 2030 the total population of Georgia would be 3,868 thousand (for the purpose of the RIA only forecasts until 2031 were considered);
- As for the qualitative status of water bodies, the existing trends were assumed to remain unchanged (the qualitative status of water would remain the same as indicated in Annex 3, Table A3.2).

Based on these expectations, it was estimated that, in the absence of any intervention, the water quality would remain unchanged, and with it, consumers' willingness to pay. While the water supply was not likely to change, the demand however was expected to increase gradually, leading to potentially increased water scarcity.

Under the RIA on the Domestic Workers' Convention, the foremost source was Geostat's Labour Force Survey (LFS). To complement it, the RIA team designed and implemented an online survey for domestic workers. This allowed the team to gather information about labor market perceptions from domestic workers. A summary of the baseline scenario is presented in Box 26 below (further detailed information is provided in the full RIA document).

Box 26 – The baseline scenario section of the Domestic Workers' Convention RIA

The main data used for setting the baseline scenario

Unfortunately, the RIA team was unable to use data from the Integrated Household Survey, as the sample size was too small, due to their relatively limited number, to provide statistically significant results on domestic workers. This reduced the capacity of the team to study longer-term trends.

In order to estimate the number of domestic workers in Georgia, as well as their main demographic characteristics, the RIA team instead referred to the LFS (2017-2019) carried out by Geostat. The LFS provided a snapshot of the general socio-economic characteristics and working conditions of Georgian domestic workers. For example, the team was able to estimate the number of domestic workers and their share in total employment, as presented in the following table.

Estimated number of domestic workers and their share in total employment

	2017	2018	2019
Total number of domestic workers	14,191	19,430	17,994
Share of domestic workers in total employment	0.8%	1.1%	1.1%

Source: Authors' own calculations, based on the LFS

It was also possible to extract the following information about domestic workers from the LFS: demographic characteristics of such workers (marital status, attained education level, living area (rural/urban), family composition, etc.); workload (full-time or part-time employment, working more than 40 hours per week, etc.); and earnings. It is noteworthy that around 20-23% of LFS respondents refused to indicate their monthly earnings. Consequently, the team could not claim that the analysis of domestic workers' earnings depicted a fully representative picture. Therefore, to identify the determinants of hourly wage levels for domestic workers, the RIA team analyzed the relationship between current vacancy characteristics and salaries offered.

Furthermore, to analyze domestic workers' awareness levels, motivations, and attitudes, the team conducted an online survey of domestic workers. The results of the survey helped the team assess working conditions, relationships with employers, and workers' awareness of their legal rights.

Analyzing the evolution of the baseline scenario

To assess the potential evolution of the baseline scenario, the RIA team made several assumptions:

- The share of formally employed domestic workers would not change under the baseline scenario, remaining at 4% (according to the LFS the average share of domestic workers with written contracts between 2017-2019);
- To estimate the number of female domestic workers eligible for maternity benefits, the RIA team conducted the following analysis: as fertility rates were not changing quickly and did not fluctuate

continue

much from 2017-2019, the average age specific fertility rates of the last three years were taken and extrapolated over the period of 2021-2025, assuming age specific fertility rates would not change. These age specific fertility rates and age specific shares of female domestic workers allowed an estimation of the number of female domestic workers giving birth and becoming eligible for maternity benefits. According to the findings, between 2021-2025, only 2% of female domestic workers were expected to give birth in any given year;

- The total amount of maternity benefits paid by the government was assumed to remain at 1,000 GEL;
- The inflation rate would remain at 3%, based on the targets set by NBG;
- All domestic workers with a written contract would have access to the pension fund, and only 16% of domestic workers aged over 40 would be willing to access the pension fund (based on the results of the online survey mentioned above).

The RIA team concluded that the demand for domestic workers was expected to increase, considering the current socio-economic changes in the country, such changes include:

- Economic growth (affecting the capacity of households to employ domestic workers) – according to Geostat, the real income of households has increased by approximately five times over last the two decades, in 2019 it amounted to 1,030 GEL;
- Population aging – the old age dependency ratio (an indicator of the relationship between the older population (aged 65 and over) and the working-age population (aged 15 to 64)) has been increasing over the years: 20% in 2002, 21% in 2014, and it is projected to increase further, to 29% by 2030 (Bruijn & Chitanava, 2017);
- Growing urbanization – according to Geostat, 59% of the Georgian population was living in urban areas in 2020, and this trend has been increasing over recent years.

In addition, if a lack of state social service provisions were confirmed, it would likely further contribute to a demand for domestic workers. Thus, if issues of poor and unsafe working conditions for domestic are not addressed in a timely manner, the scale may increase over time.

3.3. POLICY OBJECTIVES

Setting policy objectives is an integral part of the RIA process. Objectives are basic statements that ground all regulative and non-regulative options alike. They play a key role in comparing – ex-ante – the alternative options in terms of effectiveness and efficiency. They also serve as a basis for directing possible policy interventions and benchmarking their implementation, effectiveness, and efficiency, for an informative in medias res and ex-post analysis.

Why is this step important?

Without a clear notion of what a future policy should achieve, it is difficult to determine the activities to be undertaken, and subsequently even harder to determine the most appropriate option. Clearly defined objectives thus help justify future activities.

In other words, it is crucial to clearly identify and spell out goals because they define the main benefits of action and, accordingly, determine the selection of solutions. Any intervention must have clear objectives which are directly related to solving the identified problems and are, equally, consistent with governmental strategic and programmatic goals.

Setting the objectives therefore:

- Helps highlight and ensure policy coherence and consistence;
- Helps identify prospective courses of action, define relevant policy options, and assist in comparing them;
- Makes it possible to monitor policy implementation and evaluate achievements or ill-desired effects early – thus allowing for action to correct deviations from the desired path – and once such effects have fully materialized, allowing appropriate assessment of the impact of the selected policy action.

3.3.1. Setting objectives correctly

Potential solutions to a problem should be assessed against so-called **performance goals.** You should set the objectives to be achieved as measurable performance indicators for an envisaged action (or no action).

According to the ordinance, an RIA should have **general, specific, and operational** objectives. When you categorize the objectives in this manner, make sure you establish clear links both between:

- The objectives, the problem, and its root causes;
- The objectives themselves, so that they do not contradict each other.

Table 10 – The types of objective

General objectives	• Relate to the main policy problem; • These are general policy objectives and are expressed as desired final outcomes, reflecting the end result from the solution to the problem; • They should induce policy; • Take into account the full range of existing complementary policies that contribute, jointly, to such outcomes. *For instance: to improve the investment climate in Georgia; to effectively ensure the socio-economic empowerment of vulnerable groups; or to reduce the human and material losses of road traffic accidents.*
Specific objectives	• Relate to the causes of a problem; • These take into account the envisaged, specific, domain and particular nature of the policy intervention under consideration; • They are the immediate objectives of policies – those that need to be achieved first, in order to attain the general objectives. *For instance: simplification of business regulation procedures to reduce investment costs in Georgia; design and introduce ad hoc active labor market policies (ALMPs), targeting vulnerable socio-economic groups; or increase driver awareness about risk factors on different roads.*
Operational objectives	• The objectives defined in terms of the deliverables or objects of actions. They are typically elaborated once a preferred solution has been identified; • These objectives are usually defined as outputs – goods and services – that result directly from the activity. *For instance: reducing taxes and fees up to 30%, or setting a maximum deadline for start-up registrations to three working days; indicating the number of vulnerable individuals to be involved in ALMPs; or defining the number of initiatives needed to increase awareness or the number of individuals involved.*

To help focus and mobilize resources for their achievement, there should be a limited number of objectives; too many objectives will scatter scarce resources and make policy process incremental.

As a rule of thumb, with reference to the problem tree approach from the problem definition stage, you should **develop your general objective in relation to the problem statement at the centre of the tree. Your specific objectives will relate to individual root causes.**

When designing your objectives, it is also always important to bear in mind the core goals and targets of the Georgian strategy within international commitments, such as the Agenda 2030.

3.3.2. Relating objectives to performance

"What is measured, gets done!" – The objectives should indicate the target levels that must be achieved and the timeframe. To track whether the objectives you are defining will be implemented fully and on time, it is important that you develop **performance indicators**. Such indicators are unique and must be established on a case-by-case basis, one for each related objective.

Another important factor in designing your indicators is the ease with which data can be collected. Therefore, suitable operational objectives (and, if applicable, specific objectives), besides being consistent with each other and the problem that needs to be addressed, should be tested against the **S.M.A.R.T. Model** – in which objectives are:

- **Specific** – they must be concrete, describe the result to be achieved, focused, and contribute to a solution for the problem;
- **Measurable** – they should be expressed numerically, quantitatively, in relation to a certain benchmark or time period, it should be possible to track progress against achieving the objective;
- **Action-oriented** – they should motivate for action; an objective should state what will be improved, increased, strengthened, etc.;
- **Realistic** – they should be realistic in terms of time and available resources;
- **Time-bound** – the realization of the objective should be specified in terms of a time period.

For a summary of the policy objectives and to ensure that all operational objectives are developed using the S.M.A.R.T. framework, the following table should be used:

Table 11 – Summary of policy objectives (mandatory)

Objective	Indicator	Responsibility	Timing
Specific objective 1: ….			
Operational objective 1.1….			
Operational objective 1.2….			
Specific objective 2: ….			
Operational objective 2.1….			
Operational objective 2.2….			

3.3.3. Practical examples and lessons from the Georgian experience

This subsection has been developed to assist the reader by consolidating the concepts discussed above to offer direct exposure to the lessons learned by RIA analysts in the process of defining policy objectives.

During the implementation of the RIA on the Domestic Workers' Convention, the team identified the general objective of the ratification of the ILO 189 Convention. Moreover, specific and operational objectives were distinguished, the achievement of which were considered essential in accomplishing the main objective. A summary of the policy objectives identified under the RIA is provided in Box 27.

Box 27 – Policy objectives defined under the Domestic Workers' Convention RIA

General objective

The RIA team expressed the general policy objective of the reform in the following manner: ***to ensure decent working conditions for domestic workers.***

Specific and operational objectives

To ensure that the general objective would be achieved, the RIA team also identified four specific policy objectives:

- Increase the bargaining power of domestic workers;
- Reduce the risk of abuse and exploitation of domestic workers;
- Ensure that domestic workers enjoy social benefits and social security;
- Increase awareness levels of domestic workers regarding their rights.

For each specific objective, several operational objectives were also identified. The realization of these objectives was expected to contribute to the accomplishment of both the specific and general objectives. Alongside the operational objectives, performance indicators were defined, and the responsible institutional unit and the timing were determined. A selection of the operational objectives for each specific objective is provided in the table below. (A complete list of all the operational policy objectives defined under the report can be found in the full RIA document).

continue

Summary of the specific and operational objectives

Objective	Indicator	Responsibility	Timing
Specific objective 1: Increase the bargaining power of domestic workers			
Operational objective 1.1. Recognize domestic workers legally.	• Corresponding changes in labour legislation – definitions and the recognition of domestic labour relations.	Parliament of Georgia; GoG.	Maximum two years (once)
Operational objective 1.2. Promote collective bargaining power.	• # of trade unions for domestic workers; • # of informal Domestic workers'; • Trade unions density rate (the share of domestic workers in trade unions over total domestic workers); • Associations for domestic workers; • # domestic workers' informal associations density rate (the share of domestic workers in informal associations over total domestic workers); • Collective bargaining coverage rate (the share of domestic workers whose pay and conditions are determined by collective agreements).	Geostat.	Yearly
Specific objective 2: Reduce the risk of abuse and exploitation of domestic workers			
Operational objective 2.1. Ensure that domestic workers enjoy paid overtime work, weekly rest, sick leave, paid annual leave, and privacy.	• Corresponding changes in the labor code – guarantee weekly rest, paid overtime work, annual leave, and privacy.	Parliament of Georgia; GoG.	Maximum two years (once)
	• Share of domestic workers reporting excessive working hours (over 40 per week); • Share and number of domestic workers whose overtime work is paid (among those who work overtime); • Number and share of domestic workers who report violations of their rights concerning paid overtime, weekly rest, paid annual leave, or privacy.	Geostat.	Quarterly
Operational objective 2.2. Ensure occupational safety and health of domestic workers, with special emphasis on harassment.	• # of complaints filed to the Labour Inspectorate by domestic workers; • # of court cases initiated by domestic workers in relation to occupational safety and health (including harassment).	Labour inspection service; City courts.	Yearly
Specific objective 3: Ensure that domestic workers enjoy social benefits and social security			
Operational objective 3.1. Ensure that domestic workers are supported during crises.	• Share of domestic workers receiving state support.	GoG; Geostat.	Yearly
Operational objective 3.3. Ensure that domestic workers enjoy maternity leave benefits.	• Share of domestic workers entitled to maternity leave benefits.	GoG; Geostat.	Yearly
Specific objective 4: Increase awareness levels of domestic workers regarding their rights			
Operational objective 4.1. Disseminate information about domestic workers' human rights and rights to decent work.	• # and frequency of social advertisements; • # of posts shared through social media and official channels by the responsible ministries; • # of TV shows, and their duration and coverage of domestic workers' issues; • # of consultations/meetings conducted by the responsible ministries, by region; • Share and number of domestic workers showing they are aware of their rights (surveys).	MoIDPLHSA	Yearly

continue

Operational objective 4.2. Promote social dialogue mechanisms for domestic workers.	• # of meetings among domestic workers (national, regional, and municipal levels); • # of meetings between domestic workers and all interested stakeholders, such as non-governmental organizations (NGOs) and human right organizations.	MoIDPLHSA; Trade unions.	Yearly

Unlike the RIA on the Domestic Workers' Convention, assessment of Crop Insurance Reform in Georgia was implemented before the adoption of the RIA methodology. As such, the structure of the policy objectives section is slightly different from subsequent RIAs. In this instance, the team did not formulate a general policy objective explicitly or concisely, though the specific and operational objectives were defined in the typical manner. A brief overview of the policy objectives section from the RIA on the Crop Insurance Reform is provided in the following box.

Box 28 – Policy objectives under the Crop Insurance Reform RIA

General objective

Although the general objective of governmental intervention was not formulated explicitly or concisely within the RIA document, considering the specific and operational objectives, as well as a discussion on the nature of the problem, the general objective could be defined as: ***to promote the development of the agricultural sector in Georgia, and the wellbeing of individuals working within the sector, by supporting the development of a well-functioning agricultural insurance market.***

Operational and specific objectives

To ensure the achievement of the general objective, the RIA team elaborated three specific objectives of the reform:

1. Develop the agricultural insurance market in Georgia;
2. Support agricultural production and increase the competitiveness of farmers and agro businesses;
3. Support the income of people involved in agricultural activities and minimize their risks.

For each of these specific objectives, a number of operational objectives were identified. An overview of certain operational objectives, as well as the associated performance indicators, responsible agencies, and timing is presented in the following table. (More detailed information can be found in the full RIA document).

continue

Summary of the specific and operational policy objectives

Objective	Indicator	Responsibility	Timing
Specific objective 1: Develop the agricultural insurance market in Georgia			
Operational objective 1.1. Increase demand for agricultural insurance.	• Amount of insured land (ha.); • Share of farmers insured (%); • Number of insurance policies sold.	Public authority; Insurance association.	N/A
Operational objective 1.2. Develop affordable insurance products for farmers and agro businesses.	• Subsidy level (%); • Premium rate (%).	Public authority; Insurance association.	N/A
Operational objective 1.3. Expand the agricultural insurance business.	• Change in companies' profit share from agricultural insurance (%); • Average share of agro insurance in total portfolio (%).	Insurance companies.	N/A
Specific objective 2: Support agricultural production and increase the competitiveness of farmers and agro businesses			
Operational objective 2.1. Increase the value of agricultural production.	• Increase in agricultural output on insured land (%); • Increase in the average value of agricultural output on insured land (%).	Public authority, Farmers; Agro businesses.	N/A
Operational objective 2.2. Increase access to financing.	• Amount of land as collateral (ha.); • Insured yield as support for collateral.	Commercial Banks; Micro financial institutions.	N/A
Specific objective 3: Support the income of people involved in agriculture and minimize their risks			
Operational objective 3.1. Reduce farmers' financial vulnerability.	• Loss ratios (%); • Value of losses reimbursed (GEL); • Timely loss indemnification.	Public authority; Insurance association.	N/A
Operational objective 3.2. Smooth income fluctuation in agricultural areas.	• Measure the volatility of farmers' income.	Public authority; Insurance association.	N/A

Much like the Crop Insurance Reform, under the scope of the Draft Irrigation/Drainage Tariff Methodology RIA, there was no explicitly defined general objective. However, the general objective of the reform can again be reconstructed considering the specific and operational objectives, alongside the discussion on the nature of the problem. A short overview of the objectives is provided in Box 29 below.

Box 29 – Policy objectives under the Draft Irrigation / Drainage Tariff Methodology RIA

General objective

The general objective of governmental intervention in the sector can be formulated in the following manner: ***to improve the performance of the Georgian agricultural sector, as well as more sustainable use of water resources, by setting efficient water tariffs.***

Specific and operational objectives

Under the scope of the RIA, the team identified four specific policy objectives:

1. Develop a reliable water supply, through infrastructural renovation and rehabilitation;
2. Ensure the financial sustainability of amelioration Service Providers (SPs) (eliminate dependency from direct government subsidies);
3. Ensure efficient allocation of water across its alternative uses;
4. Increase the competitiveness of Georgia's agricultural sector by providing reliable irrigation and drainage services at reasonable prices.

To achieve the specific and general objectives, a number of operational objectives were also identified, a short overview of which are provided in the table below.

Summary of the specific and operational policy objectives

Objective	Indicator	Responsibility	Timing
Specific objective 1: Develop a reliable water supply through renovation and rehabilitation of infrastructure			
Operational objective 1.1. Construction, renovation, and rehabilitation of the amelioration infrastructure to ensure service reliability and minimize water losses.	• Increase investments in main channels (GEL); • ncrease in command area (%); • Increase in collection efficiency (%); • Increase in number of contracts; • Contracting efficiency (%).	Georgian Amelioration; GoG.	N/A
Specific objective 2: Ensure the financial sustainability of amelioration SPs (eliminate dependency from direct governmental subsidies)			
Operational objective 2.1. Develop a tariff methodology to ensure tariff transparency, management accountability, and the creation of billing and accounting systems for the proper management of GA.	• Adapting the draft law; • Tariffs set by GA (GEL); • Irrigated/drained area (ha.).	Georgian Amelioration; Parliament of Georgia; GoG.	N/A
Operational objective 2.2. Encourage wise investment decisions from the government to maximize economic effects.	• Average water consumption per ha.; • Increase in water availability (%); • Infrastructural investment (GEL).	Georgian Amelioration; GoG.	N/A
Specific objective 3: Ensure the efficient allocation of water across alternative uses			
Operational objective 3.1. Provide incentives for the efficient use of limited water resources.	• Share of farmers/land using optimal irrigation technology (%); • Average discounts on tariffs for using modern irrigation technologies (%).	GoG.	N/A

continue

Operational objective 3.2. Foster awareness about the real opportunity cost of using water for irrigation.	• Contracting efficiency (%); • Collection efficiency (%).	Georgian Amelioration; GoG.	N/A
Specific objective 4: Increase the competitiveness of Georgia's agricultural sector by providing reliable irrigation and drainage services at reasonable prices			
Operational objective 4.1. Foster awareness among Georgian farmers about increased use of drip and sprinkle irrigation systems to increase crop yields per ha.	• Share of farmers/land using optimal Irrigation technology (%); • Increase in crop yields.	Georgian Amelioration; GoG.	N/A

The RIA on the Draft Law of Water Management represents another important example for defining the objectives of a reform. The general objective was not overtly formulated under this RIA either, nevertheless the specific and operation objectives were identified in detail. It is also possible to reconstruct a general objective based on the problem defined alongside the specific and operational objectives. A short overview of the policy objectives under the RIA is provided in Box 30 below.

Box 30 – Policy objectives under the Draft Law of Water Management RIA

General objective

The general objective of the reform can be defined in the following manner: ***to improve the performance of the water management system and ensure the efficient and sustainable provision of good quality water resources to society.***

Specific and operational objectives

The RIA team identified five specific objectives for the reform:

1. Ensure the convergence of all water bodies to good quality status;
2. Ensure the continued availability of drinking water and access to sanitation for the population;
3. Ensure access to water for all potential users;
4. Ensure the efficient allocation of water resources across alternative uses;
5. Ensure compliance with the EU Water Framework Directive (WFD).

To achieve these objectives, the RIA team also identified several operational objectives, distinct for each specific objective, a summary of which is provided in the table below.

continue

Summary of the specific and operational policy objectives

Objective	Indicator	Responsibility	Timing
Specific objective 1: Ensure the convergence of all water bodies towards good quality status			
Operational objective 1.1. Expand water monitoring.	• % of water bodies with complete and fully functioning monitoring system in place.	MENRP; River basin organizations; NEA.	2025
Operational objective 1.2. Water use tariffs include a charge to finance realization and operation of the water treatment infrastructure.	• % of recovered costs related to the realization and operation of the water treatment infrastructure.	MENRP; GNERC; Local governments; Local water suppliers.	2025
Operational objective 1.3. Increase number of water bodies with good status.	• % of water bodies achieving good status.	MENRP; River basin organizations; NEA.	2025
Specific objective 2: Ensure the continued availability of drinking water and access to sanitation for the population			
Operational objective 2.1. The allocation of water resources (outstanding permits) always guarantees the continued availability of drinking water for the population.	• Quantity of "reserved" drinking water available per capita sufficient to meet the minimum identified needs.	Local governments, Local water suppliers; MRDI; River basin organizations.	N/A
Operational objective 2.1. Fully develop sanitation networks in each river basin.	• % of river basins with fully developed sanitation networks.	Local governments; Local water suppliers; MRDI; River basin organizations.	N/A
Specific objective 3: Ensure access to water for all potential users			
Operational objective 3.1. All individuals or firms requesting to use water and willing to pay tariff/fees, and respect the corresponding regulation, have the possibility to do so.	• % of individuals and firms who request to use water and are willing to pay the required tariff/fees and respect the corresponding regulation have the possibility to do so.	MENRP; GNERC; Local government; Local water suppliers.	N/A
Operational objective 3.2. The average time to obtain access to water (or the relevant permits) issue of a demand should not exceed a certain maximum time (e.g., three months).	• The average time for obtaining access to water, from the moment a demand is issued.	MENRP; GNERC; Local government; Local water suppliers.	N/A
Specific objective 4: Ensure the efficient allocation of water resources across alternative uses			
Operational objective 4.1. Tariffs for water use and water abstraction (when relevant) are calculated according to a transparent, efficiency-based methodology.	• % of tariffs for water use and water abstraction calculated according to an efficiency-based methodology.	MENRP; River basin organizations; GNERC.	2022
Operational objective 4.2. Water consumption by major water users (a set consumption threshold) and private households is accurately measured.	• % of households with a water meter at the point of delivery; • % of major water users with a water meter at the point of delivery.	MENRP; River basin organizations; GNERC; Local government; Local water suppliers.	N/A

continue

Specific objective 5: Ensure compliance with the EU Water Framework Directive (WFD)			
Operational objective 5.1. Basin organizations are created, fully staffed, and equipped.	• Number of active river basin organizations.	MENRP; GoG.	2024
Operational objective 5.2. River Basin Management plans are approved.	• Number of updated integrated river basin management plans (IRBMP).	MENRP; River basin organizations; River basin council; GoG.	2024
Operational objective 5.3. The River Basin Council is created to ensure involvement of all stakeholders in creating river basin management plans.	• Number of categories of stakeholders involved in the consultation process for IRBMP.	MENRP; River basin organizations; GoG.	2024
Operational objective 5.4. Agreements for transboundary river basin management.	• Transboundary agreements with Azerbaijan, Turkey, Russia, and Armenia are signed.	MENRP; GoG; Ministry of Foreign Affairs.	N/A

3.4. POLICY OPTIONS

Once you have defined your objectives, you must identify and explore which instrument and delivery mechanisms are most appropriate for their attainment. Instruments may be bundled together, forming a policy option that can be applied to solve the identified problem.

The options are governmental responses to the issues involved. They must be closely related to the causes of the problem and the objectives; i.e., they should address the roots causes and not manifestations or consequences of the problem. Not all policy options identified might be feasible or desirable, due to budgetary constraints, political unfeasibility, ethical considerations, or other reasons. However, all policy options identified – including policies that were discarded in the process – should be mentioned at the beginning of the policy options section. The reason for discarding options should also be reported in the RIA document.

Why is this step important?
Reviewing a range of instruments provides greater transparency to an RIA exercise. It also grants a more robust justification for the chosen course of action, demonstrating to policymakers and stakeholders that alternative solutions have been seriously considered but were not pursued for a various appropriate reasons.

