PUBLIC POLICY AND REGULATORY IMPACT ASSESSMENT HANDBOOK

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ACRONYMS

CBA	Cost-benefit analysis
CEA	Cost-effectiveness analysis
EU	European Union
GDP	Gross domestic product
IA	Impact Assessment
IMF	International Monetary Fund
MoI	Ministry of Interior
MSME	Micro, small and medium-sized enterprises
NBS	National Bank of Serbia
NES	National Employment Service
NPV	Net present value
OSCE	Organisation for Security and Cooperation in Europe
PIA	Policy Impact Assessment
PPD	Public policy document(s)
RIA	Regulatory Impact Assessment
RS	Republic of Serbia
SILC	Statistics on Income and Living Conditions
SMART	Specific, Measurable, Achievable, Realistic and Time-bound
SWOT	Strengths, Weaknesses, Opportunities and Threats (analysis)
TA	Tax Administration
UCA	Uniform classification of activities
UN	United Nations

1 FOREWORD

Public Policy and Regulatory Impact Assessment Handbook (Handbook) was prepared in accordance with the Law on the Planning System (LPS) of the Republic of Serbia[1] and the Regulation on the Methodology of Public Policy Management, Policy and Regulatory Impact Assessment, and Content of Individual Public Policy Documents (Regulation).[2] Other relevant sources were used in the preparation of the Handbook, such as the Impact Assessment Guidelines of the European Commission[3] as well as a number of handbooks that were developed in the previous period for the needs of the Government of the Republic of Serbia.[4] Also, this handbook is linked to several other handbooks that discuss public policy management, public participation in planning, development and monitoring the implementation of public policies and regulations, and determining the costs of public policies and medium-term planning.

The purpose of the Handbook is to help users — civil servants, adequately conduct the public policy and regulatory impact assessments, and answer **two key questions**:

- Is the planned state intervention purposeful?
- What are the best ways to solve the identified problems and achieve the desired goals?

The handbook assists civil servants by presenting a range of tools and techniques for public policy and regulatory impact assessments. However, it should be borne in mind that the best way to "learn" the impact assessment is through practice, by solving specific problems and analysing the real options facing public policy-adopting authorities. The aim of the Handbook is to be of practical help in such cases.

Note: In the Handbook, unless specifically emphasized, the term impact assessment refers to both the public policy impact assessment and regulatory impact assessment.

[1] The Official Gazette of the Republic of Serbia, No. 30/18, dated 20 April 2018. The law and bylaws are available at: https://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/eli/rep/sgrs/skupstina/zakon/2018/30/1/reg.

[2] The Official Gazette of the Republic of Serbia, No. 30/18, dated 20 April 2018.

[3] Better regulation guidelines and toolbox are available at: https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox_en.

[4] The Guidelines rely primarily on the Guide to Logical Matrix Development - Key Project Cycle Management Instrument available at: http://arhiva.suk.gov.rs/dotAsset/7310.pdf, Regulatory Impact Assessment Handbook available at http://www.gs.gov.rs/doc/Analiza%20efekata%20propisa-prirucnik.pdf.

2 INTRODUCTION TO IMPACT ASSESSMENT

Impact assessment is an analytical and systematic process by which potential impact is considered and the public policy and regulatory performance are monitored and evaluated.

Impact assessment enables decision makers to identify and better understand the potential positive and negative, direct and indirect impact that public policies or regulations can produce (*ex-ante* impact assessment), or that they have produced (*ex-post* impact assessment). Based on the impact assessment, public policies and regulations are determined in such a way that the causes of existing problems are eliminated, the objectives are achieved as efficiently as possible, and the negative impact is reduced to a minimum.

> Article 2(1)(7) of the LPS and Article 2 of the Regulation define impact assessment as an analytical process, based on relevant facts, data and information, conducted during the planning, formulation and adoption of public policies and regulations, in order to consider the change to be achieved, its elements and cause-and-effect relationships between them and the selection of optimal measures to achieve public policy objectives (*ex-ante* impact assessment), as well as during and after the implementation of already adopted public policies and regulations, in order to evaluate performance, review and improve these public policies or regulations (*ex-post* impact assessment).

In practice, impact assessment is often misunderstood as an assessment that is prepared only from the perspective of a state body, but it is an assessment from the perspective of the entire society. Also, impact assessment is often perceived as a substitute for policy decision making. Analysis is not a substitute, but a basis for making policy decisions. Other common misperceptions of the impact assessment are shown in the table below.

Table 1. What is an impact assessment, and what it is not?

Impact assessment IS NOT	Impact assessment IS
Ex-post justification of policy decisions	Estimate of costs and benefits of a public policy or regulatory changes
Only a report that accompanies a planning document or draft regulations	A continuous process involving the use of various analytical methods
A way to unilaterally inform stakeholders about the content of public policy or regulation	A tool for communication between public administration and stakeholders
A substitute for making political decisions	Basis for making responsible and justified policy decisions
Impact assessment exclusively from the perspective of a state body	Impact assessment from the perspective of the entire society

2.1 Why is an impact assessment important?

Civil servants' usual complaints regarding the application of impact assessment are that it is a too complex procedure that requires specific knowledge and represents an additional burden. That is only somewhat true.

Civil servants already have a lot of knowledge needed to conduct an impact assessment. Even without "impact assessment", when public policy or regulation is adopted, the analysis of certain solutions is certainly carried out. The impact assessment only makes the need for state intervention considered in a logically regulated manner and that decisions on public policies or regulations are based on facts. An alternative to impact assessment is to approach problem solving on a lump sum basis, and to base decisions more on intuition and experience and less on facts.

Also, the impact assessment allows stakeholders to better understand the logic of the intervention — the change to be achieved and the problems to be solved and to monitor public policy or regulatory performance using intervention performance indicators identified during the impact assessment.

Objectives of conducting impact assessment

Impact assessment is conducted:

- to better consider, understand and assess the potential impact (costs, benefits and distribution effects) of public policy measures or solutions in regulations, which includes the timely detection of side and unintended effects;
- to consider, better understand and assess the real impact which public policy measures or solutions in regulations produced during their implementation;
- to better harmonise public policy documents and regulations by linking the processes of planning and implementation of public policies and regulations, i.e. to improve the coordination of activities related to the management of the system of public policies and legislative activities;
- to plan and provide sufficient funds for the implementation of public policy measures, i.e. solutions from regulations and precisely determine the sources of their financing, as well as the best activity holder in the implementation of measures, i.e. the obliged entity in the regulation;
- to increase the transparency of the process of drafting policy documents and regulations by enabling all stakeholders and target groups to participate in the consultation and public debate process;
- to improve the work of participants in the planning system and regulatory bodies, increase their efficiency and accountability;
- to establish public policies and regulations in accordance with the needs of citizens and the economy, within the framework of objective possibilities (material, personnel, budget, institutional, etc.).

2.2 Public Policy Impact Assessment and Regulatory Impact Assessment

Impact assessment in the Republic of Serbia is not new. Regulatory impact assessment (RIA) was introduced in 2004. Regulatory impact assessment considers the need to introduce a regulation and the solutions it contains, as well as the effects that regulation creates. A novelty introduced by the Law on Civil Procedure (LCP) is the obligation to perform a policy impact assessment (PIA).

The steps of policy impact assessment and regulatory impact assessment, as well as the analytical methods for their implementation are almost identical.

Policy impact assessment informs and facilitates conducting the regulatory impact assessment *because it is usually assessed in this step* whether a regulatory measure is needed (developing and enacting a new or amending existing regulation) or there are other public policy instruments that could better solve the problem, i.e. enable the desired changes to be achieved.

Policy impact assessment, as a rule, precedes the regulatory impact assessment.

While *policy impact assessment* provides information on the possible future consequences of planned or existing public policy measures, *regulatory impact assessment* (based on *policy impact assessment*) operationalises policy decisions and helps prepare, formulate and transpose such public policies into regulations.

If policy impact assessment shows that the adoption of regulations is the best means of implementing public policy measures, these findings of the public policy impact assessment will spill over into the regulatory impact assessment, and then indirectly into draft regulation. Therefore, preparation of a report on the *conducted regulatory impact assessment* will be simpler.

2.3 Types of Impact Assessment

Impact assessment is conducted during the planning, formulation and selection of policy options (***ex-ante* impact assessment**), but also during their implementation, by monitoring their implementation and evaluating their performance (***ex-post* impact assessment**). During all phases of the cycle, data are collected and relevant parties are consulted.

2.3.1 *Ex-ante* Impact Assessment

Ex-ante impact assessment is defined as a process that helps decision makers fully understand the consequences that certain state interventions will have in the future.

An *ex-ante* impact assessment:

- Is conducted from the earliest phase of planning and formulating public policy and/or developing and adopting a public policy document and regulation in accordance with the LCP;
- Is aimed at adopting effective public policy measures and solutions in regulations by analysing the present situation, identifying the desired change and its elements and cause-and-effect relationships, eliminating the causes of existing problems in certain areas of public policy planning and implementation and achieving public policy and regulatory objectives;
- allows to identify in a timely manner the potential, both positive and negative direct and indirect effects that may be produced by the considered public policy measures and/or solutions in the regulation, so that the policy document or regulation can be formulated in a way that allows potential negative effects minimize and achieve the desired changes.

Finally, it is important to note that the two activities, consultations and data collection, take place throughout the course of the impact assessment.

2.3.2 *Ex-post* Impact Assessment

Ex-post impact assessment is the process of monitoring the implementation and analysing the real impact of public policies and regulations. Ex-post impact assessment:

- Provides feedback to decision makers on the effectiveness of implemented measures and thus enables the formation of an analytical basis for creating future public policies;
- Allows to consider the real positive and negative, direct or indirect effects that public policies or regulatory measures have caused;
- Allows to determine the need to take additional and/or corrective measures to minimize the negative effects, eliminate the causes of problems that arise in the implementation of public policy and/or regulations.

2.4 When is the impact assessment conducted?

The process of impact assessments should start before a decision is made on the development of a public policy document or regulation in order to timely assess the options for achieving the desired change and determine whether the adoption of a policy document containing public policy measures is the best option for achieving the desired change.

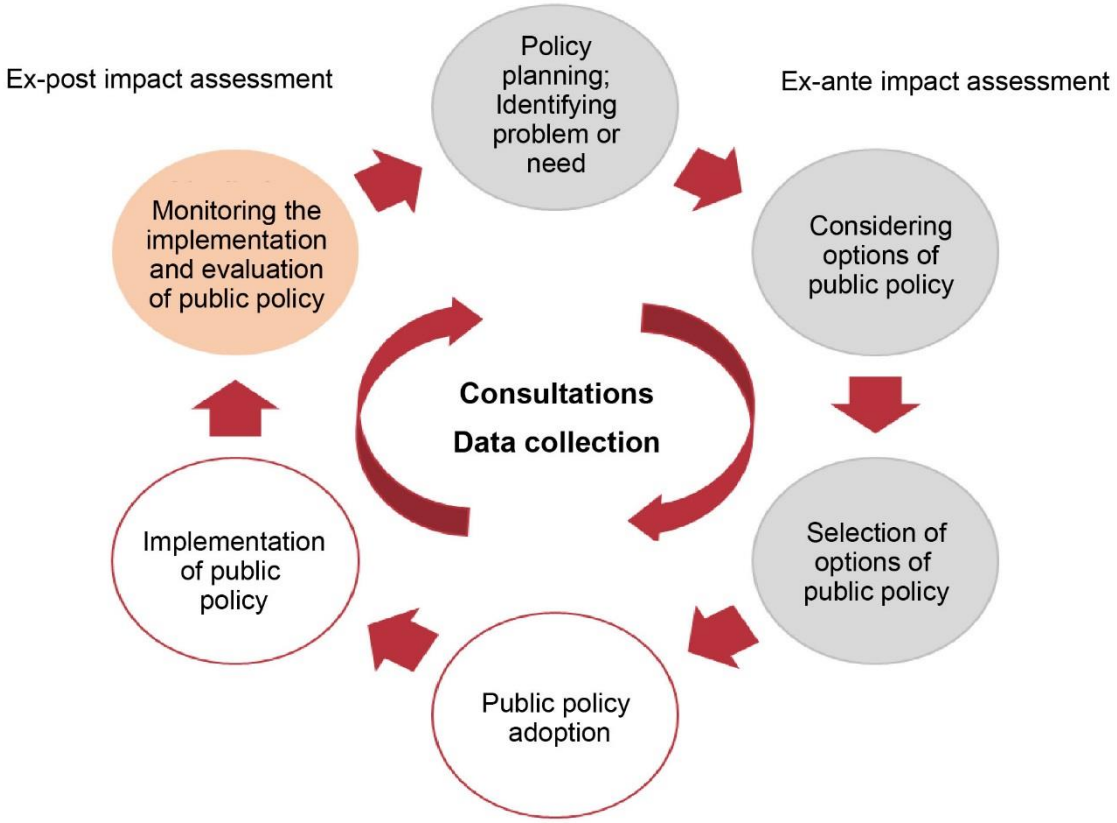


Figure 1. Impact assessment in public policy cycle

If a regulation is adopted or amended as a means of implementing measures set out in a public policy document, the impact assessment for that regulation should be carried out taking into account the performance of the impact assessment carried out in the process of adopting that public policy document.

2.4.1 When is it necessary to conduct *ex-ante* impact assessment?

Decision on the need to conduct an *ex-ante* impact assessment (Article 7 of the Regulation) for PPD is made by the proponent before the start of developing the document. The decision should be based on the performance of the **test of impact level and priority level,** as well as on the proportionality principle and the precautionary principle presented in the next section.

Table 2. Impact level and priority level

Test of public policy impact level	
High impact	Very complex, policy sensitive or with significant financial costs
Medium impact	Somewhat complex, policy sensitive or with significant financial costs
Low impact	Very clear, its implementation causes minimal costs ове
Тест нивоа приоритета јавне политике	
High priority	Government and/or local self-government measures with high policy priority, with significant policy, fiscal or legal consequences
Medium priority	Government and/or local self-government measures with minor policy, fiscal or legal consequences
Low priority	Measures of ministries or other state administration bodies, i.e. local self-government units whose non-implementation causes minimal harmful consequences

Levels of impact and priority will provide different answers to different public policies. Large infrastructure projects create high costs, but social policy interventions can be much more complex.

The table below summarises the interaction of impacts and priority measures and indicates when impact assessment is required and when it is not.

Table 3. Matrix for determining the need to conduct an impact assessment

Determining the need to conduct an impact assessment			
	High priority	**Medium priority**	**Low priority**
High impact	**Required**	**Required**	**Required**
Medium impact	**Required**	**Required**	**Required**
Low impact	**Recommended**	**Recommended**	Not required

Public policies that require an impact assessment are, as a rule, public policies that:

1) introduce systemic or significant changes in order to solve critical problems in key areas of planning (e.g. in the sector of education, social protection, health services, etc.);
2) refer to certain vulnerable categories of the population, such as the poor, the unemployed, persons with disabilities, etc.;
3) cause high budget costs;
4) have an impact on the business environment;
5) refer to long-term investment projects.

On the other hand, in the day-to-day work of the Government, there are numerous issues that have limited impact and are not necessarily priorities or that are only part of other Government policies. In both cases there is no need to proceed with the impact assessment.

2.4.2 When is the implementation of impact assessment not mandatory or not necessary?

The impact assessment **should not be carried out** when developing public policy documents that do not have significant effects on society and/or that do not have a high level of priority. Also, the analysis should not be conducted when developing regulations that do not directly affect the manner of exercising the rights, realising the obligations and legal interests of natural and legal persons (Article 6 of the Regulation).

Impact assessment **need not be carried out** when developing:

- Budget Law of the Republic of Serbia;
- Public policy documents and regulations that mitigate or eliminate the consequences of disasters, natural and other disasters and emergencies;
- Public policy documents and regulations at the republic level that are important for the defence and security of the Republic of Serbia and its citizens;
- Parts of a regulation by which the regulation is harmonised with the adopted law — in that case the report on the conducted impact assessment for that law is used;
- Action plan for implementation of the planning document adopted within 90 days from the date of adoption of the planning document for which it is adopted.

Also, it is not necessary to conduct an assessment if there is an obligation to ratify international agreements (Article 49 of the Regulation). If the proponent evaluates that it is not necessary to conduct an impact assessment, it is obliged to explain its evaluation separately and submit it to the Public Policy Secretariat of the Republic of Serbia for an opinion.

During development of public policy documents and regulations, in order to determine the need and scope of impact assessment:

1. You will consult with the Public Policy Secretariat of the Republic of Serbia when, after previously conducted impact and priority tests, you consider that you are not obliged to conduct an impact assessment.

2. When you determine that you are obliged to conduct an impact assessment — on the scope of the assessment, and based on the conducted baseline assessment, you will consult with the Public Policy Secretariat of the Republic of Serbia on the need for a detailed impact assessment which will be discussed later in the Handbook.

Ex-ante impact assessment of PPD **is not necessary to conduct if the public policy determined by the document has a low impact on the economy and society**, i.e. if the measures by which the public policy is implemented will not cause additional costs to the citizens, economy or public administration, or if they will cause minimal additional costs.

2.5 Deciding on the Scope of the Impact Assessment

The proponent is to assess how detailed the impact assessment ought to be. The decision on whether to conduct **a basic or a detailed impact assessment** is made by applying the principles that take into account the impact and the priority levels of public policy or regulations.

The two key principles used when determining whether and to what extent an impact assessment is required are the proportionality principle and the precautionary principle.

The proportionality principle implies that the coverage and detail of the impact assessment are proportional to the potential impact of the proposal, i.e. that they are in line with the complexity of the problem or the desired change. This means that it is not necessary to spend time and resources when it is not purposeful, i.e. when the effects are not significant — the effort to quantify and monetise costs should be proportional to the importance of public policy measures, or regulations and their expected effects.

The precautionary principle implies that the coverage and detail of the impact assessment should correspond to the size of the risk in a certain area of public policy. Application of this principle is mainly related to public policies, or measures and regulations in areas where significant adverse effects on people or the environment are possible, as well as those characterised by a high degree of uncertainty about the outcome (where it is not possible to assess the risk with acceptable degree of probability).

After it has been determined that the criteria for exemption from conducting an impact assessment are not met (Article 6 of the Regulation) and after tests of impact and priority levels have shown that an impact assessment should be conducted, the level of significance of effects should be considered in accordance with the criteria stipulated in the Regulation (Article 8 of the Regulation) to determine whether a basic or detailed assessment is required.

A detailed impact assessment will be conducted if the public policy or regulation meets special criteria relevant at the Republic [central] level.

Criteria for detailed impact assessment

Quantitative criteria that require a detailed impact assessment:

1) cost higher than 0.1% of the budget of the Republic of Serbia for the previous year, which will cause the implementation of public policy documents, or regulations to target groups and other stakeholders (e.g. due to harmonisation of their behaviour and/or work in accordance with the requirements of a public policy document or a regulation);

2) change in revenues and expenditures, as well as revenues and expenditures in the budget of the proponent, and thus in the budget of the Republic of Serbia, which is annually higher than 10% of the budget available to the proponent in the previous fiscal year;

3) impact on more than 200,000 citizens;

4) impact on more than 5% of entrepreneurs or legal entities of a certain category classified according to the criteria established by the law governing accounting or on more than 20% of those entities in a certain activity, if the measures predominantly affect business operations in that activity.

Qualitative criteria that require a detailed impact assessment:

5) impact on the market and conditions of competition (e.g. introduction of barriers to market entry and/or exit; restriction of competition; creation of preconditions for a privileged position of a certain group of business entities or other legal entities; impact on productivity or innovation; determination of prices or production levels; impact on the quality, level or availability of certain products and services, etc.);

6) introduction of significant reform or systemic changes that affect a large number of natural persons, especially in the areas of education, competitiveness, social protection and health;

7) transfers to citizens, such as support to vulnerable categories of the population (including persons with disabilities, members of minority groups, people living below the poverty line, unemployed persons, etc.);

8) implementation of public investments, especially capital projects in accordance with the regulation governing the content, manner of preparation and evaluation, as well as monitoring the implementation and reporting on the implementation of capital projects.

If the above criteria have been met, the proponent is to conduct a detailed *ex-ante* impact assessment of the measures contained in the policy document, or in the regulation. However, if this is not the case, consideration should be given to whether there is a significant impact on micro, small and medium-sized enterprises or gender equality. Both tests are detailed in: Annex 3 - Testing Impact on Micro, Small and Medium-sized Enterprises (MSME test) to this Handbook.

What is the subject of the impact assessment in the policy document? The key subject of the impact assessment are the measures by which public policies are implemented and by which the causes of the problem are eliminated, i.e. the desired changes are achieved. Measures are grouped into public policy options — ways in which a goal can be achieved. Analogously, the effects of measures are grouped at the option level.

Is it necessary to assess and present in detail each measure of public policy and its options? The assessment, as already shown, is based on the proportionality and precautionary principles. The effects of only those measures that have a significant impact and whose outcome is uncertain are assessed and presented, which means that not every measure needs to be assessed and presented in detail.

The following illustration shows the decision-making process on whether an impact assessment should be conducted and how comprehensive that assessment should be.

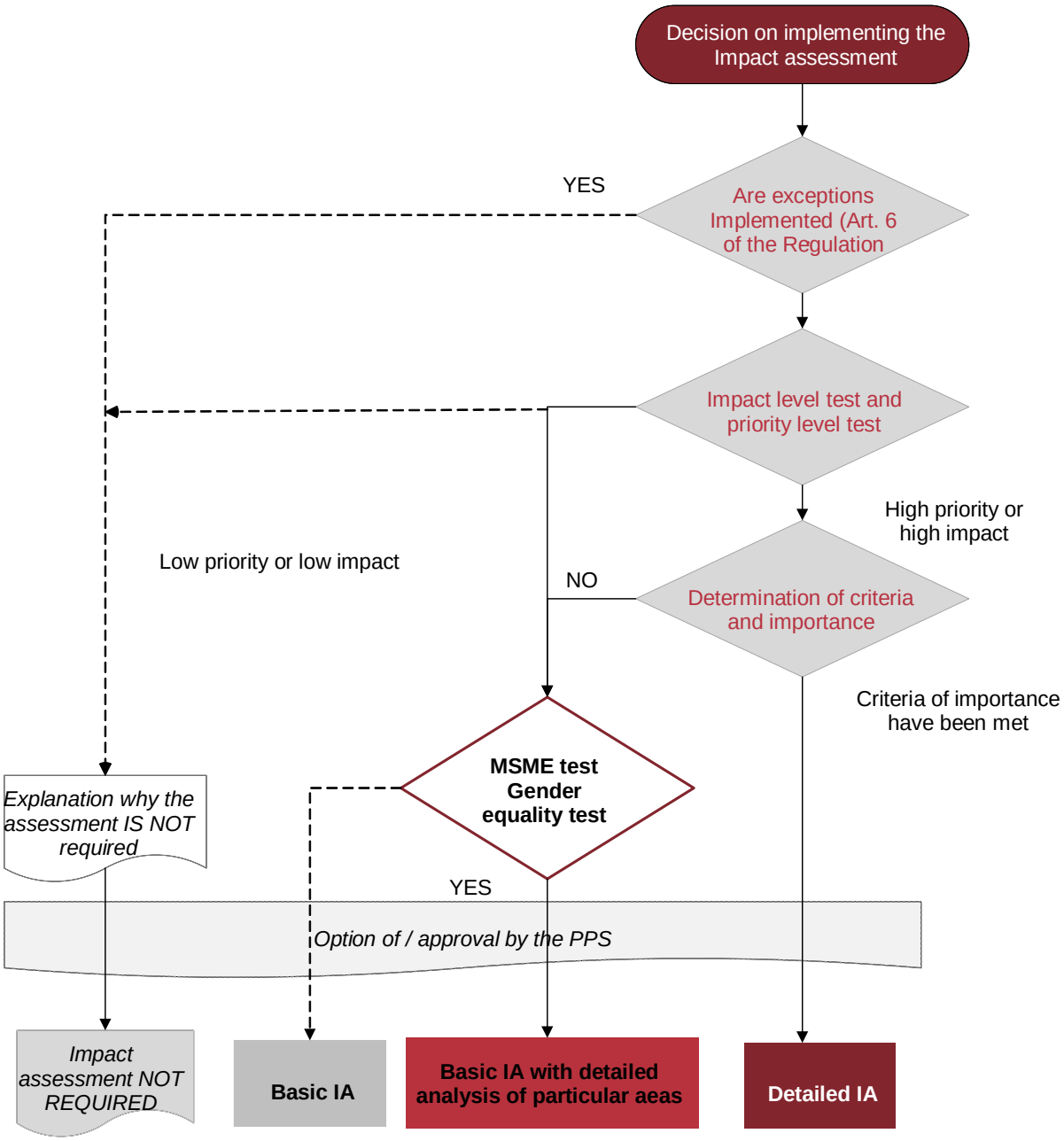


Figure 2. Decision on the need to implement ex-ante impact assessment and determine its coverage according to detail level

2.6 Planning the Impact Assessment

Impact assessment requires resources and time, so it is necessary to plan all activities on time. The most appropriate moment to determine whether the issue under consideration should be the subject of assessment, and of the assessment coverage, is when medium-term activities are planned, or activities for the next year based on the medium-term plan.

In practice, there will be cases when it is not possible to systematically plan public policies. This can happen for various reasons (e.g. due to the submission of a third-party public policy initiative under Article 30 of the LPS or due to extraordinary circumstances).

Duration of the impact assessment depends on the complexity of the public policy under consideration or the regulation. In practice, the assessment that follows the following steps takes at least three months, but that time can be much longer.

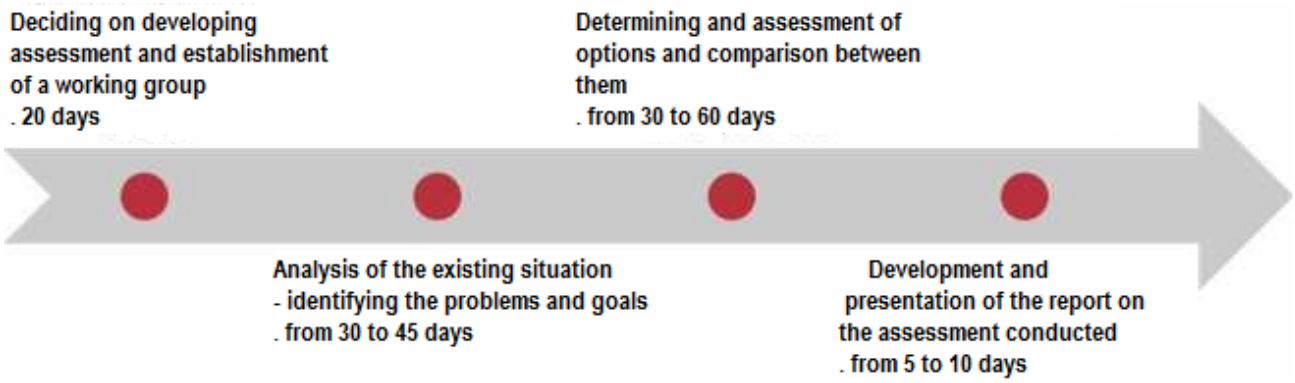


Figure 3. Usual duration of the impact assessment plan

You can find more details about planning the work on developing public policy documents and regulations, as well as useful advice for good work organisation in the Public Policy Management Handbook.

3 PUBLIC POLICY AND REGULATORY *EX-ANTE* IMPACT ASSESSMENT

3.1 Steps in an E*x-ante* Impact Assessment

Decisions regarding the implementation and content of a particular public policy or regulation are not simple. Even when different options are analysed before making a decision, it is easy to make a wrong step that leads to a wrong or bad decision. Bad decisions can have a variety of causes, from a poorly defined problem, through inadequate choice of public policy or regulatory instruments, mispredictions, insufficient implementation capacity to inadequate analysis and assessment of the overall effects or interests of stakeholders. In order to avoid bad decision-making, the impact assessment will follow a series of logical steps (Article 9 of the Regulation). The basic steps of the impact assessment are:

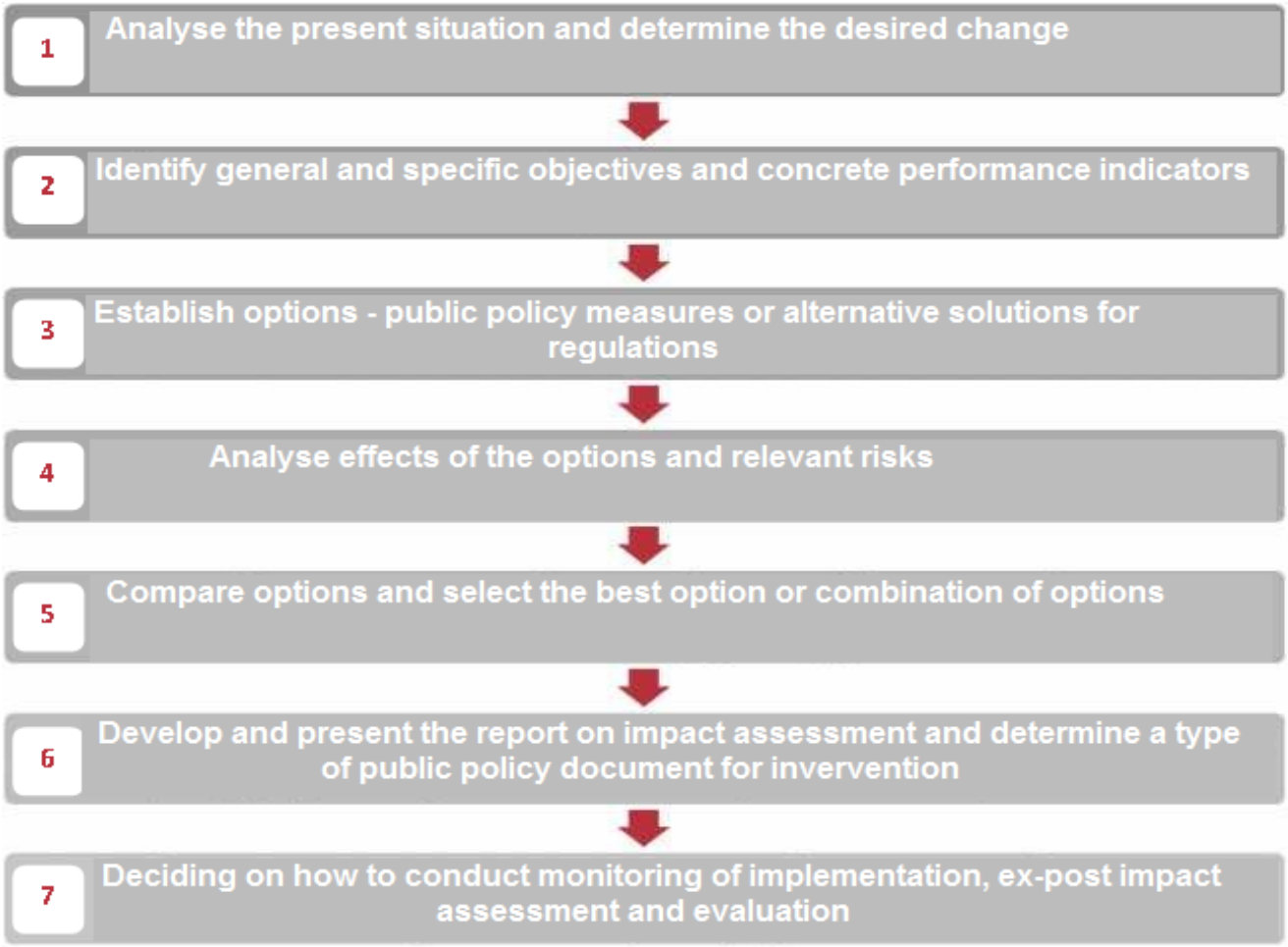


Figure 4. Steps in the impact assessment

In practice, these steps overlap to some extent and there may be a need to revise the findings from the previous steps. Also, how much attention will be paid to any of these steps will depend on the specific circumstances, as well as the coverage of the assessment (whether it is a basic or detailed impact assessment).

It should be noted that throughout the *ex-ante* impact assessment process, it is necessary to consult target groups and other stakeholders. A more detailed explanation of how to conduct consultations is given in the Handbook on Public Participation in Planning, Developing and Monitoring the Implementation of Public Policies and Regulations.

3.2 Situation Analysis

During the initial phase of the impact assessment, i.e. before starting the work on a policy document or regulation, an analysis of the existing situation (situation analysis) should be conducted to describe the **context in which the policy document or draft regulation is developed** (Article 10 of the Regulation). The situation analysis provides basic information for all subsequent steps in the impact assessment process. This means that the body monitors the situation in the area for which it formulates public policy or which it tries to regulate by regulation, i.e. to determine the data that it will monitor and develop a data monitoring system in order to conduct a quality situation analysis. The situation analysis should make it possible to establish a clear, detailed and realistic picture of opportunities, resources, challenges and obstacles with regard to a particular public policy or regulatory issue. Timely and continuous monitoring of the situation in the area, as one of the duties of public administration bodies, will help in this step of the analysis.