3.4.1. What may constitute a possible option?

Policies can be delivered using a range of instruments. Identifying possible policy instruments is a method of thinking through the different ways to solve problems and to achieve objectives. **Although a problem has been recognized, it does not necessarily imply that a new regulation has to be introduced.** Frequently, certain alternatives can incorporate a solution, such as information sharing and educational campaigns. An effective policy can thus often be implemented using a combination of several policy instruments.

An illustrative list of such possible options is given below in Box 31.

Box 31 – Possible types of governmental instrument

No single solution is correct a priori. The main instruments can subsequently be situated on a continuum from the more intrusive to more respectful markets and individual choices, including:

- **COMMAND AND CONTROL REGULATION:** Although at first sight it may appear the easiest and most promising solution (being clear, standardized, and predictable), this type of regulation may lead to significant compliance costs; rigidities; and opportunistic behaviors (moral hazards).
  Examples: imposing emission-controlling technologies (e.g., catalysts); design or technology standards; or substance bans.
- **PERFORMANCE-BASED REGULATION:** This type of instrument sets standards that specify the required performance of a target population. It does not detail the exact mechanisms by which compliance is obtained, rather it specifies the criteria needed to achieve such compliance. Standards should be flexible, allowing aggregation or offsetting between different plans or agents, regionally or nationally, provided it does not negatively affect the overall outcome.
  Examples: indoor fire systems (public buildings) or safety at work standards.
- **SELF-REGULATION AND CO-REGULATION:** These approaches cover (sectoral) voluntary agreements and standards, which economic actors and civil society players set themselves to regulate and organize their activities. They do not involve a legislative act but require trust and a consensus among operators and their clients. In the case of self-regulation, compliance and enforcement tasks are performed by non-governmental bodies. Self-regulation also needs to be an open and transparent process, as it may provide an opportunity for collusive arrangements among rivals (cartels). In such cases, an unintended consequence of self-regulation could be reduced competition. Whereas co-regulatory regimes imply a stronger partnership between economic actors (who set their own codes) and government. The latter explicitly backs the codes and is also responsible for their enforcement. This system is less prone to allow for collusive and anti-competitive behaviors, though it might lead to greater inflexibility.
  Examples: professional codes of conduct or qualification requirements (e.g., for notaries, doctors, accountants); advertising standards; or quality assurance schemes.
- **BETTER ENFORCEMENT AND IMPLEMENTATION:** This option should always be considered when legislation is already in place, for instance through improved implementation or inspection guidance.
  Examples: functional reviews of inspectorate activities; the "advice first principle"; risk-based approaches; or ex-post evaluations.
- **DE-REGULATION AND SIMPLIFICATION:** A commonly forgotten regulatory policy option is streamlining the stock of existing domestic regulation at various levels of government.
  Examples: guillotine or codification.
- **INFORMATION, EDUCATION, CAPACITY-BUILDING CAMPAIGNS** (sponsored by public authorities): Especially those which exploit the self-interest of the target audience, as educational instruments may effectively improve compliance and management practices. The government can also "nudge" targeted groups through education and by releasing information on the potential consequences of unchanged behavior. Small alterations to the information available to individuals may seemingly have great consequences for regulatory results.
  Examples: "drink & drive" education campaigns; organ donation awareness campaigns; "eco-labelling"; or "nudging".

continue

- **ECONOMIC AND MARKET-BASED MECHANISMS:** Instruments, such as the definition of property rights, creation of new markets, enhancing the functioning of existing markets, liability provisions, etc., may influence the behavior of market players by providing (negative/positive) monetary incentives or by guaranteeing certain basic rules. Taxes, charges, and fees are potentially useful policy instruments that influence private behavior towards public objectives. They provide flexibility and cost-effectiveness and can be used to ensure that users fully pay the social price of their production or consumption activities.
  Examples: trading schemes for CO_2 emission permits; environmental taxes and subsidies (e.g., for solar panels); or levies on tobacco products.

3.4.2. How to formulate options

The identification stage begins with an extended list of options – regulatory and non-regulatory alike – which have the potential to achieve your set objectives. This initial list is gradually narrowed down by assessing the likely impacts of each option and their feasibility, to derive to a shorter list that should be analyzed in depth. Identification of the options can be implemented using various methods, such as a results analysis, resources analysis, SWOT analysis, brainstorming, analogy, and expert methods (the DELPHI method, or expert interviews, panels, and polls, etc.). Certain options initially considered individually might also be combined to exploit existing synergies and maximize their positive impacts.

During the process of identifying policy options, the following criteria should be considered:

- Every good RIA will canvass a range of viable options. The number of options you include in your analysis should be commensurate with the magnitude of the policy problem being considered;
- While every option considered should be practical and implementable, options should not be discounted simply because they have not been considered before or there are associated risks;
- All options considered and analyzed must be realistic, while you should not fall into the trap of only considering the "no-action", the "favorite", or the "extreme, unrealistic" options for the analysis;
- As a guiding tenet, you should seek to choose the least intrusive option, and the one which is more respectful of markets and individual choices, according to the principle of proportionality;
- The "no-action" option must be treated as a real alternative, except in cases when national legislation requires a specific obligation to act;
- You should follow the "less is more" principle. If existing measures do not lead to a desired effect – before adopting new regulative measures – improvement, simplification, or even repealing existing legislation should be considered for stronger results;
- Studying the opportunities for better enforcement and compliance are mandatory when there is already a legislation in force in the area of intervention;
- Options that may enjoy substantial support, as well as those that appear promising though controversial, should be subject to careful scrutiny. Public and political support should never be the sole determining factor in the selection and analysis of the various options;
- Unfeasible options should only be incorporated into your RIA if they have been canvassed publicly. Beyond which, you should mention that they were initially considered but discarded, while concisely explaining your reasoning.

3.4.3. Practical examples and lessons from the Georgian experience

This subsection is designed to help the reader consolidate the concepts discussed above and to offer direct exposure to the lessons learned by RIA analysists in the process of identifying and developing policy options.

During the implementation of the RIA on the Crop Insurance Reform, the team selected two policy options, based on desk research, data analysis, stakeholder consultations, the nature of the problem, and the policy objectives. However, before selecting these two options, the team also discussed options that were discarded, for several reasons, at earlier stages (more details below). An overview of the selected and discarded policy options can be found in Box 32 below.

Box 32 – Policy options identified under the Crop Insurance Reform RIA

Selected policy options

Under the RIA on the Crop Insurance Reform in Georgia, the RIA team selected two policy options:

1. **Policy option 0: The government does not introduce NARMA but continues with the current pilot (baseline scenario).**

This option assumed that the GoG would continue the current pilot project for an additional ten years. Therefore, the government would continue subsidizing farmers' insurance and the subsidy rates would not change between 2016-2025 (staying in the 50-70% range, amounting to 65% on average). According to the pilot program, the following risks were insured: hail, excessive precipitation, heavy winds, and autumn frost. Subsidies for grapes accounted for 40% and 60% for all other crops. Moreover, the maximum size of land that could be insured was defined; in general, farmers with over five hectares were excluded from the project (this restriction was imposed because they wanted the program to be focused on low-income beneficiaries). The program was supposed to be implemented by the Agricultural Project Management Agency (APMA) of the Ministry of Agriculture of Georgia.

2. **Policy option 1: The government adopts and develops the NARMA model and starts to implement it in 2016 (alternative scenario).**

This option estimated that the government and insurance companies would jointly establish the National Agricultural Risk Management Agency (NARMA), intended to be a private-public partnership for managing agricultural insurance in Georgia. NARMA would become responsible for the development of insurance products, the training and certification of loss adjusters, initiating insurance law, spreading insurance culture among farmers, etc. In this scenario, APMA would no longer manage agricultural insurance. According to the scenario, subsidy levels were expected to change and to differ for small- and large-scale farmers; gradually decreasing from 75% to 65% for small farms, and from 60% to 50% for large. Changes in the subsidy level were expected to happen during the first four years. Thereafter, the subsidy levels would be fixed at 65% for small- and 50% for large-scale farmers over the last six years of the analysis. NARMA would actively promote insurance culture, increasing farmers' awareness through various forms of media.

Discarded policy options

Before introducing the policy options that were ultimately selected, the RIA team also considered two other options, though they were discarded during earlier stages.

continue

1. **Discarded policy option 1: The possibility that the government does not involve companies in the development of the insurance market, instead managing agricultural insurance itself by creating a state-owned insurance company.**

This option was discarded during consultations with stakeholders because, to be implemented successfully, it would require substantially more human and financial resources than the alternative options, and it was considered to have a higher potential for corruption and low efficiency. Although there were successful examples of state managed insurance models abroad, there was a broad consensus among stakeholders that this kind of model was unfeasible in Georgia at the current stage of insurance market development.

2. **Discarded policy option 2: The possibility that private insurance companies develop and manage agricultural insurance without governmental support (in particular, without subsidies).**

The decision to abandon this option was based on feedback the RIA team received during meetings with stakeholders and on two pieces of evidence suggesting that development of the agricultural insurance market without governmental subsidies would not be feasible at the current stage of development. The first being the experience of two Georgian insurance companies, following requests from a few large farms, that tried to implement agricultural insurance without subsidies between 2004-2010. The penetration rates of insured land always remained extremely low and, after a small increase in the first years, constantly declined. The second piece of evidence came from a pilot project that took place in 2014-2015. Despite many confounding factors, there was general agreement among the stakeholders involved that one main reason for the 2015 significant drop in penetration rates was the reduction of governmental subsidies (on average decreasing from about 94% to 55% of the premium).

Box 33, below, summarizes the policy options suggested in the Draft Irrigation/Drainage Tariff Methodology RIA, as discussed during the consultations with the main stakeholders (GA and MoA).

Box 33 – Policy options identified in the Draft Irrigation / Drainage Tariff Methodology RIA

Selected policy options

The draft methodology of tariff calculation proposed several methods for service pricing. Of these, the two most feasible options were selected for the impact assessment. This study thus covered three major policy options:

1. **Policy option 0: The government does not introduce a new tariff methodology, instead it maintains the interim status quo decree already in force (baseline scenario).**

Maintaining the status-quo scenario, without any changes, implied that the tariff reform would not be implemented, and the tariff rate would be kept unchanged (75 GEL for irrigation in eastern Georgia; 45 GEL for irrigation and 40 GEL for drainage in western Georgia). The government would not give any direct subsidy to farmers to irrigate and would keep financing GA's operational losses (including depreciation expenses). The government would also not make any investment to increase GA's service reliability within their existing command area. The priority in this case would be to increase the command area (which is outside of the scope of this study) using existing water resources.

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2. **Policy option 1: The government adopts a lower-bound pricing model with a two-component tariff that covers the company's operation and maintenance costs. Thus, the company breaks even, but does not receive any economic profits.**

Within this option, a lower-bound tariff would be applied. GA would reach a break-even point at the expected levels of contracting efficiency and client compliance rate. At such levels, the company would cover its operational costs, while not making any economic profits. Under this policy option, the company would not need any direct subsidization from the government, as far as regular operations were concerned. The Georgian government, as a 100% shareholder of the company, would make capital investments for the construction of new infrastructure, such as reservoirs, headworks, pumping stations, etc. However, if compliance and contractual rates fell below expected levels, the government would still have to step in and provide direct subsidies to compensate for revenues shortfalls.

The lower-bound tariff was intended to consist of two components: a per ha. tariff, paid as a service fee for irrigation and drainage (service fee); and a fixed per ha. tariff, that every farmer in the command area would have to pay for the availability of the irrigation and drainage infrastructure.

The tariffs were designed to be set for each command area separately. The first component (service fee) would only be charged to customers who had a contract for irrigation and drainage services. The second component of the tariff was to be paid by everyone with agricultural land in the command area, notwithstanding their demand for the company's services.

3. **Policy option 2: The government adopts an upper-bound pricing model with a three-component tariff that enables the company to cover real costs of service and receive a 8.1% nominal rate return on capital.**

Under this option, an upper-bound tariff would be applied. At the expected levels of contracting efficiency and client compliance rate, it was expected that GA would cover its real costs and receive a certain return on capital. In the long-term (well beyond the time horizon of this report), the company would not need any subsidization from the government, including capital, due to company profits. After a successful transition period to the upper-bound tariff, the company could be privatized. However, in case compliance and contractual rates fall below the expected level, the government might still have to step in and provide direct subsidies to compensate for the revenues shortfall or to support capital investment. In such a context, privatization might become problematic. During the initial period, the government might still have to provide direct subsidies, albeit to a smaller extent than in the aforementioned options.

The upper-bound model was designed as a three-component tariff that consisted of:

1. A per ha. tariff paid as a service fee for irrigation and drainage;
2. A fixed per ha. tariff that every farmer in the command area would have to pay for the availability of irrigation and drainage infrastructure;
3. An additional fixed component per ha. that would provide remuneration for investments in infrastructure made by the company, based on a "fair" rate of return on capital (typically the weighted average cost of capital (WACC) of the company).

Tariffs were designed to be set for each command area separately, and the first component (service fee) would be charged exclusively to customers who used irrigation and drainage services. The fixed components of the tariff were to be paid by everyone who owned agricultural land in the command area, notwithstanding their demand for the company's services.

Under the Draft Law of Water Management RIA, the team selected two main policy options, alongside the baseline scenario. These proposed policy alternatives were thereafter agreed on with the main stakeholder, representatives of the MENRP. A summary of the policy options selected during the scope of the RIA is provided in below Box 34.

Box 34 – Policy options identified under the Draft Law of Water Management RIA

Selected policy options

After careful appraisal of the existing and proposed regulatory frameworks of water resources management in Georgia, accompanied by a review of international practices, and stakeholder consultations, the RIA team together with representatives of the MENRP agreed to focus the assessment on a comparison between the three following policy options:

1. **Policy option 0: No regulatory or institutional changes implemented (status-quo scenario).**

This option assumed that water management legislation would not be changed and nothing would be done to alter the current trends in consumption patterns, infrastructural development, water quality monitoring, or other relevant areas. Under the status quo scenario, no development of the river basin management systems would take place. Consequently, the establishment of a data exchange system would not be required (more details below) and the existing licensing system would remain unchanged (applied only to ground water sources).

2. **Policy option 1: Full implementation of the proposed regulations, with an effective data exchange service and donor support for the realization of the two remaining River Basin Management Plans.**

Policy option 1 assumes the full implementation of the proposed draft law on water management, which aims to implement an Integrated River Basin Management (IRBM) approach in compliance with the principles of the EU WFD. Under this option, the government was to develop a data exchange service for private and public actors, and among public entities (different ministries and institutional bodies), increasing the efficiency of the process and minimizing the need for additional staff. The RIA team also assumed (in line with MENRP expectations) that all initial Basin Management Plans would be financed by donors, not the public budget.

The main goal of the legislation was to gradually achieve good quality status for water bodies, on the basis of a comprehensive assessment of the current situation and carefully planned steps that improve ecological and chemical conditions. Under the proposed legislation three new institutional bodies were to be created:

1. The government commission on water resource protection and use;
2. River basin organizations;
3. River basin council.

The government commission on water resource protection and use would be the state body responsible for the elaboration of a 10-year governmental strategy for water resource protection and use.

The most relevant characteristics of this reform option were:

1. **The introduction of a Basin Management System** – river basin organizations would be established for six river basins: the Alazani-Iori, Mtkvari, Khrami-Debeda, Enguri-Rioni, Chorokhi-Adjaristskali, and the Bzipi-Kodori. Each river basin would have its own river basin organization, responsible for:

continue

a. Identifying water bodies and defining their borders;
b. Commissioning (and participating in) the elaboration of the IRBMP;
c. Ensuring stakeholder involvement in the IRBMP;
d. Issuing special water use permits;
e. Surveying all types of water user in the basin;
f. Monitoring the IRBMP;
g. Informing the public about limitations of water usage in cases of contamination.

2. **The introduction of new economic instruments for water management** – the bases for defining proper charges and fees were to be under the "**user pays**" and "**polluter pays**" principles. According to the new legislation, charges for surface water abstraction would be re-introduced and fees for water discharge would be introduced;
3. **Changes in the permit system** – according to the new legislation, a permit system for water abstraction, water discharge, and combined water use would be introduced;
4. **Changes in monitoring practices and procedures** – the proper management of water resources and the pursuit of water bodies with good quality status would require the expansion of monitoring and data collection, as well as a modification to the current practices and procedures. This, in turn, would require additional financial resources. Monitoring and data collection of the hydro-chemical, hydro-biological, hydro-morphological conditions of river bodies would be kept the responsibility of the NEA.

3. Policy option 2: Full implementation of the proposed regulations, in the absence of an effective data exchange service and donor support for the realization of the two remaining River Basin Management Plans.

This option was fundamentally designed to be identical to policy option 1, with the following exceptions: the government would not facilitate the exchange of information and data between private and public actors, and among public actors. Without the data exchange, the cost of compliance was expected to increase for private companies and the administration costs in the public sector.

The lack of external support for the realization of two of the five initial Basin Management Plans would also increase the initial implementation costs of the reform.

Box 35 below summarizes the policy options selected for the RIA on the Domestic Workers' Convention.

Box 35 – Policy options identified under the Domestic Workers' Convention RIA

Selected policy options

During the process, the team selected two policy options, in addition to the status quo scenario:

1. **Policy option 0: Domestic workers would still not be explicitly covered by the Labour Code (status-quo scenario).**

In the status quo scenario, domestic workers would still not be explicitly covered by the Labour Code. As a result, only those domestic workers with contracts from employment agencies would be able to apply to the Labour Inspectorate. Domestic workers would have access to the court and Public Defender if their essential rights (discrimination, violence, abuse, harassment, etc.) were violated and limited access if their labor rights were to be violated. In the latter instance, however, it is difficult to qualify a domestic working relationship as a labor relation due to ambiguity in the Labour Code. In the case of domestic workers with a service contract, the burden of proof falls still on them. Awareness level regarding workers' rights, both among domestic workers and within the households employing them, would also remain low. Thus, the current tendency not to appeal to the Labour Inspection Service, National Courts, or Public Defender would persist. While interest in establishing domestic workers' unions or associations, to increase bargaining power, would remain low. Hence, no domestic workers' unions or associations would be established.

2. **Policy option 1: Regulatory solution – Acknowledge domestic work as a labor relationship.**

The regulatory solution would lead to the acknowledgement of domestic work as a labor relationship. This could be achieved by the following changes in legislation:

1. The Labour Code of Georgia could be extended to domestic workers, thus acknowledging domestic work as a labor relationship, by not limiting labor relations to organized conditions (this would require a broader definition of labor relations – according to ILO's Employment Relationship Recommendation N.198 (2006));
2. The Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia could issue an order describing occupations that include domestic work, as the Labour Code states that its provisions apply only to occupations defined by the order of this Ministry.

The regulatory option was expected to provide incentives for domestic workers to make their work formal, and to produce the evidence (formal contracts, regular payments to their bank accounts, etc.) necessary to protect their rights when required. It was also suggested that tax rates could be set differently for domestic workers, since they belonged to one of the most vulnerable groups of society; if solid evidence revealed that such workers had unequal or unfair conditions, it would have been possible to define such different (lower) tax rates. Allowing the application of a differential tax rate for domestic workers would help minimize adverse effects of the reform.

3. **Policy option 2: Non-regulatory solution – Encouraging domestic workers to establish informal or formal associations and increase domestic workers' awareness levels regarding their current rights.**

continue

Policy option 2 aimed, as the first step towards strengthening labor rights and social welfare, to establish informal and formal domestic workers' associations. This would enable domestic workers, with no shared employers, no shared work sites, and no shared co-workers, to develop their skills and formulate effective ways to solve their job-related problems. Such entities would allow the more effective use of all the tools already available and facilitate lobbying to introduce more effective instruments. Such associations could partner with the government, NGOs, or international organizations in order to obtain financial resources and develop action for collective empowerment. They moreover could have legal experts to provide consultation and expertise for domestic workers on employment conditions and contract formulation. The role of legal experts would expand in cases of violations of workers' rights, harassment, abuse, and discrimination. The governmental role in this option would be significant – associated with the realization of awareness raising campaigns targeting domestic workers and their employers. As society has proven high levels of trust towards the Public Defender's office, their involvement is suggestive of significant results. Under this option, the Labour Inspectorate would also contribute to raising awareness of labor safety and labor rights.

3.5. CATALOGUING THE IMPACTS AND SELECT MEASUREMENT INDICATORS

Once a set of alternative policy options has been identified and compared, you should start by classifying the expected impacts associated with each option. These impacts typically belong to three broad categories: **economic, social, and environmental.**

3.5.1. Types of impact

Each of the three aforementioned categories include a wide variety of effects, some examples of which are provided in Table 12.

Table 12 – Types of impact

Type	Description
Economic impacts	The effects that policy changes have on the wellbeing of individuals and households, through financial and non-financial channels, as well as the financial and non-financial costs and benefits the changes have on businesses and public administration. ***Individuals and households:*** • Costs - Financial (e.g., fees, fines, compliance costs, mitigation costs); - Non-financial (e.g., additional time spent to comply, worsened quality of life). • Benefits - Financial (e.g., cost savings, increased revenues); - Non-financial (e.g., time saved, improved quality of life). ***Business/public administration:*** • Costs - Financial (e.g., fees, fines, compliance costs, mitigation costs); - Non-financial (e.g., additional time spent by personnel). • Benefits - Financial (e.g., cost savings, increased revenues); - Non-financial (e.g., time saved by personnel).

Social impacts	The effects that policy changes have on the wellbeing of society by influencing the challenges and opportunities faced by society or specific societal groups, in a way that cannot be fully captured by a pure cost-benefit approach. Such effects instead require to be complemented by cross-referencing changes in specific social indicators. *For example changes in: the level of inequality; the level of education; citizens' participation and social inclusion; equality of treatment and opportunities (by gender, ethnicity, etc.).*
Environmental impacts	The effects that policy changes have on the wellbeing of society by affecting the environment in a way that cannot be fully captured by a pure cost-benefit approach. Such effects require to be complemented by a cross-referencing changes in specific environmental indicators. *For example changes in: biodiversity; the concentration of CO_2 in the atmosphere; the reduction in forest coverage; salinity of rivers; microclimate conditions; land use in areas designed as sensitive for ecological reasons.*

The table below presents certain questions which could help you explore potential impacts by their category:

Table 13 – Example questions

Economic impacts	Questions
Operating costs and business conduct	• Will it impose additional adjustment, compliance, or transaction costs on businesses? • How does the option affect the cost or availability of essential inputs (raw materials, machinery, labor, energy, etc.)? • Does it affect access to finance? • Does it impact the investment cycle? • Will it entail the withdrawal of certain products from the market? Is the marketing of products limited or prohibited? • Will it entail stricter regulation on the conduct of a particular business? • Will it lead to the closing down or creation of businesses? • Are some products or businesses treated differently than others in a comparable situation?
Administrative burdens on businesses	• Does it affect the nature of informational obligations placed on businesses (for example, the type of data required, reporting frequency, or the complexity of the submission process)?
Trade and investment flows	• How will the option affect exports and imports to Georgia? Will imported products be treated differently to domestic goods? • How will investment flows be affected and trade in services? • Will the option give rise to trade, customs, or other non-trade barriers? • Will the option affect regulatory convergences with third countries? Have international standards and common regulatory approaches been considered?
Competitiveness of business	• What impact does the option have on the cost of doing business, including the costs of intermediate inputs (like energy) and production related factors (such as labor and capital)? • What impact does the option have on businesses' capacity to innovate, i.e., the ability to produce more or higher quality products and services that meet customer expectations? • What impact does the policy option have on businesses' market share and comparative advantages in an international context (e.g., imports, exports, investment flows, trade barriers, regulatory convergence, etc.)?
Position of SMEs	• What will the impact of the identified additional costs and burdens be on the operation and competitiveness of SMEs and micro-SMEs in particular?

Functioning of the internal market and competition	• What impact (positive or negative) does the option have on the free movement of goods, services, capital, and workers? • Will it lead to a reduction in consumer choice, higher prices due to less competition, the creation of barriers for new suppliers and service providers, the facilitation of anti-competitive behavior or emergence of monopolies, market segmentation, etc.?
Innovation and research	• Does the option stimulate or hinder research and development? • Does it facilitate the introduction and dissemination of new production methods, technologies, or products? • Does it affect the protection and enforcement of intellectual property rights (patents, trademarks, copyright, other know-how rights)? • Does it promote or limit academic or industrial research? • Does it promote greater productivity or resource efficiency?
Public authorities	• Does the option have budgetary consequences for public authorities at different levels of government (national, regional, local) in terms of revenue and expenses, both immediately and in the long-term? • Does it bring any additional governmental administrative burdens? • Does the option require the creation or restructuring of public authorities?
Consumers and households	• Does the option affect the prices consumers pay for goods and services? • Does it have an impact on the quality or safety of the goods or services consumers receive? • Does it affect consumer choice, trust, or protection? • Does it affect the level of consumer information? • Does it have an impact on the availability or sustainability of consumer goods and services?
Specific regions or sectors	• Does the option have significant effects on certain sectors? • Will it have a specific impact on certain regions, for instance in terms of jobs created or lost? • Is there a region or sector which is disproportionately affected compared to other regions or sectors?
Third countries and international relations	• Is the option compliant with international legal commitments, such as WTO Agreements, EU Association Agreement, DCFTA, economic partnership agreements, investment protection agreements, and other similar arrangements?
Macroeconomic environment	• Does it have overall consequences on economic growth and employment? • How does the option contribute to improving the conditions for investment and the proper functioning of markets? • Does the option have direct impacts on macro-economic stabilization?

Social impacts	Questions
Employment and labor markets	• To what extent are new jobs created or lost? • Are jobs created or lost in specific sectors, professions, regions, or in specific social and or age groups? • Are there significant indirect effects which might affect employment levels? • Are there factors that would further prevent or enhance the potential to create jobs or prevent job losses?
Working conditions	• Does the option affect wages, wage setting mechanisms, or labor costs? • Does the option affect employment protection, particularly the quality of work contracts, risk of undeclared work, or false self-employment? • Does the option affect work organizations? • Does the option affect occupational health and safety, working conditions, or the effective exercise of labor standards? • Does the option affect the social dialogue? • Does the option affect access to vocational training and career development advice?

Effects on income distribution and social inclusion	• Will the option have an impact on inequality or the distribution of incomes and wealth, in Georgia as a whole or in specific regions? • Will the option change the number of workers with insufficient income? • Does the option impact poverty rates, severe material deprivation, or access and quality of social protection schemes? • Will the affordability of basic goods and services be affected, particularly for those subject to social exclusion?
Governance, participation, and good administration	• Does the option affect the involvement of stakeholders in issues of governance? • Are all actors and stakeholders treated on an equal footing, with due respect for their diversity? Does the option impact cultural or linguistic diversity? • Does it affect the autonomy of social partners in areas for which they are competent? Does it, for example, affect the right of collective bargaining at any level or the right to take collective action? • Does the implementation of the proposed measures affect public institutions and administrations, for example regarding their responsibilities? • Does the option make the public better informed about a particular issue? Does it affect the public's access to information? • Does the option affect political parties or civic organizations?
Public health and safety	• Does the option affect the health and safety of individuals/populations, including life expectancy, mortality, and morbidity, through impacts on the socio-economic environment (working environment, income, education, occupation, nutrition)? • Does the option increase or decrease the likelihood of health risks due to substances harmful to the natural environment? • Does it affect health due to changes in the amount of noise, air, water, or soil quality? • Will it affect health due to changes in energy use or waste disposal? • Does the option affect lifestyle-related determinants of health, such as diet, physical activity, or use of tobacco, alcohol, or drugs? • Are there specific effects on particular risk groups (determined by age, gender, disability, social group, mobility, region, etc.)?
Crime, terrorism, and security	• Does the option improve or hinder security, or impact crime or terrorism risks? • Does the option affect a criminal's chances of detection or their potential gain from crime? • Is the option likely to increase the number of criminal acts? Does it have an impact on a specific type of crime (money laundering, corruption, illicit production, trafficking, cybercrime, etc.? Will it divert people from or prevent crime? • Does it affect law enforcement capacity to address criminal activity? • Will it have an impact on security interests? • Does it affect the victims of crime and witnesses or their rights?
Access to and effects on social protection, health, and educational systems	• Does the option have an impact on social protection, health, or educational services in terms of quality/access for all? • Does the option affect the access of individuals to public/private education or vocational and continuing training? • Does the option affect the level of education and training outcomes? • Does the option affect the financing and organization of social protection, health, or educational services? • Does it affect universities and academic freedom or self-governance?
Culture	• Does the proposal have an impact on the preservation of cultural heritage? • Does the proposal have an impact on cultural diversity? • Does the proposal have an impact on citizens' participation in cultural manifestations, or their access to cultural resources?

Environmental impacts	Questions
Climate	• Does the option affect the emission of greenhouse gases (e.g., carbon dioxide, methane, nitrous oxide, etc.) into the atmosphere? • Does the option affect the emission of ozone-depleting substances?
Air quality	• Does the option have an effect on the emission of acidifying, eutrophying, photochemicals or harmful air pollutants that might affect human health, damage crops or buildings, or lead to deterioration in the environment (soil, rivers, etc.)?
Water quality and resources	• Does the option decrease or increase the quality or quantity of freshwater and groundwater? • Does it raise or lower the quality of waters in coastal and marine areas (e.g., through discharges of sewage, nutrients, oil, heavy metals, or other pollutants)? • Does it affect drinking water resources?
Biodiversity, flora, fauna, and landscapes	• Does the option reduce the number of species/varieties/races in any area (i.e., reduce biological diversity) or increase the range of species (e.g., by promoting conservation)? • Does it affect protected or endangered species, their habitats, or ecologically sensitive areas? • Does it split the landscape into smaller areas or affect migration routes, ecological corridors, or buffer zones in other ways? • Does the option affect the scenic value of a protected landscape?
Soil quality or resources	• Does the option affect the acidification, contamination, or salinity of soil, and soil erosion rates? • Does it lead to loss of available soil (e.g., through building or construction works) or increase the amount of usable soil (e.g., through land decontamination)?
Waste production / generation / recycling	• Does the option affect waste production (solid, urban, agricultural, industrial, mining, radioactive, or toxic waste) or how waste is treated, disposed of, or recycled?
Efficient use of resources (renewable & non-renewable)	• Does the option affect the use of renewable resources (like fish etc.) and lead to faster use than regeneration? • Does it reduce or increase the use of non-renewable resources (groundwater, minerals, etc.)?
Sustainable consumption and production	• Does the option lead to more sustainable production and consumption? • Does the option change the relative prices of environmentally friendly and unfriendly products? • Does the option promote or restrict environmentally un/friendly goods and services through changes in the rules on capital investments, loans, insurance services, etc.? • Will it lead to businesses becoming more or less polluting through changes in the way they operate?
Transport and the use of energy	• Does the option affect the energy intensity of the economy? • Does the option affect the fuel mix (between coal, gas, nuclear, renewables, etc.) used in energy production? • Will it increase or decrease the demand for transport (passenger or freight), or influence its modal split? • Does it increase or decrease vehicle emissions? • Will the option increase or decrease energy and fuel consumption?
Animal welfare	• Does the option have an impact on animal health? • Does the option affect animal welfare (i.e., the humane treatment of animals)? • Does the option affect the safety of food and feed?
The likelihood or scale of environmental risks	• Does the option affect the likelihood of fires, explosions, breakdowns, accidents, or accidental emissions?

Land use	• Does the option affect the bringing of new areas of land ('Greenfields') into use for the first time? • Does it affect sensitive land designated for ecological reasons? Does it lead to a change in land use (for example, the divide between rural and urban, or a change in the type of agriculture)?

To treat something as an impact we have to **identify a cause-and-effect relationship** between certain physical outcomes of the planned regulatory change, alongside:

- The wellbeing of affected individuals, those whose costs and benefits are accounted for comparatively. We consider the costs whenever an impact reduces people's wellbeing, and of benefits whenever an impact leads to an increase in wellbeing;
- Other relevant indicators not encompassed within the above-mentioned definition. In such cases, impacts may be positive (when they lead to the improvement of a given indicator) or negative (when they lead to the worsening of a given indicator).

One example of an impact affecting wellbeing is the (direct) negative effect that a reduction in redistributive spending (e.g., funding universal healthcare) could have on the welfare of the poorest segments of the population. An example of the second type of impact might be the subsequent associated increase in poverty and inequality indicators for the country. While only the first type of impact would be relevant in an efficiency-focused study (like a cost-benefit analysis), the second type is relevant if other methodologies are used (such as a multi-criteria analysis), since the latter is not solely concerned with the efficiency implications of a policy intervention.

Impacts can be **direct** (i.e., an unmediated consequence, directly generated by a potential intervention), or **indirect** (second-round), which arise as a result of behavioral changes prompted by the direct impacts.

An example of direct changes and impacts might be the change in Value Added Tax (VAT) revenue associated with an increase in the tax rate on beer alongside a decrease in demand for beer. Whereas, indirect impacts may be other changes in consumption patterns of Georgian households and the associated change in VAT revenue.

It is important to remember that the task of an RIA is to identify and assess what an instrument is expected to change in comparison to the status quo (the no-action, baseline option). Accordingly, you have to **focus on the new and additional impacts** that your option might generate. Impact identification thus requires:

1. Identification of individuals or groups affected by the project;
2. Identification of individuals or groups with standing;
3. Identification of cause-and-effect relationships between the outcomes of the project and the utility of the individuals with standing, and/or the expected impact of other relevant indicators.

Relevant sources of information to support your analysis and help foresee any impacts of a given regulatory change are (from more to less reliable) as follows:

- Scientific literature assessing the impacts of analogous regulatory changes within your country;
- Scientific literature assessing the impacts of analogous regulatory changes in other countries;
- Scientific literature simulating and predicting (also at the theoretical level) the impacts of analogous regulatory changes within your country or other countries;
- Impact assessments or simulations performed by (truly) independent research and policy entities with no specific ideological agenda;

- Impact assessments or simulations performed by international organizations;
- Impact assessments or simulations performed by specialized governmental entities;
- Expert opinions;
- Stakeholder consultations;
- Impact assessments or simulations performed by other entities.

The identification of certain potentially important categories of impact may, therefore, depend on the state of available scientific and social science knowledge. If multiple sources report contradictory results, the less reliable the source, the lower the weight an analyst should give it when considering the expected impacts of a regulatory change. The reliability of sources and an analyst's reliance on different sources should be clearly determined and transparent.

You should also keep impact categories as distinct as possible, as one outcome might lead to benefits for some groups but costs for others. For example, the introduction of additional responsibilities for manufacturers might cause supplementary costs to producers, however it is also likely to increase benefits for other societal groups, who might enjoy better environmental quality or lower waste management costs. In the final stage, benefits and costs may be collapsed into a single indicator (e.g., net present value (NPV)), however it remains important to present these (offsetting) impacts separately, at least in the narrative part of the RIA.

3.5.2. Indicators

Ideally, the impact identification phase should be accompanied with the identification and selection of **measurement indicators**. Measurement indicators are usually specified at the same time as impact categories.

The choice of a measurement indicator depends on data availability and, if a cost-benefit analysis (CBA) approach is envisioned, ease of monetization. The specification of measurement indicators can be complex, as the capturing a certain impact with different indicators may lead to separate conclusions. For example, when assessing the impact of a policy that alters transportation patterns (and, therefore, emission of pollutants), one could choose to focus on the extent of emissions and/or on the resultant health effects. To further complicate the matter, if acquiring the necessary data proves impossible, surrogate indicators are at times used (e.g., changes in arrest rates vs. changes in crime). Nevertheless, **all surrogate indicators involve some loss of information.** As such, you should give proper consideration to each of these aspects.

At the end of this phase, the RIA team should produce a table summarizing the categories of impact identified and the measurement indicators selected, while providing relevant comments, as well as discussing those impacts in greater detail in the narrative (see Table 14).

Table 14 – Summary of the identified impacts and measurement indicators

Impact	Type 1) direct 2) indirect	Group(s) or other relevant indicator affected	Expected direction (positive/negative)	Relevant measurement indicator(s)	Expected alternatives influenced
Economic					
•					
•					
Environmental					
•					
•					
Social					
•					
•					

Box 36 – A reference to technical guidance

A classification of regulatory impacts, with an explanation of types and assessment approaches, is provided in:

Renda A. et al (2014). **Assessing the Costs and Benefits of Regulation**. CEPS. Available from: https://ec.europa.eu/smart-regulation/impact/commission_guidelines/docs/131210_cba_study_sg_final.pdf.

3.5.3. Practical examples and lessons from the Georgian experience

This subsection has been developed to help the reader consolidate the concepts discussed above and grant direct exposure to the lessons RIA analysists have learned in the process of impact assessment from Georgian experience.

Developing the RIA on the Domestic Workers' Convention, the team identified impacts resulting from the implementation of the policy options described in Box 35 above. The qualitative analysis of the options revealed that the chosen policy alternatives would have a significant effect on the domestic worker labor market. Further impacts, including social, economic, and gender dimensions, were also identified. A short summary of the impacts of these policy options are presented below in Box 37.

Box 37 – The identified impacts of the selected options under the Domestic Workers' Convention RIA

Each of the chosen policy options under the scope of the RIA were intended to have an impact on various elements, including labor market outcomes for domestic workers and their employers; social and economic wellbeing; gender equality; and public finances. The table below summarizes the impacts of each suggested alternative. (All impacts are presented as incremental changes towards the baseline scenario – option 0.)

continue

Summary of impacts for the selected options

Impact	Type 1) direct 2) indirect	Group(s) or other relevant indicator affected	Expected direction (positive/negative)	Relevant measurement indicator(s)	Expected alternatives influenced
Economic					
Change in domestic employment.	Direct	Domestic workers.	Ambiguous.	# of domestic workers employed.	Option 1 (more); Option 2.
Change in general employment.	Indirect	Employers of domestic workers; People employed in recruitment agencies; Demand for labor inspectors; Demand for lawyers.	Ambiguous; Positive; Positive; Positive.	# of domestic workers employed; Share of domestic workers employed in recruitment agencies; # of labor inspectors.	Option 1 (more); Option 2.
Demand for recruitment/ employment agencies for domestic workers.	Direct	Employment agencies.	Positive; Ambiguous.	# of domestic workers employed from recruitment agencies.	Option 1 (more); Option 2.
Labor market efficiency: wage, bargaining power, informed decision making, search costs.	Direct	Employer; Employee.	Positive; Positive.	Average salaries of domestic workers; # of trade unions of domestic workers.	Option 1; Option 2 (more).
Economic development.	Indirect	Households.	Positive; Positive.	Self-assessment of household living conditions; Self-assessment of work-life balance.	Option 1 (more); Option 2.
Gender equality					
Female economic empowerment.	Indirect	Employer; Employee.	Positive; Positive.	Share of women who are employed.	Option 1; Option 2 (more).
Social					
Poverty.	Indirect	Domestic workers.	Ambiguous.	Average salary of domestic workers.	Option 1 (more); Option 2.
Cultural and social barriers, stigma of domestic employment.	Indirect	Domestic workers; Employers.	Ambiguous.	Share of people considering domestic employment an "inferior job".	Option 1; Option 2.
Healthcare costs for domestic workers (cost and status).	Indirect	Domestic workers.	Positive.	Average amount of money spent on healthcare by domestic workers.	Option 1; Option 2.
Cases of abuse, discrimination, harassment.	Indirect	Employer; Employee.	Positive; Positive.	# of cases of abuse, discrimination, and harassment; # of cases won in the court.	Option 1 (more); Option 2.

continue

Public finance					
Tax revenue (profit and income tax).	Direct	Employment agencies; Domestic workers.	Positive; Positive.	Total taxes paid directly or indirectly by domestic workers.	Option 1 (more); Option 2.
Pension fund contribution from the state.	Direct	The state.	Negative.	Amount of money paid from the budget to the pension fund for domestic workers.	Option 1 (more); Option 2.
Maternity protection.	Direct	The state.	Negative.	# of leave days given to mothers employed as domestic workers; Maternity leave payments to women employed as domestic workers.	Option 1 (more); Option 2.
Cost of providing legal aid.	Indirect	The state.	Negative.	Amount of money spent on provision of legal aid to domestic workers.	Option 1 (more); Option 2.
Administrative and budgetary costs.	Indirect	The state.	Negative.	Additional budgetary costs; Additional workload of public servants.	Option 1 (more); Option 2.
Public health care cost.	Indirect long-term	The state.	Positive.	Amount of money spent on public healthcare for the benefit of domestic workers.	Option 1; Option 2.
Targeted social assistance costs.	Indirect	The state.	Positive.	Amount of money spent on social assistance for the benefit of domestic workers' households.	Option 1 (more); Option 2.
SDG Goals					
SDG 1. Poverty; SDG 3. Health and wellbeing; SDG 5. Gender equality; SDG 8. Decent work, economic growth; SDG 10. Reduced inequality.	Direct	Society.	Positive.	Average income of domestic workers and their households; Healthcare expenditure of domestic workers and their households; Working conditions of domestic workers.	Option 1 (more); Option 2.

Compared to the summary template given in Table 14, in the scope of this RIA, environmental effects of the policy options were not assessed as the proposed alternatives were not expected to impose any significant direct or indirect environmental impacts.

The proposed policy alternatives under the RIA on the Draft Law of Water Management were expected to have impacts of different magnitudes on various stakeholder groups (such as economic agents using water, utility companies, etc.). The RIA team identified the impacts of the selected alternatives along economic, social, and environmental dimensions; where changes in the administrative burden were also considered. A summary of the impact assessment for the policy options is presented in Box 38.

Box 38 – The identified impacts of the selected options under the Draft Law of Water Management RIA

The selected policy alternatives were designed to affect a wide range of stakeholders, including utility companies in the water and energy sector; water-using economic agents operating in other sectors (i.e., agriculture, industry, and services); central and local government entities; citizens; etc. In the impact analysis section, the team evaluated the incremental impacts of the proposed options against the status quo. A short summary of the expected impacts of the alternatives can be found in the table below.

Summary of impacts for the selected options

Impact	Type 1) direct 2) indirect	Group(s) or other relevant indicator affected	Expected direction (positive/ negative)	Relevant measurement indicator(s)	Expected alternatives influenced
Economic					
Reduced uncertainty about the availability of water.	Direct	Water-using economic agents.	Positive	Number of water-using economic agents.	Option 1 (more); Option 2.
Access to better quality water for production activities.	Direct	Water-using economic agents.	Positive	Average production costs of economic agents.	Option 1 (more); Option 2.
Efficient allocation of water resources among alternative users.	Direct	Water-using economic agents; Citizens.	Positive	# of individuals, households, organizations, and businesses with access to clean water; Share in GDP of the industries with better access to clean water.	Option 1 (more); Option 2.
Increase in cost of water services.	Direct	Water-using economic agents; Citizens; Utility companies.	Negative	Total amount of tariffs and fees paid for water use.	Option 1; Option 2.
Social					
Increased cost of water use.	Direct	Citizens (rural and urban); Utility companies.	Negative	Fee for water use; Share of disposable income spent on water service fees and tariffs .	Option 1; Option 2.

continue

Reduced healthcare costs due to improved water quality.	Direct	Citizens (rural and urban).	Positive	Healthcare expenditures of society.	Option 1; Option 2.
Environmental					
Improved ecological status of water bodies.	Direct	Citizens; Water-using economic agents.	Positive	Concentration of harmful substances in water bodies.	Option 1; Option 2.
Better moderation of extreme natural events.	Direct	Citizens; Water-using economic agents; The government.	Positive	# of moderated extreme natural events; Damages from extreme natural events.	Option 1; Option 2.
Administrative					
Distribution of additional permits.	Direct	The government.	Negative	Time spent on distributing additional permits.	Option 1; Option 2 (more).
Monitoring and supervision.	Direct	The government.	Negative	Time spent on monitoring and supervision.	Option 1; Option 2 (more).
Public finance					
Remuneration of administrative personnel for increased workload.	Direct	The government.	Negative	Salaries paid to staff members.	Option 1; Option 2 (more).
Income from increased water tariffs and fees.	Direct	The government.	Positive	Total revenues generated from tariffs and fees.	Option 1; Option 2.

The main stakeholders affected by reform in the irrigation sector were Georgian Amelioration, farmers, and the responsible government institutions. Under the scope of the **Draft Irrigation/Drainage Tariff Methodology RIA,** the team analyzed the type of influence expected with the adoption of each of the offered policy alternatives. An overview of the selected options and their impacts is provided in Box 39.

Box 39 – The identified impacts of the selected options under the Draft Irrigation / Drainage Tariff Methodology RIA

The proposed alternatives would each impact economic, social, and environmental directions. Changes in public finances and the additional administrative burden were also assessed by the RIA team, compared to the status quo. The table below summarizes the potential impacts of the policy alternatives on GA, farmers, and government authorities.

continue

Summary of impacts for the selected options

Impact	Type 1) direct 2) indirect	Group(s) or other relevant indicator affected	Expected direction (positive/negative)	Relevant measurement indicator(s)	Expected alternatives influenced
Economic					
Introduction of optimal irrigation technologies for different crops.	Direct	Farmers.	Positive	Share of farmers utilizing efficient irrigation technologies.	Option 1; Option 2.
Increased output in other sectors of the agricultural value chain.	Direct	Farmers.	Positive	Output level in terms of quantity and GEL.	Option 1; Option 2.
Increased inefficiencies in the system due to the fixed component of the tariff (paid even without irrigating).	Direct	Farmers; GA.	Negative	Water potentially used inefficiently for irrigation purposes.	Option 1; Option 2.
Deteriorated competitiveness in the Georgian agricultural sector.	Direct	Farmers.	Negative	Quantity of agricultural products sold on the national and international market.	Option 1; Option 2 (more).
Social					
Reduced disposable income of farmers.	Direct	Farmers.	Negative	Payments for irrigation and drainage services; Average disposable income of farmers after payments for irrigation and drainage services.	Option 1; Option 2 (more).
Increased opportunity cost of unused land (reflected by the fixed component of tariff).	Direct	Farmers.	Negative	Opportunity cost of unused land.	Option 1; Option 2 (more).
Environmental					
Improved hydrological conditions of the rivers.	Direct	Farmers; GA; GoG; The population.	Positive	Levels of discharge; Water quality indicators.	Option 1; Option 2 (more).

continue

Administrative					
Increased administrative burden to comply with transparency standards.	Direct	GA.	Negative	Salaries/workload of GA administrative employees.	Option 1; Option 2.
Increased investment in monitoring systems by GA.	Direct	GA.	Negative	Salaries/workload of GA monitoring employees.	Option 1; Option 2 (more).
Increased administrative burden to set tariffs.	Direct	GA.	Negative	Salaries/workload of GA administrative employees.	Option 1; Option 2.
Public finances					
Increased investment in monitoring systems by GA.	Direct	GA.	Negative	Cost of investments.	Option 1; Option 2.
Decreased revenue for GA due to slow down and the registration process (as a result of early announcement of the tariff methodology).	Indirect	GA.	Negative	GA revenues.	Option 1; Option 2 (more).
Increased subsidies to farmers for infrastructural development.	Direct	GoG; Farmers.	Negative Positive	Amount of subsidies.	Option 1; Option 2.
Costs for monitoring the performance of GA.	Direct	GoG; GA.	Negative	Monitoring costs.	Option 1; Option 2.
Increased efficiency of other state-financed agricultural programs.	Indirect	GoG; Farmers.	Positive	Profitability of other agricultural programs; Amounts financing other agricultural programs.	Option 1; Option 2.

3.6. IMPACT QUANTIFICATION, MONETIZATION, AND DISCOUNTING

Following the identification of the impacts and selection of the most appropriate indicators, the next step (especially for full RIAs) is to quantify the impacts.

Within the ordinance (article 19, point 1), the minimum requirement of a (standard) RIA is to "determine the **direct compliance costs and the impact on public finances** for each option using a quantitative indicator against a baseline/no-action scenario". The explanatory table in Annex 2 of the ordinance, which describes the core differences between a standard and an in-depth RIA, clarifies that if an RIA document does not include the quantification of direct compliance costs and impact on public finances, justification for such an absence should be provided. The same table also indicates that all other direct and indirect impacts (economic, social, environmental, and on sector specific sub-categories) should be assessed qualitatively.

Point 2 of article 19 further adds that, "when preparing an in-depth RIA report **both direct and indirect impacts of options** shall be quantified against the baseline/no-action scenario". In standard RIAs, in all cases where it is not possible to assess the impacts quantitatively, the reasons should be well demonstrated, and impacts should be assessed using alternative qualitative methods.

Before moving to discuss challenges of impact quantification and monetization, it is important to specify that quantification, in the text of the ordinance, is perceived as monetization. In practice though, the quantification of impacts logically precedes their monetization, as discussed in the following sections.

3.6.1. Impact quantification

Impact quantification is a complex endeavor, as in almost all cases impacts extend over time, and this implies that you must make predictions for all relevant impacts for the different alternatives within each period. Predictions are particularly difficult when projects are unique (with no past experience), have long time horizons, or relationships among variables are intricate.