The situation analysis includes:

1) Determining the basic indicators monitored in that area, with the explanation why those indicators were selected for monitoring the situation in that area, as well as assessing the situation in that area in relation to those indicators;

2) Analysing the international competitiveness in this area, which in particular includes analysis of international trends and comparative practices in that area, as well as analysis of international competitiveness lists, places that the Republic of Serbia occupies on these lists and opportunities to take a better place on these lists by the action of public policies in that area;

3) Analysing the results achieved by implementing the previous public policy document, or regulation, in order to, among other things, determine which expected effects were absent, i.e. which results were not achieved in accordance with the planned values, i.e. performance indicators and the reasons for that;

4) Determining valid public policy documents and regulations that directly affect the situation in that area and analysing that impact in order to act consistently and in a coordinated manner in that area;

5) Identifying problems in this area, their scope and nature, as well as the causes that led to their occurrence and the consequences they cause in practice.

The situation analysis should be based on statistical and other relevant and reliable data, facts and data collected from existing studies, analyses, reports of international organisations, public administration, as well as information obtained during consultations with civil society organisations, research and other relevant organisations and stakeholders. *Ex-post* assessment conducted for that or a related policy or regulation, if any, are also an important source of data. The situation analysis relies to a great extent on the data collection process and instruments, and civil servants preparing the situation analysis should consider how to engage key stakeholders, potential beneficiaries and others who may be affected (target groups). Information can be obtained through in-depth interviews, focus group discussions, community dialogue, stakeholder meetings or workshops (see the Handbook on Public Participation in Planning, Developing and Monitoring the Implementation of Public Policies and Regulations).

The situation analysis should:

- Explain why the existing situation or situation that is gradually changing is not desirable, or explain the scope and causes of the problem and provide clear evidence of their nature and scope — whether the reason is known, whether there are numerical data to support it;
- Describe the baseline scenario/trend (Is this a growing problem?);
- Specify the vulnerable population and distribution of effects in the vulnerable population and specify the target groups;
- Explain potential regulatory changes and why they are needed;
- Explain why state intervention may be necessary;
- Demonstrate the relevant comparative practice.

For the selection of appropriate measures, or public policy options, it is crucial to determine and analyse the nature and the extent of the problem. An incorrectly determined problem leads to a bad solution, regardless of the later analysis, and in some cases to results contrary to the desired ones.

In the public policy impact assessment, this step is crucial, as it can show that it is not necessary to resort to regulatory measures to solve the problem and achieve the desired change.

The content of a situation analysis is determined by Article 10 of the Regulation, and the key issues for the situation analysis and the correct definition of the proposed change are presented in Appendix 2 to the Regulation.

Methods and techniques which can be used in a situation analysis are presented below.

3.2.1 Situation Analysis Tools

For the purpose of the situation analysis, a whole range of tools is used (SWOT analysis, PESTLE analysis, "change tree (or problem tree)", stakeholder analysis, comparative law analysis). These tools can be combined to perform a comprehensive analysis to ensure all relevant internal and external factors are taken into account.

In order to correctly determine the objectives (achieve the desired change or solve a particular problem) and determine adequate options or measures, it is crucial to distinguish the conditions for achieving the desired change from their consequences (or causes and effects of the problem).

A prerequisite for the use of any of the presented tools is to have appropriate data that make it possible to assess the situation in the area under consideration. Without this data, each of the considered tools is reduced to guesswork.

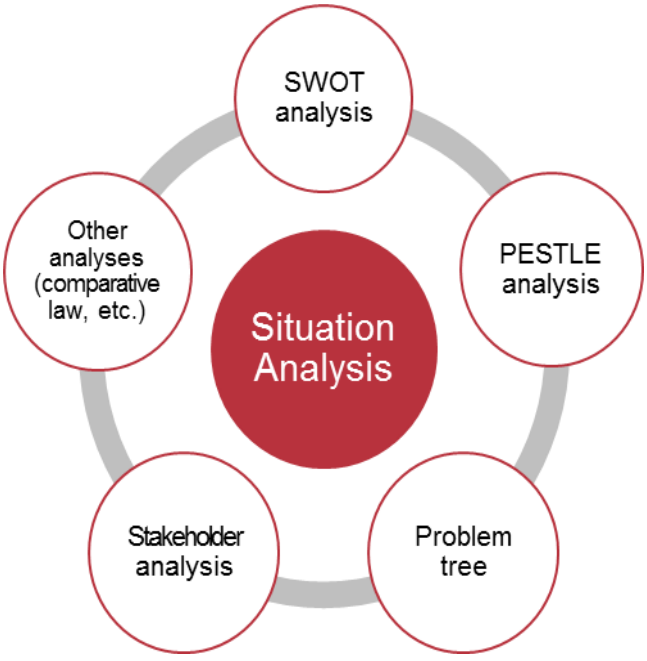


Figure 5. Tools of the situation/problem analysis

3.2.1.1 *SWOT* analysis

SWOT analysis is used to identify opportunities and threats that affect public policy or a proposed regulation, as well as its strengths and weaknesses. SWOT is an abbreviation of the English words that denote these four factors – *Strengths*, *Weaknesses*, *Opportunities* and *Threats*.

SWOT analysis is a tool used to analyse internal and external factors that influence public policy. Using a simple framework of *internal* strengths and weaknesses and *external* opportunities and threats, it provides an easy way to assess issues relevant to public policy or regulation.[5] SWOT analysis makes it possible to consider the conditions needed to achieve the desired change.

Since the SWOT analysis includes the analysis of internal factors (strengths and weaknesses), it is one of the tools for the analysis of institutional capacities for the implementation of planned public policy or regulation. Also, SWOT analysis may indicate the need to improve one's own work.

SWOT analysis also allows other methods to be included, such as PESTLE analysis, which will be discussed in more detail in the next section. Namely, before making SWOT analysis, it is possible to prepare PESTLE analysis, i.e. analysis of political, economic, social, technological, legal and environmental factors and, based on that, form elements for the part of SWOT analysis concerning the consideration of external factors (environment, i.e. opportunities and threats).

SWOT analysis is relatively simple and does not require much time. Several persons usually participate in conducting this analysis, with one of the participants playing the role of moderator. The advantage of this approach is that it allows one to quickly see whether public policy is adequate (or inadequate) in relation to the given circumstances.

Table 4. Basic structure of SWOT table

Internal factors	**Strengths** imply positive internal factors controlled by the proponent or the Government, which can positively influence future outcomes.	**Weaknesses** represent negative internal factors that are under control of the proponent (Government), but which can be improved. Since the analysis is influenced by the subjective point of view of the persons preparing it, it is necessary to compare the results, capacities and other characteristics with the comparative experiences of other countries in order to more objectively view the strengths and weaknesses.
External factors	**Opportunities** represent external positive circumstances that can improve outcomes by taking into account existing strengths and weaknesses. These are exogenous factors that cannot be influenced by the Government (e.g. changes in world demand in a particular market, changes in prices of energy products, significant reduction of donor funds, etc.).	**Threats** represent external factors which limit the possibility of achieving the desired change, which should be taken into account or avoided.

[5] Useful information about this tool is available at: www.tutor2u.net/business/strategy/SWOT_analysis.htm.

Application of SWOT analysis also has shortcomings which are primarily reflected in:

- difficult distinction between internal and external factors;
- subjective perception of the significance of certain factors;
- its limited capacity to indicate social needs.

When it comes to external factors, i.e. the environment, depending on the coverage of public policy, it is useful to use data on trends at the global level, at the EU level, at the regional level; as well as at the level of Serbia or some of the regions in Serbia.

The following table shows an example of SWOT analysis of regional economic infrastructure.

Table 5. Example of SWOT analysis of regional economic infrastructure

Strengths	Weaknesses
• Reduction of unemployment; • Growth of regional competitiveness; • Positive impact on the development of small and medium-sized enterprises, attracting foreign direct investments, creating additional public revenues; • Rational business operations, cluster connections and cooperation with other companies; • Economy of the agglomeration, primarily in terms of more favourable business conditions; • Regional opportunities for greenfield and brownfield investments.	• Very small number of available landscaped areas suitable for investment in industrial purposes; • Complexity of re/activation procedure of brownfield investments (inconsistency of interests of many stakeholders, lack of coordination mechanism between different levels of authority); • Lack of information about all investment locations; • Lack of experience in managing new business forms;
Opportunities	**Threats**
• Activation of industrial potentials; • Urban transformation of existing industrial premises; • More favourable construction conditions, equipping industrial sites in peripheral undeveloped areas (symbiosis effect); • An opportunity to increase regional and local competitiveness and export growth due to the export orientation of companies	• Insufficient utilisation of existing brownfield industrial sites supports the existence of regional asymmetries; • Insufficient financial resources; • Slow completion of the transit process is a threat to faster introduction of new business forms of regional dispersion of industrial activity.

Source: Strategy and policy of industrial development of the Republic of Serbia 2011−2020, 2011, p. 123.

3.2.1.2 *PESTLE* анализа

PESTLE analysis is a tool used for analysing external trends and issues that affect the public policy or proposed regulation that previously operated, as well as for establishing a type of impact it could have in future. PESTLE is an abbreviation of English words that denote **P**olitical, **E**conomic, **S**ocio-cultural, **T**echnological, **L**egal and **E**nvironmental factors which can serve as a checklist to be taken into account when analysing.

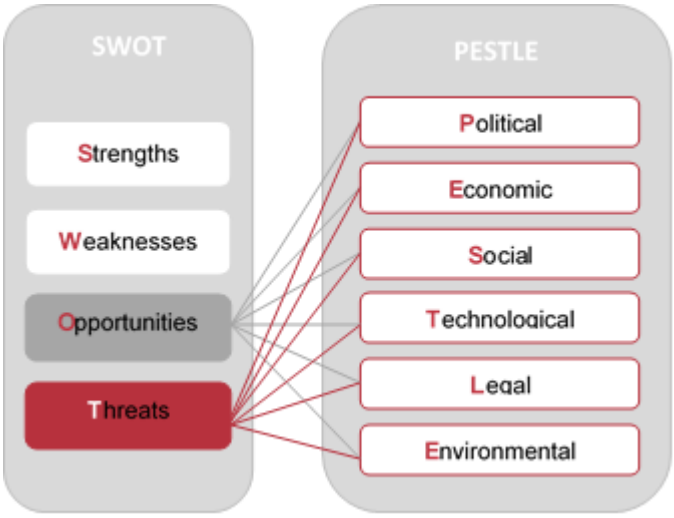


Figure 6. Interconnection between PESTLE and SWOT analyses

PESTLE analysis can also be used to identify external factors that have an impact on the organisation, which are identified in the SWOT analysis of external factors — "opportunities and threats".

PESTLE is a good basis and guide for further consideration of the issue:

1. What factors have an impact on public policy?
2. Which of them are the most important?
3. Which will be the most significant in the next few years?

The following list is non-exhaustive and presents possible sub-areas to be considered.

P	**Political** - Taxation policy - Local authority / administration to which the task has been delegated
E	**Economic** - Economic cycles - GDP trends - Interest rates - Inflation - Unemployment - Disposal income
S	**Socio-cultural** - Demographic trends - Income distribution - Social mobility - Lifestyle changes - Attitudes towards work and leisure - Levels of education
T	**Technological** - Available technology - Technology transfer speed

L	**Legal** - International/European agreements/regulations - Employment laws - Competition laws - Social welfare and security laws - Regional regulations
E	**Environmental** - Impact on the environment

As PESTLE analysis is used in most cases as PEST analysis, not taking into account legal and, especially, environmental factors, an example of PESTLE analysis is presented, which is dedicated to the topic of "green economy" and the possibilities of its development in the Republic of Serbia. Attention is paid to each of the aspects of that analysis in order to consider the impact of these aspects on the possibilities of developing a "green economy" in the Republic of Serbia.

Table 6. Example of PESTLE analysis on the topic of "green economy" in Serbia

P	There is a political readiness to adopt EU directives concerning the environment, but administrative capacity is not enough to implement those directives, as well as to establish the infrastructure required by this type of directive. Political actors in the Republic of Serbia should cultivate a more positive approach to environmental issues, and not treat investment in this area exclusively as an expense. The Republic of Serbia is still considering the option of making fossil fuels a strategic source of energy, and a stronger political will is needed towards "low-carbon development plans", i.e. development plans based on low-carbon technologies. Political attention in the Republic of Serbia is focused on the reconstruction of old roads and the construction of new ones. More attention should be paid to sustainable and alternative forms of transport, such as rail and bicycle infrastructure.
E	Public policies that stimulate fossil fuels and environmentally polluting industries (such as fossil fuel price subsidy policies) should be abolished in order to create an investment climate for development based on low-carbon technologies. It is necessary to create conditions for the energy market. An accurate database of the situation in all sectors is needed in order to create public policy in this area, for example policy of energy efficiency in buildings. Subsidies are needed, but also investments in sectors of the "green economy", such as organic agriculture, sustainable tourism and waste disposal. Subsidies are also desirable in sectors that produce energy efficient materials, such as solar panels, heat pumps, etc. intended for the population living in houses. Investments in waste management can affect employment growth in this area by 10%.
S	More collaboration between researchers and decision makers is needed in order to create evidence-based public policies in this area, at all levels. It is necessary to take into account both the social and health aspects of the economy based on fossil fuels. Greater participation of citizens in the energy system is needed through the so-called energy cooperatives. Local opportunities and the need for inclusive development need to be taken into account, especially when it comes to the Roma and the waste management sector. The Republic of Serbia should consider the possibilities of developing eco-tourism, as a way to improve living conditions in rural areas and agriculture, but also to encourage the return of young people to rural communities.
T	More attention needs to be paid to education in primary and secondary schools in the area of "green economy", as well as the fact that this area will increasingly create the need for a specially trained and specialised type of professionals in the future.
L	During the process of joining the Republic of Serbia to the EU, it is necessary to pay more attention to respecting local conditions, but also needs. All existing strategies and action plans need to be harmonised, especially in the area of green public procurement.
E	Less than 10% of wastewater is treated. Serbia is highly exposed to natural disasters and needs to have a comprehensive strategy for adapting to climate change.

When it comes to PESTLE analysis, it should be borne in mind that the examples given are composed of statements that are a kind of summary finding, obtained on the basis of analysis of data from certain areas. It is not only a matter of problems, or the fact that something that has already been introduced does not work, but also of the need to introduce something new in the observed area.

It is important to have access to the sources of data and information that can be useful for making a PESTLE analysis. PESTLE analysis for the Republic of Serbia can be conducted within the institution itself, if there are conditions for that.

3.2.1.3 Change Tree – Problem Tree

Problem tree analysis (PTA) is one of the key tools used to map the causes and consequences of a perceived problem. Problem tree technique records the negative aspects that cause or are a consequence of the problem. The same technique that, however, focuses on positive change is the **technique "change tree"** — the basic problem becomes the change that is sought to be achieved, and the causes of the problem become the conditions of change.

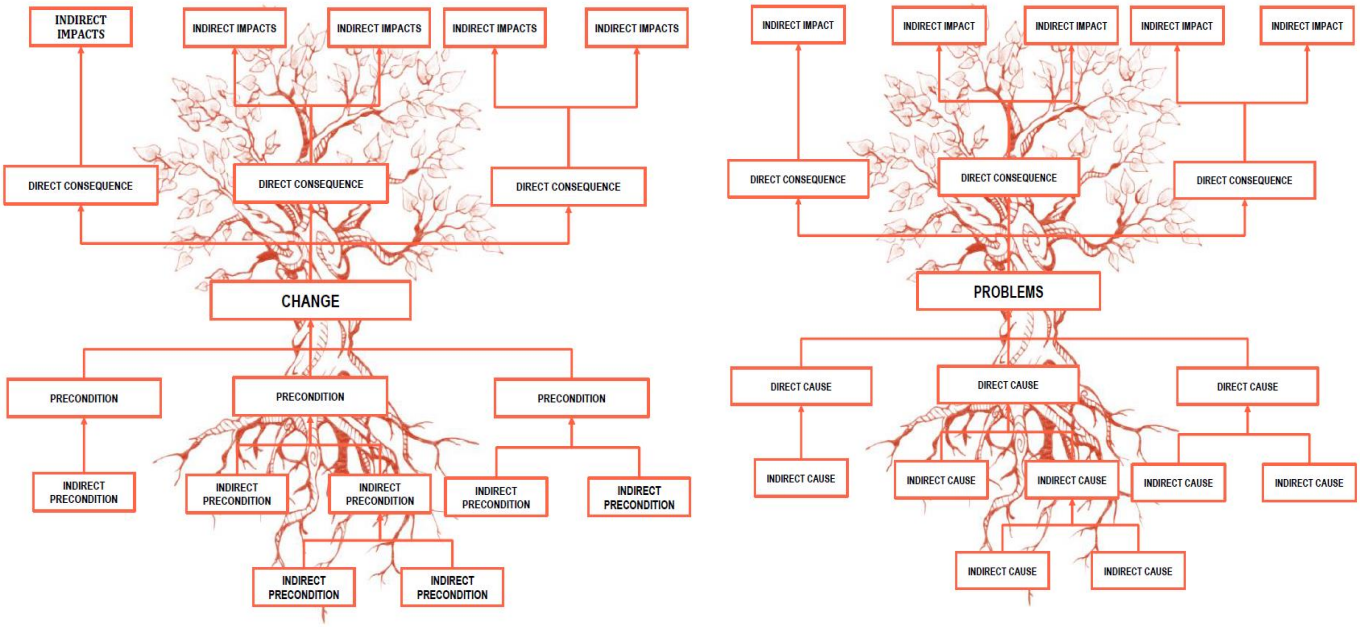


Figure 7. Change tree and problem tree

In essence, the change/problem tree decomposes the change/problem and allows for a clearer identification and better understanding (structuring) of the change/problem and its often intertwined, even conflicting conditions/causes. Problem tree is often the first and key step in finding the best public policy or regulatory proposal. When the problem tree is complete, it presents a concise picture of the existing (undesired) state.

How to create a change/problem tree in practice?

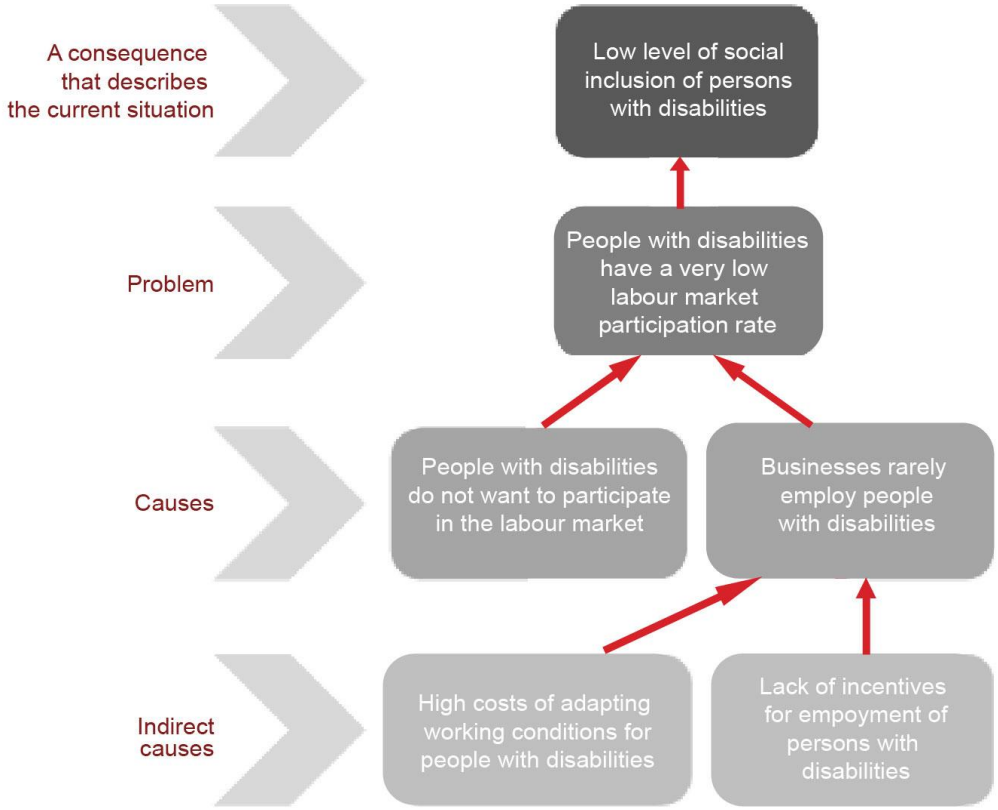
Problem tree is usually developed by those working on the impact assessment.

Change/problem tree is not developed schematically, but it is a creative process. In practice, the analysis using the change/problem tree technique is most efficiently performed in a small group of six to eight people, using a flip chart and Post-it notes.

The first step is to consider and reconcile the problem or question to be analysed. The considered problem or question is placed in the middle and becomes a tree - main problem or change. The group then identifies the conditions for achieving change (causes of the main problem) - they become the roots - and then identifies the effects (consequences of the problem) - that become the branches of the tree. These causes and effects can be written on Post-it notes so that they can be arranged according to the logic of cause and effect (mutual cause-and-effect relationship).

Example of a problem tree

Problem tree can be used for almost any policy or regulatory change. For example, when considering problems related to the employment of persons with disabilities, the essential problem can be defined as follows: "Persons with disabilities in Serbia have a very low rate of participation in the labour market. "



Alternatively, this can be expressed in terms of the desired change of "increasing the participation rate of persons with disabilities in the labour market". According to available data, out of 300,000 persons with disabilities of working age (15−65 years of age), only about 21,000 work. This means that the employment rate of persons with disabilities is very low — 13%. The causes can be either on the demand side — "companies rarely employ persons with disabilities", or on the supply side — "persons with disabilities do not want to participate in the labour market". Each cause can create a new branch on the problem tree. The next step would be to consider the causes of the claim that "companies rarely employ persons with disabilities." These could be, for example, "high costs of adapting working conditions for people with disabilities" or "lack of incentives for employing persons with disabilities". These claims are indirect causes.

In a similar way, the causes that lead to "persons with disabilities do not want to participate in the labour market" can be analysed. The cause may be due to the fact that "there is no adequate rehabilitation system" or that "persons with disabilities do not believe in the possibility of their integration". Further analysis of cause and effect can lead us to a more branched problem tree. Separation of the samples clearly indicates that tools can be used to bring about change, both on the supply side, for example by encouraging persons with disabilities to actively participate in the labour market, and on the demand side, for example, by reducing costs and encouraging potential employers of persons with disabilities.

It is not necessary that there is only one identified problem or desired change. The previous example of the need for the state to intervene in the case of excessive content of trans fats in the diet, shows the relationship between several causes and the problems that these fats create. If the same example was defined as the relationship between the change that is being sought and the conditions for that change, then, for instance, the cause of "underdeveloped consumer awareness" would be translated into "increasing consumer awareness".

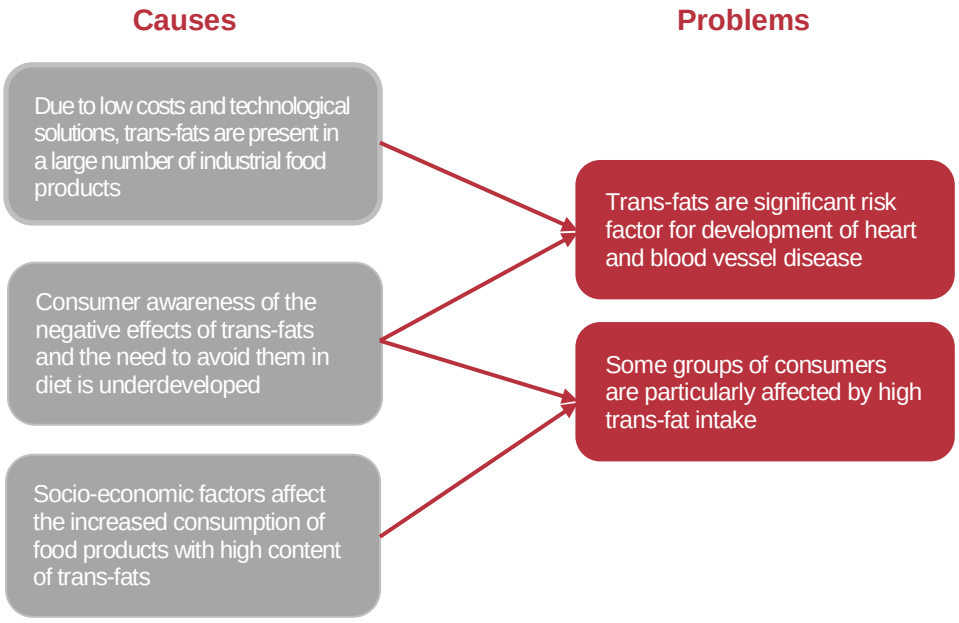


Figure 8. Example of a cause-problem relation

Problem/change tree can be of great help in structuring the causes, i.e. the conditions of change by areas. The previous example shows that the causes leading to these problems in several areas are the following: consumer awareness, production costs, etc.

An example of a properly identified problem

Trans-fats are a significant risk factor for development of heart and blood vessel diseases, which are the leading cause of death in the Republic of Serbia. Due to technological reasons and competitive prices of industrially produced trans-fatty acids, they are used in large quantities in some types of food, such as biscuits or chocolate. Trans-fatty acids are naturally found in some food products, but the content of such fats in them is small on average. Some parts of the population are particularly at risk from high intakes of industrially produced trans-fatty acids. At the same time, consumer awareness of the increased risks associated with consuming trans-fatty acids is low. If the state does not intervene, the health of consumers will be exposed to risk due to the constant supply and constant introduction on the market of new products that contain industrially produced trans-fatty acids. According to health indicators for 2016, diseases of the circulatory system account for 51.7% of all diseases, or 52,102 deaths. Also, it is estimated that a significant number of people have heart and blood vessel diseases, and that such a condition creates very high costs annually.

It should be borne in mind that the problem in one area often has consequences in other areas of public policy (e.g. unemployment and health care), so the resulting picture of a problem tree at first can be very complicated.

Problem tree has several limitations. First, at the very beginning, it is very difficult to see comprehensively all the causes and consequences. It also takes time to consider the causes together, identify the problem and determine the consequences.

3.2.1.4 Baseline Scenario

Problem tree provides an overview of the problem causes and consequences as they are at the time when the problem tree is made, i.e. the conditions and possible effects of the change. In practice, this presentation is often sufficient. However, **when the problem is expected to worsen in the future, developing a baseline scenario (initial state scenario) during a current state analysis based on a projection of the existing state in the future can be very useful** to show the consequences of further problem development. The aim of this approach is to explain how circumstances would develop if the state did not intervene — *status quo* option.

Baseline scenario is a prediction of the future under the assumption that there will be no activities of the state in the direction of solving the problem and its causes (i.e. achieving the desired state). Baseline scenario can be useful to justify the costs necessary to face the problem in order to show that only state intervention can eliminate the causes or to show that high initial investment pays off over time.

During the public policy and regulatory impact assessment, it is necessary to consider the option of not taking additional measures to change the existing situation (*status quo* option). By projecting the existing situation into the future, it is assessed whether it is possible to achieve change without additional measures, taking into account the identified trends. It is also important to take into account all existing factors and measures that are already being implemented, which may affect the situation in the future, such as the impact of other public policies and regulations, the impact of the EU accession process, membership in international organisations, development of relevant markets, potential trend changes, etc.

Example of a baseline scenario presentation

Significant portion of products have a low content of trans-fats (less than 2/100 grams of fats). However, data based on the cause show that their content in the food products significantly is higher in the Republic of Serbia than in the EU member states. Average content of trans-fats in diet keeps reducing, but it is difficult to assess whether such trend will continue, while in some products opposite trend has been recorded. Also, average intake of trans-fats per consumer keeps reducing, but intake difference is higher among different social groups. Experience of other states shows that reduction of trans-fats intakes is relatively fast transferred to health sector savings.

Without intervention, effects primarily depend on the manner the trans-fats will be replaced. It is assumed that trans-fats would be replaced within 15 years or that their presence would be at the existing level. With gradual reduction, structure of demand for raw materials in the food industry would change, but there is a risk of using inappropriate substitutes as well as increased unfair competition.

3.2.1.5 Comparative Law Analysis

It is often considered that in order to solve the problem and achieve the desired change, it is necessary to harmonise or improve the regulations. If this possibility is considered, it is necessary to analyse the solutions in comparative law. However, transplantation of legal institutes may not be adequate because the context of regulation enforcement is different. Therefore, this analysis requires a detailed understanding of the context.

Choice of legal system with which to compare the national legal system is an important issue. Often the choice is limited by knowledge of the language or availability of text of the regulations of other countries. It is especially important to consider solutions in countries with a similar legal tradition and practice, but even in this case, the context of regulation enforcement should be understood.

It is also important to understand **what is compared**. It is often not enough to compare laws alone, but it is also necessary to consider how a law is enforced in other countries. There is often a significant difference in *de jure* and *de facto* enforcement.

Finally, the question is **how the comparison is made**. In practice, a simple comparison of a text is often called a comparative method. The functional method of comparison is a step further, so the person comparing solutions is focused on common problems and legal solutions of the two systems, rather than simply pointing to different solutions or legal doctrines.

Extract from the example of comparative law analysis

Approaches to solving the problem of over-indebtedness of natural persons and entrepreneurs and the characteristics of this approach differ significantly among EU members, both in terms of coverage and in terms of application of key legal institutes, organisation and cost burden. In some member states, access to bankruptcy is provided to both legal and natural persons by regulating it with a general bankruptcy framework (Denmark, the Netherlands, Slovakia, Sweden). In some member states (Great Britain), the procedure related to natural persons is specially regulated within the general bankruptcy framework. In EU member states where bankruptcy proceedings are not available to natural persons, there are, as a rule, procedures that, as in bankruptcy proceedings in the case of legal persons, enable the problem of over-indebtedness to be resolved by debt settlement procedure.

In addition to differences in the characteristics of the procedure, there are differences in the approach to the procedure and in the key bankruptcy institutes. The precondition (criterion) for using the procedure may depend on the amount of the debt, type of procedure — voluntary or forced, a previous attempt at settlement. In some member states, a minimum and in some cases a maximum amount of debt is prescribed. Also, some countries regulate in more detail the issue of debtors who do not have or have very small assets and generate insignificant income. The second criterion refers to persons who can initiate proceedings. The approach depends on whether it is a voluntary or a compulsory procedure. In principle, compulsory procedure exists in countries where creditors are allowed to initiate proceedings. The exception is Slovenia, where a debtor is obliged to initiate proceedings if he/she is unable to settle a debt that exceeds the amount of triple monthly income, or the amount of 1,000 euros if a debtor is unemployed

3.2.1.6 Stakeholder Analysis – Identification of Target Groups and Stakeholders

The situation analysis is also used to identify target groups (which are influenced by public policy measures) and stakeholders (groups with an interest in public policy measures) that are most affected by changes in public policy or regulation and their elements and which have an interest in public policy measures. As a rule, any change in public policy or regulation will create those who win and those who lose. Some of these groups can have a strong influence on the outcome of political processes.

Stakeholder analysis (Article 11 of the Regulations) is a technique by which:

- stakeholders are identified;
- their needs are analysed.

The analysis is also a useful tool to consider who should be familiar with the impact assessment, what their positions and interests are, and how to present the results of the impact assessment.

Based on the stakeholder analysis, the following are determined:

- all target groups that may affect or may be affected by changes in public policy or regulation and stakeholders (groups that have an interest in changes in public policies and regulations);
- interests of all target groups and stakeholders;
- potential issues that could disrupt changes in public policy or regulation and ways in which target groups and stakeholders with opposing views can be managed;
- key representatives of target groups and stakeholders who can provide data and information during the preparation of the impact assessment and special groups that should be encouraged to participate in the various phases of the impact assessment;
- the ways in which communication and management strategy are planned for target groups and stakeholders (see the Handbook on Public Participation in Planning, Developing and Monitoring the Implementation of Public Policies and Regulations).

Example of describing the stakeholders

In this phase, it is very important to identify **the groups affected by the problem**, i.e. those persons or groups that will be affected by the results of public policy implementation.

Suppose that due to the observed problem, it is proposed to use less trans fat in human foods. Who are the "affected" parties:

1) Consumers who are directly exposed to trans fats in diet will benefit from a reduced risk of coronary heart diseases, but will also be exposed to higher food prices, and potentially changes in the quality and characteristics of certain food products. Some social categories of consumers have a significantly higher daily intake of trans fats.