Predictions are challenging for the following reasons:

- Public policies and programs seeking to alter the behavior of involved individuals can lead to **unexpected changes** (for example, compensating behaviors, moral hazards, like mandatory safety belts encouraging higher speed driving);
- **A policy may affect the behavior of third parties** in ways that increase or decrease its costs or benefits (for instance, granting a VAT exemption to a certain category of goods to encourage consumption might prompt a larger than expected drop in prices for competing goods, leading to a less significant increase in consumption and a greater reduction in VAT revenues than expected in markets where VAT was not altered);
- Prediction may require **scientific knowledge that is uncertain** (such as, the long-term health effects of exposure to electromagnetic fields caused by the latest generation of mobile phone antennas).

For all the impacts identified, whenever relevant, you will have to determine:

- The number of individuals/enterprises/items affected by the alternative options against the status quo (no change);
- The expected impact per relevant unit of measure (per individual, per enterprise, per item, etc.).

This will lead to a multiplication in the number of items necessary to quantify. For example, discussing the introduction of mandatory safety belts, as above, for all scenarios (status quo included), you would have to calculate, at least, the following:

- The number of expected car accidents (function of expected speed);
- The severity of accidents (number of cars and individuals involved and entity of damage to individuals and property);
- The entity and type of enforcement activities;
- The time lost by public officials in administrative and enforcement activities;
- The time lost by the public due to administrative and enforcement activities;
- The number of interventions (e.g., installation of safety belts) required.

This information will allow you to quantify the total impact per impact category (for example the number of: lives saved; quality adjusted years per life saved; repair interventions saved; additional hours spent by public officials in enforcement activities; hours spent by the public due to additional enforcement activities).

3.6.2. Monetization

If you are interested in attributing a monetary value to such impacts, to obtain the expected costs and benefits associated with a policy change, one further step is necessary: **monetization.**

Monetization requires multiplying the total estimated impacts by the projected unit price of the impact. **When markets exist and work well,** it is possible to observe the monetary value of negative impacts and to determine the willingness to pay for the positive impacts by looking at the applicable demand curve. For example, in the market for the installation of safety belts, with standardized tariffs, you would readily be able to monetize the cost of installation for the public, as well as the burden on the public budget, by multiplying the number of interventions by the average price (and subsidy).

However, problems arise **when markets do not exist or do not work well**, where either the price is unobservable or – even in cases when certain prices can be observed – the price does not fully reflect the monetary value of the impacts. In practice, the analyst in these cases will have to find a method for obtaining an estimate of the expected (correct) monetary value for each impact (the "shadow price"), either directly (implementing one or more widely used methodologies for the estimation of "shadow prices") or indirectly (by plugging in the analysis values estimated within the literature).

For example, attempting to **monetize the benefits** associated with a policy change leading to fewer deaths on the road or to better city air quality (or, vice-versa, the costs associated with worse quality air), most CBA analysts utilize the estimated Value of a Statistical Life (VSL), which refers to the "price" people are willing to pay to avoid the risk of fatality, or the compensation they are willing to accept under the risk of fatality. Alternatively, by drawing on previous research, CBA analysists rely on conceptually similar indicators, such as the Value of a Life Year (VLY); Quality (or Disability) Adjusted Life Years (QALY or DALY, respectively); etc. This is typically the case when analysts need to discern the shadow price of impacts that are, by nature, difficult or time consuming to estimate.

3.6.2.1. Monetizing direct compliance costs and the impact on public finances

In the broadest sense, **Direct Compliance Costs** might include all (incremental) expenses that a firm incurs in adhering to a new regulation and can include:

1. New/higher fees paid to the public administration;
2. All personnel costs for the employees in charge of compliance or the cost of external consultants (e.g., extra hours spent on new tasks);
3. Regulatory reporting costs (e.g., associated transportation costs);
4. Any systems required for the process (e.g., software, hardware, anti-pollution filters, etc.);
5. Other long-term structural adjustments (e.g., change in optimal scale).

The monetization of each of these items requires repeated consultation with the companies affected and sectoral experts, during which, to produce reliable estimates, you will need to explain in detail the new requirements associated with each option.

While monetizing the cost of enforcement for the public, you may simply adopt a straightforward **Standard Cost Model (SCM)** methodology. As indicated in Box 40, a SCM multiplies the expected number of activities to be performed by private agents (individuals and enterprises), by the average time spent on each activity, by the average opportunity cost of that time (e.g., average hourly wages in the country, if the relevant individual is an average citizen), and the average cost of inputs required to perform the above-mentioned activities.

Box 40 – The Standard Cost Model

The Standard Cost Model (SCM) is currently the most widely applied methodology for measuring administrative costs (AC) that originate from information obligations. Variations of this activity-based method have also been used to capture direct regulatory compliance costs, i.e., the costs needed to meet regulation requirements. Moreover, the results from SCM measurements are directly applicable to governmental simplification work, in that the results show a specific regulation alongside details that are especially burdensome for businesses.

The typical SCM formula is:

AC = Time x Tariff x Population x Frequency

As an illustration, imagine the requirement on taxi drivers to purchase a meter and report income to the fiscal authority, in the following paradigms:

- Time: 0.5 day / taxi;
- Tariff: $10;
- Number of taxis affected: 10,000;
- Number of operations per year: 4.

The administrative costs related to the preparation and submission of papers to the fiscal authority are therefore:

→ (0.5 x 10) x (4 x 10,000) = $200,000

A detailed discussion of the SCM is available at https://www.oecd.org/regreform/regulatory-policy/34227698.pdf.

Public finance costs include all incremental expenses that the public administration incurs in the adoption, implementation, and enforcement of a new regulation, including:

1. All personnel costs for employees in charge of management or enforcement of the new regulation and the cost of external consultants (e.g., extra hours spent working on new tasks);
2. Any systems required for the process (e.g., software, hardware, etc.);
3. Other long-term structural adjustments in public administration (e.g., the creation of new departments or agencies).

Public finance revenues include all incremental returns that the public administration receives from the introduction of a new regulation (e.g., fees, tariffs, etc.).

A SCM-type approach can also be applied to estimate the expected benefits associated with governmental simplification work or to approximate additional costs to the public budget.

3.6.3. Discounting

As costs and benefits may arise at different points in time, when various alternatives are being considered, an analyst also faces the challenge of comparing costs and benefits across time periods. This issue is usually addressed through discounting, which will be discussed briefly later in this document, in the context of CBA.

3.6.4. Specific or sectoral impact assessments

It is wise to carry out **specific or sectoral impact assessments** as often and as clearly as possible, reflecting your particular intention to consider the impacts on given economic groups, social sub-populations, etc. Precise tests to determine the needs for specific or sectoral impact assessments may include:

- Social issues, such as gender equality, equitable distribution, social inclusion, youth education, etc.;
- Labor market-related issues, such as employment, working conditions, etc.;
- Economic issues, such as sectoral competitiveness, research and innovation, etc.;
- Territorial impacts (e.g., regional impact assessments), trade and third country impacts, etc.

Box 41 and 42, respectively, focus on the SME-test and competition assessment.

Box 41 – The SME-test

Due to their size and scarcity of resources, Small and Medium-sized Enterprises (SMEs) can be affected by the costs of regulations to a greater extent than larger competitors. Equally, the benefits of regulations may increase the competitive advantage and be more advantageous for large companies. SMEs often have limited scope in benefiting from economies of scale. Moreover, SMEs in general find it more difficult to access capital and, as a result, their cost of capital is frequently higher than for larger businesses.

It is general practice to differentiate between the type of SMEs, notably on the basis of their number of employees: **micro enterprises** employ up to 9 staff; **small enterprises** between 10 and 49 staff; and **medium enterprises** up to 249 staff. Where additional classification relates to their annual turn-over.

continue

As such, and due to the large number of SMEs in Georgia, it is important to specifically consider the type of business in the impact identification and assessment. There are five steps involved in conducting an SME-test:

- **Are SMEs affected? Which type of SME is affected? How many are affected?** – Accordingly, evidence should be gathered, for instance in relation to the proportion of employment concerned over the different categories of enterprises affected; the weight of the different forms of SME in the sector(s) (micro, small, and medium); and links with other sectors and the possible effect on subcontracting;
- **What are the costs and benefits to SMEs?** – This step should follow the logic and approaches of the SCM and the direct compliance cost assessment presented above, with particular focus on SMEs. The benefit to SMEs would be, in this case, alleviation of any existing costs;
- **How do the costs on SMEs compare with different types of company (micro, small, medium) and larger businesses?** – In this comparison, it would also be relevant to assess whether the costs and benefits differ for the various types of SME (i.e., are micro businesses affected differently than small companies?) For this purpose, you could, for instance, compare the overall costs identified with the number of employees to obtain the average cost per employee. Alternatively, you could compare the costs identified to the total overhead or turnover of the company;
- **Are there secondary impacts of the instrument that affect SMEs in particular?** – Such secondary impacts might relate to competition (see the next box); to changes in working conditions for SME employees; or to the ability of an SME to innovate/export/etc.;
- **If SMEs are disproportionately affected by the option, are there any alternative solutions or mitigating options?** – To avoid disproportionately burdening SMEs, you should consider whether it is possible to introduce specific SME provisions – for instance allowing for longer transition phases; granting (temporary or permanent; partial or full) exemptions from reporting requirements or inspections; or introducing reimbursement schemes or other economic incentives, such as subventions. The appropriateness and feasibility of such mitigating options are case-specific and depend on the end problem, the objective being pursued, and the context (e.g., budgetary constraints).

Box 42 – Competition and state aid assessment

Because options may have an influence on competition, you should first ascertain whether they include explicit liberalization provisions or measures that are likely to raise or lower the barriers firms face entering or leaving a market.

The questions below derive from the OECD Competition Test, and should be asked in relation to each option considered. When one of the questions is answered positively, it is crucial to justify the necessity and appropriateness of such a restriction to competition. You should also report on whether the restriction is unjustifiable.

continue

	Test	Possibility: If the option…
1	Does the option limit the number or range of economic actor in the market?	• Grants exclusive rights to an economic actor; • Establishes a licensing, permit, or authorization process as a requirement for operation; • Limits the ability of some types of economic actor to provide a good or service; • Significantly raises the cost of entry or exit by an economic actor; • Creates a barrier to the free movement of goods, services, capital, or labor.
2	Does the option limit the ability of economic actors to compete?	• Limits the actors' ability or freedom to set the price of their products; • Limits the actors' ability or freedom to advertise or market their products; • Requires technical or quality standards that provide an advantage to some economic actors over others or that are above the level that some well-informed customers would choose; • Treats economic actors present in the market differently from new entrants.
3	Does the option reduce the incentives of economic actors to compete?	• Creates a self-regulatory or co-regulatory regime; • Requires or encourages publication of information on an actor's outputs, prices, sales, or costs; • Exempts the activity of a particular industry or group of actors from the application of general competition law.
4	Does the option limit the choice and information available to consumers?	• Limits the ability of consumers to decide from whom they purchase; • Reduces mobility of customers between suppliers of goods or services by increasing the explicit or implicit costs of changing suppliers.

The OECD has also issued guidance to assist regulators with the competition test. Available from: http://www.oecd.org/competition/assessment-toolkit.htm.

Box 43 – Reference to technical guidance

For an overview of various specific or sectoral tests, please see the **European Commission's Tools #19 to #35.** Available from: https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox/better-regulation-toolbox_en.

For ways to quantify (direct) compliance costs see, for instance:
OECD Regulatory Compliance Cost Assessment Guidance (2014). Available from: https://www.normenkontrollrat.bund.de/resource/blob/244032/444040/bb5c3d481212a08f42ccd07e0edc471e/oecd-regulatory-compliance-cost-guidance-data.pdf;

For methods to quantify health and environmental benefits in risk regulation see, for instance:
Guidelines on Preparing Economic Analysis Issues by the US Environmental Protection Agency (2014). Available from: https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses;

For a simple but exhaustive review of the existing methodologies on the estimation of shadow prices (including a review of recent estimations) and the relationship between VSL, VLY, and QALY, see the handbook by Boardman, Anthony E., David H. Greenberg, Aidan R. Vining, and David L. Weimer. **Cost-Benefit Analysis: Concepts and Practice. 5th Edition (2018).**

3.6.5. Practical examples and lessons from the Georgian experience

This subsection has been developed to assist the reader in consolidating the previously discussed concepts and to give direct exposure to the lessons Georgian analysists have learned in the quantification process of an RIA.

The Draft Law of Water Management represents a clear example of a full RIA document, under which the impact on the private sector and on public finances were quantified. Whenever the quantification of costs and benefits was not possible, a qualitative evaluation of the incremental costs and benefits for the different options, with respect to the baseline scenario, was prepared. A short overview of the quantitative analysis of impacts is presented in Box 44 below.

Box 44 – Impact assessment of the policy options for the Draft Law of Water Management RIA

General methodology

The time horizon taken for the analysis was 13 years; to allow for the full implementation of at least one River Basin Management Plan in all river basins (two in the Chorokhi-Adjaristskali basin). The discount rate used was 7.37% (real return on 10-year government bonds), however, a sensitivity analysis was performed at 4.76% and 9.98% (central value ±1.96 standard deviations, corresponding with the boundaries of a 95% confidence interval).

Since the methodology for the impact assessment was similar in the two selected policy options, this box provides only the impact assessment for option 1. (Detailed information on the impact assessment can be found in the full RIA document.)

Option 1:

Private sector

Quantified costs

To calculate the costs that the private sector would face in the implementation of policy option 1, the following costs were taken into account:

- **Permit/license fees:** all companies abstracting surface water or discharging into surface water would have to acquire a corresponding license or permit, at a cost of 100 GEL each;
- **Permit/license documentation:** at a cost of 1,500 GEL for document preparation for abstraction, and 800 GEL for the documentation related to discharges. These rates were calculated based on a consultation with the largest company in Georgia providing such services. Moreover, the internal opportunity cost amounted to 24 GEL per permit or license and was also taken into consideration;
- **User fees (surface water abstraction):** abstraction of surface water was designed to require to pay for the water abstraction. The fees differ for different basins and their purposes (Caspian Sea basin – 0.001 GEL per m3; Black Sea basin – 0.005 GEL per m3; Black Sea water – 0.003 GEL per m3).

continue

Quantified benefits

The private sector was expected to receive benefits from two main sources:

- **Profits of consulting businesses:** those consulting companies that support economic agents' applications for permits or licenses were estimated to have increased profits (considered as transfers between businesses, not real cost). The average expected gross profit was assumed to amount to 16% of the compensation received;
- **Total Economic Value (TEV) gains:** the TEV was estimated as the average willingness to pay, per household per year (a discussion on how the assessment was completed is provided above in Box 16 – data collection methods during the RIA on the Draft Law of Water Management).

Public sector

Quantified costs

In the implementation of policy option 1, the public sector was expected to face significant expenses for additional personnel and equipment costs. The necessity for additional staff, determined through repeated consultations with relevant department heads, was quantified as follows:

- River basin units – 11 additional hires from 2018;
- Permit system – 1 additional hire in 2018, 1 additional hire in 2019, and 1 additional hire in 2024;
- Monitoring – 9 additional hires for water quality monitoring from 2018, and 4 additional hires for underground water monitoring (during the first five years of the reform);
- Supervision – 40 additional inspectors.

The expected salaries for each hire (depending on the work profile) was also obtained during the consultation process.

In addition to personnel costs, MENRP and the River Basin authorities would have to acquire necessary equipment. The cost of equipment was also determined on the basis of discussion with the relevant public servants within MENRP. While the initial River Basin Management Plans were expected to be financed by donors, it was assumed subsequent plans would be paid from the public budget at a cost of approximately 25% of the first plan.

Quantified Benefits

Under the Policy Option 1 the Public sector was supposed to receive additional revenues from two main sources:

- Revenues from permits/licenses paid by companies;
- Revenues from used fees paid by companies.

Despite the existing quantifications of the impacts, there were several uncertainties associated with this option:

- **The evolution of water quality:** as this was impossible to estimate, in the case of expected water quality deterioration in the baseline scenario, the team could expect an increased societal willingness to pay, therefore higher expected benefits from the reform. The same effect would occur if improvements in water quality took place more slowly than predicted under the reform;

continue

- **The evolution of water availability:** the team assumed that water availability (supply) would remain constant and the only factor that would change was demand. Greater water scarcity would increase the benefits associated with a better water management system;
- **The value of discharge fees:** the RIA team was unable to evaluate the value of future discharge fees due to missing information;
- **The amount of potential efficiency gains:** the reform was expected to have positive value in terms of efficiency gains, but due to limited information this was not quantified.

Based on these uncertainties, the following qualitative impacts (whenever quantitative was not possible) were identified:

Benefits:

- Reduced uncertainty about water availability (better overall water management);
- Access to better quality water for production;
- More efficient allocation of water resources for alternative uses;
- Reduced health-related public budgetary costs;
- Potential reduction in flood damage.

Costs:

- The cost of adequate equipment provision for the requirements of the new law.

Within the RIA on the Draft Irrigation/Drainage Tariff Methodology, the team monetarized the selected policy alternatives implementation costs and benefits for the main stakeholders: farmers, Georgian Amelioration, and the government. Those impacts that were not possible to monetarize were assessed only qualitatively. An overview of the quantitative impact assessment performed under this RIA is provided in Box 45 below.

Box 45 – Impact assessment of the policy options for the Draft Irrigation / Drainage Tariff Methodology RIA

General methodology

During the quantitative impact analysis, the team assessed the costs and benefits for farmers (customers), GA, and the government. The analysis was conducted over a five-year time horizon. The discount rate used was 8.7% (the real discount rate on five-year government loans), and a sensitivity analysis was performed at 6.7% and 10.7%.

Notably, the purpose of the RIA was to quantitatively analyze the impact of the reform for only farmers and Georgian Amelioration.

The general assumptions regarding the command area for irrigation and drainage, the distribution of small and large farmers, compliance rate of irrigation choice, etc., were akin to the assumptions made under the baseline scenario (see Box 24). However, each selected option had specific assumptions as well. For the purposes of this summary, a review solely for option 1 of the quantitative impact assessment is provided below. (Detailed information on the quantitative impact assessment can be reviewed in the full RIA document).

continue

The specific assumptions regarding policy option 1 were defined as follows:

- GA would no longer be directly financed, beyond the initial transition period (see below);
- Farmers would receive subsidies on the fixed per ha. components of the tariff and these subsidies would decrease annually by 5%;
- Farmers would not be subsidized for the irrigation or drainage service fees (i.e., component 1 of the tariff);
- Farmers would receive rebates on the tariff depending on the type of crop and the technology utilized;
- **Government investments** of 25 mln. GEL annually for five years to increase the reliability of services in the existing command area. Investments would be divided among systems based on their share in the total command area;
- **Contracting efficiency** was assumed to increase substantially over the years; investments in service reliability would take place and GA would have further incentives to attract clients. The predicted changes in contracting efficiency were based on the consultations with external expert and farmers. The results for option 1 are provided in the table below.

Contacting efficiency in policy option 1

Contracting efficiency	2016	2017	2018	2019	2020
Mtkvari-Jandara	78%	78%	79%	79%	80%
Tashiskari-Saltvisi	55%	60%	67%	70%	75%
Kvemo Alazani	69%	70%	72%	73%	75%
Kvemo Samgori	69%	70%	72%	73%	75%
Kvirila-Tskhenistkali	21%	24%	28%	31%	35%
Khobi-Enguri pool	100%	100%	100%	100%	100%

Source: Authors' calculations based on stakeholder consultations

- Based on the analysis performed, the team presumed the decision for farmers to switch to optimal irrigation technologies depended largely on food prices and expected revenue, and also on the reliability of irrigation services. If reliability increased, and supposing other factors remain constant, farmers would have more incentive to switch to optimal irrigation.

The impact analysis was completed in the following sequence:

- Farmers' demand for drainage is dependent on the marginal gains from signing a drainage contract. If these gains were higher than the service fee they were asked to pay, farmers would decide to purchase the service;

continue

- Irrigation choices hinged on farmers' marginal gains from irrigation. If the gross margin (revenues minus the cost of production, excluding irrigation tariffs) was higher than the irrigation tariff, farmers would decide to irrigate. It was assumed that farmers would also take into consideration the rebates associated with switching from flooding to a modern irrigation technology;
- Farmers would rank crops by the size of marginal gains from irrigation (including costs) and irrigate the most profitable cultures first. Once the most profitable crops had been irrigated, farmers would irrigate the second most profitable, and so on;
- Farmers' demand would translate into income for GA (tariff charged multiplied by hectares irrigated). If the company made revenue, it would also have to pay profit tax. However, in the event of losses, the government would still intervene and directly subsidize the company.

Based on the assumptions and analysis presented above, the RIA team estimated the potential costs and benefits for the main stakeholders under the implementation of the selected policy options. The main highlights from the quantitative impact assessment of option 1 (introduction of lower-bound tariffs) can be found below.

Option 1:

Farmers

Quantified costs

For farmers, the irrigation costs included:

- **A two component tariff under the new regulation:** the variable component depended on how much water would be consumed; and the second (fixed) component was identical for all farmers within a given command area and was subsidized (subsidy deducted);
- **Investment costs:** investment costs for irrigation consisted of the share of investment that should be imputed into the production year, plus the real interest paid on the amounts borrowed for the purpose of investing in irrigation. Notably, based on desk research and consultations, different interest rates were chosen for large and small farmers;
- **Variable costs:** the cost of water consumption is dependent on the crop cultivated, and the irrigation technology adopted;
- **Amortization:** to be accrued based on the annual depreciation of the technology and its lifetime (as discussed with an expert).

For the drainage system, the only associated costs were tariffs, while no investments were to be implemented.

Quantified benefits

To calculate the benefit to farmers under option 1, crop type and irrigation choice (no irrigation, flood irrigation, and irrigation with optimal technology for the crop) were considered. It was supposed that improved GA service reliability would positively affect farms' profitability. Moreover, the increase in contracting, payment, and compliance rates would significantly improve irrigated and drained land area (by 2020 it was estimated that irrigated land area would reach 15,164 ha., while drained land area – 12,225 ha.). Considering drainage, the average returns were calculated with and without treatment. In order to proxy the difference between irrigated or drained and untreated land, the RIA teams calculated the return for marginal and small farmers (0.8 ha.) and for medium and large farmers (30 ha.). The returns for farmers who irrigated and drained was estimated to increase. In real terms, fixed irrigation tariffs were to decrease over time. For marginal and small farmers, the return from untreated land was estimated to be 1,883 GEL,

continue

though with treatment by 2020 this would amount to 3,042 GEL (the same figures for large farmers were 70,608 and 144,086 GEL, respectively). These amounts were estimated utilizing the model discussed and validated by an agricultural sector expert. Based on this analysis, the present value of the total estimated net benefits for farmers amounted to 132,731,494 GEL by 2020.

Georgian Amelioration

Quantified costs

GA expenditure included operational, maintenance (i.e., ongoing, periodic, surface, and emergency rehabilitation of infrastructure), and administrative costs (i.e., to sustain the head office and regional branches), depreciation, and profit tax. All costs (except depreciation) were kept constant in real terms; depreciation costs were to increase due to the growth of the regulatory asset base. Moreover, all costs, aside from depreciation, were divided into two equal parts and accrued at the beginning and end of the period (to approximate the fact that they were spread over the whole year). Total GA costs were thus calculated to reach 11,836,209 GEL by 2020.

Quantified benefits

The benefits to GA included operational revenues from the provision of irrigation services to farmers. This consisted of government subsidies to farmers in the second tariff component, which were paid directly to GA for the total command area. Additional revenues were derived from the first component of the tariff from farmers (based on their estimated water consumption). In addition, until GA managed to improve its compliance rate to the break-even level, the company was expected to receive direct subsidies from the government. In such a case, any additional direct government subsidy would be accrued to GA's advantage. Notably, revenues for GA (as well as costs) were calculated for each command area separately. Therefore, the estimated total costs and revenues represent the simple sum of the results of the analysis for each command area. GA was also expected to receive benefits from governmental investments in reliability. Resultingly, the present value of the company's benefits was estimated to amount to 22,985,435 GEL by 2020.

Nevertheless, certain impacts of the policy option were not assessed quantitatively, including:

Benefits:

- A significant increase in productivity in the domestic agricultural value chain (expected to be the highest under this option compared to the other two);
- Moderate possible improvement in the allocation of land and water resources;
- Increased incentives that improve the efficiency of GA operations (expected to be the highest compared to the other options).

Costs:

- The risk of a loss of competitiveness in the agricultural sector due to the increased irrigation tariffs (though less notable than for policy option 2);
- A moderate risk of depressing the land market.

NOTE: even though a precise quantification of the cost associated with the loss of competitiveness in the agricultural sector was not performed, a simple exercise comparing irrigation tariffs in neighboring countries against the proposed new tariff, were option 1 to be adopted, was sufficient to show that it would have a significant and extremely negative impact on the competitiveness of the Georgian agricultural sector.