2) Healthcare institutions will also feel the effect of reducing the intake of industrial trans fats in the form of reducing the number of patients and the cost of interventions and treatment.

3) Food industry (especially micro, small and medium-sized enterprises in that sector) will be affected in the form of higher costs of raw materials, and producers of margarine and similar products, producers of pastries, confectioners, as well as other producers whose products contain trans fats will be particularly affected.

4) Inspection bodies in charge of control and enforcement will bear additional costs due to the need to engage the resources necessary for inspection.

Steps in the stakeholder analysis that can be applied include:

Step 1. Identify target groups and stakeholders and rank them by priority

The easiest way to identify target groups and stakeholders is to compile a list of them. They can be from the private sector as well as from the public sector and civil society. These can be different economic entities, organisations, associations, individuals. The list should be exhaustive to ensure that all relevant parties are involved. The following list can help to organise or create a structure for stakeholder analysis.

Table 7. Potential target groups and stakeholders

Private sector	Public sector	Civil society
• Companies and entrepreneurs • Business associations • Professional bodies • Financial institutions	• Civil servants and ministries (executive) • Elected representatives (legislature) • Courts (judiciary) • Political parties • Local authorities • International organisations (World Bank, UN)	• The media • Schools and universities • Social movements and advocacy groups • Trade unions • National NGOs • International NGOs • Others

If the initial list results in a large number of target groups and stakeholders, it is desirable to **group them according to interests** (attitude towards public policy or regulation), and then assess their relative importance. It is also possible to classify them **according to type of interest**. For example, some stakeholders are primarily interested in the financial side, while others are interested in the social or environmental impact of public policy. In each of these groups, some parties will have more power and influence than others, so they need special attention.

Step 2. Analyse and understand the target groups and stakeholders

Mapping the interests and support or opposition of target groups and stakeholders to the proposed policy helps to properly identify key stakeholders. Certain stakeholders can significantly influence a public policy proposal in a positive or negative direction. It is important to maintain regular communication with both groups during the analysis. During the stakeholder analysis, the following should be considered in particular:

- What motivates stakeholders?
- What is the best method of communicating with different stakeholders?

During the analysis, it is necessary to make a distinction between **stakeholders** that can directly or indirectly positively or negatively influence public policy or regulation. Also, it is necessary to make a distinction between the target groups, those who will be positively affected by public policy or regulation, i.e. groups that will benefit from the change of public policy and regulation, and those that will be negatively affected by this change, i.e. groups that will be damaged by changes in public policy or regulation.

A matrix for detailed stakeholder analysis and mapping of stakeholders and their motives, expectations and levels of impact is given in Annex 2 — Stakeholder Analysis to this Handbook, and more information on how the results of target group and stakeholder analysis can be used in the consultation can be found in the Handbook on Public Participation in Planning, Developing and Monitoring the Implementation of Public Policies and Regulations.

3.3 Setting Objectives

Without clear objectives, it is impossible to monitor the implementation of public policy and evaluate whether it led to the planned effects. This section of the Handbook discusses the types of objectives and then the performance indicators. Objectives are set so that they can serve as a basis for monitoring the efficiency and effectiveness of the implementation of measures set out in a public policy document, i.e. a regulation by which the public policy is implemented.

Before setting objectives, it is necessary to determine the change that is intended with the public policy or regulation. The problem tree technique (see Change tree - problem tree), or change tree technique, which can help in this. When a change is determined, the questions in Appendix 2 of the Regulation may also be used.

3.3.1 Types of Objectives - Overall and Specific Objectives

Objectives can be overall and specific:

Overall objective of a public policy is a long-term objective which determines the state that is planned to be achieved at the level of society, in the field of the policy action.

Specific objective of a public policy is an objective set in relation to certain subjects and/or relations in the field of the policy action, the achievement of which creates preconditions for the achievement of the overall objective.

While overall objectives can (but ideally should not) be formulated as "wishes" (e.g. improving the business environment) specific objectives must be sufficiently detailed and measurable, in other words, **SMART[6] — Specific, Measurable, Achievable, Realistic and Time-bound.[7]**

S	**Specific**	What will be achieved?
M	**Measurable**	What data will be used to measure performance?
A	**Acceptable**	Are they aligned with other objectives? Are the results significant?
R	**Realistic**	Are there the necessary resources and knowledge?
T	**Time-bound**	Is it clearly determined by when the objectives should be achieved?

When setting objectives, it is important to respect the hierarchy of objectives, not only in the public policy document that is being developed, but also in relation to the objectives set by other planning documents. In fact, planning documents are aligned through a hierarchical takeover of objectives.

[6] The way in which SMART performance indicators are determined is also defined in the Instructions for Developing the Programme Budget. SMART is an abbreviation made up of the initial letters of the performance indicator attributes: specific, measurable, achievable, realistic and time-bound. See: https://www.mfin.gov.rs/UserFiles/File/budzetski%20korisnici/2017/Uputstvo%20za%20pripremu%20programskog%20budzeta.pdf.

[7] There are several interpretations of SMART goals, but they are largely similar. This classification is based on Article 19(4) of the Regulation.

Example of a SMART objective

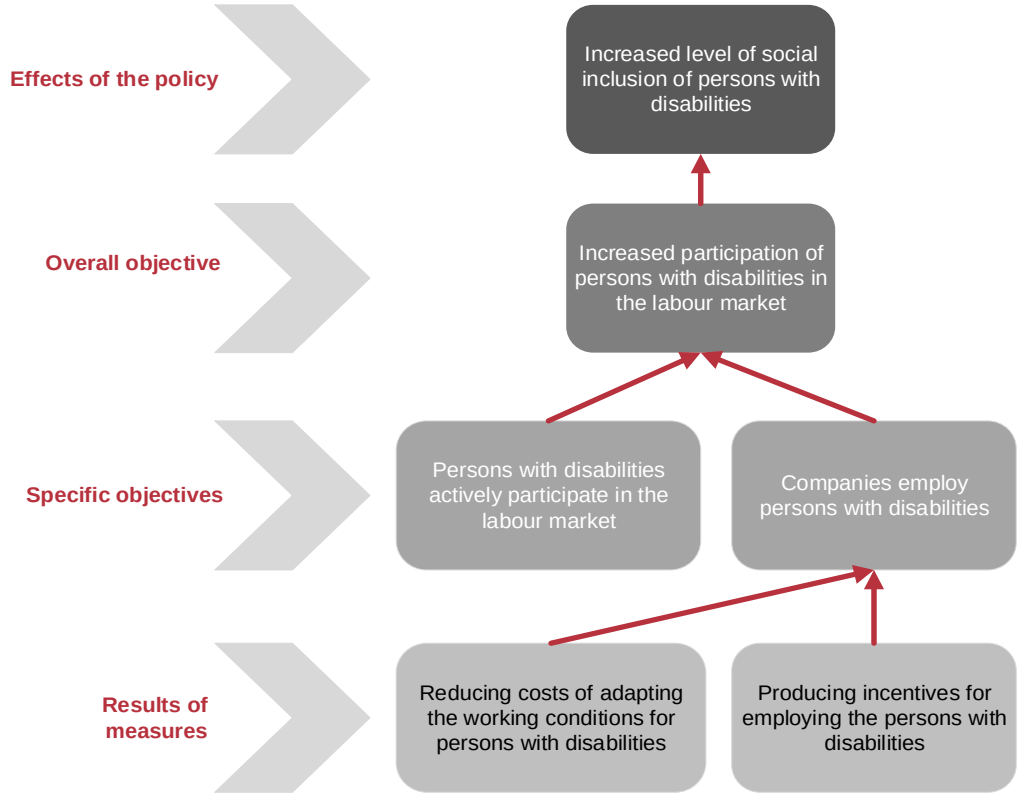
Programme for the Simplification of Administrative Procedures and Regulations 2019–2021, i.e. the e-Paper Programme 2019–2021 as an overall objective stipulates a more secure, transparent and predictable business environment and reduction of share of total administrative costs in GDP (**specific objective**). Achievement of said objective will be measured by the share of the total administrative costs in GDP (**measurable objective**), so that the target value in 2021 is 3% (**time-bound objective**). Source of verification will be the Report on Measuring the Administrative Costs in the Republic of Serbia for 2020, and comparison will be made on the basis of data for 2018 when the said costs were estimated at 3.25% of GDP (**realistic objective**). This objective is aligned (**acceptable realistic objective**) with other public policy documents (National Programme for Combatting Shadow Economy).

Different analysis techniques can be used to analyse and set objectives, such as a "objective tree". **Objective analysis is the image in the mirror of problem analysis**. When a problem tree is used, overall and specific objectives are quickly derived from problems and causes, so that an objective tree is formed. The following example shows a simple approach of transforming problems into objectives. The "negative outcomes" of the problem tree are turned into solutions and expressed as objectives — positive results. In other words, the cause-effect relationship is transformed into a means-objective relationship.

Objective tree is a tool for analysis and presentation of an idea. Its main advantage is that its use ensures the analysis of potential project objectives is based on clearly defined priority problems.

Example of an objective tree

For the purpose of forming an objective tree, the preceding example of the problem tree will be used, which reads as follows: "Persons with disabilities in the Republic of Serbia have a very low rate of participation in the labour market".



Objectives should be set correctly by answering the key questions provided in Appendix 3 of the Regulation.

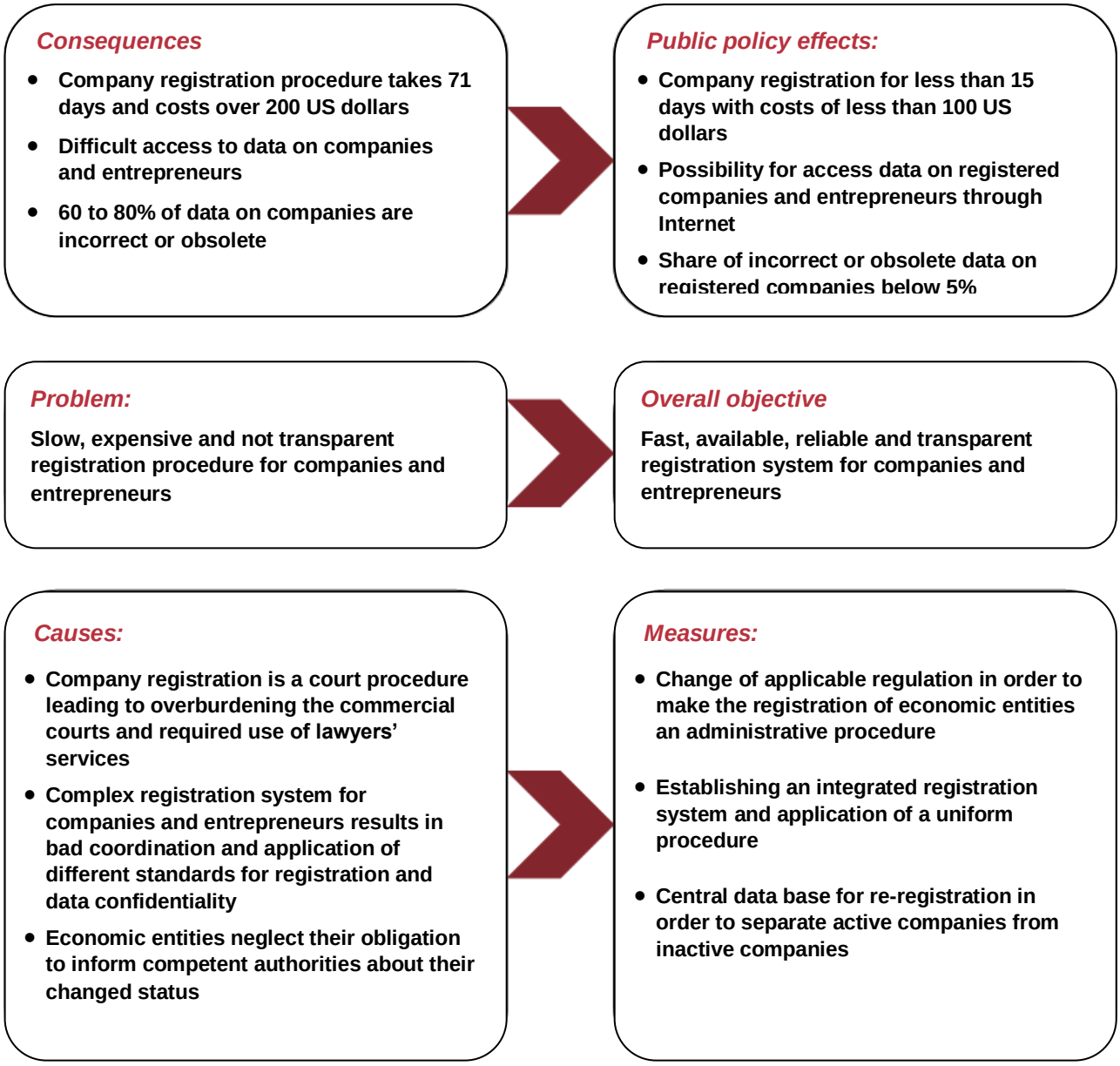


Figure 9. Example of transforming cause into measures, problem into overall objective and consequence into policy effects

When setting objectives, the following rules should be followed:

- Objectives serve as benchmarks in the implementation monitoring phase, so a number of indicators should be considered to help with further monitoring;
- When setting public policy objectives, an overall objective and specific objectives should always be set;
- The relevant objective of a planning document with higher overall level should be taken into account;
- Limit the number of objectives and base them on already established priorities.

3.3.2 Performance Indicators

Performance indicators can be:

- **Impact indicators** that measure the impact of public policy, such as increasing or decreasing the level of literacy, competitiveness, life expectancy, water or air quality, etc. Impact indicators show whether overall objectives have been achieved
- **Outcome indicators** that assess whether specific objectives have been achieved
- **Output indicators** that measure impact at the level of public policy measures
- Indicators on the activity level.

The same as objectives, performance indicators need to be precise, measurable, acceptable, realistic and time-bound.

Performance indicators should be expressed in a quantitative manner. Only exceptionally, when it is not possible to establish quantitative performance indicators, it is necessary to establish qualitative performance indicators.

For each of the determined performance indicators, it is necessary to indicate the source of verification, i.e. the data on the basis of which the efficiency and effectiveness of the implementation of public policies will be measured, or the achievement of the determined objectives will be monitored.

For each performance indicator, it is necessary to determine: **baseline (existing) value** in the last period for which there are data (in the baseline year), **target values** for the period in which the particular goal is envisaged, i.e. implementation of the specific measure, as well as the **source of verification** of achieved values. Target values are to be determined on the basis of the existing situation (baseline values) and a realistic assessment of what can be achieved in a given period, bearing in mind the available resources.

The role of indicators in the process of monitoring implementation will be discussed in more detail in the section describing the *ex-post* impact assessment - *Ex-post* impact assessment and evaluation of a public policy and regulation. Additional information on how indicators are established, data collected and the process of identifying and monitoring implementation based on indicators measured can be found in the Public Policy Management Handbook.

The criteria for determining and selecting performance indicators are the same as for the objectives. Performance indicators must also be SMART, i.e. specific, measurable, achievable, realistic and time-bound.

Additional criteria that can be used to determine and select indicators

In addition to SMART criteria, **CREAM criteria** are also used, which name is an acronym of the words:

- *C - Clear*: indicators must be clear and specific;
- *R - Relevant*: indicators must be relevant to the phenomenon, process or state measured by them;
- *E - Economic*: data on indicators must be available at a reasonable cost;
- *A - Adequate*: indicators must provide sufficient information on the performance;
- *M - Monitorable*: indicators can be monitored and evaluated.

Also, ***RACER* criteria** are often used:

- *R - Relevant*;
- *A - Acceptable*: accepted by responsible persons or decision makers;
- *C - Credible*, i.e. convincing (even for persons who are not experts in the field);
- *E - Easy to monitor*;
- *R - Robust*, or methodologically based (so as to prevent data manipulation).

When determining and selecting indicators, it is necessary to take into account the hierarchy of objectives to which they relate, i.e. the logic of intervention related to the vertical connection of objectives (hierarchy) and their associated indicators, and this can be illustrated as follows:

Table 8. Different levels of indicators for monitoring the implementation of public policy and their correlation

Different result level	Performance indicators
Overall objectives	Impact
Specific objecitives	Outcomes
Measures	Outputs

When determining indicators, logic presented in the chart below should be followed:

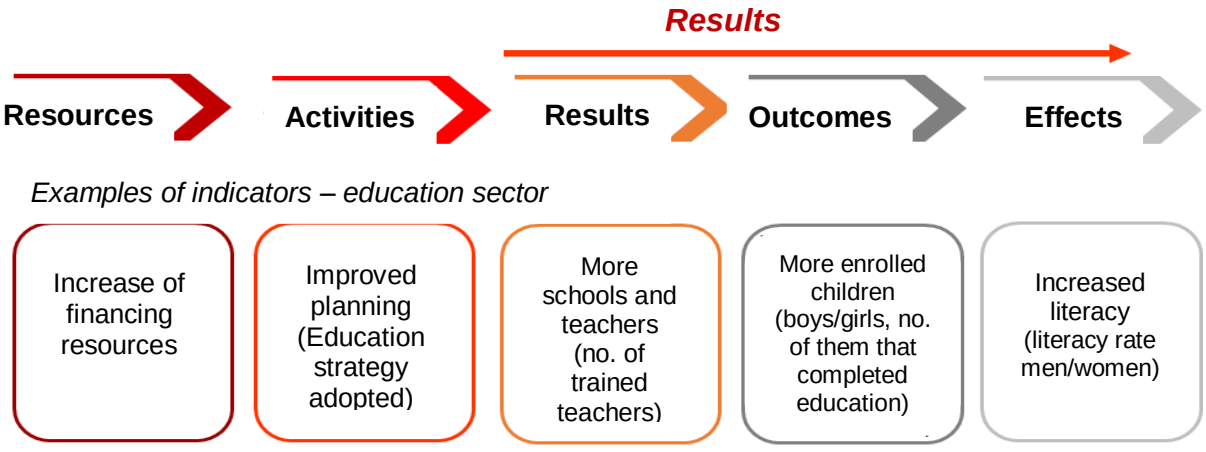


Figure 10. Logic to be followed when determining performance indicators

3.4 Identifying Options

After the public policy or regulatory objectives have been identified, i.e. the change that is intended to be achieved and possible problems, the manner in which the change will be achieved is determined. Public policy options are possible ways to achieve change and address identified problems. More precisely, **options represent different (alternative) measures or groups of measures for achieving specific public policy objectives** (Article 20 of the Regulation).

There is usually more than one solution to each problem. It is necessary for those who conduct the public policy impact assessment to think creatively and not limit the solution to only one option, but to consider a number of potential solutions.

In this phase of the impact assessment, it is desirable to go through three steps:

1. **Identify relevant options** - All considered public policy options should be relevant, i.e. they must be closely related to the change that is intended to be achieved or the causes of the problem, as well as to the established objectives.

When considering the relevant options, it is necessary to consider the option not to take additional measures to change the existing situation - ***status quo*** option, which serves as a baseline scenario with which to compare the other options considered (Article 21 of the Regulation). *Status quo* option is desirable when the expected benefits of implementing public policy measures or introducing or amending regulations are less than the expected costs. The persons conducting the analysis should always reconsider the need for state intervention, which means that they have an **obligation to always consider the *status quo* option.**

2. **Determine feasible options** - In this step, it is required to discard options that cannot be applied (due to limited resources, legal constraints, or other reasons). All public policy options should be realistic, i.e. feasible. However, even when resources are low, **at least two feasible options** need to be determined, in addition to the *status quo* option (Article 23 of the Regulation). This means that the persons conducting the analysis should not determine two options, one of which is "desirable" and the other unfeasible because such a solution is predetermined.

3. **Form a list of options that will be considered in more detail.** The number of public policy options that will be considered in more detail often depends on the complexity of the problem. Also, it is possible to combine some options, so that the final number of options increases. When making a list of options, the proportionality principle should be kept in mind so that the persons conducting the analysis focus on significant options.

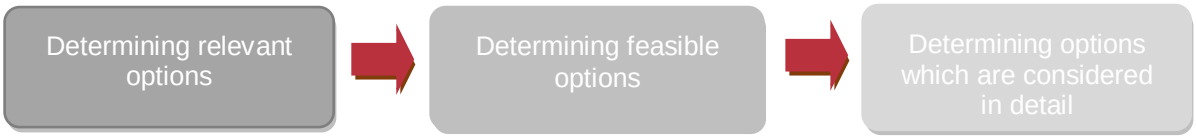


Figure 11. Selection process for public policy

3.4.1 Public Policy Measures as Potential Options

Options are different (alternative) measures or groups of measures for achieving specific public policy objectives.

A public policy measure is a set of key and related activities undertaken with a view to achieving an overall or specific objective, i.e. the desired public policy performance. By their nature, public policy measures can be:

1) Regulatory - which include regulations and other general acts that establish standards or rules of conduct.

Regulatory measures are applied if problems with a high degree of risk and/or significant impact on human health and safety are solved, i.e. if it is necessary for all stakeholders to act uniformly or in a standardised manner, which can be provided only by regulation or other general act, i.e. punishment for non-compliance with the prescribed norm, as well as if previous practices were unsuccessful and other public policy measures ineffective.

If the impact assessment indicates that a regulatory measure is the best solution or one of the measures that together constitute the best solution, the proponent's obligation is to consider repealing regulations that have shown to be ineffective or harmful and to avoid imposing unnecessary or excessive obligations on citizens and economic entities (e.g. unnecessary administrative burden).

2) Incentive - which include fiscal measures (subsidies, direct financial benefits, taxes, etc.) and other financial and non-financial measures.

Incentive measures are applicable when a particular objective can be achieved, i.e. when the causes of a key identified problem can be influenced by a change in prices and/or fiscal burdens so that the target group reacts to that change and harmonises its conduct, thus achieving a public policy overall and/or specific objective. Also, incentive measures can be used to stimulate the desired conduct by reducing the price that causes such conduct (e.g. encouraging investment by financial benefits or the transfer of goods).

3) Information and educational - which include information and educational campaigns, distribution of publications, educational programmes and similar activities.

These measures are primarily aimed at raising the level of awareness and knowledge about a particular issue, which affects changes in the conduct of a particular target group in relation to which public policy or regulation is implemented. Also, such a measure is applied in order to raise the level of knowledge that enables target groups to make their decisions on the basis of better information (especially in areas such as health, environmental protection, transport, etc.).

Information and educational measures should be considered as a complementary measure to the introduction of new regulations or significant amendments to existing ones, not only to raise public awareness and knowledge but also to strengthen the capacity of civil servants to implement the introduced innovations.

4) Institutional, management and organisational measures — include the establishment of new or abolition of existing institutions or redistribution of available resources in existing institutions (through change of organisational structure of the institution, change of number and responsibilities of its employees, etc.), such as state authorities and organisations, bodies and organisational units of local self-government unit and autonomous province, public agencies, public companies and other holders of public authority, etc.

Institutional, management and organisational measures are applicable when the existing organisational structure of institutions does not ensure their efficient functioning, i.e. implementation of other types of measures provided for in public policy documents.

5) Supply of goods and provision of services - by the planning system participants. These measures also include public investments (capital and infrastructure projects, etc.). They are applicable when a particular objective can be achieved, i.e. when the causes of a key identified problem can be influenced by the planning system participants supplying goods and providing services.

It is important to note that it is common for state intervention to be implemented through change. However, not every measure is regulatory. For instance, the establishment of the National Academy for Public Administration was carried out by a regulation concerning its establishment, but this measure is by its nature institutional, management and organisational because its objective was to create an institutional framework that would more efficiently and effectively increase the expertise of civil servants.

As stated, an option may consist of one or more measures, and a useful way to identify options is to answer the questions given in Appendix 4 of the Regulation.

3.4.2 Compatible and Exclusive Options

When determining options, it is good to determine whether they are mutually compatible or exclusive. The options are compatible with each other when two or more options can be combined, and they are exclusive when selecting one excludes the application of the other option.

Examples of mutually compatible and exclusive options

An example of solving the problem of unavailability of flats can serve as an illustration of mutually compatible and exclusive options. Namely, in the Republic of Serbia, there was a significant gap between the needs and possibilities of a large number of households to independently solve their housing needs on the market and the non-existence of systemic measures of housing support to such households. When developing a social housing strategy, it is possible to consider a number of relevant and feasible options. For example, it is possible to create the following list of options:

Option 1. *Status quo* — achieving desired state (solving a problem) is left to the market.

Option 2. Construction of socially owned housing (object subsidy).

Option 3. Financing poor households through housing allowance to increase their ability to pay rent (subject subsidy).

Option 4. Approval of facilities for obtaining construction plots and subsidising the purchase of construction materials.

Option 5. Use of uninhabited buildings (flats and rural households) for the purpose of permanently solving the problems of vulnerable groups.

Most of the options considered can be combined with each other, but Option 2 and Option 3 cannot. As budgetary resources are limited, the granting of object subsidies excludes the possibility of subject subsidies. Since both options are feasible, a decision needs to be made based on a detailed impact assessment of these options. In some cases, it will be necessary to develop a policy concept in order to make a decision on which of the exclusive options to implement.

The simplest options are those related to one public policy measure. For example, a particular objective can be achieved by adopting a regulatory measure or by achieving the same objective through incentives (e.g. by subsidising an activity). If it is not about exclusive measures, then it is possible to form a combination of these two options. As mentioned earlier, one measure may contain activities of a different nature. A regulatory measure, in addition to activities related to the amendment, adoption of a new or repeal of an existing regulation, usually requires the implementation of information and educational activities, and in some cases also institutional ones. Incentive measures usually contain information activities in order to absorb more planned incentives and achieve greater impact of the measure.

One option can be broken down to sub-options by changing the coverage of activities within a public policy measure.

In order to achieve change, it is also necessary, as a rule, to apply several measures. For example, formulating only incentive and information and educational measures will often not be enough without institutional and management measures.

Example of forming a list of options

The example shows three basic options that were considered to solve the problem of excessive trans-fat consumption, as well as combinations of options considered.

Option 1. Determining the content limit of industrial trans-fats in foods

Sub-option 1a. A voluntary standard by which the food industry establishes a content limit of industrial trans-fats in foods.

Sub-option 1b. Legal restriction imposing a content limit of industrial trans-fats in foods.

Option 2. Introduction of the obligation to designate the content of trans-fats and indicate them in declaration of a food product.

Option 3. Prohibition on the use of partially hydrogenated oils in the production of food products.

Sub-option 3a. A voluntary standard that obliges manufacturers not to use partially hydrogenated oils.

Sub-option 3b. A legal restriction imposing a prohibition on the use of partially hydrogenated oils.

Combination of option 2 and sub-option 1a - Mandatory declaration with voluntary standard.

Combination of option 2 and sub-option 1b - Mandatory declaration with legal restriction.

The first option is to determine the upper limit of the content of industrial trans-fats. This option can be applied either through voluntary standards - leaving it to the entities to determine the limit - or by prescribing the limit by law, so that two regulatory sub-options can be formed.

In relation to the first option, which is regulatory, the second option is information and educational. Namely, although in this case it is also necessary to prescribe the obligation to designate the content of trans-fats in the food product declaration, the essence of this option is to influence consumer behaviour by raising their level of knowledge and awareness of industrial trans-fats in the diet in order to reduce their intake.

The third option is also a regulatory measure, but it completely prohibits the use of certain raw materials in production. While it is possible to combine Option 2 with Option 1 (with sub-options 1a and 1b), Option 3 excludes the application of other options.

3.4.3 Options in Conducting Regulatory Impact Assessment

Forming a list of options when conducting a regulatory impact assessment follows similar steps, whereby the options (measures, or groups of measures) are focused on alternative regulatory solutions. Whenever assessing a regulatory impact, it should be borne in mind that it is often a better option to improve the application of existing regulations than to enact new regulations.

The analysis of options in conducting an impact assessment has several levels:

- The first level refers to whether the **regulation is the best solution** or it is possible to apply one of the alternative solutions (e.g. transfer of powers to third parties, "soft" forms of regulation, such as codes of conduct, self-regulation, etc.).
- The second level of analysis refers to the **analysis of key regulatory solutions**. In that case, it is necessary to show the options for key solutions that the proposed regulation contains. It is also necessary to consider whether it is possible to abolish or simplify administrative procedures in order to avoid imposing unnecessary costs on regulated entities.

Example of options for regulatory impact assessment

Option of simplifying the existing procedures and processes - implies that when conducting impact assessment, it should be considered whether administrative requirements and procedures are needed or whether it is possible to abolish or simplify them in order to reduce operating costs for companies or to reduce burden on natural persons.

Option of self-regulation (volunteering) - in certain areas it is often possible to use volunteering principle and leave regulation of those areas to representative associations, chambers.

Option of minimum changes - it is often needed to, above all, improve enforcement of the applicable regulations, so it is required to enter necessary amendments in respective regulation.

3.5 Impact Assessment of Public Policy and Regulatory Options

Impact analysis of public policy options or solutions in a regulation is technically the most demanding and complex step of impact assessment. The purpose of this phase of *public policy impact assessment* is to identify strengths and weaknesses and perform a comparative assessment of options (Article 24 of the Regulation) through analysis of financial impact, economic impact, social impact, environmental impact, management impact and risk assessment.

Options impact assessment is conducted only for those segments in which a pubic policy has a significant impact (proportionality principle).

By this step you have:

1. analysed the existing situation, established the change you want to achieve or the problems to be solved.

2. determined public policy or regulatory objectives.

3. identified target group and stakeholders.

4. identify available options to achieve objectives.

It is important to assess:

- possible direct and indirect option impact;
- possible distribution impact on various categories of society.

Result of option impact assessment should be a basis for comparison of options and proposal of the best option (measures or groups of measures for achieving a public policy objective) or the best solution in case of a regulation.

3.5.1 Financial Impact Assessment

Financial impact assessment implies:

1) **assessment of the financial resources needed to implement each of the measures — public policy options, i.e. solution from the regulation and determine the possible sources from which these resources are provided**;

2) **analysis of the financial impact of implementation of a public policy document, or regulation on the budget,** in accordance with the law governing the budget system.

The financial impact analysis includes analysis of the impact on government revenues and expenditures. In the case of revenues, this is a more complex assessment that can be influenced by a number of parameters. The most common mistake is if, when changing the tax burden, it is assumed that revenues will change in proportion to such a change. Namely, if a burden increases by 10%, it does not mean that tax revenues will increase by the same percentage. The extent to which revenues will increase (or decrease) depends on the presumed reaction of taxpayers. Other measures work in a similar way. For example, regulatory measures that change the requirements regarding the required production standards affect both the number of entities and their activity, which indirectly affects potential budget revenues. For certain measures, it is possible to use much more complex analysis methods or budget impact analysis is already included in the cost-benefit analysis described in Annex 5.5.2 to this Handbook.

Assessment of expenditures is somewhat simpler. In order to determine the financial impact of public policy, it is necessary to elaborate each option or measure to the level of activity in order to determine the costs that each of the activities or group of activities requires. A detailed overview of budget cost estimates is provided in the Public Policy Cost Determination Handbook. As

a rule, for the calculation of the impact on expenditures and expenses, the costs that are additional to the costs in a situation when the proposed measure or regulation would not be adopted are taken into account. Also, for the calculation of costs, it is necessary to use standardised prices which are determined for certain categories, i.e. subcategories of costs. The list of standardised costs and prices, as well as the methodology for their determination, can be downloaded from the website of the Ministry of Finance (www.mfin.gov.rs). Standardised prices are determined by the Public Policy Secretariat of the Republic of Serbia on an annual basis.

In the case of regulations, the elements regarding the assessment of revenues and receipts, or expenditures and issuances are already contained in the Financial Impact Assessment of an Act - Standard Methodology Form (FIA Form). In terms of the FIA Form - in addition to stating the impact on expected revenues and expenditures, the financial impact assessment implies an elaboration and an explanation of the assumptions on the basis of which the calculations of expected revenues and expenses were made.

When analysing and planning public policy measures, it is important to observe the rule that measures financed from the budget are planned for the next budget years, and for the current year only those measures for the implementation of which funds have already been secured in the budget or on another basis. Also, it is necessary to consider the issue of borrowing, redistribution of costs (from other positions), as well as the effects on other institutions (e.g. local self-government units, institutions that are not direct beneficiaries of the national budget, etc.). For example, if the powers are transferred from a state body to another entity, then it is possible that there will be a revenue reduction effect. Such circumstances should be considered in the financial analysis.

Regardless of the type of policy document or regulation, this is the **type of impact whose assessment is mandatory**, so changes in revenue and expenditure generated by options must be assessed in accordance with the regulation governing the presentation and reporting of estimated financial impact of law, other regulation or other act on the budget. The assessment should answer the questions listed in Appendix 5 of the Regulation.

3.5.2 Economic Impact Assessment

Most of the public policies developed and implemented by the Government have an impact on the economy. Many government interventions can encourage or hinder the creation or development of business, which, leastways, reflects on market competition, as well as on the country's competitiveness and economic growth.

Based on the economic impact assessment, the impacts of considered public policy options are reviewed regarding the economy in general and the conditions of competition, and especially individual branches of the economy and economic entities, including impacts on industrial growth, agricultural production, services, consumption and competitiveness of the economy, labour force and productivity, technological and infrastructural development, as well as distribution of social wealth.

Unlike the financial impact assessment, which assesses the budgetary implications of selected public policies, the economic impact assessment assesses the **costs and benefits of public policy options that the economy has in general**, and in particular certain categories of economic entities.

The first step of economic assessment is to consider all direct and indirect impacts (costs and benefits that have business entities, citizens). The second step is the cost-benefit analysis itself. Some impacts, especially direct ones, can be easily determined, and some cannot.

A special segment of the economic impact analysis is the analysis of impacts on micro, small and medium-sized enterprises.

When assessing the impact of regulatory options, a test of the impact on micro, small and medium-sized enterprises must be carried out

Annex 5 - Methods of Option Impact Assessment to this Handbook presents tools which can be used to quantify economic impact: cost-benefit analysis, standard cost model, cost-effectiveness analysis and the MSME test. For the standard cost model and the MSME test, additional material is available on the website of the Public Policy Secretariat of the Republic of Serbia.[8]

3.5.2.1 Direct and Indirect Economic Impact

The first step of economic assessment is to determine the direct and indirect impact of options.

- **Direct impacts** are direct effects of state intervention (public policy or regulatory measure. It is important to determine who is likely to be affected by the options considered (companies, consumers, public sector, etc.) and what costs they will bear (capital costs, costs for termination or changes in production process, operating costs, administrative costs…), or what benefits they will have from the considered options.
- **Indirect impacts** are those that indirectly affect entities that are not directly the target of public policy measures or the subject of regulation. Indirect impacts are effects related to changes in productivity, competition, changes in market structure, innovation, etc.

It should be noted that some of these effects are not expected (these are the so-called **unintended costs and benefits**) so that they can be determined only when a certain option of public policy or regulation is implemented, i.e. only when an *ex-post* assessment is conducted.

3.5.2.2 Types of Costs

In order to determine, and then estimate the costs, it is useful to classify them using the checklist (see *Figure* 12. *Distribution of costs*). As a direct consequence of public policy measures (regulations), the following types of direct costs can be distinguished:

1. **Compliance costs**. Public policy measures and regulations often require economic entities to harmonise their business, i.e. they require additional resources (time and money spent) of citizens. The compliance costs that entities must bear can be one-off and recurring.

One-off costs are incurred only once and are a consequence of the adjustment of entities to public policy measures or regulations and include:

- costs of information (getting acquainted with a measure or regulation);
- costs of change or introduction of new production processes, equipment, technological solutions, etc. in accordance with the requirements;
- costs of procuring services (e.g. accounting, legal, etc.).

[8] Available at: http://rsjp.gov.rs/reforma/#test.

In relation to one-off costs, other costs are recurred from time to time in order for the operations of economic entities to be continuously in accordance with public policy measures or regulations.

In addition, compliance costs can be divided into administrative compliance costs (obtaining permits or approvals, reporting, loss of time due to supervision, etc.) and structural costs (costs of adjusting the production process, procurement of equipment, etc.).

To calculate the administrative costs of compliance, a special tool is used - the standard cost model which is shown in Annex 5.3 - Standard Cost Model.

2. **Transitional costs**. The analysis of options should be based on a precisely defined period during which the consequences of state intervention — public policy measures — are expected. In the short run, the costs are often higher than in the long run. Adoption of public policy measures in the short run may lead to closure of production plants, unemployment, falling profitability of production, relocation of resources to other sectors. When long-term measures are taken, consumers or companies have more time to adapt to new circumstances. The analysis should clearly indicate the expected size and amount of these costs.

Similarly, two groups of indirect costs can be distinguished:

- **Allocative inefficiency** is an economic term that refers to the loss of social welfare that occurs when a change in public policy or regulation leads to a change in the behaviour of individuals or companies. For example, when a regulatory change affects already established market prices of goods and services (through taxes, subsidies, fees, etc.), consumers and companies react (by reducing or increasing the quantity they can buy or sell), and the prices of those goods or services change. A simple example is analysing the introduction of a special tax. Introduction of taxes leads to an increase in prices, which, as a rule, reduces the quantity demanded. Buyers buy smaller quantities at higher prices, which means they are at a loss. Sellers, on the other hand, sell a smaller quantity and earn less than in the previous situation, because they also usually bear part of the tax burden. The state generates additional budget revenue, but it is often less than the losses borne by producers and consumers, so the overall impact is negative, i.e. allocative inefficiency occurs.

- **Indirect negative economic impacts** refer to the change of the existing product quality, productivity of economic entities, the degree of innovation, the change of the market structure (barriers to entry). Detailed assessment and quantification of such impacts would involve the use of relatively complex methods of economic analysis. Such impacts can often be unintended and even ignored by those conducting the assessment. Indirect negative impacts that require special attention are:

  - Impacts on the change of market structure — state intervention may restrict the entry of some economic entities into the market or may force some to leave the market, as a result of which market concentration increases and competition in the market weakens;
  - Impacts on productivity — e.g. due to state intervention introducing new administrative requirements, companies are forced to hire new workers whose contribution is such as to reduce productivity (there is a decline in production per employee);
  - Impacts on investments — e.g. if the resources of economic entities are reallocated from expanding capacity or improving product quality to meeting new administrative requirements.

When analysing potential costs, the persons conducting the assessment can use the following illustration as a reminder, which shows all the listed direct and indirect costs that arise as a result of the considered options.

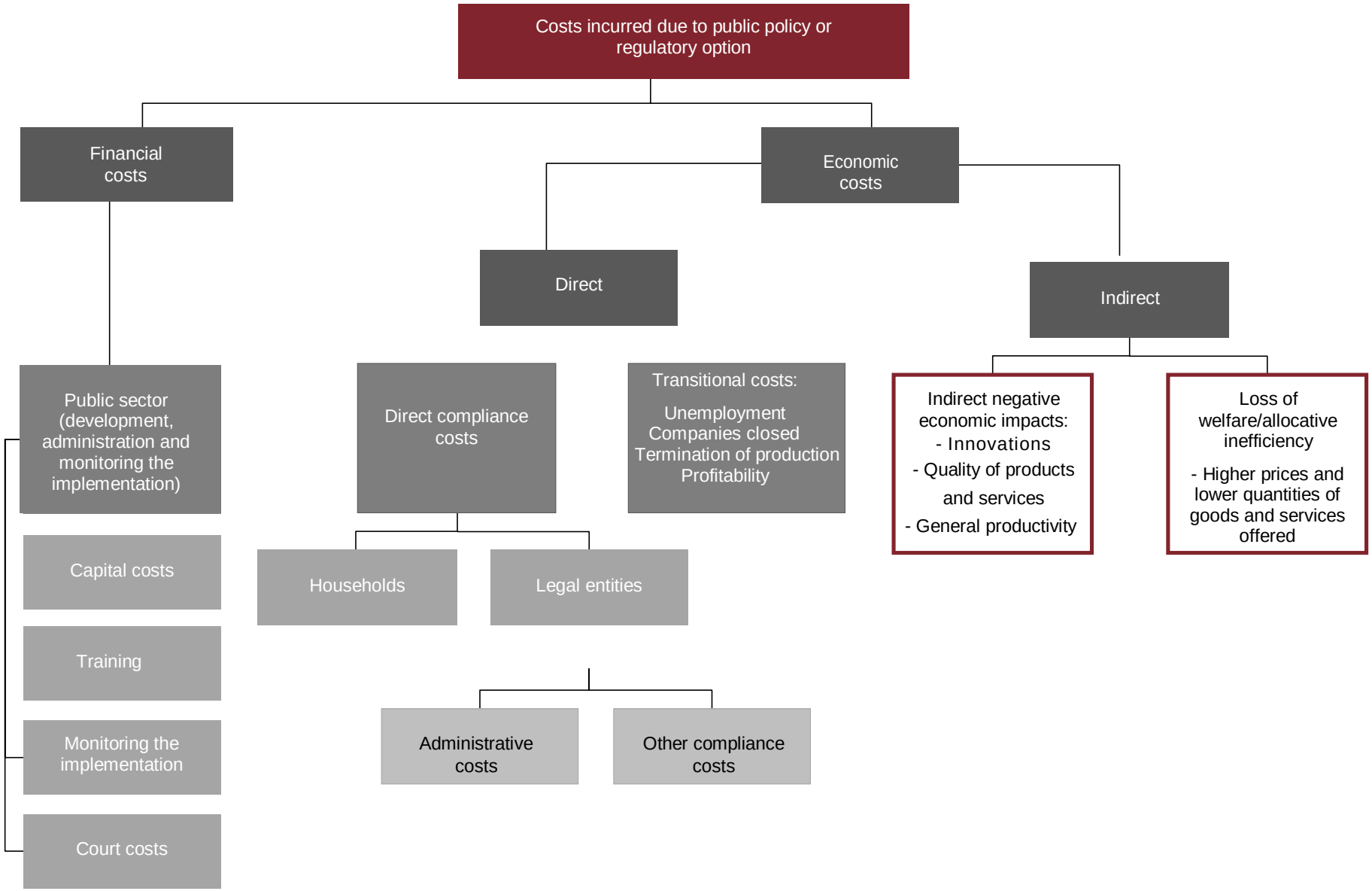


Figure 12. Distribution of costs

3.5.2.3 Types of Economic Benefits

In addition to cost estimate, economic assessment involves identifying and assessing the potential benefits of the options considered. When considering economic benefits, it is possible to use the previous illustration - if public policy or regulation is changed in order to save, then the benefits can be seen as cost reduction. Like costs, economic benefits include impacts on investment, application of new production methods, productivity, etc. Finally, in addition to the benefits for companies, the benefits to consumers should be considered (if a drop in prices, an increase in product quality, etc., is expected). The following box outlines the key issues to consider in the economic impact assessment.

The key issues to be addressed in the economic impact assessment relate to the impacts:

- on general business environment and/or different business sectors;
- on economic entities — how many additional one-off costs (tax burden, purchase of equipment, training, etc.) will be needed and to what extent will their current costs increase;
- on economic entities — how the option/measures will affect future investment decisions and the development of production and services and what impact is expected on companies in other sectors;
- on competition between companies in foreign and/or domestic markets;
- on overall productivity (production volume, yields, etc.);
- on introduction of innovations in companies;
- on general export opportunities (export market in geographical terms);
- on the development of small and medium-sized enterprises in quantitative terms;
- on the profitability of the sector as a whole and/or companies in different groups;
- on consumer rights;
- on purchasing power;
- on changes in input factors;
- on the price indices of goods and services;
- on the use of production capacities;
- on skills (qualifications) of the workforce.

3.5.2.4 Competition Impact Assessment

When conducting a regulatory impact assessment of regulations that set out conditions for business operation, special attention should be given to the impact a regulatory option has on the market and competition, such as potential creation of barriers to market entry and/or exit, restrictions of competition, conditions that favour certain groups of businesses, price or production levels setting, impact to availability of certain products or services etc.

A checklist that makes it possible to determine whether the option or draft/proposal regulation has impact on competition is shown in Annex 10 – Competition Assessment Checklist. If a selected option i.e. draft/proposal regulation affects competition, it is necessary to obtain an opinion of the Commission for Protection of Competition in accordance with Article 21, paragraph 1 item 7 of the Law on Protection of Competition (Official Gazette of the Republic of Serbia, no.51/09 and 95/13).

3.5.3 Social Impact Assessment

Social impact assessment considers the impacts of public policy option or regulation on different categories of society (affected groups), and especially on **individuals or groups of persons** who are in a difficult or specific social situation or whose situation may worsen in the event of state intervention.

Affected groups are often at the same time vulnerable groups (single parents, the elderly, the unemployed and low-income persons, persons with disabilities, etc.). Special attention should be paid to those who are vulnerable on multiple grounds (e.g. low-income families and persons with disabilities). Other categories of persons who do not belong to vulnerable groups, but whose options can be significantly affected, should not be neglected.

In this segment of the impact assessment, the **gender aspect of the considered options is especially considered**. The assessment of potential impacts should take into account the existing differences between women and men that are relevant to respective policy area. A detailed overview of this segment of the assessment is given in Annex 4 - Key Public Policy Areas for Social Impact Assessment to this Handbook

Options can increase the disposable income of certain groups of the population, but at the same time significantly worsen the position of other groups. In such cases, special attention should be paid to "winners" and "losers". Observing the average impact is insufficient, so it is necessary to consider the distributive impact of options.

More relevant information on the assessment of social and poverty impacts can be found in the EC Guidance for Assessing the Social and Poverty Impacts and Poverty and Social Impact Assessment Tools issued by the World Bank.[9]

Social impact assessment covers six areas:

1. Employment and labour market;
2. Standards and rights related to job quality;
3. Social inclusion and protection of certain groups;
4. Equality of treatment and opportunity, non-discrimination and gender equality;
5. Social protection, health, social security and education systems;
6. Public health and safety.

Key public policy areas for social impact assessment are given in Annex 4 - Key Public Policy Areas for Social Impact Assessment to this Handbook.

3.5.3.1 Gender Equality Impact Assessment

Gender equality impact assessment refers to the integration of the principles of gender equality. This type of assessment requires that the data be disaggregated by gender. If a proposal relates to daily life of a population with existing differences between men and women, gender equality impact assessment will be needed. In particular, the regulation requires consideration of the public policy (regulation) impacts on gender equality. Gender inequalities, their causes and effects

[9] Sources: http://ec.europa.eu/smart-regulation/impact/key_docs/docs/guidance_for_assessing_social_impacts.pdf and http://documents1.worldbank.org/curated/en/278581468779694160/pdf/304050ENGLISH01ers0Guide01may020031.pdf.

are not always obvious, but they can create serious problems if they are not given the necessary attention.

The detail of the gender equality impact assessment is determined based on the results of the gender equality test.

3.5.4 Environmental Impact Assessment

Many public policy options have no or very little impact on the environment. However, there are public policy options, especially in industry, agriculture, energy and the transport sector, that can have a significant impact on the environment. For example, construction of industrial parks and railways, expansion of agricultural land at the expense of deforestation, destruction of meadows and drying up of land will have a greater impact on the environment than public policies on increase of pensions, salaries, benefits or expansion of health services that are provided free of charge to the population.

In light of the complexity and the level of detail of the environmental impact assessment, the Handbook instructs readers to use several sources for the purpose of conducting a more detailed assessment:

- Strategic Environmental Assessment (*The Official Gazette of the Republic of Serbia*, Nos. 135/04 and 88/10) for plans and programmes;
- Environmental Impact Assessment (*The Official Gazette of the Republic of Serbia*, Nos. 135/04 and 36/09), as well as relevant documents of the domestic legal framework for environmental impact assessment.

It is important to note that, above all, this approach to assessment refers to specific projects, and not to public policies.

The European Commission distinguishes between an environmental impact assessment carried out for individual projects, such as a dam, motorway, airport or factory ("environmental impact assessment") and an impact assessment carried out for plans, programmes and public policies ("strategic environmental assessment").[10] More relevant information for conducting environmental impact assessment can also be found in the World Bank's Environmental Impact Assessment Manual.[11]

The key issues for determining the environmental impacts are presented in Appendix 8 of the Regulation.

3.5.5 Management Impact Assessment

Management impact assessment examines the legal, organisational, management and institutional aspects of the effects of the considered public policy options. This type of impact assessment is key to planning the available resources needed to implement the measures contained in these options.

[10] See EU directive concerning public and private projects impact on environment. Available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0052&from=EN.

[11] World Bank's Environmental Impact Assessment Manual available at: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/223391468174870007/environmental-assessment-sourcebook-volume-1-policies-procedures-and-cross-sectoral-issues.

A useful tool for management impact assessment is the SWOT matrix. It can identify the weaknesses of the existing, as well as the advantages of the proposed changes in the organisational and management structure. It is also possible to consider how changes in the organisational and management structure affect other bodies and whether there are the necessary capacities (primarily human resources), as well as external constraints.

Management impact assessment is properly conducted by answering the key questions contained in Appendix 9 of the Regulation.

3.5.6 Impact Mapping

At first glance, the number and coverage of previous assessments is very large. Impact mapping can be used to determine how and to what extent to respond to the requirements presented in the assessment. Otherwise, conducting the assessment can be reduced to giving very short answers to the questions asked.

Mapping means that the key impacts for each segment of the assessment are classified according to:

- the magnitude of the expected impact;
- the importance of stakeholders;
- the probability of the impact occurring;
- expected duration.

When mapping, each of these impacts can be commented on. Impacts that are not relevant can be skipped.

Annex 6 - Example of Impact Mapping to this Handbook gives an example of mapping according to the areas of assessment and relevant issues of the areas in accordance with the Regulation.

The proportionality and precautionary principles are applied during mapping, so it is necessary to provide detailed answers only to those impacts that are significant according to the observed criteria.

It should be emphasised that the decision about the areas that will be further analysed is primarily up to the persons conducting the assessment. For example, those who conduct the assessment may decide to additionally consider medium-sized impacts, to pay more attention to certain impacts, and so on.

3.5.7 Analytical Methods - Impact Assessment Tools

There is no single and best approach to using analytical methods to assess the magnitude and significance of impacts. The scope and manner of application of analytical methods varies from case to case. Countries with the most experience and available resources in applying impact assessment often tend to monetise benefits and costs.

In the practice of the EU, the UK and several EU member states, the components of impact assessment are often more detailed cost-benefit analyses (CBA), but cost-effectiveness analyses (CET), multicriteria analysis and risk analysis are also applied.

In addition to the above, methods that have a somewhat narrower scope are also used because they consider only one segment of the assessment — compliance cost analysis and standard cost model or business impact analysis.

Of the above analytical methods, the most commonly used is cost-benefit analysis, which provides an answer to the question of whether a certain activity should be regulated, i.e. which of the considered alternatives achieves the greatest net social benefit. In practice, application of impact assessment is usually reduced to soft cost-benefit analysis. This implies that quantifiable costs are shown, while a more detailed presentation of other costs and benefits is reduced to a description.

In numerous countries, partial approaches are insisted on, which pay special attention to certain segments of impact assessment. First of all, it is about the analysis of the administrative burden of the business sector. A number of countries use the standard cost model in the analysis, which is detailed in Annex 5.3 - Standard Cost Model.

A more detailed overview of analytical methods is given in Annex 5 - Methods of Option Impact Assessment to this Handbook.

There is no rule for determining which approach to use when conducting a detailed impact assessment. Which method is desired depends on the area covered by the public policy or regulation, deadlines, available resources, as well as the costs required by the application of the method. Finally, the approach also depends on whether it is possible to monetise the costs and benefits of the options considered.

Table 1. Methods of impact assessment and their use

Method	Use
Cost-benefit analysis	Are social benefits greater that social costs?
Cost effectiveness analysis	Is the proposed approach such that it requires the least costs to achieve the objectives?
Risk analysis	Is the risk of inactivity greater than the risk of taking action?
Sensitivity analysis	What is the degree of certainty of the assessment?
Sensitivity analysis and standard cost model	What are the costs in total or only administrative that have entities of regulation?

3.5.8 Risk Analysis

Risk analysis is one of the mandatory elements of the impact assessment in accordance with the Regulation. Since the effects of the considered public policy options cannot always be predicted with certainty, it is necessary to conduct a risk analysis (Article 30 of the Regulation).

Risks are situations in which it is possible to determine the probability of an event occurring. Risk is a combination of the probability of an event occurring and the probable severity of its consequences.

Uncertainty refers to situations for which the probability of an outcome is unknown.

How to analyse a risk? Risk analysis is, as a rule, complex and differs among public policy areas. According to the proportionality and precautionary principles, it is carried out on a case-by-case basis.

Potential risks are numerous and related, and can be determined on the basis of previous experience, monitoring the implementation of measures and activities, expert opinions, etc. The key issues for risk analysis are given in Appendix 10 of the Regulation.

Table 9. Types of risks

Type of risk	Description
Operational risk (feasibility risk)	The risk that the body responsible for implementing a public policy is unable to implement that public policy.
Public policy finance risk	The risk of delays or waivers if there is no source of public policy funding.
Public policy change risk	Risk that a public policy will change in future.
Public policy sustainability risk	Risk that maintenance costs or implementation costs will be higher than those budgeted.
Public policy reputational risk	Risk that a public policy proposal will have a negative connotation.
Risk for construction of infrastructure, facilities...	Risk that construction of infrastructure or facilities will not be on time, within the budget or according to the specification.
Environmental risk	Risk that a public policy type is such that it can have a significant impact on the environment.
Health and safety risk	Risk that a public policy type is such that it can have a significant impact on the safety and health of people.

Risk analysis can be simply reduced to a few steps:

1) In the first step, **the relevant risks are identified**. Risk is not necessarily related only to the problem that is to be mitigated by public policy (or regulation) but also to public policy activities and measures that seek to mitigate the original risk.

2) In the second step, the risks **are analysed according to their source**. Questions 2) and 3) from Appendix 10 of the Regulation are relevant for this step, and an extended list of potential risks given in Table 10 of this Handbook can be used. The list is not complete because it is possible to identify many other types of risks that occur on a case-by-case basis.

3) In the third step, **acceptability of these types of risks is determined**. Degree of risk with regard to the proposed public policies is acceptable if it has not exceeded a certain level in relation to the established criteria. If the risk is negligible, it can be tolerated (**acceptable risk**). If the risk exceeds a certain degree (depending on the area), i.e. if it is low, medium, high and critical, it is necessary to consider activities that avoid its various types.

4) In the fourth step, **activities and measures before and after the implementation of public policies that avoid and reduce various types of risks are considered**. This step considers ways to manage risk. It should be borne in mind that measures aimed at reducing one type of risk often affect the change of another type of risk (e.g. a ban on the use of a particular chemical that reduces negative effects on the environment may lead to the use of another that has a greater negative effect).

Risk, as a rule, cannot be completely avoided, and if it is possible, then the costs of activities and measures are prohibitively high.

3.5.9 Scenario Analysis

Civil servants may give unreasonably pessimistic assessments to avoid liability for proposed reforms, or they may make very optimistic assessments (e.g. in respect of revenue generation, regulation compliance levels, climate change, etc.) when trying to promote a preferred option.

Scenario analysis is a method used to consider the consequences of changing circumstances that affect policy implementation. Therefore, it is desirable to consider two or three scenarios in the analysis, i.e. outcomes: optimistic (most favourable), pessimistic (unfavourable) and expected (most probable) (Article 30 paragraph 3 of the Regulation).

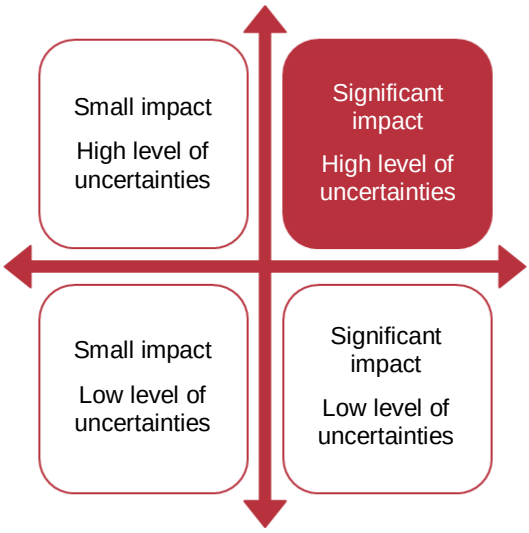


Figure 13. Ratio of effects and uncertainties

In practice, the scenario is often insufficiently different from predicting future circumstances

Scenario development provides better inspection of risks and potential effects. In view of the changed circumstances considered, the scenarios must be:

1) Probable - improbable scenarios should not be considered;

2) Consistent — no need to consider several different circumstances which are mutually contradictory.

How to analyse scenarios? In practice, there are several ways to develop scenarios. When developing a scenario, one should keep in mind what is the centre of public policy and the period under consideration. The scenario analysis relies on the previous steps of the impact assessment.

1) In the first step, factors that may influence the implementation of public policy are taken into account. It is useful to distinguish between factors at the micro level (e.g. trends in a particular sector) and at the macro level (e.g. accession to the European Union, technological change, etc.). The list of factors that can be used has already been described in the PESTLE analysis.

2) In the second step, the factors are ranked according to the significance of their impact and the probability of their occurrence. The simplest way is to assess the factors by giving them a high, medium or low level of significance, i.e. the probability of the occurrence. The subject of the scenario analysis are factors of high significance for which there is a high probability that they will occur.

3) In the third step, the logic of the scenario is determined, i.e. the circumstances that have a potentially significant effect and a high level of probability of occurrence are considered. This is a key step that should lead to a scenario that will finally be considered, and in which a change of circumstances can lead to significant consequences for the implementation of public policies.

4) The fourth step describes the scenarios that need to be probable and consistent. Scenarios should also be sufficiently different, i.e. not just a simple variation of one scenario. Such scenarios can then be clearly distinguished and, depending on the assumptions, marked as

"pessimistic", "optimistic" and "expected". Scenarios can be called differently if such names allow the reader to more easily distinguish the assumptions of the scenarios. Scenarios should be briefly described, which means that the changed circumstances, time period and cause-and-effect relations of changed assumptions and public policy performance should also be stated.

When analysing a scenario, do not use nor assign any probability to it. It is desirable not to use the term *most probable* and alike.

5) In the fifth step, the consequences of the scenario are considered. This section should answer whether and in what way the scenario affects public policy and what activities and measures can be taken to reduce the negative effects.

Advantages and disadvantages of scenario analysis. On the one hand, this method is suitable when there are numerous factors to consider that characterise a high level of uncertainty. Scenario analysis encourages a proactive and strategic approach to thinking, facilitates the exchange of information and shows the effects of public policy options.

On the other hand, development of credible scenarios is often problematic in practice. It is possible to unintentionally exclude improbable scenarios (black swan scenario) and if they do occur, public policies are not prepared to respond to such changed circumstances. Scenarios are often very general and have limited practical value.

3.6 Comparing Public Policy Options and Selecting the Best One

Comparison of options (Article 31 of the Regulation), i.e. comparison of advantages and disadvantages of each option allows to select the best option (Article 32 of the Regulation), which will enable the most efficient achievement of specific public policy objectives. At the same time, the persons who perform the impact assessment should keep in mind that there is no perfect option.

Each option has its advantages and disadvantages, and it is up to policy decision-makers to take a final position on whether and what kind of public policy (i.e. measures) and regulations they will implement.

The steps in this phase can be presented as follows:

1) the criteria on the basis of which the options are compared are determined (the criteria refer to the expected positive and negative, direct and indirect impacts, including the risks and uncertainties of their implementation);
2) the options according to each of the established criteria are compared;
3) arguments for and against each option are determined;
4) key arguments for and against each option are singled out in order to evaluate and rank the options.

3.6.1 How to determine the criteria?

The criteria on the basis of which the best public policy option or solution in a regulation is selected depend, first of all, on the area and nature of the proposal, but also on the value attributes that a society, i.e. decision makers attach to changes. In this context, impact assessment allows a number of criteria to be taken into account when making policy decisions, such as effectiveness, cost-benefit ratio, risk and necessity.

The criteria allow information to be exchanged between stakeholders and decision makers about the reasons for selecting a particular option.

It is desirable that the criteria be determined on the basis of previously established objectives.

Three basic criteria that are applicable in conducting almost any impact assessment are as follows:

- Effectiveness criterion (the extent to which the option achieves the set objective);
- Efficiency criterion (the extent to which the option achieves the objective for a given level of resource use);
- Compliance with other public policies (to what extent the option corresponds to the existing direction of reform or to what extent it restricts selection in other domains).

When determining the criteria, it is desirable to take into account other criteria, such as implementation speed.

The rules for selection of criteria:

- The criterion should cover all important aspects of the options that are considered;
- The criterion must not be vague or too broadly defined;
- The criteria must not be very similar, so as not to repeatedly calculate the advantages and disadvantages, i.e. the criteria should be independent of each other.

Clearly defined criteria allow:

- the options to differ from each other, i.e. to be compared (ranked), each option is evaluated according to each criterion;
- to determine acceptable or to single out the best options.

3.6.2 How to compare options?

Criteria can have different significance, i.e. it is possible to attribute different levels of significance to them — weighting factors. It is important to reduce subjectivity when determining criteria because their selection depends in part on the judgment of the persons making selection. Nevertheless, subjective assessment in terms of selection and assigning levels of significance to criteria is a much smaller problem than informal consideration of options.

Options can be compared using quantitative or qualitative criteria. Quantitative criteria can be expressed e.g. in a unit of time, money or costs, etc. Qualitative criteria imply that options are descriptively evaluated in relation to the level on which they meet the considered criterion.

Probably the simplest method for evaluating options is **multi-criteria analysis**, which is presented in more detail in Annex 5.1 - Multi-criteria Analysis to this Handbook. Multi-criteria analysis makes it possible to evaluate options by taking into account different criteria, both quantitative and qualitative, each of which has its own weight. This method is especially useful when it is difficult to quantify or monetise the impact of policy options. Namely, for a number of public policies:

- potential effects are such that they are very difficult to quantify (e.g. legal certainty, human rights, etc.), but it is possible to conduct only some kind of qualitative analysis;
- it is possible to quantify potential effects (e.g. the number of consumers who will benefit from regulatory change), but they are very difficult to quantify (monetise);
- the amount of information and its complexity are such that it is difficult to process them consistently when making decisions.

After the list of criteria is formed, i.e. the criteria (and sub-criteria) have been determined, the options are considered. The criteria should be grouped so as to reflect the objectives to be achieved by public policy, i.e. regulation, as well as the key effects of the option under consideration (economic, managerial, social, etc.). It is useful to group the criteria when more of them are defined or when they are ranked by importance.

When considering the option, it is desirable to form a performance matrix in which marks (points) or advantages and disadvantages against each criterion are entered. Some criteria can be crucial, so assigning weighting factors is very useful. The table (performance matrix) provides an overview of possible criteria when comparing public policy options.

Table 10. Matrix of option performance in relation to criteria

Criterion	*Option 1*	*Option 2*	*Option 3*
Effectiveness - The level to which an option is expected to achieve the objectives of the proposal			
Efficiency - The level to which objectives can be achieved for certain level of resources (at the lowest cost)			
Proportionality - The option should not require more than necessary to achieve the objective			
Simplicity - How easily the form of state intervention is applied			
Compliance - The level to which the option corresponds to the existing direction of reform or limits other solutions in other areas			
Necessity - Justification of the option			
Precaution - Does the option create unacceptable risks			

In addition to the above criteria, other criteria may be included, on a case-by-case basis, such as transparency, fairness, etc.

When comparing options, it is desirable (if possible) to use quantitative techniques (Article 31 of the Regulation). **Cost-benefit analysis** is suitable for comparing public policy options that can be easily quantified and monetised. However, all costs, and especially all benefits for most public policies, are not easy to quantify and monetise. In such cases, an alternative solution is to apply a **cost-effectiveness analysis**, which is reduced to cost monetisation, while the benefits are compared only as quantitative values, such as units and percentages. For example, in a labour market policy, the cost of increasing unemployment benefits can be relatively easily monetised, while the benefits (advantages) can be expressed and compared as a decline in the number of the unemployed, the unemployment rate, or the unemployment growth rate.

As already mentioned, the final decision regarding selection of the best option is up to the proponents of public policies or regulations, i.e. the participants in the planning system.

Motives and feasibility options

When considering options, the motives of regulated entities and regulatory bodies should be taken into account. State intervention and regulation primarily affect the encouragement of regulated entities to comply with the rules, or the encouragement of regulatory bodies to enforce the rules. It is crucial to understand the motives, or reactions to alternative solutions. For example, in the case of social housing, it is possible to ask whether local self-government units are encouraged to have social housing facilities on their territory. It is possible to formulate a series of questions that can help to get answers about the extent to which a solution is feasible:

- Do regulatory entities perceive the existence of the problem and how do they see their role in it?
- Do regulatory entities understand the objective of the regulatory body and do they think that the objective would be achieved if they changed their behaviour?
- Can regulatory entities (in the conditions of existing resources and available technology) behave in the expected way?
- What are the external circumstances (economic situation, unemployment, competition?
- How do regulatory entities perceive penalties and what is the probability that penalties will be imposed?
- Is the behaviour that leads to the problem considered common?

3.6.3 Selecting the Best Option

Based on the results of the impact assessment, it is possible to form a list of options first, and then select the best option among them, as the best way to achieve change and the set objectives. If there are three or more options on the list, none of which can be eliminated, all options are subject to more detailed analysis.