Compared to the two RIA exercises last discussed, the Domestic Workers' Convention represents a simple RIA, under which only the costs and benefits for the government were monetized, while all other impacts were assessed qualitatively. Box 46 summarizes the quantitative impact assessment section of the RIA.

Box 46 – Impact assessment of the policy options for the Domestic Workers' Convention RIA

General methodology

The selected policy options were expected to influence all participants: domestic workers, agencies, households employing domestic workers, and the government. However, considering the time, resource, and data limitations, the quantitative analysis focused on a quantification of the costs and benefits for the government. As a major stakeholder, the government has the responsibility to implement the policy options and guarantees, contributing, through its budget, to the improvement of poor and unsafe domestic work conditions. This box provides a short overview of the impact assessment for policy option 1.

The quantitative assessment was conducted for a five-year period. During the quantitative modelling, several assumptions were made about the expected development of the major variables:

- **Income tax:** the central value of income tax was taken at its standard rate – 20%. However, as domestic workers are within the most vulnerable category of employees, tax levels might be set at a level lower than the standard. This could help minimize distortions in the market for domestic workers and the negative impact on job-creation in the sector. To capture the differences in governmental revenues and costs at lower income tax levels, alternative scenarios were analyzed, and the RIA team estimated the net benefits at 1% and 5% income tax level;
- **Social discount rate:** the social discount rate was selected as the interest on 10-year government bonds as of April 2020 (the last auction available) – 10.235% (nominal - GEL);
- **Inflation rate:** set to match the NBG target of 3%;
- **The share of domestic workers with written contracts:** it was assumed that the share would increase by 10% annually, consequently, this would reach 54% by 2025. The estimation was made based on the 2017-2019 LFS data;
- **The number of domestic workers with different types of contracts:** based on LFS data, the team estimated that by 2025 (in policy option 1) the number of domestic workers with written contracts would reach 9,265, while the number of workers with verbal contacts would be 7,892;
- **The number of female domestic workers eligible for maternity benefits:** as fertility rates are not quickly changing, and did not fluctuate much between 2017-2019, the team took the average age specific fertility rates over the last three years and extrapolated them for 2021-2015; assuming age specific fertility rates would not change over the indicated period. These age specific fertility rates and percentage of female domestic workers permitted an estimation of the number of female domestic workers giving birth, thus those potentially eligible for maternity benefits. The findings revealed that only 2% of female domestic workers could be expected to give birth in any given year over the 2021-2025 period;
- Other assumptions related to governmental payments of maternity leave, like the potential required number of labor inspectors, were similar to those made in the elaboration of the baseline scenario (as presented in Box 26 above).

Based on these assumptions, the RIA team calculated all the quantifiable direct benefits and costs for the government.

continue

Public finances

Quantified costs

Under policy option 1, the government is responsible for the payment of maternity benefits and pension contributions to domestic workers. The incremental costs over the assessment period were estimated to be 462,781 GEL.

Quantified benefits

For implementation of policy option 1, the government was expected to receive additional revenues from income tax; the only monetized benefit the government would receive. This revenue was estimated at 2,908,529 GEL over the full assessment period.

Aside from the quantified costs and benefits, the team also assessed several incremental changes in costs that the government would face, which were impossible to estimate due to time, resource, and data limitations.

Unquantified state costs

- Under policy option 1, compared to the status quo, the targeted social assistance expenditure was expected to diminish in two ways:
  - ✓ Due to improved bargaining power and higher salaries, some domestic workers might not need poverty assistance from the state;
  - ✓ Due to reported formal wages, some domestic workers' families might not satisfy the conditions for targeted social assistance.
- An increased pension fund contribution from the state, since they would have to contribute 2% of domestic workers' salaries into the pension fund;
- Additional budgetary and administrative costs due to an increased workload for city courts, the Free Legal Aid Centre, the Public Defender, and the revenue department. However, considering the relatively small number of domestic workers, these incremental costs were not expected to be substantial.

3.7. OPTION COMPARISON AND RECOMMENDATIONS

Once you have characterized and assessed the likely impacts of each option, you are tasked with comparing the options consistently, objectively, and transparently.

Why is this step important?

One of the main purposes of an RIA is to provide the government with informed guidance on the most appropriate course of action – given the context, the information available, and the overarching policy goals. Each of these aspects will have been analyzed and discussed in the RIA report by the time you reach this step. At the end of your analysis, you should therefore be able to identify an option to recommend.

The purpose of this step is to weigh the strengths and weaknesses of each option, to conclude which is the most effective and efficient in achieving the objectives with the fewest or least significant drawbacks. Beyond effectiveness and efficiency, depending on the subject of the RIA, other dimensions may also be relevant. Thus, when performing this step of the RIA exercise, you should keep all the relevant dimensions in mind.

You will naturally realize that there is no perfect solution; all the options will have advantages and disadvantages. When you compare the pros and cons of each option, you will be able to draw conclusions as to which stands out (if one does). This will thus become your basis for making a recommendation to the government.

Please note, unless it is readily apparent that one option is evidently superior, you do not have to recommend an option based on an objective analysis. It is equally acceptable to refrain from recommending any option if no decision appears preferable. If so, you should specify this in your report, where you will need to explain why you are not in the position to draw clear conclusions, and to present existing trade-offs, particularly whichever option is superior according to the chosen ranking criteria. This, in itself, constitutes a valuable input to decision-making.

3.7.1. Choosing the appropriate methodology

In this step you should aim to:

- Consider all the positive and negative aspects of each option, relative to the status quo, regardless of whether they are expressed in qualitative or quantitative terms;
- Make comparisons among the options with respect to the overall expected benefits and costs, but also – for example – consider non-monetary aspects, such as relative effectiveness or feasibility. For instance, one option may cost less but be relatively ineffective; another may appear to have substantial popular support, despite high costs and relatively poor effectiveness; while a third option may have the greatest effect for the least cost, though be less popular and challenging to implement;
- Summarize the key conclusions on each option that will be carried forward to the RIA.

To choose among your options, you need to make sure that you have comparable elements for each. Several possible approaches and methodologies exist that allow for a comparison of your identified options.

As a basis for your recommendation and to compare the alternatives, ordinance 35 requires that you always perform a **multi-criteria analysis (MCA)**. An MCA is the best approach to adopt whenever you wish to assess the superiority of one alternative across multiple dimensions. This is true for qualitative impact assessments of your options, whether you have mixed data, and also when you are able to implement a cost-benefit analysis (CBA). Even when perfectly implemented and when all benefits and costs can be monetized, a CBA solely provides an answer about efficiency – not regarding other aspects (and potential goals), such as equity, gender equality implications, etc., which are also key elements in deciding which policy to implement.

The complexity of your MCA, and the information used to rank the alternatives, depends on several facets, including the methodologies you have utilized to generate such information. Choosing the appropriate methodologies is therefore key; you can do so after answering these two basic questions:

- **What am I supposed to come out with?** – The selection of the most appropriate methodology depends to a large extent on the room left to manoeuvre in your mandate. Ordinance 35 is explicit in the need to quantify, at the least, compliance costs for businesses and the direct impacts on public finances; even in a standard RIA the use of a purely qualitative analysis is considered an exception and requires an explicit and solid justification. While during an in-depth RIA, much more is expected – producing, at a minimum, a thorough qualitative cost-benefit analysis, explaining, and clearly justifying why you did not quantify certain impacts;

- **What data can I rely on?** – This relates to the data environment. It is important to acknowledge any data gaps in your impact assessment (e.g., if certain impacts cannot be quantified or monetized). Missing or inadequate data generally constitutes a reasonable justification for the failure to quantify or monetize such impacts (For more on data collection, see below).

In a nutshell, you may consider the following rule-of-thumb approach:

- **Use a qualitative analysis** only if neither the benefits nor costs can be quantified;
- **Use a cost-benefit analysis (CBA)** if you can monetize both benefits and costs, and you need to assess the implications of alternative options on efficiency grounds. A policy proposal is generally deemed worthwhile, on efficiency grounds, if the benefits exceed, or at least justify, the costs;
- **Use a cost-effectiveness analysis (CEA)** if you have quantified and monetized costs and you can assume that the options are likely to yield equivalent levels of (qualitative) benefits; or if you have monetized costs and quantified benefits (or you have an effectiveness measure that captures most benefits – e.g., number of the poor receiving access to free healthcare), but are either unable or not allowed to monetize these benefits (e.g., the value of lives saved). A CEA can also be an appropriate choice when dealing with intermediate goods rather than the "final" service provided and the exact linkage is unclear (for instance, the contribution of a given weapon system to national defence).

These choices do not necessarily mean you should opt for just one of these methodologies and drop the others. Rather, these methodologies can complement each other, and allow both the analyst and the readers of the RIA to gain a better understanding of the problem and the relative merits of the alternatives being assessed. While a CBA is an excellent tool, it is in practice often impossible (and not even desirable – for instance, if impacts can be expected to be small and acquiring information is costly and time consuming, or if there is resistance to monetization, as with the value of a statistical life) to monetize all impacts. Moreover, qualitative analyses, while potentially quite informative, are not necessarily helpful when assessing the efficiency of the proposed interventions.

An interesting compromise of the **qualitative CBA** can thus often become useful when performing an RIA.

- **A qualitative CBA/CEA** can be particularly valuable, as while focussing on efficiency considerations, you can monetize some (but not all) benefits and costs. In this case, you combine the monetized CBA findings with a qualitative analysis of impacts that cannot be quantified and, potentially, a CEA of aspects that can be quantified but not monetized. Performing a qualitative analysis of those impacts that are impossible to monetize, you should strive to provide indications about the magnitude of the impacts versus those which are quantified, and considering these impacts, whether the conclusions and recommendations solely based on the quantitative analysis are still likely to stand.

3.7.2. Qualitative analysis

In the context of a qualitative analysis, you should discuss the nature of both positive and negative impacts and their expected order of magnitude, especially when it is impossible (for lack of data, time, or resources) to complete a more precise quantification.

You should rely on insights from the very sources used during the impact identification stage, working from most to least reputable. Highlighting the expected order of magnitude of the different impacts (supported by relevant literature and expert opinion) will still allow for a comparison, possibly a ranking, of the options and provide useful insights for policymakers and interested stakeholders.

3.7.3. Cost-benefit analysis[8]

A cost-benefit analysis (CBA) differs from a purely qualitative analysis as, after the identification of impacts and selection of potential measurement indicators, the analyst monetizes the options' direct and indirect costs and benefits, and computes the net present value for each option. The CBA process entails the following steps:

1. Monetize (attach monetary values to) all impacts – direct and indirect costs and benefits;
2. Discount the benefits and costs to obtain present values;
3. Compute the net present value (NPV) of each alternative;
4. Perform a sensitivity analysis.

Because of these steps, if performed correctly, a CBA allows an exact ranking of the alternative options in terms of their relative efficiency, based on a common unit of measure (as all outcomes are expressed in monetary terms). This though is not possible when an analysis is purely qualitative.

The main intuition behind the third step, the need for discounting, is based on currency fluctuation; the value of GEL today is different (lower) than tomorrow, as a result, future costs and benefits will need to be discounted (effectively converted to the current price – the present value (PV)) in order to be comparable.

To discount costs and benefits we need first to choose an appropriate Social Discount Rate (SDR), which "measures the rate at which a society is willing to trade present for future consumption".[9] The insight behind the SDR is that it reflects the opportunity cost of shifting resources from current consumption (or investment) towards a new intervention. Once an appropriate Social Discount Rate (SDR) has been chosen, the formula for the calculation of **present value** is straightforward: a cost or benefit occurring in year t is converted to its PV by dividing it by $(1+s)^t$, where s is the SDR.

The choice of an appropriate SDR is one of the more challenging (and interesting) issues that analysts performing a CBA face. In several countries the government provides a reference discount rate that must be used when performing a CBA for projects and programs. Though in other countries, analysts are free to identify the most suitable SDR, following the best practices identified in CBA literature. In all cases, transparency for the reasons behind a choice of SDR, and about the sensitivity of the CBA results to changes in the rate, are crucial, as in some instances the choice of a different SDR could lead to dramatically different results.

The NPV of an alternative is obtained by subtracting the PV of costs from the PV of benefits: $NPV = PV(B) - PV(C)$. The main rule behind a decision on NPV (when there are more alternatives to the status quo and all are mutually exclusive) is the following: *select the option with largest NPV, assuming at least one NPV is positive.*

Stating that the NPV is greater than zero indicates that the value of costs associated with the implementation of one option are lower than the benefits to society (as measured by the willingness to pay (WTP) for the implementation). Equally, the option with the largest NPV is expected to generate the greatest surplus (welfare gain) for society.

[8] For a more extensive discussion of CBAs, please see: Boardman et al. (2018). Cost-Benefit Analysis – Concepts and Practice. 5th Edition.
[9] http://documents1.worldbank.org/curated/pt/135541468266716605/pdf/wps4639.pdf

Box 47 – An example CBA

Within this box we discuss a fictional CBA exercise inspired by the RIA on the Draft Law of Water Management. The analysis is based on two selected policy options, as presented in Box 34 above. For simplicity, in this exercise the analysis is designed for the following three years and only a few aspects (listed below) have been considered.

For the purpose of a CBA analysis, the following information (please note, numbers provided are completely fictional) is pertinent:

Policy option 1

- Donors cover all Basin Management Plan costs and half of all other costs;
- Setting up set up a data exchange service is expected to cost a total 1,000,000 GEL, which will be entirely spent by the end of the first period;
- New personnel will need to be hired to manage the increased flow of documents and information, distributing permits, monitoring, enforcement, etc. In total, 40 new hires are expected over the three periods:
  - ✓ 20 during the first year;
  - ✓ 10 during the second year;
  - ✓ 10 during the third year.
- The yearly unit cost to the public budget for hiring one extra worker is estimated to be 12,000 GEL;
- Additional equipment must also be acquired; at a value of 200,000 GEL by the end of the first period;
- Three Basin Management Plans are to be realized – all by the end of the first period. The cost of each Basin Management Plan is estimated at 70,000 GEL;
- Additional costs of 50,000 GEL per year.

Public sector revenues:

- The projected new revenues from charges: 3,000,000 GEL annually;
- Additional revenues from fees and permit issuance: 400,000 GEL in the first year.

Private sector costs:

- The number of companies affected: 2000;
- Abstraction permit costs: 100 GEL;
- Discharge permit cost: 100 GEL;
- Abstraction and discharge payments, per representative company: 1,500 GEL;
- The preparation cost of abstraction and discharge documents (only in the first year): 1,000 GEL;
- The number of hours administrative personnel spend on new informational requirements, per company: 20 hours per year - hourly labor cost of 10 GEL;
- New software (in the first year): 2,000 GEL.

Policy option 2

- Donors cover all Basin Management Plan costs and half of all other costs;
- New personnel will need to be hired to manage the increased flow of documents and information, distributing permits, monitoring, enforcement, etc., with 80 new hires expected over the three periods:

continue

- ✓ 40 during the first year;
- ✓ 20 during the second year;
- ✓ 20 during the third year.

- The yearly unit cost to the public budget for hiring one extra worker is estimated to be 12,000 GEL;
- Additional equipment must also be acquired; at a value of 350,000 GEL by the end of the first period;
- Three Basin Management Plans are to be realized – all by the end of the first period. The cost of each Basin Management Plan is estimated at 70,000 GEL;
- Additional costs of 50,000 GEL per year.

Public sector revenues:

- Expected new revenues from charges: 3,000,000 GEL annually;
- Additional revenues from fees and permit issuance: 400,000 GEL in the first year.

Private sector costs:

- The number of companies affected: 2000;
- Abstraction permit costs: 100 GEL;
- Discharge permit cost: 100 GEL;
- Abstraction and discharge payments, per representative company: 1,500 GEL;
- The preparation cost of abstraction and discharge documents (only in the first year): 1,000 GEL;
- The number of hours administrative personnel spend on new informational requirements, per company: 30 per year - hourly labor cost of 10 GEL;
- New software (in the first year): 2,000 GEL.

Both policy options

- The nominal, risk-free returns on treasury notes and bonds is 10%;
- Public expenditure is financed from the budget;
- The expected inflation rate is 5%.

Based on the information given, the following impacts were quantified for both options:

- The total expected impact on public finances;
- The expected compliance cost of the reform;
- The real discount rate was calculated based on the given nominal interest rate and inflation rate;
- After obtaining the real discount rate, it was possible to calculate the PV of public costs, the PV of public revenues, and the PV of private compliance cost.

(Further detailed calculations of the monetization of impacts are accessible in an **online excel file**.)

As one may gauge, the results of the CBA reflect the "best guesses" that an analyst can make, under an analysis and appropriate monetary evaluation, about the estimated impacts of the alternative options. As the CBA is based on many assumptions, it is crucial to understand how different variables used in the model affect the outcomes, and how reliable and stable the estimates are. Consequently, using a sensitivity analysis is considered crucial in all serious CBAs. Sensitivity analyses show how various sources of uncertainty in a model contribute to that model's overall uncertainty. During a sensitivity analysis, an analyst performs a series of tests in order to identify the most critical assumptions; and test the robustness of the results as the expected values of the most critical variables change.

3.7.4. Cost-effectiveness analysis[10]

A cost-effectiveness analysis (CEA) differs from a purely qualitative analysis, and from a CBA, as after the identification of impacts and the selection of potential measurement indicators, analysts perform the following steps:

1. Monetize (attach monetary values to) the **costs**;
2. Discount the costs to obtain their present values (the methodology and rationale are identical to discounting in a CBA);
3. Compute the CE/EC ratios for each alternative;
4. Perform a sensitivity analysis (the methodology and rationale are identical to sensitivity analyses in the CBA).

A CEA, if performed correctly, also allows for the objective ranking of the compared alternatives. In this case, however, the ranking is not based on efficiency rather on cost-effectiveness. The analysis further compares mutually exclusive alternatives in terms of their **cost-effectiveness (CE) OR effectiveness-cost (EC) ratios** in order to identify the most cost-effective alternative. Cost and effectiveness are always measured incrementally (e.g., with respect to the status quo).

$$CE_{is} = \frac{C_i - C_s}{E_i - E_s}$$

In this formula, the CE of option i is assessed against option s (the status quo). The differential in costs is compared with the differential in effectiveness. If comparing the options to the status quo, the option with the lowest CE ratio should be selected.

The first challenge to be addressed during a CEA is the choice of relevant costs to be monetized. Government agencies typically care about budgetary costs. However, from an efficiency perspective, costs should also include firms' costs for complying with the regulations. For both categories of cost, the correct pricing should reflect the true opportunity costs.

In Box 48, below, we briefly discuss a simple example of the CEA methodology applied to a (fictional) standard RIA, to ascertain the quantification of compliance costs and the impact on public finances.

Box 48 – An example CEA

Within this box we discuss a fictional CEA exercise inspired by the RIA on the Draft Law of Water Management. The analysis is based on the two selected policy options presented in Box 34 above, while the information required for a CBA analysis is summarized above in Box 47.

In order to perform a CEA analysis (in common for both policy options), additional information is required:

- The number of additional people with access to high-quality water is assumed to increase from 1,500,000 to 2,000,000.

To evaluate the CEA of the reform, the PV of net financial costs (for both the options) were assessed, and based on the additional information given here, the additional number of people securing access to high-quality water was calculated (2,000,000-1,500,000 = 500,000). CE ratio thus represents the ratio of these two numbers.

(Detailed information on how the full assessment was performed is accessible in this **excel file**.)

[10] For a more extensive discussion of CEAs, please see: Boardman et al. (2018). Cost-Benefit Analysis – Concepts and Practice. 5th Edition.

Ranking different alternatives using CE ratios can be relatively simple or problematic, depending on the following variables:

- Ranking with identical cost scales;
- Ranking projects with different cost scales.

While it is fairly straightforward to rank options with relatively similar cost scales, ranking projects with different cost scales can be more problematic and lead to non-univocal rankings.

3.7.5. Multi-criteria analysis

A multi-criteria analysis (MCA) can be considered a final step, combining different criteria (CBA, CEA, and qualitative analysis) to compare all the selected policy alternatives in terms of every relevant goal. Recently, the MCA tool is being used increasingly in public decision-making process as it provides an explicit way to compare different policy options, is consistent, transparent, and easy to use. MCAs are based on a performance or pay-off matrix, in which the performance of options are measured against different criteria. They can be used to identify a single most preferred option, to rank options, to short-list a limited number of options for subsequent detailed assessment, or simply to distinguish between acceptable and unacceptable possibilities. **The MCA is mandatory, for all types of RIA, to show performance of every policy option in line with the policy objectives and effectiveness.**

MCA advantages

An MCA is typically an effective technique since it allows cost-benefit thinking to be applied to cases where there is a need to present impacts with a **mix of qualitative, quantitative, and monetary data**, and where there are varying degrees of certainty. An MCA is fairly useful even when it is possible to fully monetize the costs and benefits (and, therefore, to perform a proper CBA), in highlighting the existing trade-offs between the pursuit of efficiency (the dimension captured by a CBA), when certain competing goals (such as the promotion of gender equality or a reduction in income inequality and wealth distribution), by their nature go beyond the quest for efficiency.

An MCA presents additional advantages, including:

- The objectives and the criteria used as a benchmark against the options are openly and explicitly spelled out;
- If properly reported, all assumptions underpinning the analysis can be tracked and refined ex-post;
- It is relatively simple to make the scoring and weighting explicit, reviewable, and to cross-reference them with other sources;
- An MCA can be outsourced, provided it is controlled for biases;
- It is a user-friendly, simple communications tool for both stakeholders and policymakers.

MCA limitations

One limitation of an MCA is, in the absence of a proper CBA, that it cannot show whether an intervention adds more to welfare than it detracts. Thus, in an MCA as with a CEA, the 'best' option may be inconsistent with improving overall societal welfare (in an economic efficiency sense), which might not, per se, be enough to justify the intervention at all (in essence, doing nothing may remain preferable). This issue becomes even more evident when there is a need to compare alternatives whose costs and benefits have vastly different time structures.

A further drawback of an MCA is its often-perceived as having excessive **subjectivity**. Several features of an MCA rest on potential value-judgements of an analyst or the key stakeholders, who could arrange weighting and scoring so as to guide the MCA performance matrix towards a desired solution. Therefore, it is fundamental that the MCA process is shaped and **reported transparently and in as participatory a manner** as possible, along all of its steps. Annex 6, attached to this manual, underscores these procedural aspects and recommends the recourse of focus grouping to test and validate any assumptions and data.

3.7.6. Building a multi-criteria analysis performance matrix

A standard feature of an MCA is the so-called **performance matrix**, in which each column describes an option, and each row describes the performance of the options against each criterion, relative to the status quo. In its basic form, the matrix is a result of the following steps:

- **Step 1: Identify performance criteria** – Criteria are the key aspects (measures of performance) against which options, elaborated earlier in the RIA exercise, are judged. Examples of criteria are: efficiency, effectiveness, ease of implementation, etc. A large proportion of the value-added by a formal MCA process is derived from establishing a thoroughly based set of operational (performance) criteria, and clear and transparent rules for ranking options. The operational criteria must be S.M.A.R.T., and aligned with broad governmental commitments and strategic priorities, such as achievement of the Agenda 2030 goals;
- **Step 2: Prioritize the performance criteria (assigning weights to criteria)** – This step, known as weighting, is when numerical coefficients are assigned to each criteria to define their relative importance. Criteria that are considered more important will receive higher weights. The absence of weights (the equivalent to setting equal weights) indicates that the analyst considers all criteria equally important;
- **Step 3: Assess the performance of each option** – In this step, known as scoring, the expected consequences of each option are assigned a numerical score on a strength of preference scale for every option for each criterion. The score will be higher if the option is expected to lead to an improvement, relative to the status quo, in certain key dimensions (criterion); whereas a low score will indicate deterioration in that key dimension. Thus preferred options have a higher score on the scale, while less preferred options score lower;
- **Step 4: Build the performance matrix (compare the options)** – The matrix visually, expressed in numerical values, consolidates the combination of performance scoring for each option against each weighted criterion. The option that performs best (calculating all the criterion-related scores) is the one to recommend.

As identified in the growing literature, there are many MCA techniques, and their number is still rising. Article 23 of ordinance 35 indicates exactly how an MCA should be used to assess options and explicitly discusses how to deal with scoring and weighting. The text and details from article 23 are reported in Box 49 below.

Annex 6 describes a relatively standard possible approach, one which is applicable across a range of governmental decisions and is consistent with the prescriptions of ordinance 35. It does so on the basis of an illustrative (fictional) example. The annex also lists references for further guidance on MCAs.