The steps in this phase can be summarised as follows:

1. Take into account all the positive and negative effects of each option and compare them with each other, regardless of whether their effects are expressed qualitatively, quantitatively or monetarily;
2. Make arguments for and against each option;
3. Compare the options according to each of the used criteria;
4. Present the key conclusions on each option, which can be used in the impact assessment report, or in the relevant public policy document;
5. Clearly indicate the criteria and reasons on the basis of which the best option was selected.

The best option is proposed by the proponent to the a public policy document or regulation adopting authority, but the final decision regarding the best option is made by the public policy document or regulation adopting authority, who may decide on another option or supplement the recommended or proposed best option with some new elements. In that case, the issuer should explain why he/she selected a solution different from the proposed one.

3.7 Data Collection

Data collection is one of the most important parts of the impact assessment process, the quality of which depends on quality of the assessment. Consequently, it is crucial for the assessment itself to determine what data is needed and what data collection techniques will be applied, as well as to establish data quality standards.

Selection of data to be collected primarily depends on the selection of indicators on the basis of which the situation in the area is monitored, i.e. performance indicators on the basis of which the level of achievement of already established objectives and public policy measures is monitored.

Impact assessment usually requires data that are specific because the data usually refer to the possibility of applying public policy measures and solutions in the regulation governing a specific, often very narrowly defined area.

Since this is the most time-consuming part of the process, it is necessary to start collecting data as soon as possible and to determine the criteria for their selection and quality in time. The necessary data should be monitored and collected systematically, which ensures continuous monitoring of the situation in the area.

Many data can be obtained from the body in which the persons conducting the assessment work, companies or individuals, or entities whose status and activities are the subject of public policy or regulation. In this context, **consultations with target groups and stakeholders** can be a basic source of data or a solution to a problem if no data is available at all. The consultations also represent an opportunity to transfer part of the costs of data collection to the participants themselves who are affected by possible public policy measures, or changes in regulation. In principle, those affected by public policy measures are often encouraged to provide the necessary information, but those conducting the assessment must take into account the credibility of the data collected in this way. More information about public participation in the process of preparation, implementation and monitoring of the implementation of public policies and regulations can be found in a special handbook.

The fact that the data collected by third parties have been taken over does not deprive decision makers and proponents of responsibility for the adopted public policy or regulation - the ultimate responsibility lies with public administration bodies and civil servants and responsible officials.

3.7.1 Steps to Identifying the Necessary Data

Steps in the process of collecting the data needed for impact assessment include:

1) preliminary determination which data are needed;
2) classification of data into available and missing;
3) determination of the manner in which the missing data will be obtained.

In the process of identifying the required data, the following is needed to determine:

- sources;
- time required for their collection;
- phase of the assessment in which they will be used.

The necessary data are identified and, if necessary, redefined throughout the impact assessment.

The necessary data are identified when the desired condition and problems and objectives are determined, i.e. when the population that is directly or indirectly affected by change is determined. Narrow problem definition implies less information requirements, and broad problem definition creates higher information requirements.

For example, if a change/problem concerning inaccessible and inadequate housing is considered, it depends on how the desired change/problem is defined whether data will be collected on the number of flats and missing flats and on the basic characteristics of the vulnerable population (demographic, geographical etc.) or data on average rent, income, financial indicators of the construction sector, etc. will be collected. The narrower the desired change is defined, the smaller the coverage of the required data

Data needs to be identified and collected for the second time when options are identified. By considering the *status quo* option (baseline scenario), there is a need for data on the basis of which it is possible to analyse existing trends, as well as data on factors that may play a key role in changing trends. The higher the number of options, the higher the coverage of the required data.

In the previous example that considers the change in respect of social housing, these are changes in market circumstances (e.g. expected trends in the flat supply-demand relation, number of permits issued), external factors affecting costs and benefits (e.g. solving problems of the persons with refugee status). As the number of options considered increases, so does the need for data.

Data needs to be identified and collected for the third time when options are analysed. In this phase, it is necessary to quantify the costs of options and the benefits of them. The need for additional data depends on which analytical method is selected and which analysis criteria are chosen. The objective of identification and data collection in this phase is to form indicators that allow options to be compared (e.g. annual costs of enforcing regulations, costs of enforcing regulations by municipalities, etc.). For example, if administrative costs are calculated when comparing options, then it is necessary to determine the average hourly wage of employees who perform these procedures, the costs of hiring third parties, administrative fees and the like.

Data needs to be identified and collected for the fourth time during implementation monitoring and evaluation. The need for data during monitoring depends on which performance indicators are chosen. In the context of the analysis, performance indicators are quantitative data clearly determined in time and space, which enable the implementation of the chosen solution to be monitored and evaluated (e.g. reduction of the number of persons with unresolved housing issues, number of available social housing, etc.).

3.7.2 Collection of Necessary Data

When data is available, it is easier to precisely determine the existing and desired situation, conduct an impact assessment and reduce the risk of challenging the proposed solutions. Also, some data are available only on the aggregate level, so that their classification (disaggregation) according to territory, gender, age, education, work activity or other characteristics is difficult.

According to sources, the data are divided into primary (direct) and secondary (indirect). Primary data are generated through monitoring the implementation and evaluation of public policy itself (surveys, questionnaires, interviews with key partners and users, focus groups, interviews with local community representatives, etc.) Secondary (existing) data are collected from relevant studies and administrative sources (reports by national and international institutions and organisations, registers) or are data collected for some other purposes (expert analysis, etc.). More information about data division will be in the next section.

The justification that is often mentioned in order to give up data collection is the high cost and duration of the process. While such circumstances may represent an objective limitation, the benefits of the extra effort put into data collection are often many times greater than the costs that such collection creates.

Data collection process includes answers to the following questions:

- Who is in charge of data collection and evaluation and is there already a system that enables supervision over data collection and evaluation?
- Who will be required to collect data and how often?
- How will the collected data be used? Will they be used independently, "raw" or are they needed for recalculation of more complex data?
- Is it necessary to collect data that have not been previously analysed?

Data collection techniques

Data collection techniques often require specific knowledge. The basic data collection techniques are usually:

- **Searching the literature and available databases**
- **Consultation of experts in certain fields**
- **Survey - use of questionnaires to collect data**
- **Focus groups**
- **Use of complex models** (econometric models, input-output tables, macroeconomic models, etc.). Applying the model is a good way to calculate and predict the potential effects of different options. These data collection methods are an extremely expensive way. They, as a rule, require the engagement of third parties or are available only to certain ministries (e.g. the Ministry of Finance has developed a “bridge” model for GDP projections). Also, the models are sensitive to errors in assumptions, so it is possible to obtain very different results if the parameters of the model change. Given the high level of sophistication and the need to have appropriate tools, these models can only be applied when making very detailed analyses.

For more details on data collection techniques, see the Public Policy Management Handbook, and on techniques for conducting surveys, expert and focus groups, round tables and other methods of collecting data from the public in the Handbook on Public Participation in Planning, Developing and Monitoring the Implementation of Public Policies and Regulations.

3.7.3 Types of Data, Reliability and Impartiality of Data

Data collection involves the use of various collection techniques, from a simple search of existing databases and studies, the so-called passive consultations, through surveys, focus groups, all the way to the use of complex models.

According to collection method, data sources can be divided into direct and indirect.

- **Direct sources provide primary data.** Thus, with the help of a specially created survey or other procedure, specific data are obtained, if necessary, for the needs of impact assessment. Advantage of direct data is that they can be fully adapted to *ad hoc* analysis needs. On the other hand, they require significant resources and the application of appropriate statistical methodologies, so they are of limited application.
- **Indirect sources allow secondary data to be collected.** These are data and information that are already available and that have been previously collected for some other purpose. They can be found in administrative or statistical databases. These are, for example:
- Regular statistical surveys conducted by the Statistical Office (censuses, statistics of vital events, education, judiciary ...)
- Administrative data of other official bodies and organisations that are producers of statistical data (NBS, NES, "Batut", MoI ...)
- Extraordinary statistical surveys — Survey on Income and Living Conditions (SILC), Multiple Indicator Cluster Survey (MICS), Time Use Survey (TUS), Living Standards Measurement Survey (LSMS)

Official statistics provide, on an impartial basis, numerical and representative data on mass economic, demographic and social phenomena and on phenomena in the field of working and living environment, for all users: for economic entities and their associations, state bodies, bodies of autonomous provinces and bodies of local self-government units, for cultural, educational and scientific institutions, as well as for the general public. The general recommendation is always to use official statistics. If users are in doubt about the interpretation of data, there are, as a rule, methodological instructions that are necessary for understanding the data and their use.

The most important sources of official statistics are:

- Statistical Office of the Republic of Serbia;
- National Bank of Serbia;
- Institute of Public Health of Serbia "Dr Milan Jovanovic Batut";
- National Employment Service;
- Pension and Disability Insurance Fund of the Republic of Serbia;
- Republic Institute for Social Protection;
- Ministries, agencies and other bodies in charge of certain areas.

In addition to state databases, it is possible to use databases provided by academic institutions, non-profit or international organisations or the private sector. In this case, it is somewhat more difficult to access the data, but this data, as well as data collected from state sources, can create a problem when comparing data.

Finally, very important data sources are international databases, such as Eurostat, the IMF, the OSCE and the World Bank. In addition to them, composite indicators are often used in practice, which aggregate multidimensional processes into simplified quantitatively expressed indicators. Such indicators enable comparison with other countries (benchmarking) and monitoring of progress

in achieving the effects of public policy measures in the observed area (quality of the business environment, competitiveness, environment, education, innovation ...)

When collecting data, the persons conducting the analysis should take into account their reliability and impartiality.

Most analyses use indirect data, the relevance and reliability of which can be questioned given the way they are collected. Consultations are a way to find an adequate balance to eliminate these shortcomings and to obtain data when the usefulness of indirect data for analysis purposes is low or when they are not available. The problem of data reliability can be reduced with the help of experts, by comparison with relevant countries and the like.

An additional problem arises when data providers can do so selectively to promote their own interests. Such data are biased. For example, the data presented by companies often contains exaggerated costs of regulatory compliance. The consequences are reflected, first of all, in the bias and/or lack of relevance of the collected data.

3.8 Presenting Results of the Conducted Impact Assessment

A proponent explains the results of the conducted impact assessment in the report on the conducted impact assessment. **The proponent presents a summary of the conducted impact assessment in the public policy document**. This means that the key findings of the impact assessment are presented in the document itself, while the complete report, which contains an overview of the entire assessment, can be prepared separately and added as an annex to the policy document.

The proponent of a public policy document or regulation is obliged to publish the findings of the conducted impact assessment on its website, i.e. on the e-government portal, together with the draft public policy document or regulation, no later than the day of the public consultation.

3.8.1 How to present the results of the conducted impact assessment?

The results of the conducted impact assessment are presented in the report on the conducted impact assessment, the content and form of which are precisely determined in Articles 36−38 of the Regulation. This handbook focuses on the first three elements of that report.

Report on the conducted impact assessment should be:

- written in simple language - to establish a balance between technical jargon and a language acceptable to users, easily understood by both decision-makers and stakeholders;
- relatively concise - so that the scope of the assessment is proportional to the significance of the considered problem;
- clearly argued - the arguments supporting the findings of each phase of the policy impact assessment should be sufficient (in terms of quantity and quality) to make decisions

4 *EX-POST* IMPACT ASSESSMENT AND EVALUATION OF A PUBLIC POLICY AND REGULATION

The LPS stipulates that during and after the implementation of adopted public policies and regulations, an *ex-post* impact assessment shall be conducted in order to review the progress in achieving the set objectives, to evaluate performance of these public policies and regulations and to review and improve them.

While *ex-ante* assessment is part of design and planning, *ex-post* assessment is the activity of monitoring during implementation, evaluation and management within the policy cycle. It should be noted that the ***ex-post* assessment is conditioned by the quality of the *ex-ante* assessment, and that the *ex-post* assessment is a key source for conducting a new assessment**, which based on the results of monitoring and evaluation considers the need to change or abolish public policy measures (regulations) or to bring new ones.

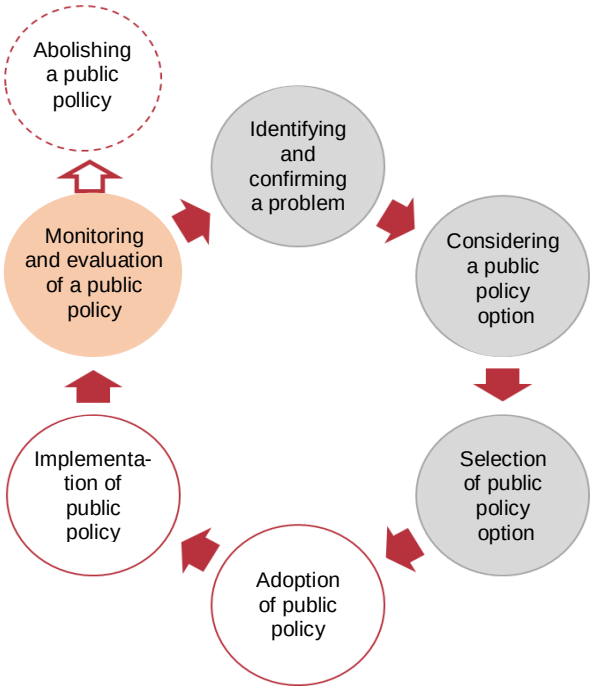


Figure 14. Relationship between ex-ante and ex-post assessments in the public policy cycle

Also, it is important to emphasise here that *ex-post* assessment is a term that is in context of the LPS and the Regulation, includes both monitoring the implementation and performance evaluation (Article 5 of the Regulation). In practice, often monitoring the implementation and performance evaluation of the public policies are mistakenly identified, and it is important to point out the difference between the two processes.

- ***Monitoring of public policy implementation* is data collection and analysis** during public policy implementation, i.e. implementation of public policy measures in order to find out whether set objectives are accomplished, as well as whether the foreseen measures and activities are implemented efficiently and as planned. Monitoring of implementation includes regular reporting, and the results of monitoring are used as input data to evaluate the effects. Implementation monitoring is carried out at the operational level, continuously and provides information on the need to implement corrective measures.

- ***Evaluation of public policy performance,* i.e. assessment of public policy efficiency and effectiveness** which is conducted or was conducted, its performance on the basis of relevant data and analyses, as well as the results of monitoring its implementation in order to review and improve it, i.e. to determine whether it is necessary to introduce certain changes. Evaluation can be carried out periodically (medium-term evaluation) or after the completion of all activities related to a particular public policy (*ex-post* evaluation). Evaluation provides information on the essential reasons for the success or failure of a public policy or regulation and provides an answer to how, in which segments and in which direction changes need to be made.

Table 11. **Key differences between monitoring the implementation and performance evaluation of public policy implementation**[12]

Continuous collection of data on the implementation of public policy, i.e. public policy measures.		Periodic evaluation of the public policy performance.
It is implemented immediately after commencing the public policy implementation.		It is implemented after a certain period has elapsed — often at predetermined time intervals or after the completion of certain phases of measures and activities.
Monitoring includes regular meetings (monthly or quarterly) and quarterly reporting, if possible, with quantitative indicators.		Evaluation involves intensive collection of both qualitative and quantitative data.
Are the measures and activities implemented in accordance with the plan?		Are the outcomes in line with the desired objectives?
Monitoring focuses on activities, measures and results.		Evaluation focuses on outcomes, effects, and overall objective.
Specific measures and activities are considered in detail.		The bigger picture is considered in the evaluation, not specific activities.
Provides information on current state and experience in public policy implementation.		Public policy efficiency and effectiveness are considered in the evaluation, as well as previous experience in public policy implementation.
Are measures and activities taken in accordance with public policies?		Do public policies have the effects expected?
Provides information basis for performance evaluation of public policies.		Provides information basis for appropriate planning of public policies.
Monitoring is focused on improving the current public policy.		Evaluation is focused on better making and implementing the public policies.
Monitoring provides information on current state, thus enabling current action focused on eliminating the identified problems.		Evaluation provides recommendations which have, as a rule, long-term or medium-term aspect, or are intended for the next cycle of making public policies.
Monitoring is usually conducted by participants (authorities).		Performance evaluation is usually conducted by persons outside the authorities.
Information collected during monitoring is primarily used by participants (authorities).		Information collected during performance evaluation is often used by all stakeholders.

[12] Modified according to source: Kusek, J. and R.C. Rist (2005), *A Handbook for Development Practitioners: Ten Steps to a Results-based Monitoring and Evaluation System*.

4.1 Monitoring the Implementation of Public Policies and Regulations

Monitoring of public policies and regulations is conducted **during their implementation**. Monitoring of implementation should show us whether the right course has been set towards achieving public policy objectives, or:

- whether the activities are carried out at the planned pace and with the planned level of resource use;
- whether the values of the performance indicators are moving in the planned direction and whether the values of the indicators are changing at the predicted speed;
- whether it is necessary to make certain adaptations of public policy in order to achieve the desired results.

The ultimate goal of monitoring implementation is to make timely decisions in order to improve the results of public policy implementation, i.e. the activities of state institutions and bodies, make the best use of resources and possibly change public policy during its implementation.

A change in specific objectives in higher-level planning documents is monitored in the implementation of public policies. Also, the level of engagement of planned resources is monitored and recorded.

During the implementation monitoring process, a number of questions are answered:

- Have the predetermined results been achieved in accordance with the plan and in an efficient manner?
- What problems, risks and challenges anticipated or faced should be taken into account when achieving results?
- How are decisions made about changes in the already planned next phases?
- Are the planned and achieved results still relevant for achieving the final planned outcomes?
- Are the planned final outcomes still relevant and effective in achieving the main national priorities, goals and effects?
- What lessons and recommendations can be drawn from the public policy implementation process?

4.1.1 Steps in Monitoring the Implementation of Public Policies

The process of monitoring public policy implementation can be described in **four steps**.

Figure 15. Steps in the process of monitoring public policy implementation

4.1.1.1 Step 1. Verification of Public Policy Results

The first step in the implementation monitoring process is to verify the results that are to be achieved by a particular public policy (regulation). Results show the situation in respect of, above all, the implementation of public policy activities and measures. In other words, **the results answer the question: What has been done to achieve the desired outcomes and impacts?**

The results are under full control of the Government (unlike the outcomes and impacts). Examples of public policy results are:

- Draft law or by-law developed or adopted;
- Development of guidelines or codes completed;
- Public education campaigns launched;
- New schools built;
- Bridge or road reconstructed;
- Training conducted;
- Value or number of units sold.

Instrument for monitoring the implementation of public policy is the action plan, which contains public policy activities and measures, as well as performance indicators against which progress in public policy implementation is measured. Performance indicators should have an established baseline and target value, as well as transition values for the period in which the objective is expected to be achieved. For each activity in the action plan, financial resources and sources of financing should be determined. All these elements of the action plan are subject to continuous monitoring.

4.1.1.2 Step 2. Verification of Engaged Resources

In the next step, once the achieved results of public policies have been determined, the resources engaged for achieving the objectives are determined.

Activities are actions or groups of actions carried out to produce results (for example: training of civil servants, procurement of services for valuation of receivables, etc.) for the implementation of which it is necessary to engage resources, such as the work of civil servants, financial resources etc.

This step is reduced to determining the scope of resources engaged both for the results that have been achieved, i.e. the activities that have been implemented, and for those that are in progress or that have not even begun. Dynamics of spending resources should correspond to the

degree of execution of activities, and monitoring the engagement and spending of resources should warn managers, i.e. persons in charge of individual activities of deviations in order to improve the situation in a timely manner.

4.1.1.3 Step 3. Analysis of Public Policy Implementation Environment

Once the outputs and resources engaged have been determined, it is necessary to assess the environment in which public policy is implemented. Outputs, activities and resources should pass the reality test — it is necessary to assess whether the outputs have been achieved, the activities carried out and the inputs distributed and whether they are used properly. This step helps answer the question: **Why is public policy implementation progressing or not progressing?**

In particular, in this phase of monitoring implementation, it is important to ask some key questions about the wider environment, such as:

- Have there been any significant changes that may affect the implementation of public policy? For example, has the situation in the economy improved or worsened? Has there been a change in the priorities of the Government (change in the objectives of higher-ranking planning documents)? In this step, you can return to the findings of the analysis of the existing situation, which was made during development of the planning document you are monitoring.
- Has there been unexpected resistance or unexpected support? Here, a review of the risk analysis, which was made during development of the planning document you are monitoring, or a review of the results of PESTLE or SWOT analysis can help.
- Have there been any other unexpected problems?

Depending on the answers to the questions, the responsible persons should take corrective actions, especially if the conclusion of the assessment is that the disturbance in the implementation occurred due to internal factors (which can be significantly influenced).

4.1.1.4 Step 4. Formulation of Findings and Recommendations

Monitoring of implementation should lead to specific decisions that will improve the implementation of public policy or regulations. Therefore, findings of monitoring the implementation of public policies and recommendations on how to proceed in their implementation should be clearly highlighted in the report on the implementation monitoring.

In this step, it is important to explain the difficulties and challenges encountered during the implementation of public policy and to describe the steps that need to be taken to ensure the continuation of the implementation of public policy or regulation.

The success of monitoring lies in the ability to identify what it is that is not working properly and how it could be corrected during implementation. Implementation monitoring findings provide input for evaluation, as well as for the next planning cycle in which decisions are made on what needs to be harmonised and changed.

Below is a proposal for a report model that meets the basic requirements of the LPS and the Regulation with a description of the most important parts and an example of a report on implementation monitoring.

Table 12. Proposal for a model of a report on implementation monitoring

Redefined elements					**Information to be entered during implementation monitoring**								
A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**
Result	Performance indicator	Time interval of monitoring	Measure	Activity	Final deadline	Key event	Deadline for implementing the key event	Responsibleb ody	Current state (implementati on status)	Reasons for deviation /expected problems /risks	Measures undertaken for solving problems	Recommendations	Data source
1,1, Resolving the non-performing receivables of state financial creditors	1.1.1.Value of sold receivables of the pilot portfolio of nominal value	Quarterly	Sale of the pilot portfolio of receivables -	Estimation of the value of collateral and collectability of pilot portfolio of receivables	31 Dec. 2018	25 Nov. 2018	31 Dec. 2018	DIA (Deposit Insurance Agency)	Implemented	-	-	-	DIA
				Market research	31 Dec. 2018	25 Nov. 2018	31 Dec. 2018	DIA	Implemented	-	-	-	
				Preparation of tender	31 Dec. 2018	25 Nov. 2018	31 Dec. 2018	DIA	Implemented	-	-	-	
				Posting ad for the sale of the pilot portfolio	31 Dec. 2018	25 Nov. 2018	31 Dec. 2018	DIA	Implemented	-	-	-	
				Closing the sale of the pilot portfolio	31 Dec. 2018	25 Nov. 2018	31 Dec. 2018	Government of the Republic of Serbia / Government of the Autonomous Province	In progress/ timeframe revised	Decision-making process has been extended because additional consent from the KPC needs to be obtained	Deadline extended	Consider the above problem when selling a large portfolio	
		Quarterly	Sale of the large portfolio of receivables	...	...	...	...	...	...	...	...	...	
				...	...	...	...	...	...	...	...	...	
				...	...	...	...	...	...	...	...	...	
				...	...	...	...	...	...	...	...	...	
1.2. Improving the bankruptcy framework	...	...	...	...	...	...	...	...	...	...	...	...	

This report contains all the necessary information that can be systematised differently, if necessary. As most of the items do not need to be explained further, the following text will focus on the most important items.

Section J "Current state" indicates whether the activity has been completed, is in progress or just beginning. It is possible to enter additional information on the status of implementation of activities, for example if the activities are planned for a given reporting period, but are either delayed or late in relation to the planned deadlines. If the activity is late, a new deadline for completion of the activity should be proposed in this column. The column provided for explanation (K) should provide details on why the implementation of the activity is delayed. If there are any significant changes in the environment, they should be explained in Section J.

Section K describes all serious risks and complications that may occur and that may adversely affect implementation. For example, if there are not enough employees available to do the job or if an omission has been made when formulating activities. This part of the form should not indicate insufficient financial resources, unless their decline is caused by some other changes, such as unforeseen price increases. It should also not include general risks that usually exist and that were known at the time the activities were identified.

Section L describes the specific corrective steps taken by the body to carry out the activities. For example, it may be necessary for a body to stop carrying out other activities in order to focus on priorities. In that case, it is necessary to state what will be interrupted and in what way the resources will be redirected.

Section M contains recommended actions and decisions that bodies/ Government should take to solve the identified problems (e.g. delays in activities). Recommendations need not contain requests for additional resources. It is preferable to explain why a positive decision would improve implementation.

Example of the report on implementation monitoring

The Ministry of Finance prepared a Report on the Implementation of the Public Financial Management Reform Programme (PFMRP) 2016−2020 for the calendar year 2018. The key priority areas of the PFMRP in 2018 were to further improve the budget preparation process, improve the efficiency of revenue collection and the work of budget execution bodies, as well as strengthen parliamentary oversight of public finances.

For each of the measures, the Report contains the following:

1) Key results in the previous period - in which the values of performance indicators are presented;
2) Progress in the observed year - in which a brief description and context of changes are given;
3) Financing of the measure - description of financing and possible changes;
4) Key challenges.

For example, for the measure “Improving revenue collection” the following results and performance indicators are given:

- Voluntary tax collection in 2017 reached the level of 96% of the total (voluntary) tax collection from the total tax revenue estimated in the national budget;
- During 2017, the Tax Administration Transformation Programme was revised and Action Plan 2018−2023 was prepared;
- The Transformation Committee adopted the Strategy for the provision of services to taxpayers in December 2016;
- In August 2017, Department for Strategic Risks and the Sector for Provision of Services to Taxpayers and Education were formalised, which provides support and stimulates taxpayers to legally settle tax liabilities;

The risk management system was improved, in line with TADAT recommendations.

Performance indicator	2014	2016	2017	2018
Percentage of participation in regular tax collection in relation to total tax revenues estimated in the budget	85%	86%	96%	96.5%
	2014	2015	2016	2017
Increase in revenue collection (collected by the Tax Administration) as well as % of GDP	9.56%	9.63%	9.81%	11.17%

4.1.2 Reporting on Regulations Implementation Monitoring

The LPS and the Regulation stipulate that the body responsible for *ex-post* assessment shall monitor:

1) changes in public policies in relevant areas and harmonisation of solutions in regulations with those public policies;

2) impact of the solutions from the regulations during their implementation by comparing the achieved results with the expected results, and above all with the expected results stated in the report on the conducted impact assessment, which was prepared for the purposes of proposing, i.e. enactment of that regulation.

In this case, too, it starts with the goals that the regulation should achieve, which are stated in the *ex-ante* assessment of the regulation, if it exists. If the goals have not been determined for the law, which, for example, was passed a long time ago or without an adequate impact assessment, analogous goals can be found in the planning documents related to the area regulated by that regulation.

For example, the Bankruptcy Law seeks to reduce the costs of proceedings, increase the settlement of creditors and shorten the duration of proceedings.

The proposed structure of the report on monitoring the implementation of regulations contains seven sections, in addition to the basic information on the body responsible for monitoring and the period to which the monitoring of implementation of regulations refers. These seven sections are:

1. Summary;
2. Introduction, which briefly describes the context and logic of the intervention, key actors, time frame, connection of regulations with planning documents, etc.;
3. Activities carried out in order to implement regulations and, if necessary, financial and other resources engaged in the implementation of regulations;
4. Brief description of data collection methods, their sources, quality, etc.
5. Presentation of the values of key performance indicators and their interpretation;
6. Conclusions and recommendations — corrective measures to be taken, potential risks in the implementation of regulations;
7. Annexes.

4.2 Performance Evaluation – Implementation of Public Policies and Regulations

It is necessary to:

- objectively consider the **effectiveness and efficiency** of public policy implementation, what performance it had, who it affected, how and why;
- **adjust the evaluation** to the specifics of the public policy under consideration;
- provide answers to the question of **how public policy has been implemented**, whether improvement is possible, whether the benefits have justified the costs of its implementation.

As the Regulation provides only a basic framework for evaluating the performance of public policy implementation, this handbook details the place and need to evaluate public policy implementation in the public policy cycle, to plan and determine an adequate approach to that evaluation and to identify evaluation steps.[13] Namely, the Regulation requires that, based on the assessment, the achieved performance be evaluated in relation to the target values of the performance indicators at the level of the overall objective, the outcome indicators at the level of specific objectives and the output indicators at the level of individual public policy measures.

Evaluation is an integral part of the public policy cycle and is carried out, as a rule, after public policy has been implemented, but it can also be carried out in earlier phases (so-called mid-term evaluation). The decision regarding the implementation and coverage of the evaluation is made, as a rule, in the first phases, i.e. during the implementation of the *ex-ante* assessment.

Evaluation should be planned when developing a public policy document, which should contain specific rules and procedural aspects of evaluation. If this is not the case, it is possible to make a subsequent decision on the manner and deadlines in which the evaluation is to be carried out. **In any event, evaluation should be proportionate to the importance of public policy.**

[13] A useful source in respect of conducting the evaluation is the Evaluation Guidance of the UK Ministry of Finance "Magenta Book Guidance for Evaluation" available at: https://www.gov.uk/government/publications/the-magenta-book.

4.2.1 Steps in the Evaluation Process

The evaluation process usually contains several steps. These steps are shown in Table 14, with each of these steps discussed below.

Table 13. Steps in the evaluation process

Set public policy objectives and desired outcome	What is the logic of the intervention — how are the results, outcomes and impacts achieved with the engaged resources?
Identify the beneficiaries of the evaluation	Who is the main beneficiary of the evaluation and how is it involved in the evaluation?
Formulate evaluation objectives and questions	What public policy makers need to know about the performance of public policy and its implementation?
Select a type of evaluation	What is the evaluation coverage? Is it necessary to conduct an economic evaluation? What level of details is required? What level of reliability of findings is required?
Identify the necessary data	Are data already available? Is it necessary to collect additional data? Does evaluation assess in detail all or only some effects? Is there a problem with access to data?
Identify the required resources	What is the estimated budget? Is the public policy of a high priority? Is analytical support provided? Are experts being outsourced?
Conduct an evaluation	Is it necessary to outsource the experts? Who is responsible for service procurement? What are the evaluation deadlines?
Make recommendations and publish the results of the evaluation	What is the purpose of the evaluation results? In what way will the analysis results be available?

4.2.1.1 Step 1. Set public policy objective and desired outcome (intervention logic)

How public policy will be evaluated depends on how clearly its principles and objectives are defined and its activities are described, and whether a logical connection between public policies, objectives and activities has already been established.

The ideal situation is when the problem is well formulated, when all the causes and effects are listed and when the objectives are properly defined, i.e. when there is a logical response to the problem or the desired objective. However, it can happen that the problem is not clearly formulated, or even when the problem is well formulated, the connection between the problem and the objectives may not be well established. In practice, this often happens, especially if the public policy is broad and if it is not specifically formulated, if the objectives and expected effects are unclear, and the intervention logic is not explicit enough.

In these cases, it is necessary to **reconstruct the intervention logic** for the purposes of the evaluation. To determine the results, the hierarchy of objectives, expected effects and the hierarchy of indicators conditioned by it must be understood. There needs to be a logical connection between long-term (impact), medium-term (outcomes) and short-term (operational) results.

Figure 16. Intervention logic - result chain

Table 14. Elements of intervention logic

Term	Example
Engaged resources (inputs)	Number of the persons engaged, procurement of equipment, money (e.g. incentive measures)
Activities (results at the level of activities)	Training sessions, preparation of a by-law
Measures (results on the level of measures)	Number of employees with increased knowledge in the field of introducing new electronic services
Outcomes	Shortened duration of the procedure, reduction of training expenses
Impacts	Change in disposable household income Growth in the employment rate

In practical terms, evaluation should identify the following:

1. **What problem is solved by public policy or regulation and what are the objectives (overall, specific)?** If public policy objectives are unclearly defined, if they are poorly defined or if they are not defined at all, it is necessary to re-establish them correctly. If public policy contains objectives that have not been quantified, it is necessary to analyse the extent to which they can be quantified on the basis of existing information. It should be noted that in the next steps of the evaluation, the objectives are measured by applying performance indicators, and if they have not been identified by then, they need to be determined in this particular phase of the evaluation. Otherwise, there will be no threshold for measuring and conducting the evaluation.

2. **What activities and measures (results) contribute to the achievement of objectives?** It is most effective to analyse action plans and determine what activities are planned to implement public policy. If a legal act is evaluated, it is somewhat more difficult to determine what activities are related to its adoption, because it may be that the legal provisions do not show at first glance what the Government intends to do in respect of implementation. In such a case, it is always useful to consult analytical documents, such as explanations, reports on the regulatory impact assessment, public policy concepts, etc. In this step, the logic of the intervention should include the problem, objectives and activities of public policy.

3. **What resources (inputs) are allocated for the implementation of activities?** The last step in reconstructing the logic of the intervention is reduced to verifying whether resources are planned for activities that implement public policy or regulation, whether resources are allocated and whether they are used.

4.2.1.2 Step 2. Identify the beneficiaries (of the evaluation)

The purpose of the evaluation may differ. This can be support for the implementation of public policy, providing information to decision makers on future public policies, obligation due to responsibility to the public, other state bodies, and stakeholders. It is important to decide whether the purpose of the evaluation is to consider the progress of public policy implementation as a whole or whether the aim is to thoroughly examine some of its elements.

In other words, when developing an evaluation plan, it is necessary to take into account 1) who the end users (of evaluation reports) are — the body itself, stakeholders, professional associations, non-governmental sector, 2) what the expectations regarding the time and coverage of evaluation are, 3) the way in which the users will benefit the most from the conducted evaluation.

4.2.1.3 Step 3. Formulate evaluation objectives and questions

Once the intervention logic and the purpose of the evaluation have been determined, formulation of the evaluation questions is approached.

Basic question in the evaluation is whether public policy has affected the results, outcomes and impacts? In addition, it is possible to consider a number of sub-questions, for example: How will it be determined that the public policy was successful? Which outcomes need to be determined precisely? Is it necessary to quantify the impacts? Is it possible to measure outcomes and impacts? How complex is it to determine the intervention logic?

In certain cases, for a successful evaluation, it is sufficient to answer a small number of questions and provide relevant quantitative and qualitative answers. However, very often, in order to better understand whether public policy has been successful or not, it is necessary to formulate a set of more detailed questions. **Appendix 12 of the Regulation lists four key areas of questions for evaluating the performance** of public policy documents, which can guide the formulation of questions. The key areas of the questions were identified on the basis of four evaluation criteria:

- relevance/significance;
- effectiveness;
- efficiency;
- sustainability.

Although it is desirable to take into account all the above criteria when formulating evaluation questions, this is often not feasible in practice. It is much more practical to focus on a limited number of criteria and questions. **Criteria and questions should be chosen in relation to the target users` expectations of the evaluation report**. The following are five evaluation criteria with related questions that should be taken in the account in the evaluation process:

Relevance

Public policy can be relevant at one point and not at another, as priorities may change over time, as well as the context in which public policy is implemented. Therefore, it is necessary to evaluate the changing context and the current relevance of the intervention, the need to implement that intervention and its usefulness. For example, the Government has decided to implement a number of measures to reduce the level of non-performing loans in commercial banks. That policy, however, may cease to be relevant two years later, when the situation improves, but that does not mean that there is no longer a need for a public policy that was aimed at preventing the emergence of new non-performing loans.

Within the relevance, the question of **acceptability and feasibility** of activities or methods for implementing public policy should also be considered. While relevance examines the significance of the initiative in relation to the needs and priorities of the users, appropriateness examines whether the way the initiative has been implemented is appropriate and feasible. For example, an initiative may be relevant because it responds to a user's need, but is inappropriate because the method for its implementation is not culturally appropriate or not feasible due to some contextual constraints. In applying the relevance criteria, the evaluation should examine the extent to which the planning, design and implementation of public policy/activities **take into account the environment and attitudes** regarding their acceptability.

Effectiveness

Effectiveness is a criterion used to assess the extent to which set objectives have been achieved or what progress has been made. In other words, a public policy is considered effective if its results lead to the desired outcomes and achieve the planned impacts.

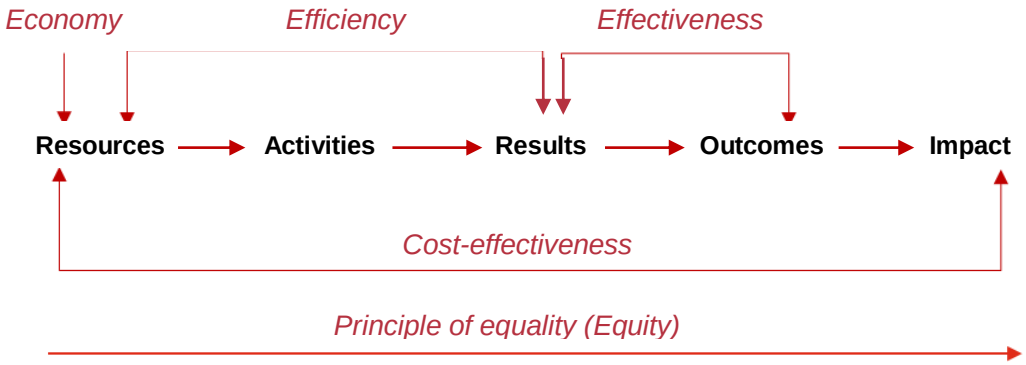


Figure 17. Relationship between economy, efficiency, effectiveness and equality (equity)

For instance, amendments to the Bankruptcy Law are considered effective if they reduce the costs of the proceedings, increase the percentage of creditors' settlement and reduce duration of the proceedings.

Effectiveness assessment includes:

1) **Measuring changes** in the values of indicators of measures and specific objectives, i.e. results and outcomes (Have students learned something? Have non-performing loans in banks been reduced?);

2) **Attributing observed changes or progress to changes in policy** (Have students learned anything due to changes in teaching policy? Has the share of non-performing loans decreased due to changes in public policy?).

The question of attribution is important because, for example, the percentage of creditors' settlement may be increased due to favourable economic trends that have released the funds of potential buyers and increased their interest in buying the bankruptcy estate. In such circumstances, it is difficult to determine to what extent the outcome was influenced by the public policy measure, and to what extent it is a consequence of something else. In other words, it is difficult to determine the impact on the outcome because in addition to the intervention, due to economic growth and a better environment, the level of creditors' settlement has also increased.

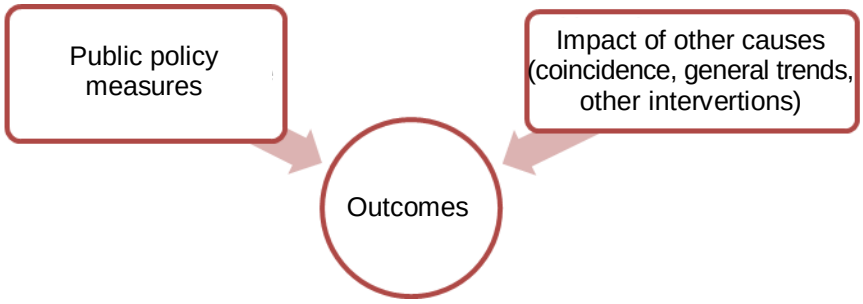


Figure 18. Factors which may influence outcomes

Public policy interventions do not affect outcomes in isolated way, and attribution is one of the biggest challenges in assessing public policy effectiveness.

When attribution is well established (e.g., the number of people suffering from a disease is close to zero because the population is protected by vaccination policy), the effectiveness of public policy will be very easy to see. Impact allocation is often not possible or would require extremely large resources. For some public policies, attribution can be quite difficult as the observed change may be due to other reasons (e.g. the population has higher income due to increased emigration and remittances from abroad, opening companies, job creation, etc.). **In principle, the more complex and larger a public policy is, the more difficult it will be to attribute the impact.** One of the simplest ways to determine the attributability of outcomes to public policies is through consultation with target groups and stakeholders. The manner in which consultations are conducted during the *ex-post* impact assessment is explained in the Handbook on Public Participation in Planning, Developing and Monitoring the Implementation of Public Policies and Regulations.

Evaluating effectiveness can help in decision-making, for example, when determining how to allocate the budget, by providing objective and reliable information on which public policies produce expected results, which are no longer needed or which do not achieve the desired objectives and which can be replaced with other public policies that will more effectively deliver the desired results.

Efficiency

Efficiency is a criterion used to measure the relationship between the results of public policies and the resources engaged to achieve them, or how economically resources (funds, expertise, and time) are used and converted into results. Public policy is efficient when it adequately and economically uses the available resources to achieve the desired results. In other words, public policy is efficient when it makes the most of the resources that are appropriate and available to achieve results in terms of quality and quantity. The key questions for evaluating efficiency are given in Appendix 12 of the Regulation.

Ideally, the Government should strive to implement public policies that are both effective and efficient. However, it is important to note that **an intervention that is efficient is not necessarily effective**. For example, the result of implementing a public policy to improve the quality of teaching may be teaching that is economical and efficient, but this does not automatically mean that the teaching is of good quality, i.e. that it meets the needs and interests of students or market needs, and desired results will not be achieved, which means that public policy is not effective. Similarly, the costs and duration of bankruptcy proceedings can be significantly reduced, but to the detriment of creditors' settlement rates.

In order to properly measure efficiency, it is important that activities can be compared to standardised values. For example, in the implementation of road construction policy, where construction methods are quite well known, a typical measure of efficiency will be the cost per kilometre of a particular class road. Since other public policies related to road construction use the same efficiency measures, it is easy to determine the basis for comparison and evaluation.

On the other hand, in some areas of planning it is not possible to perform standardisation. When there are no comparable values, a potential loss/cost is more often observed than a positive outcome. In such cases, efficiency is usually measured by observing losses in the policy implementation process, either at the resource level (obtaining the necessary resources at the lowest price or fair market value) or at the process level (doubling activities, conflicting solutions, etc..).

Sustainability

Sustainability is a criterion used to measure whether the benefits of public policy continue after its implementation. Sustainability assessment deals with the impact of public policies in the long run. The key questions for assessing the sustainability of public policy impact are given in Appendix 12 of the Regulation.

Sustainability is in many ways a general test of the success of a public policy intervention (for example, many public policies cease to generate benefits as they cease to be implemented, most often because either target groups or authorities lack the means or motivation to further provide the resources needed for continuation of activities).

A reliable assessment of sustainability is difficult to make while activities are in progress or immediately after they have been completed. In such cases, the sustainability assessment is based on projections of future events based on available information about the intervention and the capacity of the actors involved to properly cope with the changing environment, which requires analysing the contextual environment — its possibilities and limitations — and future scenarios.

Application of a combination of the described evaluation criteria enables the evaluation to cover the most important aspects of public policy. However, **not all criteria can be applied or applied equally in every evaluation**. Some questions that can help when choosing evaluation criteria are:

- To what extent does the criterion meet the purpose of the evaluation?
- How much and what types of information are needed by potential users?
- Should the focus be equally on the information obtained by applying each of the criteria or is some information more useful than other?
- Is the criterion useful or does it correspond to a particular evaluation?
- Which criterion provides the most useful information in view of the available resources?

4.2.1.4 Step 4. Select a type of evaluation

Types of evaluation differ depending on the purpose of evaluation (required information) and the moment of implementing evaluation in the public policy cycle. Also, the type of evaluation depends on the importance of the question that the evaluation should answer.

Depending on whether there is more interest in how public policy has been implemented or what its impact is, or whether the benefits justify implementation costs, the evaluation will contain more or less elements of process evaluation, i.e. evaluation of public policy impact, or economic evaluation. These three questions are not mutually exclusive, so it is possible to pay attention to all

these aspects during the evaluation. Given the nature of the assessment, the answer to the second question - the effectiveness of public policy - will usually be the dominant part.

1. Evaluation of the process — How is public policy implemented?

Evaluation should provide basic information on the implementation process, i.e. on activities and measures taken to implement public policy. This information depends on the type of public policy, i.e. public policy document. It is about evaluation that, in addition to describing the process, can also present a series of data, both qualitative and quantitative, collected in various ways. For example, a process evaluation can show stakeholders' perceptions of the success and quality of public policy or it can show facts that describe public policy implementation activities.

2. Evaluation of public policy impacts — What are the public policy impacts?

In this section, it is necessary to describe the impacts on the level of the overall objective, the outcomes on the level of specific objectives and the results on the level of public policy measures. This means that the evaluation is performed on several levels (e.g. the number of training sessions held on the level of a specific policy measure or the employment rate on the level of the overall objective). It is important that evaluators objectively consider the impact that can be related to the public policy. Qualitative evaluation implies identifying the impact that can be brought into a cause-and-effect relationship with outcomes. Otherwise, claims that public policy has provided good results, that is, that it has achieved its objectives, may be wrong. Many outcomes are the consequence of a number of factors, of which public policy is often crucial, but not the only cause. Therefore, it is not easy to answer the question **"What would have happened if there had been no intervention?"** Whether the evaluation will be of good quality depends on the policy area, the availability of data, the way the indicators are determined, but also the approach to the evaluation.

3. Economic evaluation — Do the benefits justify the costs?

This evaluation, like the previous one, is conducted on several levels (on the level of measures, specific objectives and on the level of the overall objective), but different economic evaluation techniques are usually used in this evaluation — cost-effectiveness analysis to express policy results (for example, cost of procedure, cost of additionally hired employee, etc.).[14]

4.2.1.5 Step 5: Identify the necessary data

Validity and reliability of the evaluation depends on the reliability of data collection. Where the data will be collected depends largely on the subject of the evaluation. Existing databases can be used, if available. Ideally, some, if not all, of the indicators for which data are needed have already been identified in *ex-ante* assessment or in action plans. However, some other specific data may be required for the evaluation process. In such cases, it should be assessed whether the benefits of such data outweigh the costs and time required to collect them (proportionality principle). For more details on data collection techniques, see the section of this handbook that discusses data collection - Data Collection, as well as the Public Policy Management Handbook.

[14] More complex techniques, such as cost-benefit analysis, can also be used to answer whether the benefits outweighed the costs.

The most common forms of data collection are:

- **Review of literature and documents**. It is necessary to learn the complete range of available written sources: information on interventions, documents related to public policies, academic literature, archives, etc. An important thing to pay attention to is the reliability of the data.
- **Interviews with key participants.** Depending on the purpose and nature of the data sought, a structured, semi-structured, and unstructured interview is most commonly used. In the initial, orientation phase, an unstructured interview is mainly used in order to obtain as many opinions and points of view as possible from the respondents.
- **Focus groups.** One of the most common forms of data collection is focus group discussion, where interaction with interlocutors is also a useful source of data.
- **Direct measurement.** Plenty of quantifiable data can be collected by simple recording and counting. It is a logical approach, especially on the level of results. Direct measurement is especially useful if data from the baseline scenario are used.
- **Direct observation.** Observation methods can be limited to physical results of the activity being carried out, as well as to certain processes. Observation techniques (with or without audio-visual methods and aids) play an important role in field research. Evaluations often involve (structured or less structured) visits to physical locations, participation in at least one meeting of target groups and the like. It should also be noted that these methods are very time consuming.
- **Survey.** The aim of the survey is to collect a large number of standardised data from a larger population suitable for statistical analysis. Surveys use pre-designed questionnaires that are preferably tested first, and answers to questions can be given in writing or orally. Surveys are necessary to determine the initial situation (baseline scenario) and are indispensable in evaluating the effects. To save time and other resources, evaluators often use the results of previous questionnaires or modules that are added to existing surveys so that they can serve multiple purposes.
- **Case studies.** Case studies are in-depth analyses of a small number of specific interventions. They make it possible to consider the stakeholders` perceptions and reconstruct events. Case studies are an important addition to the broader survey process as they provide an opportunity to examine and explain the relationships that become apparent from statistical analysis. If the evaluation is based on a series of case studies, it is necessary to determine the extent to which the selected cases are representative.

For techniques, steps, and practical advice for implementing interviews, surveys, focus groups, and other methods that may involve target groups and stakeholders, see the Handbook on Public Participation in Planning, Developing, and Monitoring the Implementation of Public Policies and Regulations.

4.2.1.6 Step 6. Identify the required resources

Evaluation can be carried out 1) internally — by engaging employees within the body responsible for the public policy document, or preparation of regulation, 2) externally — outsourcing experts,[15] or 3) combined — using both internal and external resources.

[15] For more details on how to develop Terms of Reference for evaluation, see the World Bank Guide — Writing Terms of Reference for an Evaluation, available at:

https://www.betterevaluation.org/en/resources/guides/tor/how_to

Elements of the Terms of Reference for outsourcing evaluators

External experts and organisations contribute, as a rule, to a more objective picture of the implementation and impact of public policy. However, their engagement requires significant resources and preparatory actions, such as drafting Terms of Reference for evaluation and the implementation of public procurement. The Terms of Reference should contain:

- **Reason and explanation of the need to conduct an evaluation** — a brief explanation of the relevance of the proposed evaluation;
- (External) evaluation **goal**;
- **Key questions** — formulating a central research question and secondary questions arising from it;
- **Limits and coverage of evaluation –** an explanation of the way in which the research area is limited in respect of topic, geographical location and time;
- **Approach and choice of methodology**, including focus on support studies — description of evaluation, indicators, data sources and research techniques;
- **Representativeness** — an explanation of how and to what extent representativeness plays a role in evaluation;
- **Organisation** — explanation of how the evaluation is organised, engagement of experts, organisation of workshops, etc.;
- **Products** — Indication of expected by-products, including support studies or databases. Also, an indication of whether the report will be published or the evaluation is of an internal nature;
- **Time** — duration of evaluation;
- **Budget** — cost specification.

Each of these options has advantages and disadvantages that need to be considered, and which of them will be chosen by the body in charge of evaluation certainly depends on its capacity, performance and available resources. In practice, external experts are hired because the employees of the body in charge of evaluation are not competent and do not have the necessary skills. On the other hand, it is often necessary to conduct an evaluation relatively quickly in order to respond to identified problems as soon as possible or to provide transitional solutions.

Table 2. Advantages and disadvantages of the evaluation conducted internally and externally

	Advantages	**Disadvantages**
Internal resources	Faster implementation of evaluation, development of human resources and opportunities to better understand the impact of public policies, gain experience and closer insight into the problem	Possible subjective approach and neglect of certain effects
External resources	Objective approach, methodologically more correct approach to evaluation	Requires additional resources, time-consuming procurement procedure for services evaluation
Combined approach	Possibility to outsource experts for more complex elements of evaluation	Requires additional resources, also possible longer process due to procurement of evaluation services

When planning an evaluation, it is necessary to take into account the necessary resources for its implementation.

1. Financial resources. Costs usually arise after the implementation of public policy and it is necessary to plan in time the funds needed for the possible engagement of external experts (public procurement plan), funds for site visits, possible survey services, data purchase, etc. If data is regularly monitored and collected in a timely manner during the implementation of public policy, it is possible to reduce the costs and time required for evaluation.

2. Resources needed to manage the evaluation process. It is necessary to determine the responsible person who will dedicate its time to conducting the evaluation, as well as the persons responsible for conducting any procurement.

3. Analytical support. Since evaluation often implies knowledge of several disciplines, in addition to persons engaged in conducting evaluation within the competent body, it is possible to include experts in the field of statistics, economists, psychologists, as well as experts from the Public Policy Secretariat.

4. Public policy bodies. Evaluation implies communication and exchange of information between all bodies conducting public policy and the body in charge of evaluation. In practice, these bodies will often not be able or have no interest in allocating the necessary resources.

5. Stakeholders. Evaluation involves collecting data from target groups and stakeholders. How the resources for conducting consultations are planned in the evaluation phase can be seen in the Handbook on Public Participation in Planning, Developing, and Monitoring the Implementation of Public Policies and Regulations.

6. Commentators (reviewers). Although this is not always the practice, it is desirable to provide expert comments (or even formal reviews). This would include the development of methodological guidelines for commentators or reviewers on the basis of which they would evaluate the methodology used, quality of the data and quality of the analysis itself. Sometimes it will be necessary to hire external experts, so resources for their services should be planned.

Before starting the evaluation, it is important to determine the boundaries of the subject of evaluation, especially when public policy has wide coverage. The established boundaries of the subject of evaluation guarantee that the focus of the evaluation will remain clear and that only those questions will be formulated that can reasonably be expected to give a valid and meaningful answer.

4.2.1.7 Step 7. Conduct an evaluation

Once all details of public policies, performance indicators and evaluation questions are available, it is time to approach the evaluation. It is necessary to integrate the data, findings, questions, criteria collected and identified in the previous steps into an evaluation model — which will bring together all these elements and show whether the public policy was successful (if its implementation was completed), or whether it is successful (if the implementation of public policy is in progress).

This step is nothing more than the application of **critical thinking, reasoning and common sense** in order to better understand whether the elements of public policies fit together and whether what has been done has given the expected results.

The fact is that there are different evaluation tools (the same as those for public policy *ex-ante* impact assessment), such as cost-benefit analysis, cost-effectiveness analysis, regression analysis, etc., but they can only be applied if public authorities have the resources (time and funds) and if the benefits of their application outweigh the efforts and investments.

A simple method for conducting an evaluation is the **input-output model**. This model allows all the policy elements identified in the previous steps to be grouped into a logical framework (objectives, resources, results, outcomes, cause-and-effect relationships, etc.) for the purpose of assessing public policy success based on established evaluation questions and criteria. Additional information and an example of this method are given in Annex 9 Input - Output Evaluation Model to this Handbook.

When it takes a long time to achieve the effects of public policies (education, social protection, etc.), the logical model can and should be used in formative evaluations (during the implementation of such public policy to give a chance to improve it), and in summative evaluations (after such public policy has been implemented). In addition, as it takes ten or more years to determine the effects of such public policies, a summative evaluation may be repeated in the medium or long term.

There are various methods to support evaluation in general terms, as well as the analytical processes required for this step in particular. In general, a distinction can be made between **qualitative and quantitative evaluation methods**. These techniques are not mutually exclusive, but complementary. Quantitative techniques can provide a statistical basis for qualitative analysis, while qualitative analysis can explain the relationships established by quantitative research. Without a theoretical framework and qualitative research of the mechanisms underlying the assumed relationships, statistical analysis has no substance.

Qualitative research methods are more process-focused and highlight the behaviour of the various actors involved in public policy implementation. They are flexible and can place findings in a cultural and policy context. A qualitative approach can provide a convincing rationale for why a public policy has or has no impact in a particular context. It is not always possible to generalise the findings of qualitative research.

Quantitative research, on the other hand, usually requires a large amount of reliable data that will allow a population sample to be formed and then the effects of the intervention to be isolated based on statistical techniques.

4.2.1.8 Step 8. Make recommendations and publish the results of the evaluation

In this phase, based on the answers, the basic conclusions and recommendations in the evaluation report are made and synthesised. This step allows an assessment to be made of whether specific public policies are successful and satisfactory. Basic conclusions can be mostly derived from the results of the input-output model. An example of an evaluation report is given in Annex 9 - Input-Output Evaluation Model to this Handbook.

In this step, the following questions are asked:

- Have the originally intended results been achieved with the public policy?
- Are the costs (financial and non-financial) well determined?
- Can the conclusions be drawn to the extent that the benefits have been realised and are they greater than the costs?
- Have fewer results been achieved than originally anticipated and what factors influenced that result?
- Have there been changes in the external factors - economic environment, donor interventions, changes in policy priorities, etc.?
- Has the public policy been implemented in accordance with the original plan or have there been any changes in the meantime?

- Has the public policy been badly planned, so it has not given the desired effect?

It is also important to formulate **recommendations** that should be further considered in the next cycle of planning or revision of the public policy. Based on this evaluation, evaluators should identify possible changes in public policies that will increase its relevance, effectiveness, efficiency, sustainability or impact. Such recommendations can range from minor adjustments to major, fundamental changes. However, the recommendations should be in line with the objectives of the evaluation and should not be too expensive. If the evaluation indicates the need to make major policy changes, then the next step to conduct is an *ex-ante* impact assessment of alternative public policy options.

Four options that evaluators should take into account when evaluating public policy are given below:

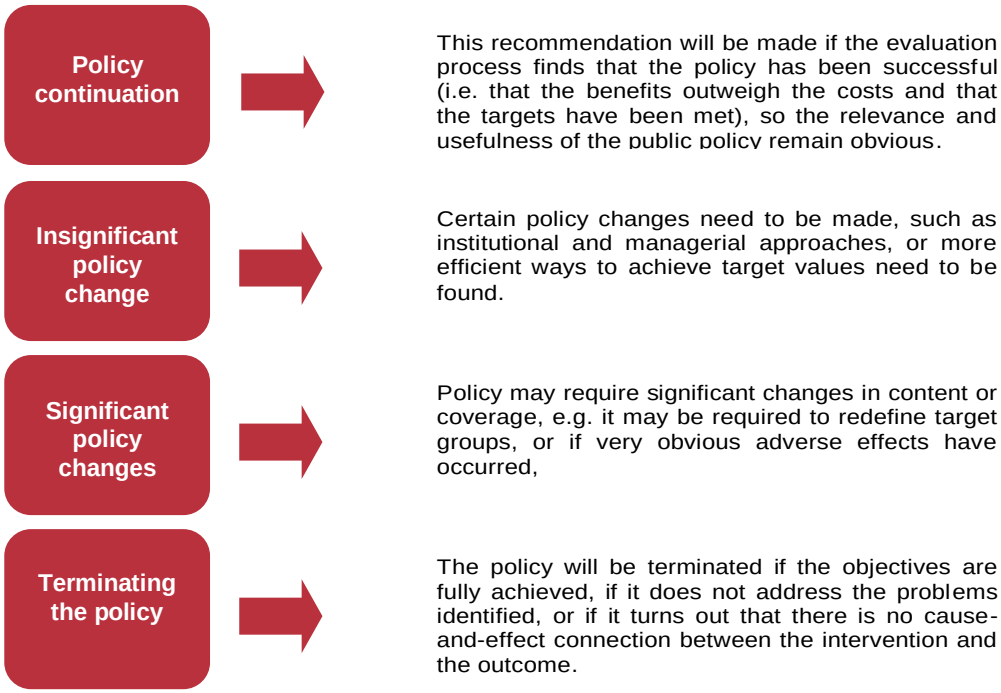


Figure 19. Scenarios of evaluation results

4.2.2 Developing Reports on Monitoring of Implementation and Evaluation

Writing a report does not involve the routine activity of filling out a report model. Writing requires several skills and competencies that include — analytical skills, i.e. the ability to systematically and understandably present data and interpret their meaning, or draw conclusions; creativity in asking evaluation questions, as well as the ability to clearly communicate the basic findings of the evaluation. In other words, although the reports are similar in form and content, quality of reports will be different due to differences in the way data is presented and key conclusions.

In practice, reports often represent a repeated description in which the data are simply updated. Such practices should be avoided in order to motivate readers to follow the findings. Useful advice on how to write a good report on monitoring of implementation and evaluation is provided in the Public Policy Management Handbook.

Finally, the content of the report also depends on the end users. Reports whose users are informed and who are well acquainted with the context and regularly follow the state of public policies can be more comprehensive and aimed at presenting the results of public policy. It is desirable that the evaluation summary be written so that it can be followed by those who are less familiar with the relevant area of public policy, or regulation.

The evaluation findings will have the following content:

1. Title;
2. Content;
3. Glossary of terms and list of abbreviations;
4. Summary;
5. Evaluation objective;
6. Definition of the evaluation coverage;
7. Description of a public policy and its objectives;
8. Formulation of evaluation questions and criteria, results of input-output model and relevant answers;
9. Overview of basic conclusions and recommendations;
10. Annexes.

It is important that the findings and recommendations are formulated so that they can be understood by those who are not analysts and researchers. In addition to the technical data to be provided in the annexes, the report should contain a summary of the basic findings, implications and recommendations, as well as clear and simple explanations and arguments throughout the text of the evaluation report. Recommendations should address the problem that was the subject of the evaluation and be practical, feasible and clearly linked to the conclusions of the evaluation.

Evaluation findings can sometimes contradict deep-rooted beliefs. Nevertheless, they need to be stated in full in the report because the report must contain only objective information. Thus, the possible absence of results should be presented objectively, and the recommendations will help decision makers to improve public policy or the way of its implementation.

Evaluation reports are intended for decision makers, but it is recommended that evaluation findings and recommendations be provided to external stakeholders as well. The work of the Government should be public, not only when public policy is determined but also during monitoring and evaluation of its implementation.

Advice for efficient reporting on evaluation:

- The objectives of the evaluation and its users should always be kept in mind when writing the report;
- Analyse and make recommendations in relation to the measures and activities, not to the strategy and priorities;
- The summary report should not be overloaded with data, so if there is a large amount of data, they should be presented in the annexes;
- Side effects should not be ignored;
- It is necessary to determine who benefited and who lost from the implementation of public policy;
- Presentation of cause-and-effect relationships should be clear and objective.

For more information about the types of reports available, see the Public Policy Management Handbook.

5 ANNEXES

5.1 Annex 1 – Tools for Identifying a Problem/Change

Steps in the public policy and regulatory impact assessments need to be followed carefully, with the choice of appropriate tools and level of assessment. The level should be in line with the capacity of the body conducting the assessment — in some cases it will be sufficient to answer precisely the questions from each step of the policy impact assessment and apply qualitative tools, and to postpone the application of quantitative tools until the capacity is strengthened.

In this annex:

- two tests are described on the basis of which the need for a detailed regulatory impact assessment in relation to gender equality and micro, small and medium-sized economic entities is determined. These areas are analysed in more detail when the result of the gender equality test or the MSME test indicates the need for that;
- an overview of the tools listed in the Regulation - SWOT analysis PESTLE analysis (Article 13(4) of the Regulation) is presented, as well as an overview of cost-benefit analysis, multicriteria analysis, effectiveness analysis and standard cost model (Article 37(7)(2) of the Regulation). In addition to the above, some other techniques that are necessary for adequate implementation of the impact assessment are presented;

5.1.1 PESTLE Analysis

PESTLE analysis is a framework for analysing the external environment that affects the problem to be solved. Analytical instrument is used by observing the environment in which a problem occurs from political, economic, social, technological, legal and environmental aspects.

Table 15. Questions for factor elaboration in PESTLE analysis

PESTLE	Questions elaborating each of the factors
Political factors	1) How does the political agenda (election, government priorities) influence public policies? 2) How much can other public policies influence the public policy within which the problem is perceived (competition policy, industrial policy, etc.)?
Economic factors	1) How do existing or projected macroeconomic circumstances (consumption, employment, inflation) affect target groups? 2) Does the current position of the target groups have a tendency to worsen, improve or stabilize and does this require new solutions?
Social factors	1) How can demographic, educational and health factors influence public policy and target groups? 2) What changes and what solutions should be considered and taken into account?
Technological factors	1) How can technological changes affect the change of public policies, as well as the target groups affected by the implementation of these policies? 2) Are there and what are the new technologies that could affect public policies to become more efficient and effective?

Legal factors	1) Are there and what are the obstacles in the legislative sense that would prolong or prevent the implementation of activities and reforms?
Ecological factors	1) To what extent can environmental factors (e.g. climate change) impact the public policy intended to be determined, as well as the target groups whose status is planned to be improved by its implementation? 2) What changes, but also what solutions should be proposed and undertaken in order to realise the public policy implementation?

Outputs (results) of the analysis are important as input for the SWOT analysis, the part of the SWOT analysis that concerns opportunities and threats, or everything that concerns the external environment.

Table 16. Output of PESTLE analysis as input for SWOT analysis

INTERNAL FACTORS	**STRENGTHS**	**WEAKNESSES**
EXTERNAL FACTORS (PESTLE)	**OPPORTUNITIES**	**THREATS**

An example of a combination of SWOT and PEST analyses (does not contain legal and environmental aspects) was made on the example of the analysis on the e-Government portal in Serbia. Although it is an analysis that was made in 2013, and it should be borne in mind that since then many factors that were mentioned as obstacles have changed, the analysis can serve as a simple example from practice.

Table 17. SWOT and PEST analyses from the e-Government Portal in Serbia

PEST/SWOT	Strength (S)	Weaknesses (W)	Opportunities (O)	Threats (T)
Political aspects P	Motivated people Medium-term plans are expected to be prepared by 2013	Lack of legal framework Insufficient understanding of the role of e-government in some of the ministries	The first steps have already been taken Revolution in the public administration sector	Lack of cooperation between administrative bodies Public administration employees are expected to change their work habits
Economic aspects E	Preparation of medium-term plans Digital certificates for identification and electronic signature	Low level of registered companies e-payment	Reduction of very high labour costs Electronic banking, without the need to have cash in hand	Weak economic support to the portal Weak stakeholder support to e-government
Social aspect S	High level of use of the appointment scheduling function (for obtaining a passport or ID card)	Limited understanding of e-government in the general public	Developing a culture of e-government	Public distrust in the portal
Technological aspect T	Using W3C standard	Portal transparency	Better and cheaper e-government	Electronic crisis, computer viruses, bugs

Извор :Difficulties for eGovernment promotion in Serbia: The analysis of eUprava Portal , 2013, стр. 22–23.[15]

[15] Merkovity, N. (2013) Difficulties for Government promotion in Serbia: Tha analysis of eUprava Portal: Communication Management Quarterly, 27, pp. 5–34.