Box 49 – Multi-criteria analysis guidelines in ordinance 35

Article 23 of ordinance 35 specifies how to assess options based on a multi-criteria analysis. In line with the details provided thus far, article 23 states that:

1. A multi-criteria analysis combines the quantitative and qualitative assessment of impacts caused by selected options;
2. During a multi-criteria analysis, the outcomes of the assessment of impacts caused by selected options shall be compared against the no-intervention scenario;
3. A multi-criteria analysis includes:
   a. The results of a quantitative analysis, if any, which include:
      i. The summarized results of a cost-benefit analysis as net present value;
      ii. The summarized results of a cost-effectiveness analysis as a cost-effectiveness ratio.
   b. The results of a qualitative analysis, which include:
      i. The assessment of each option to achieve the specific goals identified within the framework of the RIA;
      ii. The feasibility of each option, including how acceptable the option is in terms of political, social and public life, etc.;
      iii. The expected specific risks associated with each option;
      iv. The expected specific benefits of each option;
      v. Any other criteria for comparing options and providing a better opportunity to select the best option by such a comparison.
4. In a multi-criteria analysis, each option shall be assigned a score to be compared with the qualitative criteria;
5. The scores assigned for the qualitative results of the multi-criteria analysis may range from (-5) to (5). In this range, scores from (-5) to (-1) indicate worsening of the situation against a no-action scenario, (-5) indicates significant deterioration and (-1) indicates slight deterioration; (0) indicates leaving an existing situation unchanged against the no-action scenario; and scores of (1) to (5) indicate an improvement of the situation, where (1) indicates a slight improvement, and (5) indicates a significant improvement;
6. For the purpose of determining a priority, the criteria under paragraph 3 (b) of this article may be assigned a weighting ratio to determine their priority. The said ratio may range from 0 to 1 and shall be determined by an authorized person of the agency responsible for the RIA. If the authorized person does not determine the assigned ratio, the assigned ratio shall be 1. Any evaluation shall be substantiated and specified in the description of the RIA report and multi-criteria analysis;
7. The weighting ratio of each qualitative criterion must be multiplied by the score assigned to each option within the criterion. The result of the said multiplication shall be the evaluation of the option based on the specific criteria;
8. The qualitative outcomes of a multi-criteria analysis may be summarized as the arithmetical total of the scores obtained by the policy options provided for all criteria;
9. Multi-criteria analyses should be performed in all cases, regardless of whether the quantitative impact assessment has been performed on the basis of cost-benefit or cost-effectiveness analysis;
10. The outcomes of a multi-criteria analysis must be summarized in accordance with Table 5, provided in the template of the RIA report [as below];
11. The author of an RIA may prepare an alternative list of evaluation criteria, in accordance with the objectives. This list of criteria is to be elaborated prior to the preparation of their evaluation.

continue

MCA performance matrix (mandatory)

Evaluation criteria	Option 1	Option 2	Option 3
Benefits – costs (NPV)	xxx GEL	xxx GEL	xxx GEL
Specific objective 1	(score O1*w)	(score O2*w)	(score O3*w)
Specific objective 2	(score O1*x)	(score O2*x)	(score O3*x)
Impact on a certain group/SME			
……	(score O1*y)	(score O2*y)	(score O3*y)
Feasibility / ease to comply	(score O1*z)	(score O2*z)	(score O3*z)
Risk	(score O1*h)	(score O2*h)	(score O3*h)
Other	(score O1*m)	(score O2*m)	(score O3*m)
Summary	**Sum 1**	**Sum 2**	**Sum 3**

3.7.7. Practical examples and lessons from the Georgian experience

This subsection has been developed to better consolidate the concepts discussed and offer direct exposure to the lessons RIA analysists have encountered in the process of conducting multi-criteria analyses in Georgian studies.

It is important to note that most of the RIAs reported in this subsection were performed before this methodology was introduced. Consequently, the MCA performance matrix format and the contents did not always adopt the same conventions. For example, qualitative scores were in some instances expressed relative to the time of the analysis, while in other examples they were compared with how they would have evolved without action (depending on the preference of the main stakeholders). Equally, in most cases, applying the rule, we showed only the incremental NPV of options (with respect to the baseline scenario), though in some instances we were asked by stakeholders to show the absolute amount for all options, including the baseline scenario. In general, we opted not to have weights, or a final summary table, as we wanted to leave the choice of weights and final score aggregation (based on weights) to policymakers.

During the implementation of the RIA on the Draft law of Water Management, the team identified several criteria for the MCA comparison of policy options. The criteria included NPV, effectiveness, feasibility, alongside minimization of the potential risks and maximization of the potential benefits. All criteria were given the same weight, and no summary table was produced. Box 50 reviews the multi-criteria analysis performed under the RIA.

Box 50 – The multi-criteria analysis performed during the Draft Law of Water Management RIA

The first criteria that was used to compare the selected policy options (presented in Box 34 above) was the NPV associated with each policy option, as evaluated in the quantitative assessment of the report. Detailed information regarding the assessment of the NPV for each alternative can be found in the full text of the original document. Beside the NPV, several other criteria were also used, including:

continue

- **Effectiveness:** the capability to produce the desired results. Within the RIA these results included:
  - ✓ Ensure the convergence of all water bodies towards good quality status;
  - ✓ Ensure the continued availability of drinking water and access to sanitation for the population;
  - ✓ Ensure access to water for all potential users;
  - ✓ Ensure the efficient allocation of water resources across alternative uses;
  - ✓ Ensure compliance with the EU WFD.
- **Feasibility:** ease of realization;
- **Minimization of risks** associated with the reform:
  - ✓ Monitoring, evaluation, and decision-making remain concentrated at the central level;
  - ✓ Under the premise that "harmonization to EU directives is necessary" some legislations – even potentially harmful to the country – may be introduced with limited discussion and without being fully required in the EU directive;
  - ✓ Possible mistakes in the design of economic instruments hamper the achievement of the main goals of the IRBM and the development of the country; ambiguity in the interpretation of the law or gaps preventing its most effective application;
  - ✓ Insufficient availability of water data;
  - ✓ Adverse effect on vulnerable social groups and small enterprises.
- **Maximization of the collateral benefits** associated with the reform:
  - ✓ Capacity to respond quickly and effectively to environmental challenges and catastrophic events;
  - ✓ Greater predictability and reliability;
  - ✓ Faster identification to optimal (efficiency enhancing) choices when facing tradeoffs.

The table below summarizes the multi-criteria analysis performed under the RIA.

Comparison of the options using a multi-criteria analysis

Evaluation criteria	Option 0	Option 1	Option 2
Incremental benefits – incremental costs (NPV) [relative to option 0]	NA	114.7	110.6
Effectiveness 1 – good quality status	-	+++	+++
Effectiveness 2 – access to drinkable water and sanitation	+	+	+
Effectiveness 3 – access to water for all potential users	0	++	++
Effectiveness 4 – efficient allocation across alternative users	-	+++	+++
Effectiveness 5 – ensure compliance with the EU WFD	---	++	++
Feasibility / ease to comply	0	+++	++
Minimization of the potential risks	--	+++	++
Maximization of the potential benefits	---	+++	++

Note: 1. Option 0 represents the evolution of the baseline scenario ***compared to the moment of the analysis.*** *A value of zero, in this case, indicates no change; '+' implies positive change; while '-' means a negative change.*

2. For options 1 and 2, the scores indicate the performance of the alternatives ***relative to the baseline*** *scenario (Option zero). In this case, a value of zero indicates no change; '+' implies positive change; while '-' means a negative change.*

Box 51 below offers an overview of the multi-criteria analysis performed under the RIA on the Draft Irrigation/ Drainage Tariff Methodology.

Box 51 – The multi-criteria analysis performed during the Draft Irrigation / Drainage Tariff Methodology RIA

To perform a multi-criteria analysis on the policy options (presented in Box 33 above), together with an NPV, the RIA team used the following criteria:

- **Effectiveness 1:** supporting the development of a reliable water supply through infrastructural renovation and rehabilitation;
- **Effectiveness 2:** ensuring the financial sustainability of amelioration service providers;
- **Effectiveness 3:** ensuring the efficient allocation of water across alternative uses;
- **Effectiveness 4:** increasing the competitiveness of Georgia's agricultural sector by providing reliable irrigation and drainage services at reasonable prices;
- **Feasibility/ease of implementation:** how easy it is to realize the policy option;
- **Minimization of the risks** associated with the reform:
  - ✓ Implementing the discount scheme on the second component of the tariff may be problematic from an administrative standpoint;
  - ✓ The company may still suffer losses from low payment rates;
  - ✓ The tariff might become a burden for farmers after subsides from the government are abolished;
  - ✓ The company might not be privatized, even in the upper-bound tariff scenario.
- **Maximization of the potential benefits** associated with the reform:
  - ✓ Increasing the awareness of farmers about the benefits of modern irrigation technologies;
  - ✓ Improving agricultural productivity and competitiveness;
  - ✓ Decreasing the country's food dependence and improving its food security.

The table below summarizes the MCA performed under the RIA.

Comparison of the options using a multi-criteria analysis

Evaluation criteria	Option 0	Option 1	Option 2
NPV of farmers (GEL) [Not incremental]	1,489,382,661	1,579,314,282	1,563,609,721
NPV of GA (GEL) [Not incremental]	0 [losses covered by government]	97,934,823	241,002,026
NPV of the government (GEL) [Not incremental]	-114,464,298	-189,471,860	-316,834,502
Effectiveness 1	-	+ +	+
Effectiveness 2	- - -	+ +	+ + +
Effectiveness 3	- - -	+ +	+ +
Effectiveness 4	-	+ + +	+
Feasibility / ease of implementation	0	-	-
Minimization of risks associated with the reform	0	+ +	+
Maximization of potential benefits associated with the reform	0	+ +	+

Note: 1. Option zero represents the evolution of the baseline scenario ***compared to the situation at the moment of the analysis.*** *A value of zero, in this case, indicates no change; '+' implies positive change; while '-' means a negative change.*
*2. For options 1 and 2 the scores indicate the performance of the alternatives r****elative to the baseline*** *scenario (option zero). In this case, a value of zero indicates no change; '+' implies positive change; while '-' means a negative change.*

An overview of the multi-criteria analysis performed under the RIA on the Domestic Workers' convention is presented in Box 52 below; unlike the previous two examples, this RIA was performed after the approval of ordinance 35.

Box 52 – The multi-criteria analysis performed during the Domestic Workers' Convention RIA

The team considered the following criteria to compare the alternatives against the selected policy options (presented in Box 35 above):

- **A cost-benefit analysis:** to identify the PV of governmental costs and benefits, and the NPV for all options;
- **Effectiveness:** the capability to produce the desired results and achieve the policy general objective. In this case, the capability to:
  - ✓ Increase the bargaining power of domestic workers;
  - ✓ Reduce the risk of abuse and exploitation of domestic workers;
  - ✓ Ensure that domestic workers enjoy social benefits and social security;
  - ✓ Increase the awareness level of domestic workers regarding their rights.
- **Feasibility:** ease of realization for each option:
  - ✓ Difficulties in enforcement and monitoring of the options because of the peculiarities of domestic employment – as the work occurs within a household, and the employee-employer relationship is more personal;
  - ✓ Problems related to income tax payment enforcement.
- **Minimization of the risks** associated with all the offered policy options:
  - ✓ Income reduction of domestic workers due to the tax burden;
  - ✓ Increased burden on employers, a de facto reduction of working opportunities;
  - ✓ Shifts towards (or persistence of) informal employment arrangements: encouraging households to transfer to the informal economy where domestic services are cheaper, and encouraging domestic workers to stay informally employed to avoid income tax payments;
  - ✓ The risk of domestic workers not applying to the judiciary system, Labour Inspectorate, or Public Defender.
- **Maximization of the potential benefits:**
  - ✓ Promotion of labor rights and opportunities for domestic workers;
  - ✓ Raising domestic workers' awareness about future risks of being engaged in informal labor relation;
  - ✓ A change in mindset and attitudes of those engaged in domestic work – namely, domestic work is equivalent to other employment, and with the same value;
  - ✓ Removal of constraints for domestic workers to defend their rights;
  - ✓ Promotion for the creation of stronger networks for domestic workers;
  - ✓ Increase in the self-confidence of domestic workers.

To provide a summary of the results, multi-criteria analysis points are assigned to different policy options. These points vary from -5 to 5. A negative score represents a decrease in efficiency compared to the status quo, while a positive score signifies an increase in efficiency.

continue

Comparison of the options using a multi-criteria analysis

Evaluation criteria	Option 1	Option 2
Benefits – costs (NPV)	2,445,748 GEL	1,483,373 GEL
Effectiveness 1 - increase the bargaining power of domestic workers	3	2
Effectiveness 2 - reduce the risk of abuse and exploitation of domestic workers	2	1
Effectiveness 3 - ensure that domestic workers enjoy social benefits and social security	2	1
Feasibility / Ease to comply	-4	-1
Minimization of the potential risks	1	3
Maximization of the potential benefits	3	4

Note: In this case, consistent with ordinance 35, option 0 is not reported and ***both NPV and qualitative scores were expressed incrementally relative to the baseline scenario*** *(i.e., the evolution of the parameters in the absence of policy change), not in respect to the situation when the RIA was being performed. We also did not include the final row (summary) as we left the beneficiaries the option to attribute weights and calculate the summary score.*

3.8. IMPLEMENTATION ARRANGEMENTS

At this stage of your RIA, you need to think about how your preferred option will be implemented and enforced, and also how it will be monitored and eventually evaluated. You therefore must:

- Discuss any implementation challenges you foresee for your proposal;
- Assess the implementation risks, their likelihood, and the consequences and arrangements to manage them;
- Outline transitional arrangements, as appropriate, to achieve the desired outcomes;
- Describe how the performance of the recommended intervention will be evaluated against its objectives, during and after implementation.

Why is this step important?
Governmental decisions on implementation may require substantial changes and impact evaluation, those which readers of an RIA must be aware. The costs associated with the implementation arrangements must be calculated and taken into consideration when gauging the cost-effectiveness of an option. They may in actuality be such that they alter your choice in selecting a recommended option.

3.8.1. Political, economic, and procedural considerations

When thinking ahead to the implementation, enforcement, monitoring, and future evaluation of your recommended intervention, you may consider their political, economic, and procedural dimensions. Table 15 illustrates one such possible approach.

Table 15 – Thinking ahead along the policy cycle

Phases	Political considerations	Economic considerations	Procedural considerations
Adoption of the proposal	What were the indications I received from my hierarchy / the government, and to what extent does the current proposal meet them? Is the proposal likely to gather political consensus in government / parliament?	[Incorporated in the RIA]	What are the steps that I still have to make before formally submitting the proposal? What is the likely time for discussion and adoption by government / parliament?
Implementation of the measure	How will the relevant stakeholders / those directly affected by the measure react? Are they ready, or is an information campaign / derogation period necessary?	What are the likely types of resistance we should expect (for instance, incentives to non-compliance; free riding; boycotting; etc.)	When is implementation expected to start? Are there transitional periods to be envisaged? When will full implementation be ensured? Are there any means to assist / facilitate implementation?
Enforcement	Who should be in charge of enforcing the measure? Should it be a core task of the public administration, or can it be outsourced to private agents?	What are the likely costs of the various forms of enforcement? Can we rely on the existing practices?	How should enforce take place? Through standardized inspections, or following priorities and criteria (risk-based approach)?
Ex-post evaluation	When should monitoring and the ex-post evaluation start? Should it be automatic, or based on a political decision? By whom? To whom should the findings be communicated? (e.g., to parliament, the wider public, affected stakeholders, etc., and via reports, seminars, press conferences, etc.)	What are the likely costs of the monitoring and evaluation activities? Is a data collection and validation system already in place or should it be built ex novo?	How should monitoring and evaluation be organized, in terms of evaluation design, data collection, validation and processing, interpretation, or communication? How can biases be minimized?

3.8.2. Anticipating monitoring and evaluation activities

A detailed outline of the monitoring and evaluation (M&E) activities is normally best designed after the measure has been formally adopted. It is clearly impractical to provide detailed M&E information on a policy option that has yet to be adopted. During this step of the RIA you are nonetheless asked to identify the main M&E indicators, because:

- Resources are limited and M&E activities may be costly. It is important to compute a level of resources (e.g., number of staff, (outsourced) research, public consultations, etc.) that is proportionate with the scope and potential impact of the proposed measure. As a general rule, collecting data should not be more costly than the value of the information provided;
- Governmental decisions are part of a policy cycle and are important to bridge all phases – from ex-ante analysis to impact evaluation – thus it is best to prepare the basis for possible future interventions.

M&E indicators will measure the extent to which a governmental decision is properly implemented and its objectives achieved. Clearly, your indicators should closely reflect those previously developed for the general and specific objectives (see section 2.3. above).

When planning ahead for M&E activities, you should ask yourself the following questions:

- **Nature:** - How will this option be measured to see if it is working?
  - To what extent do M&E structures already exist? Does new capacity need to be put in place?
  - Who bears the cost of creating M&E structures?
- **Timing:** - When should findings be produced, and used?
- **Data:** - Is the information I need to monitor and evaluate the policy readily available?
  - Is there baseline information that allows for a before vs. after comparison?
  - What are the data gaps and where do they derive from? Can they be addressed now?
  - How can I organize end-user feedback?
- **Actors:** - Who are the key actors in providing and using such information?
  - What will be the roles of these actors? Who is responsible for what?
- **Use:** - How, and to whom, should the M&E findings be communicated?

3.8.3. Writing an implementation, monitoring, and evaluation plan

It is essential to have a clear implementation plan for delivering your recommended intervention. This plan creates a shared understanding, among both those who will be affected and called on to comply with the intervention, and those in charge of ensuring its timely and full execution.

In the plan, you should:

- Identify implementation challenges, timeframes, and project phases. This is even more important when the recommended intervention intersects with other regulations, policies, or projects already launched, or planned by the government;
- Clearly describe roles and responsibilities in resourcing, enforcing, and in monitoring, and evaluate the implementation of the intervention, for everyone to know which decisions can be made by whom;
- Define the organizational capacity to implement, enforce, monitor, and evaluate the intervention – in terms of managerial skills, technical expertise, databases, and technological support;
- Include a clear plan for bringing stakeholders in to smooth compliance;
- Identify political risks and procedural or organizational challenges, assess their likelihood and related consequences, and consider management solutions.

The plan should not be overly long, and it can also be fleshed out definitively once the measure is adopted. However, it is important that you devote sufficient time and resources to defining your plan in order to avoid neglecting crucial factors that may hamper its implementation.

Box 53 is a checklist to facilitate the design of logical implementation solutions.

Box 53 – Enhancing good implementation: A checklist

Have you put your intended policy outcome into words?

- What does success look like and how will you get there?
- What are the measures your performance will be judged by?
- Have you collected enough benchmark data to assess whether your policy has had the desired effect over time?

Who are the decision makers and how are they accountable?

- Have you adequately considered governance?
- Are the roles and responsibilities of each person, group, or agency involved clearly defined and documented?
- Is there a shared understanding of who is responsible for each decision?
- Are there reporting and review arrangements in place?
- Are you keeping it simple? Do not allow project management processes to become an end in themselves.
- Are you able to manage problems proactively and escalate issues, risks, and disputes to the right person or body quickly?

Are your stakeholders adequately involved in or informed about progress?

- Do you have the right number and type of stakeholders? Not too many, but just enough to provide useful feedback and keep you on your toes?
- How are you keeping them informed of progress?
- Are you listening to stakeholders as well as communicating with them? Ask them for ideas about implementation or risk issues; if they are the right type of stakeholder, they may have helpful views you might not have previously considered.

Are you on the lookout for risks and threats to success?

- Remember: the aim is not to eliminate risk but to identify, assess, and manage risk. Be proactive in avoiding known risks and vigilant in identifying new ones.
- Develop and maintain your risk management strategy in conjunction with the stakeholders.

How will you evaluate your policy during and after implementation?

- Plan from the start what will be measured, how it will be measured, why, and who you will report this to.
- Good evaluation questions include: Are we doing the right thing? Are we doing it the right way? Are there better ways to get the same result?
- An evaluation should not passively consider the performance of the policy, but actively question the ongoing needs of the policy. Ask yourself if the policy continues to perform a useful purpose. Is it still required, or can it be discarded?

Do you have the right amount and type of resources to implement your policy?

- Look at the people, financials, and delivery resources across the lifetime of the implementation, not only whether you have enough for implementation in the first stage of your policy.
- Have you weighed up the costs of using different delivery mechanisms? Make an informed choice on which resources will be required to deliver your desired outcome.

Article 24 of ordinance 35 focuses specifically on implementation, monitoring, and evaluation. The text of which is presented in Box 54 below.

Box 54 – Article 24, ordinance 35: Implementation, monitoring, and evaluation

1. To implement a selected option, the RIA report shall clearly provide for the time schedule for the implementation steps, phases, responsible agencies, and performance indicators. It shall include the following:
   a. A description of any expected complications associated with the implementation;
   b. The risks associated with the implementation of the selected option, namely the evaluation of the likelihood of their occurrence, their expected outcomes, and the arrangements to manage them;
   c. A list of transitional arrangements necessary for the implementation of the selected option (if necessary) and their description;
   d. A description of how the selected option will be evaluated against the set objectives during and after implementation.
2. If the body responsible for the introduction and implementation of the selected option, and is different from the body that has prepared the RIA report, an agreement on granting the authority to implement the selected option shall be reached in advance, which must be clearly specified in the elaborated report;
3. An RIA report shall include information on the monitoring and final evaluation of the selected option;
4. The information provided for in paragraph 2 of this article must be included in the RIA report in a form of the monitoring and evaluation plan, and it must contain important steps for the enforcement of law and main tables for the evaluation of its fulfilment;

The monitoring and evaluation plan must be summarized in table, as included in the RIA report template (Annex No. 3 of the ordinance) [Shown immediately below].

Summary of a monitoring and evaluation plan

Indicator	Frequency of evaluation	Responsibility for monitoring
Indicator 1	(Yearly, Quarterly, Monthly)	Institution 1; Institution 2; Institution 3.
Indicator 2	(Yearly, Quarterly, Monthly)	Institution 1; Institution 2; Institution 3.
Indicator 3	(Yearly, Quarterly, Monthly)	Institution 1; Institution 2; Institution 3.

3.8.4. Practical examples and lessons from the Georgian experience

This subsection has been developed to help consolidate the concepts discussed and to provide direct exposure, from a Georgian context, to RIA analysists' experiences in the creation of monitoring and evaluation plans.

During the implementation of the RIA on the Draft Law of Water Management, the team elaborated a monitoring and evaluation plan to track of water management system performance after the reform. An overview of the M&E is provided in Box 55.

Box 55 – The monitoring and evaluation plan within the Draft Law of Water Management RIA

In order to evaluate how well the selected policy option responded to the reform objectives (provided in the Box 30 above) the RIA team detailed the following monitoring and evaluation plan.

Indicator	Frequency of evaluation	Responsibility for monitoring
Convergence of all water bodies towards good quality status		
% of water bodies with complete and fully functioning monitoring systems in place.	Yearly	MENRP; River basin organizations; NEA.
% of river basins with properly calculated environmental (pollution-related) charges or fees in place, and/or a developed pollution market in place.	Yearly	MENRP water management department; River basin organizations; MOESD.
% of instances of penalties, determined on the basis of a standardized methodology, reflecting environmental damage.	Yearly	MENRP; Department of Environment Supervision.
% of recovered costs related to the realization and operation of the water treatment infrastructure.	Yearly	MENRP; GNERC; Local governments; Local water suppliers.
% of water bodies with a quality status below good (according to the last assessment), with improved environmental indicators.	Yearly	MENRP; River basin organizations; NEA.
% of water bodies achieving good status.	Yearly	MENRP; River basin organizations; NEA.
Continued availability of drinking water and access to sanitation for the population		
The water available per capita sufficient to meet the minimum identified needs.	Monthly	River basin organizations; MRDI; Local governments; Local water suppliers.
% of river basins with fully developed sanitation networks.	Yearly	River basin organizations; MRDI; Local governments; Local water suppliers.
Indicators to ensure access to water to all potential users		
% of individuals and firms requesting to use water and willing to pay the required tariff or fee, and to respect the corresponding regulation to do so.	Yearly	MENRP; GNERC; Local government; MENRP; Local water suppliers.
The average time for obtaining access to water from the moment a demand is issued.	Yearly	MENRP; GNERC; Local governments; Local suppliers.
Efficient allocation of water resources across alternative uses		
% of tariffs for water use and water abstraction calculated according to an efficiency-based methodology.	Yearly	MENRP; River basin organizations; GNERC.

continue

% of households with a water meter at the point of delivery; % of major water users with a water meter at the point of delivery.	Yearly	MENRP; River basin organizations; GNERC; Local governments; Local water suppliers.
% of households with a water meter at the point of abstraction; % of major water users with a water meter at the point of abstraction.	Yearly	MENRP; River basin organizations; GNERC; Local governments; Local water suppliers.
Compliance with the EU WFD		
The number of active river basin organizations.	Yearly	MENRP; GoG.
The number of updated integrated river basin management plans (IRBMP).	Yearly	MENRP; River basin organizations; River basin council; GoG.
The number of categories of stakeholders involved in the IRBMP consultation process.	Yearly	MENRP; River basin organizations; GoG.
Signed transboundary agreements with Azerbaijan, Turkey, Russia, and Armenia.	Yearly	MENRP; GoG; Ministry of Foreign Affairs.

Box 56, below, summarizes the monitoring and evaluation plan elaborated under the RIA on the Draft Irrigation/ Drainage Tariff Methodology.

Box 56 – The monitoring and evaluation plan within the Draft Irrigation / Drainage Tariff Methodology RIA

For monitoring and evaluation of the Georgian agricultural amelioration system, the team suggested the following plan:

The monitoring and evaluation plan

Indicator	Frequency of evaluation	Responsibility for monitoring
The amount of irrigated/drained land (ha.); The share of farmers using irrigation/drainage (%); The number of contracts signed; Compliance/payment rate (%).	Yearly	GA; MoA.
The subsidy level (%); The amount of tariff rate on irrigation; The amount of tariff rate on drainage.	Yearly	GA; MoA.
Change in the share of company/farmer profits from more reliable irrigation/drainage (%); Change in the share of company/farmer profits from the installment of optimal irrigation systems (%); The average share of irrigation/drainage costs in total costs per ha. (%).	Farmers' survey every five years.	Geostat with the help of Farmers' Associations (e.g., GFA).

continue

Collection of data about all crops from every region/municipality in a centralized dataset.	Yearly	Geostat; GA; MoA.
Increase in agricultural output on irrigated/drained land (%); Increase in the average value of agricultural output on irrigated/drained land (%); Increase in yield per ha. on irrigated/drained land (%).	Yearly	Geostat; Farmers' associations; Agro businesses.
The amount of investment in optimal irrigation technologies.	Yearly	GA; MoA Farmers' associations (e.g., GFA); Agro businesses.
The amount of land as collateral (ha.); Increased price of land because of better irrigation/drainage as support for collateral.	Yearly	Banks; MFIs.
The number of guidelines developed; The number of agronomists/farmers trained on optimal technology of irrigation, and the possibility of growing more profitable crops.	Yearly	GA.

To track the performance of the reform, its impacts, and to help with modification if the reform objectives fail (presented in Box 27 above), the RIA team developed a monitoring and evaluation plan in the scope of the Domestic Workers' Convention. An overview of this M&E is provided below in Box 57.

Box 57 – The monitoring and evaluation plan within the Domestic Workers' Convention RIA

The indicators suggested for evaluating the performance of the system were divided into four main categories: the bargaining power of domestic workers; the risk of abuse and exploitation of domestic workers; social benefits and social security for domestic workers; and awareness levels of domestic workers regarding their rights. The table below summarizes the monitoring and evaluation plan developed for the RIA.

The monitoring and evaluation plan

Indicator	Frequency of evaluation	Responsibility for monitoring
Bargaining power of domestic workers		
Corresponding changes in labor legislation; definitions, recognition of domestic labor relations.	Once	Parliament of Georgia; GoG.
# of labor inspectors per 1,000 domestic workers.	Yearly	Labour inspection service.
# of officers/individuals at the state legal service per 1,000 domestic workers.	Yearly	Legal aid service centre.
# of complaints to the Labour Inspectorate and their results.	Yearly	Labour inspection service.
# of cases filed by domestic workers to the state legal service and their results.	Yearly	Legal aid service centre.
# of cases of domestic workers in court.	Yearly	City Courts.

continue

# of cases won by domestic workers in court.	Yearly	City Courts.
# of trade unions of domestic workers.	Yearly	Geostat.
# of informal associations for domestic workers.	Yearly	Geostat.
# domestic workers' informal associations density rate (share of domestic workers in informal associations over total domestic workers).	Yearly	Geostat.
Collective bargaining coverage rate (share of domestic workers whose pay and conditions are determined by collective agreements).	Yearly	Geostat.
Risk of abuse and exploitation of domestic workers		
Corresponding changes in the Labour Code – guarantee of weekly rest and paid overtime work, annual leave, privacy.	One time	Parliament of Georgia; GoG.
Share of domestic workers reporting excessive work (over 40 hours per week, %).	Quarterly	Geostat.
Share and number of domestic workers whose overtime is paid (among those who take overtime).	Quarterly	Geostat.
# of complaints filed to the Labour Inspectorate by domestic workers.	Yearly	Labour inspection service.
Share of complaints the Labour Inspectorate followed up.	Yearly	Labour inspection service.
# of court cases initiated by domestic workers on occupational safety and health (including harassment).	Yearly	City Courts.
Social benefits and social security for domestic workers		
Share and number of domestic workers enrolled in the Georgian pension fund.	Yearly	Pension fund; Geostat.
Share of retired domestic workers whose replacement rate of pension is above/below 60%.	Yearly	Pension fund; Geostat.
Share of domestic workers receiving state support.	Yearly	Geostat.
Share of female domestic workers entitled to maternity leave benefits.	Yearly	Geostat.
Awareness levels of domestic workers regarding their rights		
# and frequency of social advertisements.	Yearly	MoIDPLHSA.
# of TV shows, their duration, and coverage of domestic workers' issues.	Yearly	MoIDPLHSA.
# of consultations and meetings conducted by responsible ministries, by region.	Yearly	MoIDPLHSA.
Share and number of domestic workers showing they are aware of their rights (survey).	Yearly	MoIDPLHSA.
# of meetings among domestic workers (national, regional, and municipal levels).	Yearly	MoIDPLHSA; Trade unions.
# of meetings between domestic workers and all interested stakeholders, such as NGOs and human rights organizations.	Yearly	MoIDPLHSA; Trade unions.

4. REPORTING

An RIA relies on the accuracy and rigour of your analysis. The first beneficiaries are the decision-makers, for whom a balanced assessment of the options is critical. The second are your stakeholders, who have a right to accurate, timely, and accessible information on any governmental decisions that affect them.

4.1. GENERAL REMARKS

The way you consolidate and present your findings is therefore particularly important, as it significantly influences the extent to which evidence is taken into account.

Box 58 provides a number of tips that you should consider when finalizing your RIA report.

Box 58 – Making your findings matter: Reporting

When finalizing your report, attempt to:

- Avoid administrative jargon, unexplained acronyms, and needlessly complex language;
- Be precise and concise, including only relevant information, making sure the depth of your analysis is commensurate with the importance of the issue you are analyzing;
- Be measured and prudent in your arguments and assertions, seeking factual and referenced substantiation as much as possible;
- Not pass off opinions as fact; checking the accuracy of every claim and where the facts may be inconclusive, acknowledging so;
- Make your document easy to navigate by ensuring sections are clearly marked and there is a coherent, logical flow to your writing.

4.2. THE RIA REPORT

An RIA report must be drafted in accordance with the requirements set by ordinance 35 (Annex 3 of which provides a recommended template for RIA reports). In the preparation process for the initiation of a draft law, a relevant body may use another form, as long as it is drafted in accordance with the requirements of the ordinance.

An RIA report is elaborated in a standard format which includes the following content:

Part 1 – General information on the initiative and the responsible ministry (for in-depth RIA reports, it should include a summary)

General information on who initiated the process and the responsible agency.

A summary should be one or two pages in length and cover the following topics (one short paragraph on each):

- The context of the initiative;
- The respective parties or groups that are affected by the initiative and a review of the consultation process;

- A statement on the problem or issue and on its emergence;
- Justification for the need for intervention, and its objectives;
- The options that have been taken into account and analyzed in detail;
- The impact of each option (summarized in a table similar to that given below).

Table 16 – Comparison of the options

Assessment criterion	Option 1	Option 2	Option 3
Benefits – costs (NPV)	xxx GEL	xxx GEL	xxx GEL
Specific objective 1	(score (s) 1 X (weight) (w) 1)	(s. 2) X (w. 1)	(s. 3) X (w. 1)
Specific objective 2	(s. 4) X (w. 2)	(s. 5) X (w. 2)	(s. 6) X (w. 2)
……	….	….	….
Feasibility/ease to comply	(s. 7) X (w. 3)	(s. 7) X (w. 3)	(s. 7) X (w. 3)
Risks	(s. 8) X (w. 4)	(s. 9) X (w. 4)	(s. 10) X (w. 4)
Other	(s. 11) X (w. 5)	(s. 11) X (w. 5)	(s. 11) X (w. 5)
Summary	Sum	Sum	Sum

When completing the table, the following details should be taken into consideration:

- A decision on the selected option;
- A brief description of the monitoring mechanisms (optional).

Part 2 – Problem definition

a. Context of the problem/issue

- A general description of the current situation and existing legal framework;
- Governmental plans (if any).

b. Problem definition

- The essence of the problem or issue;
- Causes of the problem or factors affecting the problem;
- The groups of society that are affected and the size of each group;
- An evaluation of the nature and magnitude of impact on each group;
- The grounds for governmental intervention.

c. Problem data analysis: current trends

- The trends of a problem;
- A brief review of the influence of trends, if all other factors remain unchanged;
- The possible changes in other policies and regulations.

Setting a baseline scenario

The scenario indicates the current possible development of the problem, taking into consideration the full context.

Based on an analysis of evidence collected and past trends, answer the following questions:

- Is the problem expected to be resolved if you refrain from intervention? How possible is it that the problem will become exacerbated or the magnitude of the problem will increase, and what are the preconditions for such an assumption?
- What is the likelihood of the development of that scenario (the most negative and positive cases expected)?
- Which factors affect the occurrence of the problem and its consequences?
- What are the risks associated with refraining from intervention?
- What is the likelihood of irreversible negative consequences that will make the existing problem or issue particularly serious or urgent?
- Has the government tried to resolve the problem, what were the outcomes of such an attempt and what conclusions may be drawn from that experience?

Objectives

a. General objectives

- A description of the general objective(s).

b. Specific and operational objectives

- A description of the specific and operational objectives.

Table 17– Template of the table of intervention objectives

Objective	Indicator	Responsibility	Timing
Specific objective 1. – ….			
Operational objective 1.1….			
Operational objective 1.2….			
Specific objective 2. – ….			
Operational objective 2.1….			
Operational objective 2.2….			

Elaboration of the options

- A description of whether any of option has been rejected at an early stage (cost, effectiveness, efficiency, non-compliance with objectives, feasibility, etc.);
- A description of the main differences between the options.

Option 1

Regulatory intervention (description of the proposed regulation), including:

- A description of the scenario and basic assumptions;
- The potential impact on stakeholders;
- The advantages and disadvantages of the scenario, taking into consideration the objectives;
- The potential risks.

Option 2

Another option (potentially non-regulatory), including:

- A description of the scenario and basic assumptions;
- The potential impact on stakeholders;
- The advantages and disadvantages of the scenario, taking into consideration the objectives;
- The potential risks.

Option 3

A further option, including:

- A description of the scenario and basic assumptions;
- The potential impact on stakeholders;
- The advantages and disadvantages of the scenario, taking into consideration the objectives;
- The potential risks.

Impact analysis

a. Methodological approach

- Describe, briefly, your methodological approach, and the qualitative, quantitative, and mixed analyses;
- In the case of a quantitative or mixed analysis, specify the methodological approach used for quantification (a cost-benefit or cost-effectiveness analysis);
- A brief description of the NPV calculation method;
- The time horizon (typically 10 years or more);
- The discount rate applied;
- A brief description of the data sources and basic assumptions used in the quantitative analysis;
- A brief description of the sensitivity analysis (if applied).

b. Identification of likely impacts

The impact analysis should cover both the likely impacts and the distributional effects (despite the fact that they were not calculated).

- Table 18 is to be attached to each option individually, and it should be accompanied by a detailed description of the main reasons for each facet of the table.

Table 18 – Summary of the impacts of options (one table for each option)

Impacts	Type: 1) direct; 2) indirect	Group(s) or other relevant indicators affected	Assessment of expected outcomes (positive or negative)	Relevant measurement indicator(s)	Options subject to impact
Economic					
•					
•					
Enviromental					
•					
•					
Social					
•					
•					
Public finances					
•					
•					
Sector specific subcategories					
•					
•					

Impact analysis
Option 1 (regulatory)

- An analysis of the additional costs (in relation to the baseline scenario);
- A list of the costs;
- An impact of costs on stakeholders;
- A qualitative analysis of the costs (at least: high/medium/low costs);
- A quantitative analysis of the costs.

✓ Public finance costs (in the case of high costs, it should include the description of the calculation of costs, for example: if an option requires the establishment of a new regulatory body, the annual cost is to be calculated by multiplying an average salary from the public sector (which amounts to xxx, based on national statistics) by the number of employees (approximately xxx persons), plus the rental cost of the building (which amounts to xxx on average));

✓ All other direct costs and benefits (in the case of an in-depth RIA report);

✓ All indirect costs and benefits (in the case of an in-depth RIA report);

- A benefit analysis (if a cost-benefit analysis is carried out);
- A list of the benefits;
- The impact of the benefits on stakeholders;
- A qualitative analysis of the benefits (at least: high/medium/low benefits);
- A quantitative analysis of the benefits (in the case of high benefits, it should include a description of the calculation of benefits, for example: if the benefit of the option is the creation of new workplaces, the annual benefit is to be calculated by multiplying new (potential) workplaces by the average unemployment

benefit (which amounts to xxx, based on the national statistics)) (for in-depth RIA reports);
- Identify any uncertainties and determine how the change in parameters may affect the impact.

Option 2

- An analysis of the additional costs (in relation to the baseline scenario);
- A list of the costs;
- The impact of the costs on stakeholders;
- A qualitative analysis of the costs (at least: high/medium/low costs);
- A quantitative analysis of the costs.

✓ Direct compliance costs and public finance costs;

✓ All other direct costs and benefits (in the case of an in-depth RIA report);

- All indirect costs and benefits (in the case of an in-depth RIA report);
- A benefit analysis (if a cost-benefit analysis has been carried out);
- A list of the benefits;
- The impact of the benefits on stakeholders;
- A qualitative analysis of the benefits (at least: high/medium/low benefits);
- A quantitative analysis of the benefits (in the case of an in-depth RIA report);
- Identify the uncertainties and specify how the change in parameters may affect the impact.

Option 3

- An analysis of additional the costs (in relation to the baseline scenario);
- A list of the costs;
- The impact of the costs on stakeholders;
- A qualitative analysis of the costs (at least: high/medium/low costs);
- A quantitative analysis of the costs.

✓ Direct compliance costs and public finance costs;

✓ All other direct costs and benefits (in the case of an in-depth RIA report);

✓ All indirect costs and benefits (in the case of an in-depth RIA report);

- A benefit analysis (if a cost-benefit analysis has been carried out);
- A list of the benefits;
- The impact of the benefits on stakeholders;
- A qualitative analysis of the benefits (at least: high/medium/low benefits);
- A quantitative analysis of the benefits (in the case of an in-depth RIA report);
- Identify the uncertainties and specify how the change in parameters may affect the impact.

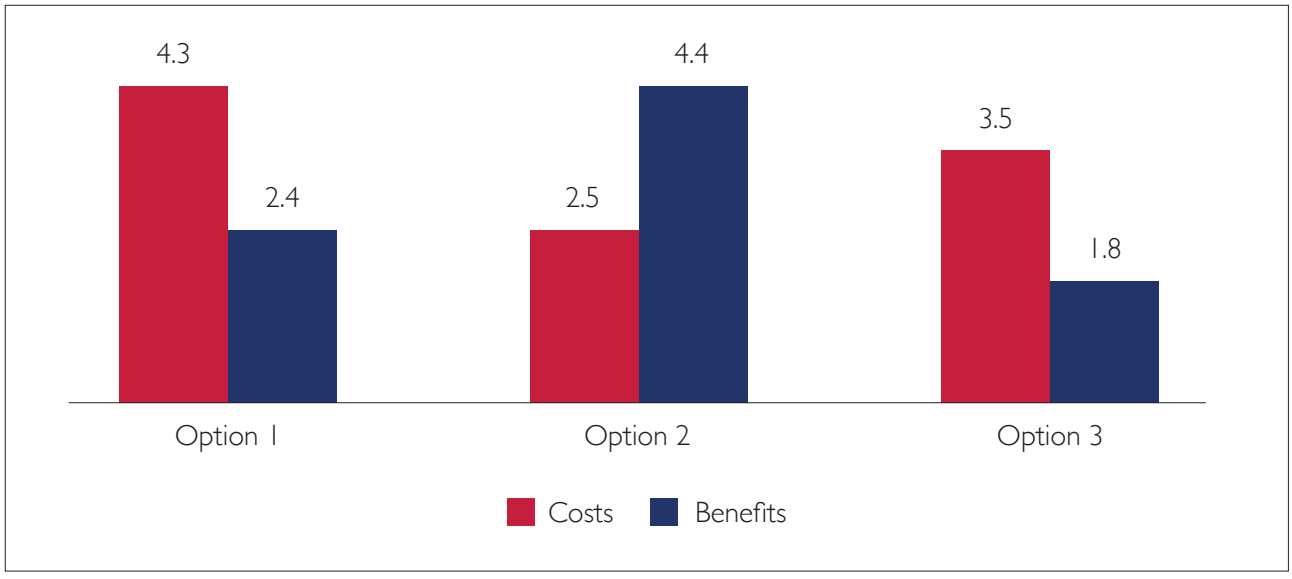
Summary

The two tables below include a comparison of the additional costs and benefits for the analyzed options. In the first case, the comparison should be in table format, and in the second case, as a chart. The tables make it easy for readers to understand the costs and benefits of each option.

Table 19 – The summary of additional costs and benefits (for in-depth RIA reports)

	Option 1	Option 2	Option 3
Benefits – costs (NPV)	XXX GEL	XXX GEL	XXX GEL
Costs (NPV)	XXX GEL	XXX GEL	XXX GEL
Benefits – costs (NPV)	XXX GEL	XXX GEL	XXX GEL
Quantitative, but not monetized, impacts[11]	Main text	Main text	Main text
Qualitative impacts (if quantitative is not possible)[12]	Main text	Main text	Main text

Figure 3 – A comparison of the additional costs and benefits of policy options (NPV, GEL) (for an in-depth RIA report)



A comparison of the options

- Describe which other criteria should be used (in addition to costs and benefits) and why;
- Describe how important those criteria are (specifying their weight).

[11] For positions where benefits and costs cannot be monetized, but can be quantified, they should be listed in physical units (for example: the number of deceased as a result of option X).
[12] A list of positions which have a significant impact on the decision-making process but cannot be quantified.

a. A summary of the options

Table 20 – Summarizing options using a multi-criteria analysis

Assessment criterion	Option 1	Option 2	Option 3
Benefits – costs (NPV)	XXX GEL	XXX GEL	XXX GEL
Specific objective 1	Specific objective 1 (score (s) 1 X (weight) (w) 1)	(s. 2) X (w. 1)	(s. 3) X (w. 1)
Specific objective 2	(s. 4) X (w. 2)	(s. 5) X (w. 2)	(s. 6) X (w. 2)
....	....	....	....
Feasibility/ease to comply	(s. 7) X (w. 3)	(s. 7) X (w. 3)	(s. 7) X (w. 3)
Risks	(s. 8) X (w. 4)	(s. 9) X (w. 4)	(s. 10) X (w. 4)
Other	(s. 11) X (w. 5)	(s. 11) X (w. 5)	(s. 11) X (w. 5)
Summary	Sum	Sum	Sum

b. Preferred option

- Ranking options;
- Determining a preferred option;
- Describing why the option will result in high general benefits and how it will meet the objectives;
- If necessary: describing how a negative impact has been reduced;
- An implementation, monitoring, and evaluation plan (for a preferred option);
- A brief description of the monitoring and evaluation mechanisms;
- A description of performance indicators measuring compliance and progress towards the achievement of policy objectives;
- A description of how and when the information will be summarized, reported, and used for improving regulatory measures (if possible).

Table 21 – Template of the summary monitoring and evaluation plan

Indicator	Time and frequency of evaluation	Responsibility for evaluation
Indicator 1	Early evaluation date (yearly, quarterly, monthly)	Institution 1 Institution 2 Institution 3
Indicator 2	Early evaluation date (yearly, quarterly, monthly)	Institution 1 Institution 2 Institution 3
Indicator 3	Early evaluation date (yearly, quarterly, monthly)	Institution 1 Institution 2 Institution 3

Part 3 – Process of public consultations

a. Description of the process

- The general chronology for carrying out the RIA;
- Composition and responsibilities of the working group, and use of external expertise;
- The decision-making approach within the working group;
- A review of the consultation and data collection techniques;
- The period;
- The consultation and data collection techniques used at the various stages of the RIA;
- Data sources (as well as data quality, or the methods for improving data quality);
- The stakeholder groups that consultations have been held with;
- The criteria applied in the process of selection and categorization of stakeholders (capacity to influence – interest matrix).

Table 22 – Template stakeholder matrix/interest-influence grid

Interest / Influence	Low influence	High influence
Low interest	Name of the stakeholder/group of stakeholders	Name of the stakeholder/group of stakeholders
High interest	Name of the stakeholder/group of stakeholders	Name of the stakeholder/group of stakeholders

b. A summary of output information and how such information is taken into consideration

Table 23 – Template summary stakeholder engagement / consultation process plan

Stakeholder	Method of consultation	Summary of the results	Comments
Name and size of the stakeholder/group of stakeholders	For example: interviews (and when); review of the consultation documents; inquiry.	Brief description of the data/ options collected during the consultation process.	Whether the answer was taken into consideration/ the answer was not taken into consideration; why? etc.
...			
...			

- Reviewing how the obtained data was taken into consideration.

Part 4 – Signature of an authorized person at the initiating agency

An RIA report, including its content and recommendation(s), must be certified with a signature.

Note: The credibility of the RIA process will be enhanced if the relevant minister (or head of a relevant institution that prepares the assessment) "signs off" the RIA report and takes responsibility for its contents and recommendations.

ANNEXES

Annex 1 – A list of the legislative acts for which the preparation of RIA reports is obligatory in the case of the preparation of draft laws on making amendments to them:

1. The Law of Georgia on Entrepreneurs;
2. The Law of Georgia on Control of Entrepreneurial Activity;
3. The Law of Georgia Tax Code of Georgia;
4. The Law of Georgia on Licences and Permits;
5. The Law of Georgia on License and Permit Fees;
6. The Law of Georgia on Securities Market;
7. The Law of Georgia on Environmental Protection;
8. The Organic Law of Georgia Labour Code of Georgia;
9. The Law of Georgia on Insurance;
10. The Law of Georgia on Free Industrial Zones;
11. The Law of Georgia on Supporting the Development of Free Tourism Zones;
12. The Law of Georgia on State Support for Investments;
13. The Law of Georgia on Promotion and Guarantees of Investment Activity;
14. The Law of Georgia on Product Safety and Free Movement Code;
15. The Law of Georgia on Food/Feed Safety, Veterinary and Plant Protection Code;
16. The Law of Georgia on Energy and Water Supply;
17. The Law of Georgia on Electronic Communications;
18. The Law of Georgia on Competition;
19. The Law of Georgia on Regulatory Fees;
20. The Law of Georgia on Insolvency Proceedings.

Annex 2 – The phone survey questionnaire for farmers used during the Draft Irrigation / Drainage Methodology RIA

1. In which municipality is your plot of land located?
2. What are your primary cultivated cultures?
   a. Vegetables
   b. Orchards
   c. Vineyards
   d. Berries
   e. Potatoes
3. How many ha. of land do you own?
4. Do you need irrigation/drainage services?
   a. Irrigation
   b. Drainage
   c. Irrigation and Drainage
   d. None
5. Do you have a contract with Georgian Amelioration for irrigation/drainage services?
   a. Yes
   b. No
6. If you do not have contract with Georgian Amelioration, what is the reason?
   a. Bad quality irrigation/drainage in past years
   b. Infrastructure near the plot of land has deteriorated
   c. No infrastructure near the plot of land
7. Do you use alternative methods of irrigation?
   a. Well
   b. Pumping from a river
   c. Drinking water
   d. Other
   e. Do not use
8. Would you sign a contract with Georgian Amelioration if the service was reliable?
   a. Yes
   b. No
9. What do you think about the current irrigation/drainage tariff? (in eastern Georgia 75 GEL; and 45 GEL for irrigation and 40 GEL for drainage in western Georgia)
   a. Very high
   b. High
   c. Acceptable
   d. Low
   e. Insignificant
10. Could you tell us what share of your revenues you lose due to drought or floods caused by an unreliable irrigation/drainage service?
    a. Less than 25%
    b. 25-50%
    c. 50-75%
    d. 75-100%
    e. Did not have a problem
11. Eastern Georgia: How much would you pay for a reliable irrigation service?
    a. 100-200 GEL/ha.

b. 200-300 GEL/ha.
c. 300-400 GEL/ha.
d. 400-500 GEL/ha.
e. 500-600 GEL/ha.