5.1.2 SWOT Analysis

The questions that arise when SWOT analysis has been made, which help identify strategic options are as follows:

- How to manage threats?
- How to use opportunities?
- How to overcome weaknesses?
- ow to strengthen advantages and increase strengths?

Table 18. Questions asked when making a SWOT analysis

Strenghts 1) What are our competencies?[17] 2) What is it that we do well? 3) What is it that we possess, and what is unique in our institution? 4) Do we have the resources to complete the task?	**Weaknesses** 1) What seems difficult to us in the current situation? 2) Where and what are our weaknesses? 3) What necessary resources and skills do we lack? 4) What strategic documents do we lack? 5) Do we have the resources to harmonise the existing strategies and action plans that will expire by 2020 with the Law on the Planning System?
Opportunities 1) Are there opportunities that we can use? 2) Who and how can help us? 3) What are the opportunities that we have not yet identified or what opportunities have we not yet used, and we have identified them? 4) Are there opportunities for new partnerships that would be beneficial? 5) The Public Policy Secretariat is an institution to which we can turn for help in harmonising public policy documents, the adoption of which falls under our purview according to the Law on the Planning System.	**Threats** 1) Are there changes (PESTLE)[18] in the environment that can cause problems if we do not react on time? 2) What can stop us in our efforts? 3) What are the possibilities that we will not be able to implement our project? 4) What can appear as a "key problem? 5) What will happen if we do not harmonise the strategies expiring in 2020 with the Law on the Planning System?

[17] Government of the Republic of Serbia (2014); Law on Ministries (*The Official Gazette of the Republic of Serbia*, Nos. 44/14, 14/15, 54/15, 96/15 — state law, 62/17), available at: http://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/eli/rep/sgrs/skupstina/zakon/2014/44/1/reg.

[18] PESTLE stands for: political, economic, social, technological, legal and environmental

5.2 Annex 2 – Stakeholder Analysis

Stakeholders[19] are individuals, groups, organisations that may have a significant interest in public policy or regulation, or anyone who may have benefit or harm from government intervention. The basic premise behind stakeholder analysis is that different groups have different problems, have different capacities and interests, and that this should be explicitly understood and recognised in the process of identifying problems and goals and choosing public policy options. Special attention should be paid to "losers" and "winners" who appear due to the application of a public policy.

The key questions that stakeholder analysis should ask are:

- Who does the public policy or regulation refer to?
- Who will have benefit or harm from the proposed intervention and in what way?
- Can stakeholders influence the outcome of state intervention?

Stakeholder analysis and problem analysis are part of the analysis of the existing situation. As such, they are closely linked. It is best to conduct them at the same time, and not one after the other. All subsequent steps should also be related to stakeholder analysis, making it the main reference point for later steps of the process.

Conducting stakeholder analysis

Among the various tools for conducting stakeholder analysis, the stakeholder analysis matrix and SWOT analysis are most commonly used.

The quality of the obtained analysis results is significantly influenced by the data collection process. In this regard, the effective use of participatory planning methods and techniques for leading group work can help to adequately present and understand the views and perspectives of different stakeholder groups.

Stakeholder mapping helps to identify all natural and legal persons, grouped by a criterion that the analyst can choose for himself. The illustration shows an example of stakeholder mapping to change public policies in the field of transport. In addition to identifying the persons who will be affected, the illustration also shows the impact (indirect and direct) on stakeholders.

[19] For the purposes of this Annex, term *stakeholders* will include the terms *target group* and *stakeholder.*

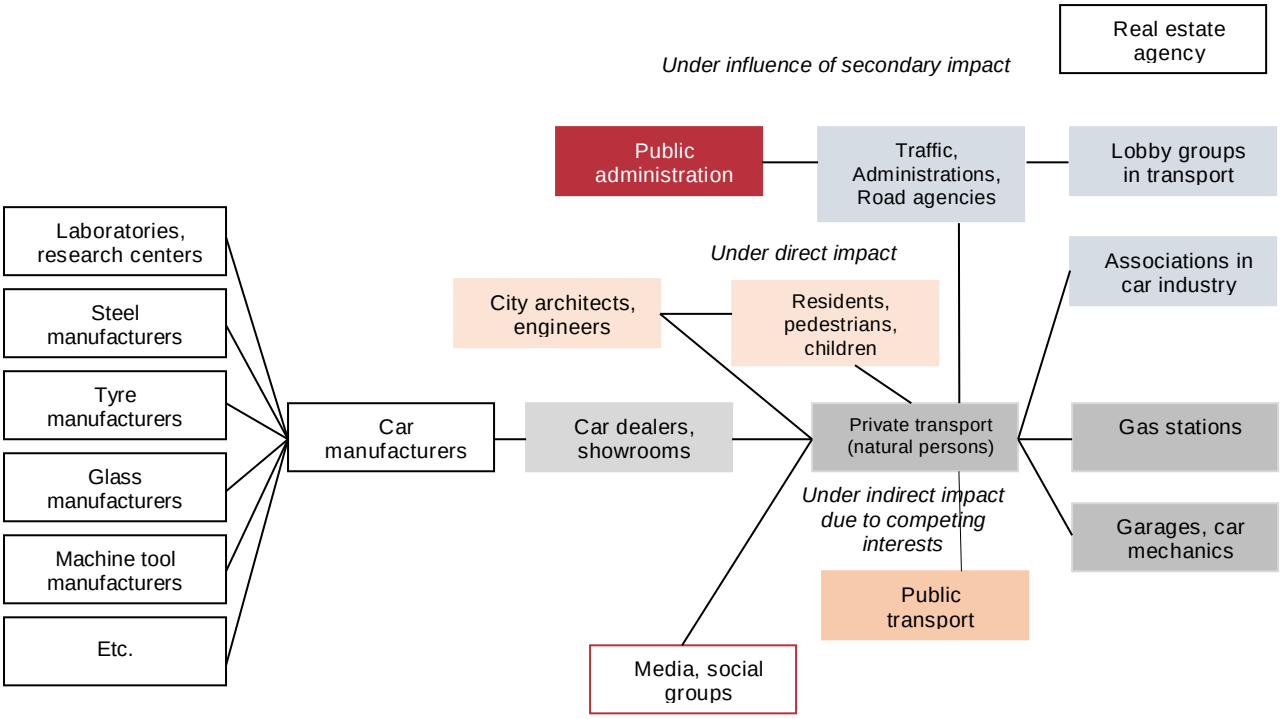


Figure 20. Stakeholder mapping: example of policies affecting car transport

Each identified stakeholder may have a different interest, and a stakeholder matrix can be used for detailed interest mapping.

As shown in the following table, the stakeholder analysis matrix describes:

- basic characteristics of stakeholders;
- interests and the way in which the problem or potential project affects stakeholders;
- stakeholders` capacity and motivation to make changes;
- possible stakeholders` activities to achieve their interests.

Key stakeholders and their basic characteristics	**Stakeholders` problems** (what impact have problems on a stakeholder)	**Stakeholders` interests** (and possible activities to achieve them)	**Stakeholders` potentials** (capacity and motivation to achieve change)
Stakeholder 1			
Stakeholder 2			
…			
…			

The type of information collected that is presented and analysed in the columns of such matrix can be adapted to different circumstances. For example, additional columns may be introduced to represent different interests of women and men or to analyse the relationships that exist between stakeholders.

5.3 Annex 3 – Testing Impact on Micro, Small and Medium-sized Enterprises (MSME test)

What does MSME cover?

The MSME sector covers micro, small and medium-sized enterprises and entrepreneurs. Entrepreneurs as natural persons who independently perform activities are included in micro enterprises. The MSME sector in the Republic of Serbia includes more than 350 thousand enterprises that create about a third of the gross value added of Serbian economy and participate in about 44% of registered employment.

For the purpose of conducting the MSME test, it is recommended to use the unified database of the sector of small and medium-sized enterprises and entrepreneurs, which was formed according to the Eurostat methodology in the Statistical Office of the Republic of Serbia. Databases on the number of enterprises and the number of employees in them were established on the basis of the final accounts of the enterprises, and the number of entrepreneurs and the number of employees with entrepreneurs on the basis of data from the Tax Administration.

What is an MSME test?

Due to the limited resources available to micro, small and medium-sized enterprises, they may be exposed to high compliance costs. In order to avoid unwanted consequences and unnecessary burden on the MSME sector, it is necessary to consider whether the requirements imposed on micro, small and medium-sized enterprises are expedient, or whether they are disproportionate so that their position is relatively unfavourable in relation to large enterprises.

MSME test is a tool used **in planning, developing and adopting regulations** as part of conducting *ex-ante* impact assessment. Implementation of the MSME test is a mandatory step in accordance with the Regulation, which requires consideration of the proposed solutions in the regulations, as well as alternative options, or alternative measures and solutions that reduce the burden on micro, small and medium-sized enterprises. Thereby, the analysis and level of details contained in the MSME test should be proportional to the importance of the regulation, i.e. the potential burden on micro, small and medium-sized enterprises that the regulation imposes on them.

MSME test:

- is carried out in order to analyse the possible impact of the proposed measures and regulations on micro, small and medium-sized enterprises;
- is an integral part of the impact assessment; its application may indicate the need to analyse the impact in detail in accordance with Article 8(5) of the Regulation on impact assessment;
- is carried out using a form that is an auxiliary tool in the form of a checklist.

Conducting MSME test

MSME test is relatively easy to apply. MSME test is such that certain answers to the questions asked direct the person conducting the test to other questions in order to avoid unnecessary waste of time.

The impact test on micro, small and medium-sized enterprises involves an analysis consisting of four steps[20]:

Step 1. Determine whether there is an impact and if so, how many micro, small and medium-sized enterprises are affected and what their structure is.

If a regulation does not affect enterprises, i.e. it does not affect micro, small and medium-sized enterprises, it is not necessary to conduct an analysis.

If it is determined that the regulation affects micro, small and medium-sized enterprises, does the intervention affect all of them or only certain categories of micro, small and medium-sized enterprises according to their legal form, size or activity.

The answer to the last two questions is simply stating the number of enterprises, or the number of employees in them. Source of data can be either the database of the Statistical Office or if it is a relatively narrow application of the regulation (if it regulates only certain categories of the MSME sector), it can also be the records (or assessment) of the proponent.

If the regulation refers to the entire MSME sector or to certain categories of the MSME sector, the necessary data can be found in the reports:

- **Enterprises by size and entrepreneurs in the Republic of Serbia, Report of the Statistical Office of the Republic of Serbia.** The latest report is available at: http://publikacije.stat.gov.rs/G2019/Pdf/G20196001.pdf
- **Annual reports on small and medium-sized enterprises and entrepreneurship** of the Ministry of Economy. The latest report is available at: https://privreda.gov.rs/wp-content/uploads/2019/01/Izvestaj_MSPP_2017.pdf

Step 2. Conduct consultations with interested micro, small and medium-sized enterprises. The MSME test does not require a comprehensive presentation of the second step, which concerns these consultations.

Considering that information on the impact of certain solutions on the MSME sector is collected through a consultation process, as well as that consultations are important in order to formulate options related to reducing the burden on micro, small and medium-sized enterprises, it is necessary to briefly describe how the proponent included in the consultation process the representatives of micro, small and medium-sized enterprises that will be affected by the regulation. Adequate involvement of MSMEs should be taken into account when choosing consultation techniques. In accordance with the above, this part of the analysis can be expanded to contain somewhat more detailed information on consultations with interested micro, small and medium-sized enterprises, or on the criteria on the basis of which the participants were selected, number of participants and applied consultation techniques. This part of the test primarily serves as a reminder that consultations should be conducted, i.e. what is good practice in respect of consultations.

Step 3. Analyse and present options and measures that reduce the burden of adaptation of micro, small and medium-sized enterprises and other negative effects on their business operations. This part is a checklist that should help the proponent consider possible exemptions, simplifications or the introduction of other facilities (financial or administrative) aimed at the MSME sector, i.e. certain categories of the MSME sector.

[20] See: https://ec.europa.eu/info/files/better-regulation-toolbox-22_en

Proponent is required to consider the possibility of:

- exempting the entire MSME sector or certain categories of the MSME sector from certain prescribed obligations;
- using facilities.

Step 4. Determine extent of the impact on the MSME sector. In this part, it is necessary to quantify the impact of the proposed measures on micro, small and medium-sized enterprises, i.e. to identify and estimate the costs that they will bear as part of their adaptation to the new regulatory solutions.

Cost quantification in accordance with the provisions of the Regulation represents a detailed assessment and must be approached when prescribing new or amending existing administrative procedures and administrative requirements or when prescribing new obligations for the MSME that will increase their financial or structural costs

The costs are divided into three groups:

- administrative costs (costs incurred by economic entities due to the prescribed obligation to carry out an administrative procedure or requirement);
- financial costs (costs incurred due to imposing or increasing taxes or fees, etc.);
- structural costs (changes in the production process or products in order to comply with the prescribed requirement).

Standard cost model is used to calculate the administrative cost. The standard cost model is a simple way of measuring the administrative burden imposed by regulations on micro, small and medium-sized enterprises. Applying the standard cost model, different administrative procedures and requirements are broken down into steps and necessary activities that such enterprise needs to perform, and then, based on the time required to meet these requirements, as well as data on the costs they generate, administrative costs or unnecessary administrative burden are measured.

The standard cost model is applied using a calculator - the tool available at: http://rsjp.gov.rs/kalkulator/. Detailed application of the standard cost model is shown in the **User guide for using the calculator for the calculation of administrative costs**, which is available on the same address

Standard cost model is applied in the analysis of regulations, or administrative procedures (e.g. obtaining a permit, registration, etc.) and requirements (e.g. storage of data) that these regulations contain. Thus, the standard cost model makes it possible to clearly express the total administrative costs generated by existing regulations and indicates possible simplifications of procedures and elimination of unnecessary administrative requirements.

If possible, the MSME test should indicate other financial costs incurred due to the introduction of new tax burdens, etc., as well as structural costs of implementing regulations if micro, small and medium-sized enterprises bear the costs of adapting their business activities due to specific requirements imposed by regulations. These requirements refer to the production process or to the enterprise's products and services (e.g. costs incurred in fulfilling the obligation to install filters to reduce pollution, to comply with certain production standards, to employ workers with specific knowledge, to adapt a workplace to persons with disabilities, etc..).

5.4 Annex 4 – Key Areas of Public Policy for the Social Impact Assessment

Social impact assessment covers six areas:

1. Employment and labour market;
2. Standards and rights related to job quality;
3. Social inclusion and protection of certain groups;
4. Equal treatment and opportunities, non-discrimination and gender equality;
5. Social protection, health, social insurance and education systems;
6. Public health and safety.

Employment and labour market. This segment of social impact assessment refers to the policy of employment, labour market functioning and access to labour market. The following questions should be considered in the impact assessment:

- Does the option make it easier to create new jobs?
- Does the option directly cause a reduction in the number of jobs?
- Does the option have particular negative effects on certain professions, groups of workers or the self-employed?
- Does the option affect groups of people of a certain age?
- Does the option affect labour demand?
- Does the option affect the functioning of the labour market?

Standards and rights related to job quality. This area of public policy deals with issues related to labour law, health and safety at work. The following questions should be considered in the impact assessment:

- Does the option affect the job quality?
- Does the option affect the availability of vocational training or professional development to employees or job seekers?
- Will the option affect the health, safety and dignity of workers?
- Does the option directly or indirectly affect the workers` existing rights and obligations, especially with regard to information and consultation in their companies and protection against dismissal?
- Does the option affect the protection of young people at work?
- Does the option directly or indirectly affect the existing rights and obligations of employers?
- Does the option facilitate or limit restructuring, adaptation to change, and the use of technological innovations in the workplace?

Social inclusion and protection of certain groups. This area of policy deals with social protection and social inclusion. The following questions should be considered in the impact assessment:

- Does the option affect access, i.e. entry to the labour market, or exit from the labour market?
- Does the option directly or indirectly lead to greater (in)equality?

- Does the option affect equal access to services and goods?
- Does the option affect access to services of general economic interest?
- Does the option contribute to better informing the public about a particular issue?
- Does the option affect, more than others, specific groups of individuals, companies, places, the most vulnerable, those most at risk of poverty?
- Does the option significantly affect children, women, persons with disabilities, the unemployed, the elderly, political parties or civic organisations, churches, religious and other organisations, or ethnic, linguistic or religious minorities, asylum seekers?

Equal treatment and opportunities, non-discrimination and gender equality. This area of policy deals with issues of gender equality and the prevention and prohibition of discrimination. The following questions should be considered in the impact assessment:

- Does the option provide equal treatment and equal opportunities for all?
- Does the option involve directly different treatment of groups or individuals, e.g. on the grounds of racial, ethnic or social origin, religion or belief, disability, age or sexual orientation and can this lead to indirect discrimination?
- Does the option affect women and men differently?
- Does the option promote equality between women and men?

Social protection, health, social insurance and education systems. This area of policy deals with issues of social protection and health (long-term care, pensions, health care); coordination of the social security system (offering solutions to potential cross-border problems, while adhering to the principle of equal treatment regardless of citizenship); education and training (knowledge, as well as the innovations it drives are the most valuable assets of society); free movement of workers.

The following questions may be asked in this segment:

- Does the option affect services in the field of social protection, social security, health care and education in respect of their quality and availability?
- Does the option affect the financing and organisation of the social, health and education systems?
- Does the option affect the education and mobility of workers?
- Does the option affect individuals' access to public/private education or vocational training and professional development?
- Does the option affect individuals' access to public/private health insurance?

Public health and safety. This area of policy deals with organisation and provision of health services and health care and/or situations in which there is a great danger to health, as well as issues with cross-border or international impact.

The following questions may be asked in this segment:

- Does the option affect the health and safety of individuals/population, including life expectancy, mortality and morbidity through impact on the socio-economic environment (work environment, income, education, profession, nutrition)?
- Does the option increase or decrease the likelihood of health risks due to substances harmful to the environment?

- Is there an impact on health due to changes in noise levels or air, water or soil quality?
- Does the option affect human health due to changes in energy use and/or waste disposal?
- Does the option affect lifestyle-related health factors, such as nutrition, physical activity, or use of tobacco, alcohol, or drugs?
- Does the option particularly affect certain risk groups (determined by age, gender, disability, region, etc.)?

5.5 Annex 5 – Methods of Option Impact Assessment

5.5.1 Multi-criteria Analysis

Multi-criteria analysis is the most appropriate method that any civil servant can apply to compare the recommended options and select one of them. This method allows options to be assessed by taking into account several different criteria.

It is especially useful when it is difficult to quantify or monetise the impact of policy options. In such cases, it is only possible to provide a qualitative analysis of the potential benefits and costs. This is especially true when adopting regulations in the field of environmental protection. In certain cases, it is possible to quantify potential benefits (e.g. it is possible to assess the number of consumers who will benefit from regulatory change), but it is very difficult to monetise such benefits.

There are many variations of multi-criteria analysis with different scales and evaluation criteria.[21] Multi-criteria analysis ranks alternatives based on selected criteria. **The criteria must be such that alternatives can either be measured or evaluated against them.** The multi-criteria analysis is usually performed in such a way that after the criteria have been determined, an assessment is given for each of the alternatives by each of the above criteria. **Since the criteria can have different significance, it is possible to weigh them, i.e. ascribe to them different degrees of significance**. If weighting factors are applied, each grade will be weighted according to the significance given to each of the criteria in order to obtain a final grade, on the basis of which the considered alternatives can be easily ranked.

Quality of multi-criteria analysis depends on the selection of relevant criteria, on the adequacy of certain weighting factors and, of course, on the way in which the extent to which an alternative meets the established criteria is assessed.

The selected list of criteria should:

(1) be complete, i.e. cover all important aspects of the decision;

(2) not contain irrelevant criteria;

(3) not calculate the advantages and disadvantages twice by forming criteria that are very similar or almost identical.

One of the basic challenges in applying this method is subjectivity. Multi-criteria analysis largely depends on the judgment of the persons conducting it and therefore it is important to ask the following questions:

- How were the relevant criteria selected?
- What level of significance is attributed to them?
- How is an option evaluated, or to what extent does it meet certain criteria?

[21] The European Commission has published some useful information on multicriteria analysis: https://www.betterevaluation.org/en/resource/website/evaluation_tools and http://aei.pitt.edu/50270/1/methods.guidelines.evaluation.v.4.pdf. Another very useful source is a manual for conducting multicriteria analysis which discusses somewhat more complex techniques available at: http://eprints.lse.ac.uk/12761/1/Multi-criteria_Analysis.pdf.

However, the advantage of multi-criteria analysis is that it presents explicit criteria, which affects transparency of the decision-making process and allows to consider the reasons for a particular decision, as well as to exchange information on the quality and significance of criteria between stakeholders and proponent of public policy or regulation. **In other words, subjective assessment as a lack of multicriteria analysis is a much smaller problem than informal consideration of options.**

5.5.1.1 Steps in Multi-criteria Analysis

The steps in making a multicriteria analysis can in principle be divided to cover the following:

1) Form a list of criteria and select criteria and sub-criteria on the basis of which options will be considered;
2) Group the criteria so that they reflect the established objectives of public policy or regulation which is very helpful especially when there are many criteria (e.g. more than six) or when they are ranked by significance. If public policy is considered, one of the solutions is to group the criteria according to the type of impact, for example economic and social criteria, environmental criteria, etc.;
3) Form a performance matrix;
4) Evaluate (score) options against each criterion;
5) Rank the criteria by significance (weighting).

It is common to first consider and describe the consequences of a particular option. After that, the options are usually scored in a certain range (e.g. from 0 to 10 or from -3 to +3), and a cardinal scale can be used. Options can be scored in absolute terms, so that each option is scored independently, or they can be scored relatively, so that the worst option according to a certain criterion gets 0, and the best 10. When the impacts can be quantified (e.g. savings that would be achieved by applying considered options), they can be converted into points (e.g. if the savings for the first option are one million, for the second three million and for the third 10 million, the point ratio is 1, 3 and 10) or they can be otherwise adjusted to the needs of analysis.

One of the most complex issues in the application of multicriteria analysis is weighting, i.e. attributing significance to certain criteria. Weighting is not always necessary, but in practice it is often necessary in order to better consider the options and reduce the influence of subjectivity in the selection. Usually, more significance is given to the criteria according to which the options differ significantly. When, for example, the costs that options cause are approximately the same, more significance will be attributed to some other criteria.

Who determines weighting factors and how? Significance of the criteria is largely attributed by persons who are well acquainted with the areas considered, but the criteria should be set to reflect the overall and specific objectives to be achieved.

Finally, it is necessary to consider whether an option "dominates", i.e. whether it is better than other options by each criterion, or whether it is not rated lower than any other option by any of the criteria. In practice, this happens very rarely, and when it does, it is necessary to check whether the options are realistically set or not, i.e. whether they are the product of a purely formal requirement to consider several options. Also, it is necessary to consider the acceptability of a certain option, whether its bad grades by one criterion can be compensated by a high grade by another criterion. Sensitivity analysis can also be applied. For instance, consider whether the selected option still "wins", even when significance of the criteria changes.

5.5.1.2 Example of How to Apply a Multi-criteria Analysis

There are different ways to apply multi-criteria analysis. As an illustration, a simple multi-criteria analysis can be used, which compares positive and negative impacts expressed in qualitative, quantitative or monetised units on the example of changing the registration system and issuing a tax identification number, which was used in the option impact assessment.

In the example, the criteria are formulated through questions to which it is possible to give more or less detailed answers. Thereafter, depending on the relative significance attached to each of these questions, weights may be introduced to rank the alternatives. To simplify the analysis, it will be assumed that each criterion carries the same weight. The *status quo* option is given the grade 2, while grade 1 indicates a worsening of the existing situation, grade 3 indicates a partial improvement, and grade 4 a significant improvement. Once the grades are added up, different alternatives can be compared based on the given scale. Of course, it is possible to base the grades on more precise criteria or to form a different scale.

Also, when there are numerous criteria, it is useful to group them so that they reflect the different components of the option. In this case, two groups of criteria are used: functional criteria and implementation criteria. The criteria were obtained on the basis of previously established principles of reform of the registration process and comments received from stakeholders. Whether some criteria have been fulfilled can be analysed on the basis of quantitative indicators (time, costs, number of procedures), while fulfilment of other criteria can be analysed only from a qualitative point of view.

Table 19. Example of a multi-criteria analysis

OPTION 3:	**Alternative with a one-stop shop which automatically issues several tax identification numbers**		
Criterion	**Comment**	Grade scale 1−4	Weighting 0−1
Functional criteria			
1. Does this alternative reduce the costs and number of procedures and prevent delay in starting business by an enterprise? **(private sector costs)**	(Yes) The proposal reduces the number of procedures eliminating **one step** in the registration process. Expected reduction of duration of the registration process is **six days**. Alternative reduces the number of organisations with direct contact with clients.	4	1
2. Does this alternative improve public administration efficiency, and in particular, tax administration? **(public administration efficiency)**	(Not necessarily.) The alternative reduces the scope of administrative operations in the registration process, but the intensity of *ex-post* inspections would probably increase.	2	0.5

3. Does this alternative improve legal certainty from tax evasion or encourage fraud? **(tax revenue risk)**	(No) The Business Registers Agency independently issues registration numbers and informs other institutions that a new company has been formed, including the Tax Administration. If *ex-ante* prevention plays an important role, **this alternative carries a significant risk** that a large number of phantom enterprises will be opened.	2	1
4. Does this alternative improve transparency? **(transparency)**	((Yes) The alternative increases transparency in the procedures related to business registration, but can also increase the number of tax inspections after an enterprise has started business operations.	3	1
5. Does this alternative comply with EU requirements? **(compliance with the EU integration process)**	(Yes) However, only several EU member states have implemented this option with various roles of administrative bodies and agencies.	2	1
6. Does this alternative integrate registration numbers for various purposes? **(identification simplicity)**	(Yes) Each registered entity is assigned a unique number (or a unique pair of numbers) for identification purposes. The alternative involves switching from a pair of numbers to a unique number in the second phase of implementation.	3	0.5
Implementation criteria			
7. What legal and institutional changes are needed to implement this alternative? **(implementation complexity)**	This alternative requires amending the Law on Tax Procedure in the part related to the process of issuing the tax identification number, as well as other bylaws and regulations, both in the Business Registers Agency and in the Tax Administration. It is also necessary to change the existing forms.	1	1
8. What investments are needed to implement this alternative? **(implementation expenses)**	**At least 100,000 euros are needed.** Investment needs can be assessed in detail only after establishing possibilities of direct connections between the relevant organisations (including the connection of local organisational units).	1	1
9. How long does it take to implement this alternative? **(implementation time)**	The expected period of implementation of this alternative is **from six months to a year** — it depends on how long it takes to make legal changes and to what extent the tax procedure needs to be changed. It will take several months to achieve interoperability between the Tax Administration and the Business Registers Agency compared to Alternative 2 because it requires more changes in bylaws.	1	0.5

Table 20. Example of a summary presentation and ranking of options

OPTION	A1 - *Status quo*	A2 - TA one-stop shop	A3 - One-stop shop without TA	A4 - *Temporary permit*
Functional Criteria				
1. Does this alternative reduce the costs and number of procedures and prevent delay in starting business by an enterprise? (private sector costs)	2	4-	4	2 +
2. Does this alternative improve public administration efficiency, and in particular, tax administration? (administration efficiency)	2	3	2-	1
3. Does this alternative improve legal certainty from tax evasion or encourage fraud? (tax revenue risk)	2	3	2	2+
4. Does this alternative improve transparency? (transparency)	2	4-	3	2
5. Does this alternative comply with EU requirements? (compliance with the EU integration process)	2	3	2-	1
6. Does this alternative integrate registration numbers for various purposes? (identification simplicity)	2	3	3	1
Implementation criteria				
7. What legal and institutional changes are required to implement this alternative? (implementation)	2	1	1	2-
8. What investments are required to implement this alternative? (expenses)	2	2-	1	2-
9. How long does it take to implement this alternative? (time)	2	2-	1	2-
RANKING	**3**	**1**	**2**	**4**

Based on the multi-criteria analysis, it can be concluded that Option 2 has a significant advantage over the others. However, there are situations in which grades are awarded differently. For instance, if a first-ranked alternative was evaluated poorly in respect of one but very important criterion (e.g. tax revenue risk), it is possible that the alternative would be unacceptable. The weighting factor corresponding to the risk criterion for tax revenues would be extremely high in that case.

5.5.2 Cost-Benefit Analysis

Cost-benefit analysis is a method of quantitative economic analysis used in the evaluation and ranking of alternative projects, or in the case public policy options/measures or regulatory change options in the case of regulatory impact assessment.[22] Cost-benefit analysis allows answering a few questions:

- Does a public policy, or do public policy measures bring a net social benefit?
- Should the proposed solution be adopted?
- Which of the different options should be adopted?

The basic characteristic of cost-benefit analysis is that it allows costs and benefits to be considered from the perspective of society as a whole and to be expressed in monetary equivalents (e.g. EUR or RSD).

Expressing costs and benefits in money, i.e. monetisation allows the comparison of different options that would be difficult to compare according to their characteristics and consequences.

In practice, cost-benefit analysis has a limited application. Given the nature and limitations of this handbook, more methodological details and examples of cost-benefit analysis can be found in the European Commission's Cost-Benefit Analysis Guide and the Cost-Benefit Analysis Manual, developed by the Ministry of Construction, Transport and Infrastructure of the Republic of Serbia.[23]

It is often not possible to use or apply a cost-benefit analysis nor is it always the only relevant or desirable method for when a decision is being made. Applying the cost-benefit analysis comes with several challenges. For instance, determining which effects to include in the form of costs and benefits requires careful consideration of problems as well as different opinions on what to include in and to exclude from the analysis. Similarly, even if prices of certain products may be well-known, they may also oscillate significantly. In this case, the right question would be “what price level is adequate?”. On the other hand, prices of some other “products” may be unknown if there is no market for them.

When preparing a cost-benefit analysis, it is useful to follow these steps:

1. establish the assumptions and coverage of the analysis;
2. determine the relevant period of analysis in which public policy will have impact;
3. determine and indicate the costs and benefits, as well as the possibility of their monetisation, including the expected period of their realisation;
4. monetise costs and benefits when possible;
5. discount costs and benefits;
6. assess risk and uncertainty;
7. consider costs and benefits that cannot be monetised reliably;
8. consider additional criteria;
9. recommend (select) the best option.

[22] This section presents only some of the basic elements of a cost-benefit analysis. For more details on this method, see: D.L. Weimer and A.R. Vining, Policy Analysis, Prentice Hall, 2010.

[23] See: http://www.putevi-srbije.rs/images/pdf/strategija/Manual_Cost_Benefit_Analysis.pdf.

Step 1. Establish assumptions and coverage of the analysis

The impact assessment steps that precede the application of cost-benefit analysis (e.g. identify options or identify direct and indirect impact) are largely the basis of cost-benefit analyses. This implies that options are clearly determined and demarcated and that impact is mapped to determine the coverage of the analysis.

Step 2. Determine the analysis period

Application of cost-benefit analysis implies a careful approach to the period during which significant impact of public policies or regulations will be manifested. The period that is taken into account when analysing the costs and benefits is the usual projected time of the impact of the analysed proposal, i.e. the period until the last year in which the expected impact was significant enough. In practice, for a large number of interventions, it is difficult to determine until when there is significant impact. For changes that have long manifestation of impact, e.g. in the field of health, it is recommended to use a period of at most 20 years because due to discounting, impact after the age of twenty is extremely small.

In addition to the fact that the discounted values of benefits and costs expected after a longer period are often very small, the shortening of the analysed period can be justified by the fact that with the extension of the considered period there are increasing uncertainties regarding the projected values of benefits and costs. However, caution should be exercised with shortening the period as this shifts uncertainty from estimating future costs and benefits to estimating residual values. Residual values that show all expected net benefits after the considered period are also an important component of the total value of the proposal and need to be presented.

Step 3. Determine the costs and benefits

This step has already been described and is an integral part of the economic impact assessment. A novelty in respect of cost-benefit analysis is that the possibility of monetising economic impact is considered.

Step 4. Monetise costs and benefits

Monetisation must not be performed at any cost, but only when possible — that is, in one of several cases. The simplest case is when there are market prices on the basis of which costs and benefits are directly expressed. In other cases, indiscriminate use of market prices may lead to wrong results. Finally, there are no market prices for many of the costs and benefits that result from regulatory changes, such as a protected environment, lives saved or injuries avoided.