12. Western Georgia: How much would you pay for a reliable irrigation service?
    a. 50-100 GEL/ha.
    b. 100-150 GEL/ha.
    c. 200-250 GEL/ha.
    d. 250-300 GEL/ha.
    e. 300-350 GEL/ha.
13. How much would you pay for a reliable drainage service?
    a. 80-120 GEL/ha.
    b. 120-160 GEL/ha.
    c. 160-200 GEL/ha.
14. Would you change your currently cultivated crop if there was a reliable irrigation/drainage service?
    a. Yes
    b. Yes, with a higher value culture
    c. No
    d. No, I already cultivate the highest value culture possible
15. What is your annual income from farming? (GEL)
16. What is your approximate return per ha.? (GEL)
17. What is your approximate total irrigation cost? (GEL)
18. What is your approximate total per ha. irrigation cost? (GEL)
19. What is your approximate total annual cultivation cost? (GEL)
20. If your return from farming were to increase by 1,000 GEL per ha., how would you spend it?
    a. Personal spending (household electronics, cars, clothes, etc.)
    b. Improve irrigation technology
    c. Register your land

Annex 3 – The Water Quality Ladder and expert assessment of the surface water quality under the Draft Law on Water Management RIA

The RFF water quality ladder associates different levels of water quality with changes in how water of that quality can be used. Movements along the ladder represent either potential increases in benefits to society from higher water quality, or potential increases in costs to members of society from lower water quality.

Table A3.1 – Water Quality Ladder

Score	Qualitative status of water
10 – Best possible water quality	Pristine, unpolluted
9	Drinkable, supports all human uses
8	
7	Swimmable
6	Improved fishing and better catch rates
5	Fishable
4	Fishable but likely to degrade
3	Heavy metal concentration
2	Boatable
1	Severely polluted
0 – Worst possible water quality	Not safe for recreation and other human uses

Based on the available evidence, water experts evaluated initial average water quality under the following scores:

Table A3.2 – Initial water quality score by basin

River basin	Initial values in 2018
Chorokhi	7.0
Alazani-Iori	7.0
Khrami-Debeda	5.0
Mtkvari	6.0
Enguri-Rioni	6.0

Annex 4 – Domestic workers online survey questionaries for the RIA on the Domestic Workers' Convention

Welcome, thank you for participating in the study. Please fill in if you work in Georgia, in someone else's family or similar work experience (including family helper, nanny, patient caregiver, family cook, or personal driver).

The study is being conducted by the ISET Research Institute and aims to explore the working conditions of employees in families and find ways to improve them. Your opinion is very important to us.
This survey is anonymous.

*** Required**

1. Your gender *
   - Male
   - Female

2. Please indicate your age *

2.1 In which of the following categories of employees do you belong? (If you have more than one form of work experience, circle your most recent.) *
   - Babysitter
   - A helper in the family
   - Family cook
   - Private driver
   - Patient caregiver
   - Other_____

3. Your work experience *
   - I am currently working
   - I am not currently working, but I have experience working in the above category

Please answer the following questions based on your experience in the above service. All questions relate to your current or most recent work experience.

4. Why did you decide to work in this field? Please circle all relevant reasons *
   - Because of the salary
   - To earn extra income in the family
   - Due to a flexible work schedule
   - The job is located near my home
   - I work with a relative, an acquaintance
   - I could not find another job
   - Other_____

5. How did you find this job? *
   - Through an employment agency, online, or on the basis of an application
   - Based on the recommendation and advice of friends, relatives
   - Via a social network myself (Facebook or another social network)

- Through a Facebook group
- I am employed in an employment agency
- Other_____

6. What type of contract do you have for this job? *
   - Written
   - Oral (agreement reached verbally)
   - We have no agreement

6.1 Has the employer violated the terms of your contract / agreement? *
   - Yes
   - No

6.2 Specifically, what did they violate? You can circle one or more violations.
   - I was paid late
   - I was paid less than the agreed amount
   - I was not paid
   - I was not given promised days off
   - I had to or have to work longer hours than agreed, without extra pay
   - I do or have been doing more work than agreed without extra pay
   - Other_____

Please rate the following factors using a 5-point scale.

7. How would you rate your salary satisfaction level? *
   I am completely unsatisfied 1-2-3-4-5 I am completely satisfied

8. How would you rate your level of satisfaction with your working conditions? *
   I am completely unsatisfied 1-2-3-4-5 I am completely satisfied

9. How would you rate your level of satisfaction with your work schedule? *
   I am completely unsatisfied 1-2-3-4-5 I am completely satisfied

10. How would you rate your level of satisfaction with the number of days off during a week? *
    I am completely unsatisfied 1-2-3-4-5 I am completely satisfied

11. How would you rate your level of satisfaction with the length of your vacation? *
    I am completely unsatisfied 1-2-3-4-5 I am completely satisfied

12. How would you rate the attitude of your employer towards you? *
    Very negative 1-2-3-4-5 Very positive

13. How much do you agree with the following opinion: "I am like a family member to my employer"? *
    I totally disagree 1-2-3-4-5 I totally agree

14. How much does your employer help you in case of personal problems (illness or other)? *
    They do not help me at all 1-2-3-4-5 They help me completely

15. What extra benefits do you get from your job? Indicate all possible options. *
    - Takes me on vacation
    - Provides transportation
    - Provides food
    - Sometimes they give me additional salary
    - Help my family members
    - I have no additional benefits
    - Other_____

The following questions are related to your general views on employment.

16. How acceptable is the following situation for you: "I can work more than 40 hours a week without additional pay if the employer asks"? *
    It is completely unacceptable 1-2-3-4-5 Absolutely acceptable

17. How acceptable is the following situation for you: "I can do other household chores, even though there was no prior agreement for it"? *
    It is completely unacceptable 1-2-3-4-5 Absolutely acceptable

18. How much information do you think you have about your rights as a family employee? *
    Completely unaware 1-2-3-4-5 I know very well

Please answer the following questions based on your experience working as a nanny. All questions relate to your current or most recent work experience.

19. Do you feel awkward or uncomfortable at work? Circle all possible answers *
    - I have had no such case
    - I am addressed rudely
    - My employer threatened to fire me
    - My employer blamed me for something I had never done (e.g., damage to a household item)
    - My employer set up video cameras to monitor my every move
    - My employer used verbal or physical abuse
    - My employer tried to sexually harass me
    - Other_____

20. Have you had any disputes or disagreements with your employer while working as a family employee?
    - Yes ☐ continue to questions 20.1 and 20.2
    - No ☐ continue to questions 20.3 and 20.4

20.1 How did this dispute end?
    - We talked to each other, clarified the subject and I continued working
    - We intervened with other family members, solved the issue together, and continued working
    - I appealed to the police to protect my rights, but I had to leave the job
    - I appealed to the Public Defender to protect my rights, but I had to leave the job
    - I applied to the court to defend my rights, but I had to leave the job
    - I quit my job
    - Other_____

20.2 In future, if there is a dispute, would you apply to the court, Public Defender, or the Labour Inspectorate and why? *

- Yes, I would refer to them because they better protect my rights
- No, because in this case I will have to leave the job and I may remain unemployed
- No, because a lawsuit in court is related to large financial and time resources
- No, since my work is not a part of formal employment, it is difficult to prove disagreements and disputes under these conditions
- No, because complaining in court will not provide any real results
- No, because if the state finds out that I work, I may lose my social assistance
- No, because I do not know exactly how I am entitled to these rights as an informal worker
- No, because I have heard of similar cases that did not end well
- Other_____

20.3 In case of a dispute how would you behave?

- We would talk to each other, clarify the subject and I would continue working
- We would intervene with other family members, solve the issue together, and continue working
- I would appeal to the police to protect my rights
- I would appeal to the Public Defender to protect my rights
- I would apply to the courts to defend my rights
- I would quit my job
- Other_____

20.4 In case of a dispute, would you apply to the court, Public Defender, or the Labour Inspectorate and why? *

- Yes, I would refer to them because they better protect my rights
- No, because in this case I would have to leave the job and I may remain unemployed
- No, because a lawsuit in court is related to large financial and time resources
- No, since my work is not a part of formal employment, it is difficult to prove disagreements and disputes under these conditions
- No, because complaining in court would not provide any real result
- No, because if the state finds out that I work, I may lose my social assistance
- No, because I do not know exactly how I am entitled to these rights as an informal worker
- No, because I have heard of similar cases that did not end well
- Other_____

21. If there was an association that served to improve working conditions as a family employee, which of the following functions would it be important for this association to have? (Circle all possible options) *

- Association members sharing experience and additional skills needed for the job
- Find new jobs more quickly with a help of contacts from union members in the event of job loss or expiration of a contract
- Assisting each other in resolving disagreements or disputes with employers
- Getting information about my rights with the help of a lawyer
- Getting advice from an association lawyer before concluding a contract or agreement
- In case of a dispute or conflict, consult a lawyer
- Other_____

22. Would you like to join the Domestic Workers' Association? *

- Yes, I would ☐ continue to questions 22.1
- No, I would not ☐ continue to questions 22.2

22.1 Would you pay a membership fee to participate in this association?

- Yes
- No

22.2 Why would not you want to join? Mark all possible answers *

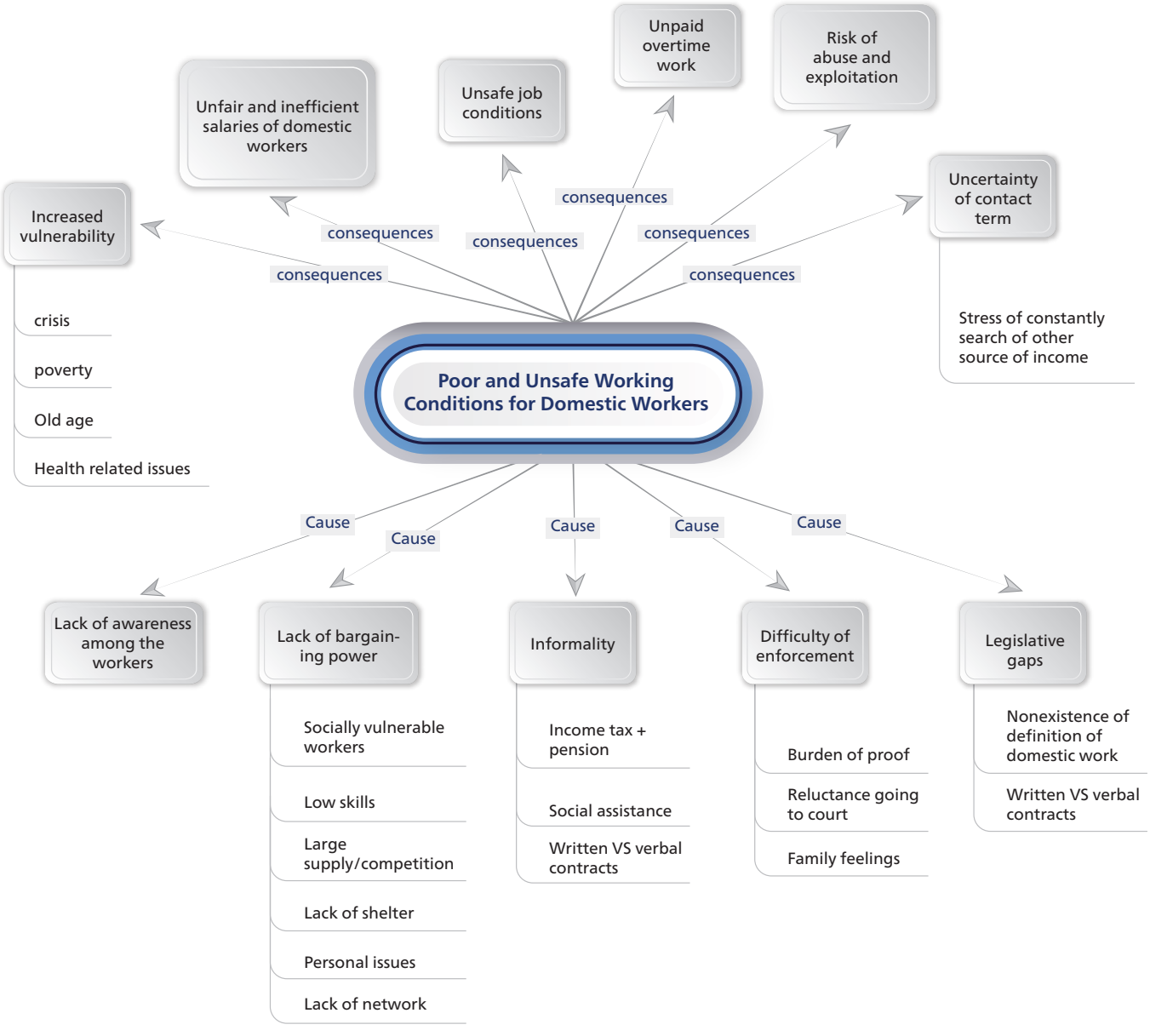
- I do not have time for it
- The employer would not let me go
- The employer may perceive this negatively and fire me
- I do not see the need for such a union
- I do not see the benefits of such a union
- Other_____

23. The pandemic has shown that the state approach differentiates between formal and informal employees. Which services offered to the formally employed are most desirable for you? (List the three most important) *
    - Participating in the accumulative pension system
    - Receiving anti-crisis assistance during pandemics or similar crises
    - Protection of my labour rights and safety by the Labour Inspectorate
    - Taking maternity leave, and receiving 1000 GEL state aid when a child is born
    - Regulation and control of overtime work by the state

24. What percentage of your income would you pay in taxes in exchange for the above services? *
    - 20%
    - 10-20%
    - 10%
    - 5%-10%
    - Up to 5%
    - Other_____

25. Why might you not want to go into the formal sector of your working field and benefit from the advantages listed above? (Circle all possible options) *
    - In all cases, I wish I could
    - Such services are not important to me
    - I think my employment would become more expensive and I may become unemployed
    - There will still be people who avoid taxes, leaving some formal sector employees unemployed because of unequal conditions
    - I would have more income reduction because I would have to pay taxes
    - Other formally employed people around me are dissatisfied with these benefits
    - I believe that the state will not be able to ensure the receipt of all the above-mentioned benefits
    - Other_____

Annex 5 – The problem tree from the Domestic Workers' Convention RIA



Annex 6 – Methodological insights into multi-criteria analyses

To illustrate how an MCA performance matrix is built, for instance, consider one potential general objective set by the government for enhancing a municipality waste management policy,[13] for which the following options were identified:

- Option 1: To extend the waste collection services to all villages in the municipality. The incremental public budget expenditure (costs) is estimated at 10 million GEL;
- Option 2: To clean up all small illegal dumpsites. The incremental public budget expenditure (costs) is estimated at 65 million GEL.

If the benefits for each option are difficult to differentiate between and to express in quantitative terms, applying the MCA approach may help prioritize and compare the two options. You can thus proceed as follows:

Step 1 – Identify and express the performance criteria

Criteria are measures of performance by which the options will be judged. A large proportion of the 'value-added' from a formal MCA process derives from establishing a soundly based set of criteria against which the options are judged.

Criteria should reflect a number of features, including:

- **Measurability** – A criterion is useful when it can allow the evaluation of an option. Because the criteria serve as performance measures for the MCA, they need to be operational. A measurement or judgement needs to specify how well each option meets the objectives expressed in the criteria. As a rule of thumb, you should hence first ask the question: "Is it possible, in practice, to measure or judge how well an option performs against these criteria?";
- **Specificity** – Criteria should be defined as clearly and narrowly as possible, to allow for differentiation and precision. For example, a criterion like environmental impact might be suggested. In many circumstances, assessing options against such a broad topic may prove difficult, even though the notion of environmental impact may be important. Vague criteria are generally not helpful in an MCA, no more than they are in a CBA;
- **Relevance** – You must be able to justify the selection of all the criteria included in your MCA. In particular, (a) all criteria need to capture a key dimension of your analysis; (b) they can all be applied to each of the options (every option can be judged against every criterion); (c) none of the criteria can be redundant (superfluous); nor (d) should a criterion duplicate or contradict another in the list (to avoid double-counting).

How many criteria should be shortlisted? There is no strict rule as to the number of criteria necessary for an MCA. The amount varies from case to case and should always be proportionate with the objective of the analysis, as well as with the availability of data. As a rule of thumb, you should aim for between four and eight criteria.

Does an MCA account for time? Unlike the discounting technique in a CBA, an MCA does not rest on an equally well-established approach to factor in that after the implementation of a measure, different impacts tend to emerge at different points in time. Nevertheless, there are several possibilities to account for time in your MCA, such as:

[13] The example is adapted from the World Bank Practical Guidebook on Strategic Planning in Municipal Waste Management, written by Dariusz Kobus (2003).

- If a target completion date is an important consideration it can be modelled as one of the performance criteria; options that are expected to deliver on time receive good scores, those expected to deliver slightly late have lower scores, and those extremely late receive zeros;
- Time must be included in the definition of many other criteria, so that temporary consequences can be distinguished over those that are permanent. This is usually accomplished by being explicit about the time horizon over in which consequences are valued. Time horizons may differ from one criterion to the next (e.g., separately identifying short-term and long-term health effects);
- A further possibility would be to leverage the prioritization/weighting process (see step 2 below), for instance, giving less (or more) importance to impacts in the long-term compared to the more immediate (or vice-versa). Regarding sustainable development and the Agenda 2030 considerations, for instance, longer-term and persistent benefits should be prioritized.

How can criteria be expressed? It is important to attribute the correct indicator to each performance criterion – even if this is expressed in qualitative terms (see step 3, below, for details).

In our example, the following criteria might be identified:

- Budgetary expenditures (since they are indicated and monetized, expressed in GEL);
- Health benefits from less exposure to waste (expressed as, for instance, the reduced frequency or length of specific health treatments);
- Social acceptance (expressed, for instance, through perception survey responses);
- Size of the beneficiary population (expressed as a proportion of the total population benefitting from the intervention).

Step 2 – Prioritize the performance criteria

Once you have identified the most appropriate criteria, you need to weight them, since invariably not all criteria will be equally important. Some may be more relevant or urgent than others, depending on public values, expectations of local stakeholders, or larger national or regional strategies.

Please note that if all criteria are judged to be equally important, you can skip this step.

In our example, health benefits may prove most important for communities affected by groundwater contamination, dust, noise, vermin, or odours from an adjacent landfill, whereas the costs might be most significant for remote communities that are not directly affected by adverse health and environmental conditions.

Typically, the selection and weighting of criteria should be discussed and agreed with stakeholders and experts, for instance through a focus group.

Box A.6.1 – Ensuring high objectivity and transparency in an MCA: Prioritization and qualitative analysis

You should be aware that setting priorities is a complex and controversial process. Citizens tend to see different priorities, depending on the extent they are exposed to a problem. Moreover, even experts have "biases", for example due to their professional background or personal beliefs. In our example (waste management), water specialists would tend to favor water projects, nature conservationists favor nature conservation projects, local economists favor projects offering the best value for money, etc. Additionally, political lobbying often finds its way to influence the selection of priorities. Hidden personal agendas for economic gain may also influence the selection of priorities.

continue

You should further note that the legitimacy of the prioritization exercise strongly depends on how the selection and weighting of criteria is perceived. Your internal prioritization may well be sound and objective, but it might not trigger the necessary sense of ownership from external actors that functions as a fundamental element in addressing value judgments.

The same concerns about managing subjectivity biases in an MCA also apply to how **non-quantified impacts and criteria are expressed and measured**. It is important to justify the choice of the intervals determining the scoring of options and their performance. Due to these issues, focus group deliberation is strongly advised.

There is therefore a need to set up a multi-disciplinary group, including esteemed experts, to compensate for individual biases.

And remember: **"It is easier to have an independent group of experts than a group of independent experts!"**

How to allocate weighting and setting the scoring system? You can determine the relative importance of each criteria by asking stakeholders to tick criteria only once they have discerned the most useful. A good practice is to ask stakeholders to tick around 60 per cent of the available criteria. For example, if you have a list of ten criteria, allow for six choices per participant. Thereafter:

- Exclude those criteria that were given no ticks from the list;
- Divide each criterion by that with the lowest score, which receives a weight of '1'.

For instance, if the lowest criterion scored five dots and the highest scored 20, the lowest criterion receives a weight of 5/5=1, and the highest criterion receives a weight of 20/5=4.

To revert to our initial example of a waste management policy, we can imagine the following prioritization of criteria:

Criteria	Weight
Budgetary expenditures	4
Social acceptance	3.6
Health benefits	3.0
Size of beneficiary population	1.0

Step 3 – Assess the performance of each option

Your task is to assess how well the options perform in relation to each of the criteria identified in step 1 and the respective indicator. To do so, you must:

- Establish the endpoint for each criterion;
- Develop a scoring system, resting on the relevant intervals through which you assess the performance of each option. The intervals used in most MCA applications can, for practical purposes, be assumed to be linear. However, on some occasions it may be desirable to use a non-linear function, and the scale of each

interval may vary. For example, human reactions to changes in noise are measured on a decibel scale, which proves non-linear;

- You should apply quantitative values wherever possible. Such values include financial units, and physical units such as pollution reduction, or the number of accidents prevented, etc. If quantification is impossible, place the qualitative values in a well-defined hierarchy (for instance: "none" – "low" – "medium" – "high").

An illustration of the scoring related to our example, and consistent with the provisions of ordinance 35, is provided below.

Ordinance 35 specifies (article 23) that the scores assigned for the qualitative results of the multi-criteria analysis may range from (-5) to (5). Within this range, scores from (-5) to (-1) indicate a worsening of the situation as against the no-action scenario, where (-5) indicates significant deterioration and (-1) slight deterioration; (0) signifies leaving an existing situation unchanged against the no-action scenario; while scores (1) to (5) indicate an improvement of the situation, where (1) indicates a slight and (5) a significant improvement.

Criterion	Score
Budgetary expenditure (GEL) – incremental[14]	
> 100 million	Score -5
75 million – 100 million	Score -4
50 million – 75 million	Score -3
25 million – 50 million	Score -2
25 million – 1 million	Score -1
1 million – 0 million	Score 0
Social acceptance[15]	
None	Score -5
Low	Score -2
Medium	Score 0
High	Score 2
Extremely high	Score 5
Health benefits – incremental[16]	
None	Score 0
Low	Score 1
Medium	Score 2
High	Score 3
Extremely high	Score 4
Size of beneficiary population (% of the total population)[17]	
0	Score 0
0 – 25 %	Score 1
25 – 50 %	Score 2
50 – 75 %	Score 3
75 – 100 %	Score 4

[14] In this example, all alternatives are expected to lead to more costs than the status quo. Please note, although it is possible to attribute scores and weights to the NPV of budgetary expenditure, as in this example, this approach should not extend to overall NPV. The reason being, while giving weights and scores to this component could theoretically help aggregating all the criteria in a single indicator, it would also hide the clear and objective information that the NPV provides about the expected (monetized) impacts to society. If the NPV of budgetary expenditure coincides exactly with the overall NPV, an analyst might incorporate the NPV into the final score, like in this example, however they should ensure the information about the NPV is also reported separately and is clearly identifiable.
[15] Assuming the status quo has medium acceptance.
[16] All alternatives are expected to have higher health benefits than the status quo.
[17] The share of population receiving better services relative to the status quo (assuming nobody has worse service).

As a principle, the higher score is attributed to the best performance interval. You will note that when it comes to scoring "costs", you need to praise (i.e., to give the highest score) the cheapest option!

Step 4 – Build the performance matrix (compare the options)

It is now possible to bring together every element of the MCA, as developed in the previous steps, so as to compare the options. The result will be a performance matrix, similar to the one reported below for our illustrative example:

Performance matrix

Criterion / Option	Budgetary expenditure (weight 4)	Social acceptance (weight 3.6)	Health benefits (weight 3.0)	Size of the population (weight 1.0)	Result
1: Extend waste collection	(-1*4) -4	(2*3.6) 7.2	(3*3.0) 9.0	(1*1.0) 1.0	13.2
2: Clean up all illegal dumpsites	(-3*4) -12	(2*3.6) 7.2	(4*3.0) 12.0	(2*1.0) 2.0	9.2

Reviewing the matrix, it appears that option 1 is clearly preferential since, overall, it yields a higher score (13.2 against 9.2 in option 2).

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