Since cost-benefit analysis involves estimating costs and benefits that do not have a market price and are not subject to normal market transactions, it is often necessary to use other, indirect monetisation techniques. Depending on whether there are market prices and whether their use is adequate, the expression of value in monetary terms is possible:

- **When market prices exist and when they are relevant.** Economists usually consider the market price to be the most accurate. However, sometimes market prices exist but are not relevant — they do not reflect the adequate value of costs and benefits. This refers, above all, to circumstances in which there are market failures or government interventions. The existence of external effects and market structures (e.g. monopolies or oligopolies, distortionary taxes, rationing of goods due to shortages, asymmetric information) imposes the need to adjust market prices so that they reflect social benefits and costs. In other words, it is necessary to calculate "shadow prices".
- **When market prices do not exist.** Government intervention can have effects, for example, on the number of deaths or injuries, or on environmental resources, or it can affect some other variables for which market prices do not exist or that cannot be directly shown or

estimated. In such situations, different techniques are used in order to indirectly monetise costs and benefits. Some rules regarding the choice of these techniques are given in Figure 21 below.

There are several ways to estimate the benefits and the costs:

- Adjustment of market prices;
- Method of detected preferences;
- Travel cost method, used to determine the value of non-market goods — can be expressed as the sum of the costs that, for example, visitors incur to reach the park (including the time required to reach the park);
- Hedonistic price method — the value of a certain green area can be obtained by comparing the prices of real estate bordering on that area and the prices of identical real estate that are far from that area;
- Method of said preferences.

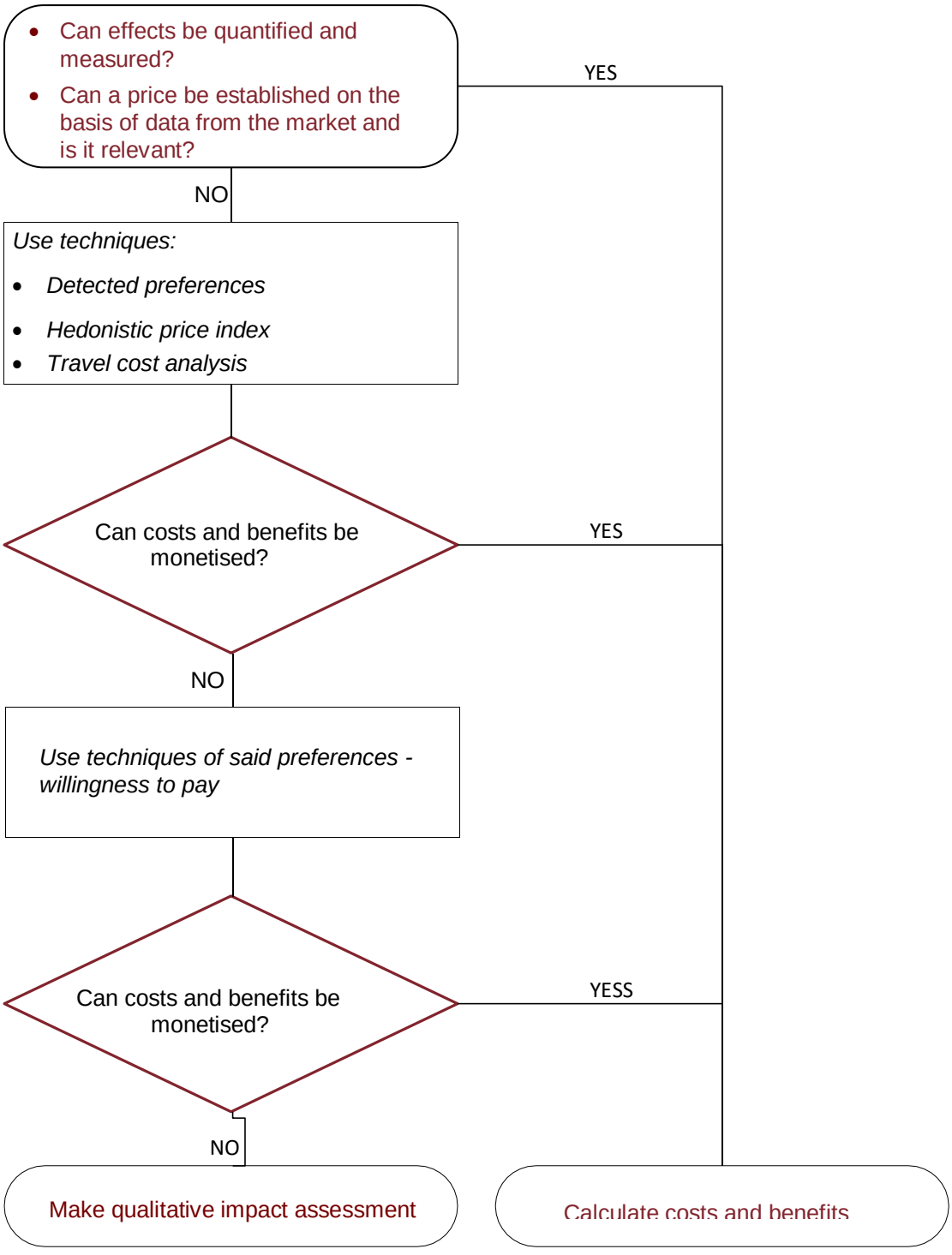


Figure 21. Criteria for deciding whether to use the monetisation method

Willingness to pay

Monetisation of costs and benefits is largely based on the concept of willingness to pay. Applying the concept of willingness to pay is recommended for the fourth and fifth phases of the *ex-ante* impact assessment - the phase in which the impact of the option is analysed and the phase in which the recommended options are compared and one of them is chosen.

In certain situations, in addition to market analyses, other analyses need to be performed to assess the costs and benefits of the projects. If there are no market prices, potential valorisation methods are applied, which are, in fact, based on surveys that try to determine how much the target groups and stakeholders are willing to pay for certain benefits, or how much they would be willing to accept as compensation for loss. One of the key features in this concept is that the answers are hypothetical since respondents do not actually pay anything, nor do they actually receive benefits.

There are a number of studies available that can provide more information needed to better understand the methods of willingness to pay. The table contains an example of the obtained results in a hypothetical case, where based on a survey of users and potential users, an assessment is given in terms of average willingness to pay.

Water quality scenarios	Average willingness to pay on the level of entire sample (RSD)	Average willingness to pay on the level of a group of users (RSD)	Average willingness to pay on the level of a group who does not want to be a user (RSD)
Maintaining the quality of water for navigation	24,50	45,30	14,20
Improving water quality from navigation to fishing	17,60	31,30	10,80
Improving water quality from fishing to swimming	12,40	20,20	8,50

From these results, a number of interesting conclusions can be drawn. The willingness to pay analysis reveals that people are willing to pay a relatively high price for the initial level of quality. However, they are less willing to pay for improved water quality. The price that river users are willing to pay is obviously higher than the price that non-users are willing to pay. However, this second group is ready to pay more than zero, since they also care about the conditions of the environment in which they live. From the data in the table, a conclusion can be drawn about the benefits that households have from improving the quality of the river. The overall benefit of improving water quality can be estimated by multiplying the benefits by the number of households that believe they will be affected by that improvement.

Step 5. Discounting (calculation of present value of costs and benefits)

The value attached to costs and benefits depends on when they are realised. In some cases, public policies, new regulations, or changes to them will cause current costs, but certain costs or benefits will only arise after some time. For instance, one option generates current costs, but the benefits are realised over a longer period, while the other option first brings benefits and then incurs significant costs. How to compare such options?

In another similar example, two alternatives need to be compared. Both entail an investment of 100 million euros in the first year, after which net revenues (differences between additional costs and revenues) are generated in the next three years. Net benefits (difference between total benefits and total costs) are presented in the following table:

Year	0	1	2	3
Option 1	- 100	50	40	30
Option 2	**- 100**	**30**	**50**	**45**

The question now is which of these two options to choose. Since money also has a time value — that is, one dinar today is worth more than one dinar in a year —, it is necessary to reduce all costs and benefits to comparable sizes.

Reducing the various values that will occur in the future to the present value is called discounting. Discounting allows you to directly compare the costs and benefits incurred in different periods. Result of the process of discounting these flows is **net present value**. Net present value is one of the techniques that can be used when deciding on the necessity and type of planned change.

Suppose that a public policy measure (regulation) imposes an obligation on the private sector and that the respective change is to be implemented over a three-year period. Initial costs of the private sector amount to RSD 5,000,000. All regulated entities are obliged to apply the new requirements from 1 January 2020, while the initial costs are borne at the end of December 2019. During the three-year period, the private sector will have relatively low maintenance costs resulting from the imposed obligation (around RSD 100,000 per year). During the same period, the private sector will achieve significant savings (RSD 1,000,000 in the first, RSD 2,000,000 in the second, and RSD 3,000,000 in the third year of implementation).

	Year (t)	Benefits (B_t)	Costs (C_t)	Net benefit (NB_t)
December 2019	0	0	5.000.000	- 5.000.000
2020	1	1.000.000	100.000	900.000
2021	2	2.000.000	100.000	1.900.000
2022	3	3.000.000	100.000	2.900.000

The present value can be calculated in several ways.

For instance, the present value (*SV* in Serbian, as shown below, or PV in English) of benefits in the first year of application can be calculated first. In order to calculate the present value, a **discount rate (*i*)** is also required. Assuming it is 10% (0.1), the result is as follows:

$$SV = \frac{B_1}{(1+i)} = \frac{1.000.000}{(1+0{,}1)} = 909.091$$ (where *B* stands for *benefit*)

This means that the benefit of RSD one million to the private sector will be worth a year as RSD 909,090 today. In this case, the **discount factor** is equal to 0.90909.

Other annual benefits are calculated in a similar way, and for the second year the result is as follows: a benefit of RSD 2,000,000 for two years is worth approximately RSD 1,652,890 today.

$$SV = \frac{B_2}{(1+i)^2} = \frac{2.000.000}{(1+0{,}1)^2} = 1.652.893$$

Or, going from the present to the future value, the amount of RSD 1,652,893 would bring RSD 1,652,890 in two years $(1 + 0.1)^2$, i.e. RSD 2,000,000. By summation, we obtain the present value of the benefits over three years.

$$SV_B = \sum_{t=0}^{3} \frac{B_t}{(1+i)^t} = \frac{B_2}{(1+i)} + \frac{B_2}{(1+i)^2} + \frac{B_3}{(1+i)^3} = 4.815.933$$

The same formula is used for costs, so their present value is:

$$SV_C = \sum_{t=0}^{3} \frac{C_t}{(1+i)^t} = C_0 + \frac{C_1}{(1+i)} + \frac{C_2}{(1+i)^2} + \frac{C_3}{(1+i)^3} = 5.248.690$$ (where *C* stands for *cost*).

The result clearly indicates that the measure should not be adopted — total benefit is RSD 6,000,000, and total costs are RSD 5,300,000, but reduced to the present value, they show that the change impact is negative. The same result can be obtained by using the following formula:

$$NSV = \sum_{t=1}^{3} \frac{NB_t}{(1+i)^t} - C_0 = 4.567.243 - 5.000.000 = -432.757$$

Discount rate is a correction that allows the assessment of long-term impact — in this case, an introduction of regulation or its change, or an alternative to a regulation. The process of discounting, as in the example, leads to the net present value, where: t — observed period; n — period of time taken into account; r — discount rate; C_t — net benefits in period t; and C_0 — initial costs of introducing regulation ($t = 0$).

Public policy can be assessed on the basis of a cost-benefit analysis, as follows:

- Estimated costs and benefits are grouped by the years in which they are incurred, and then the net benefits (difference between costs and benefits) are calculated for each year;
- Net benefits are multiplied by discount factor for each year. The discount factor is calculated by applying the following formula: $1/(1+i)n$, where i is the discount rate, and n is the year for which the calculation is performed. The resulting value is the present value of the net benefit for each year;
- Number of years for which the present value (NPV) is calculated depends on public policy. In the given example, it is a period of 10 years;
- The sum of net present values for each year represents the total value of public policy. For simplicity, it is assumed that the private sector has significantly lower costs based on government investment.

The table below shows the described calculations. Discount factor is calculated by applying a discount rate of 7%.

Table 21. Presentation of net present value

Year of introducing public policy (regulation) measures	***Expected yearly costs of the government***	***Expected yearly benefits of the private sector***	***Discount factor (7%)***	***Present value of costs***	***Present value of benefits***
(1)	*(2)*	*(3)*	*(4)*	*(5) = (2) × (4)*	*(6) = (3) × (4)*
0	*10*	*0*	*1,0000*	*10*	*0*
1	10	0	0,9346	9,3458	0,0000
2	20	0	0,8734	17,4688	0,0000
3	30	5	0,8163	24,4889	4,0815
4	30	10	0,7629	22,8869	7,6290
5	20	30	0,7130	14,2597	21,3896
6	10	40	0,6663	6,6634	26,6537
7	5	40	0,6227	3,1137	24,9100
8	5	40	0,5820	2,9100	23,2804
9	5	40	0,5439	2,7197	21,7573
10	5	25	0,5083	2,5417	12,7087
Total:			116,3987	142,4102	

Steps 6–8 imply the application of other techniques covered in this handbook (risk analysis and multi-criteria analysis). Note, however, that often the cost-benefit analysis only gives a partial picture of the impact, because much of the impact cannot be monetised.

Step 9. Recommend (select) the best option

Calculating the net present value for several options allows for a comparison of those options. A public policy or regulation option is acceptable if the net present value is positive. However, it is possible to decide to apply an option that has a negative net present value if the non-monetised net benefits are significant. The option that has a higher net present value takes precedence. However, when other options have advantages that cannot be quantified, it is possible that the first-ranked option at net present value will not be ranked first in the overall analysis.

The net present value rules can be summarised as follows:

- Rejecting or accepting a decisione
  - if NPV> 0, it is accepted
  - if NPV <0, it is rejected
- Ranking of alternatives:
  - if NPV (A)> NPV (B), A is accepted
  - if NPV (B)> NPV (A), B is accepted.

Comparing options of different duration

For options that have different duration, it is not possible to automatically calculate and compare the net present value. For example, if a permit is granted for a certain period, with one option approving the activity for three years and the other for four years, this requires that these options be comparable in time.

Two options with different duration in years

Assuming a 10% annual discount rate:

the present value of costs for Option A =

= - 40.000(1,0) - 2.800(3,17) = - 48.876

the present value of costs for Option B =

= - 28.000(1,0) - 4,400(2,49) = - 38.956

Present value of costs for the options calculated in this way shows that Option B has lower total costs. However, as Option A allows for a longer duration, this makes the previous calculation incorrect. The question is how to make an adequate decision on the choice of options. In these cases, two methods can be used.

The least common time denominator method

The first method refers to using the least common time denominator to arrive at an identical duration of options. In this case, it is a period of 12 years, i.e. renewal of Option A three times and Option B four times. Assuming a 10% annual discount rate again:

the present value of costs for Option A =

= - 40(1,0) - 40(0,683) - 40(0,467) - 2,8(6,814) =

= - 40,00 - 27,32 - 18,68 - 19,08 = -105,08

the present value of costs for Option B =

= - 28(1,0) - 28(0,751) - 28(0,564) - 28(0,424) - 4,4(6,814) =

= - 28,00 - 21,03 - 15,79 - 11,87 - 29,98 = -106,67

When the options are reduced to a common time denominator, Option A takes precedence. The problem with applying this method is when the least common denominator is relatively large (e.g. for options with a duration of five and seven years that is 35 years), which requires projecting cash flow of benefits and costs over an extremely long period. A similar problem occurs when there are several options (e.g. options with a duration of five, seven and nine years).

Method of annual equivalent costs (benefits)

Another method of correct comparison of alternatives with different duration is the method of annual equivalent costs (benefits). This method converts the actual cost (benefit) flows of the alternatives into an equivalent constant cost (benefit) flow. Based on the cost flows of Alternative A over four years, one can obtain fixed annual costs (for the same period of four years) that will have an identical present value. The same can be calculated for Alternative B and then compare the annual equivalent costs of the two alternatives). To obtain the annual equivalent costs, the following two steps are required:

1. to calculate the present value for each alternative;
2. to convert the present value for each project into an annuity by dividing the obtained present value by relevant annuity factor.

Using the present values obtained in the previous example:

the present value of costs of Alternative A =

= - 40.000(1,0) - 2.800(3,17) = - 48.876

the present value of costs of Alternative B =

= - 28.000(1,0) - 4.400(2,49) = - 38.956

Annuity factor (for 10%) is 3.17 for four years, and 2.49 for three years. Annual equivalent cost is:

annual equivalent cost of Alternative A =

= 48.876/3,17=15.418

annual equivalent cost of Alternative B =

= 38.956/2,49= 15.645

Thus, Alternative A requires lower costs.

Impact of discount rate change on the decision

Suppose two regulatory alternatives are considered — A and B. Net benefit of the alternatives are shown in the table. It is necessary to consider which of the alternatives is better at a discount rate of10%.

Year	0	**1**	**2**	**3**
Net benefit of Alternative A	-100	50	40	30
Net benefit of Alternative B	-100	30	45	50
Discount factor (10%)	1,000	0,909	0,826	0,751
Discounted net inflow of Alternative A	-100,00	45,45	33,04	22,53
Discounted net inflow of Alternative B	-100,99	27,27	37,17	37,55

Net benefit of the alternatives:

$NPV(A)_{0,1}$ = - 100(1.0) + 50(0.909) + 40(0.826) + 30(0.751) =101.02 – 100.00 = 1.02

As NPV(A) > 0, Alternative A is acceptable at a discount rate of 10%. Net present value (NPV) for Alternative B is calculated in the same way:

$NPV(B)_{0,1}$ = - 100(1.0) + 30(0.909) + 45(0.826) + 50(0.751) = 101.99 - 100 = 1.99

As NPV(B) > 0, Alternative B is also acceptable at a discount rate of 10% and has an advantage over Alternative A, because NPV(B) is higher: $NPV(Б)_{0.1} > NPV(A)_{0.1}$.

Choice of alternatives is sensitive to changes in the discount rates. Now, suppose the same alternatives are at a discount rate of 15%.

Year	0	1	2	3
Net benefit of Alternative A	-100	50	40	30
Net benefit of Alternative B	-100	30	45	50
Discount factor (15%)	1	0,87	0,756	0658
Discount net inflow of Alternative A	-100,00	43,50	30,24	26,32
Discount net inflow of Alternative B	-100,99	26,10	34,02	39,48

With the change in the discount rate, Alternative A has a slightly positive net present value, $NPV(A)_{0.15}$ = 0.06, while $NPV(B)_{0.15}$ is negative: $NPV(A)_{0.15} > NSV\ (B)_{0.15}$.

This example also shows that those alternatives where a significant net benefit is realised later become less and less desirable as the discount rate increases.

5.5.3 Standard Cost Model

Standard cost model is a simple way of measuring the administrative burden imposed by regulations, while its role is smaller in the analysis of public policies. Standard cost model is often part of a broader cost-benefit analysis that considers the impact on costs of aligning economic entities with public policy or, more commonly, regulation.

Standard cost model breaks down the prescribed administrative procedures and requirements into procedures and necessary activities that regulated entities must perform. Then, based on data on the time required to meet these requirements, as well as data on the costs they create, it measures administrative costs, or administrative burden.

Standard cost model is limited only to considering the administrative procedures and requirements that entities meet in order to comply with regulations. **The standard cost model does not provide an answer as to whether the regulation or public policy measure itself is necessary or not, or whether there are better solutions.** The standard cost model has no weight of statistically representative research. Such research would in many cases be very expensive and time consuming and would reduce the possibility of applying this method comprehensively.

For the purposes of the standard cost model, the costs are divided into:

- **Financial costs** arising from the obligation for the regulated entity to transfer a certain amount of money to state bodies on the basis of payment of taxes and contributions, excises, administrative fees, etc. Financial costs are in principle not calculated according to the standard cost model. However, if a change of procedure or request cancels a payment (e.g. administrative fee), this can be shown as savings.
- **Structural costs of implementing regulations** — costs related to the production process or to the products and services of a company (e.g. costs incurred in fulfilling the obligation to install filters to reduce pollution, to comply with certain production standards, to employ workers with specific knowledge, to adapt the workplace to persons with disabilities, etc.) are not subject to calculation according to the standard cost model, but are elements that are analysed in the context of economic and other impact.
- **Administrative costs** are the costs of administrative procedures, i.e. of those activities that are imposed on regulated entities by certain regulations regarding administrative procedures or administrative requirements. Administrative costs consist of two components: the required (usual) administrative costs, and the administrative burden.
- **Administrative burden** is a part of the total administrative costs that arise exclusively due to the requirements imposed by regulations.

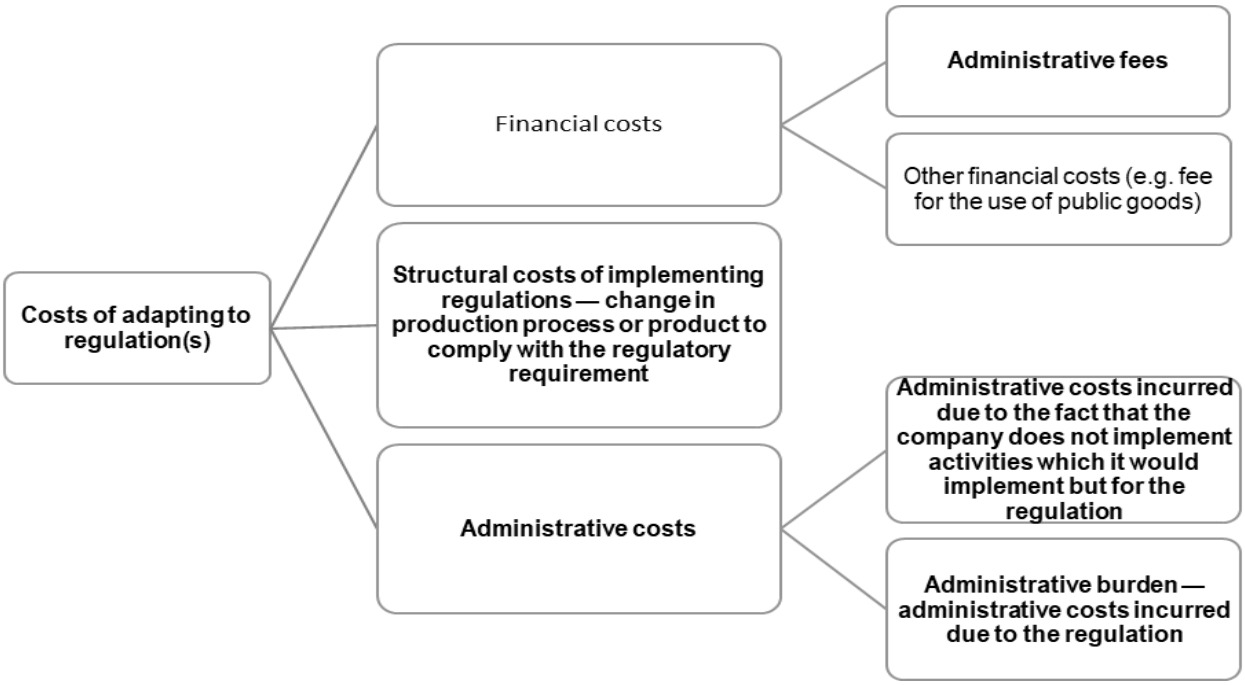
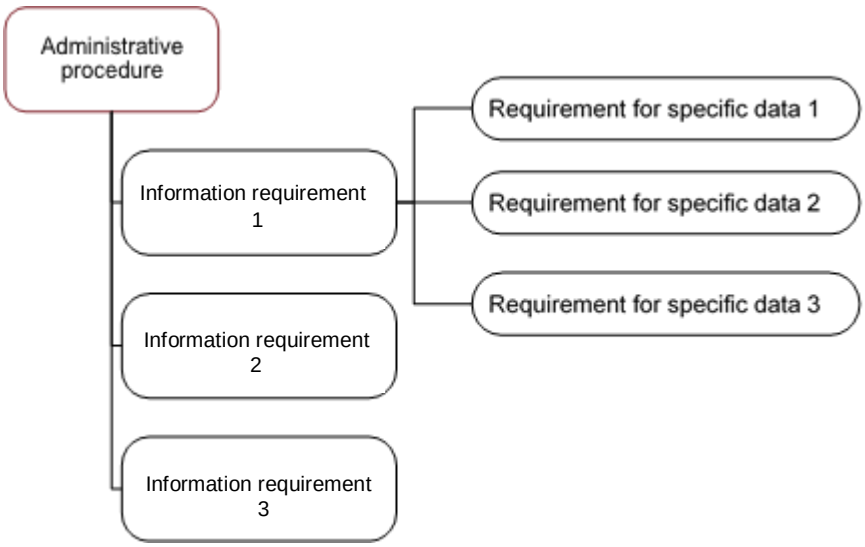


Figure 22. Costs of adapting to regulations

In addition to costs, the key element for calculation of the standard cost model are **information requirements**, i.e. obligations arising from the administrative procedure or requirement regarding the collection, delivery or storage of data in the form and manner prescribed by regulation. Requirements may relate to obligations to the state or to obligations to third parties. The information requirement implies not only collection and submission of documents and data in a certain form to the public administration and/or a third party, but also refers to the storage of data so that they can be made available to inspection bodies or forwarded upon request. In order for any information requirement to be met, various administrative activities need to be carried out (e.g. collect data, get acquainted with the regulation, etc.). This requires time which needs to be determined if the cost of the private sector is to be identified.

Each information requirement contains one or more data requirements. An information requirement for data is a requirement that individual data, which is required, be collected, delivered or stored in order to fulfil an obligation**.**



Administrative activities - In order to meet the requirements, it is necessary to take numerous administrative activities. Standard cost model is used to estimate costs for taking the activities. Activities may be taken within the entity or third parties may be engaged.

5.5.3.1 Steps for Calculating Administrative Costs

Standard cost model can be most simply expressed as **a product of the "price of the procedure/requirement (*P*)" and the total number of procedures (information requirements) per year (*Q*).** The total number of procedures ***Q*** is obtained either directly or on the basis of the number of regulated entities that have a statutory obligation ***(N)*** and the frequency of the obligation to meet a particular requirement ***(F)***.

$$P \times Q = (H \times T + E + AP \times Q = (H \times T + E + A) \times (N \times F)$$

5.5.3.1.1 Determining the price component

In order to calculate price of the procedure ***(P)***, several components need to be calculated. Regulated entities (owners, directors, other employees) must spend some time to meet the imposed requirements. **The time required to fulfil the requirement (*H*)**, i.e. to collect and submit information — costs. For calculation of costs incurred by regulated entities based on the time spent on fulfilling the administrative requirement, the usual fee (by hour or day) paid by the regulated entity to the persons engaged in performing administrative activities ***(T)*** is used. In addition to the fee, the costs include other costs incurred to meet the requirement (costs of office supplies, copying, travel expenses, etc.).

In addition to the listed costs, some administrative requirements create **additional costs**, e.g. the cost of procuring special equipment if it is necessary due to a specific requirement ***(A)***, or the costs incurred as a result of hiring a lawyer, accountant or other persons whose services are used to meet the requirement ***(E)***.

More details on the calculation of the required time is given in the Methodology for calculating the standard costs of developing planning documents and the Manual for use of the standard cost model calculator. The calculator is available at: https://rsjp.gov.rs/sr/kalkulator/.

When calculating administrative costs, the following should be taken into consideration:

1. **Classification of regulated entities** - the calculation procedure may differ significantly depending on the activity, size or other characteristics of the regulated entities. If regulations or practices for different categories provide for significantly different procedures, necessary documentation or other elements of administrative procedures or the entities approach the procedure differently (e.g. paper or electronic submission of documentation, or engagement of third parties), it is necessary to make a calculation separately for each category. If these differences are small, only one calculation is performed, and the form indicates what refers to which categories.

2. **Determining a representative entity** - when calculating the time required to meet an administrative requirement, the standard cost model uses the so-called time of the average efficient economic entity, i.e. enterprise or entrepreneur who is on average efficient in meeting administrative requirements. If data on the time required to perform the administrative requirement are obtained on the basis of the analysis of extremely inefficient or extremely efficient entities, incorrect calculation results are obtained.

3. **The need to calculate the costs of hiring persons who are not employed in the regulated entity** - the calculation of costs may be based on the assumption that all procedures and activities are carried out by persons employed in the regulated entity. If it is common to hire third parties (e.g. lawyers, accountants, etc.) who meet the administrative requirements instead of employees, such costs should be calculated.

4. **Possibility to calculate fixed (overhead) costs** - a certain percentage is usually added to the calculated costs in the name of overhead costs (e.g. in Great Britain 30% is added to the calculated amounts, while in Norway, Denmark and the Netherlands 25% is added), but often such an increase in costs is questionable because it is about the so-called non-refundable costs, and it is recommended that these costs in the Republic of Serbia, except in exceptional conditions, are not calculated.

5. **The need to measure the formal or actual burden** - it should be borne in mind that in practice administrative requirements are often only partially applied, so if there is data on the extent to which regulated entities apply administrative requirements, how much actual costs deviate from costs that imply full implementation of administrative requirements can be indicated.

6. **Reliability of collected data** - in many cases, regulated entities unjustifiably complain about the time needed to meet certain administrative requirements. It is necessary to review and check carefully the collected data and perform possible logical checks.

Example of calculation of administrative costs and administrative burden

Calculation can be shown by a simple example. Suppose an administrative procedure requires that certain information be provided to obtain a particular permit, and that a person employed by a regulated entity needs six hours to complete five steps and, thus, fulfil an administrative requirement. These steps can be different, e.g. getting acquainted with the requirement, filling in the form, collecting data, making payment. This list of activities is standardised and more detailed instructions on determining activities are available at: https://rsjp.gov.rs/sr/kalkulator/.

If an hour price of that person`s work is 500 dinars and if the additional costs (transportation, telephone, cost for forms, etc.) are 1,000 dinars, the cost of the procedure is 4,000 dinars. The price for an hour of work is obtained when the gross salary for the corresponding work is divided by total number of working hours per month. This calculation may vary depending on who carries out the activities to meet the requirement of providing information.

Thus, for now, only the price of the procedure has been determined. It is necessary to determine the frequency, or the annual number of procedures. This means that it is necessary to determine the number of regulated entities. If this requirement refers to 10,000 regulated entities per year and if the regulated entities do so only once a year, the total administrative cost is 40 million dinars. If the procedure is applied differently to different types of entities, or if the entities meet the requirements in different ways, then calculation is performed for each of these "types" of administrative procedure.

For simplicity, suppose all entities are similar, and that there is no significant difference to consider. In that case, the total administrative costs of the private sector amount to 4,000 dinars x 10,000 procedures = 40 million dinars. However, it is possible that part of these costs would be borne by the private sector without a formal requirement. If it is assessed which part of the company's activities is carried out without a formally imposed requirement, then it is possible to distinguish the administrative burden from the administrative costs. For example, if it is estimated that companies would spend only two hours instead of six, then the difference between administrative costs and administrative burden is 20 million dinars.

5.5.3.1.2 Determining the quantitative component

When determining the quantitative component, several situations are possible. Information on the quantitative component (*Q*) could be downloaded directly if the information on the total number of procedures was provided by the competent authority, either from the register or from another source. However, determining the total number of procedures also depends on specific circumstances (e.g. whether a certain number of entities renewed the license in a certain year, so that a significantly higher number of procedures was recorded in that year, etc.) that need to be taken into account.

If information on the total number of procedures is not known, then it is performed on the basis of two quantities:

1. number of regulated entities (N);
2. frequency of the procedure (requirement) which the regulated entity must fulfil on an annual basis (F — frequency).

When determining the frequency, it is necessary to distinguish three types of information requirements:

- **one-off** - when the number of procedures is equal to the number of regulated entities for certain year;
- **repeating due to legal obligation** - if the information requirement occurs periodically, the frequency is known;
- **repeating so that the frequency depends on the business activity** - if the regulated entity decides to start a certain activity, which leads to the obligation to fulfil the information requirement; if information on the exact number of procedures (requirements) on an annual level is not known because the frequency depends on the economic entities themselves, then the frequency is unknown.

Therefore, when defining quantitative components, it is possible to distinguish several cases:

- **Known frequency, known number of regulated entities** - If frequency of an administrative requirement is known by regulation, e.g. the regulation introduces an obligation for regulated entities to perform certain activities a certain number of times a year, then the estimated number of activities is obtained by the result of the number of entities and the frequency. For example, a regulation requires that the form be submitted once a year, the frequency is 1, if it is submitted every six months, the frequency is twice a year, if it is submitted every other year, the frequency is 0.5, etc. If the frequency is known, the number of entities is usually determined on the basis of their own data (register, records or other data).
- **Known frequency, unknown number of regulated entities** - If the frequency is known, but the regulatory body does not have reliable data on the number of regulated entities, it is necessary to perform an additional analysis of available data. If reliable data cannot be obtained, an assessment should be made, which is clearly indicated. The number of cases determined in this way is multiplied by frequency of the obligation provided by the relevant regulation.
- **Unknow frequency, known number of regulated entities** - In a number of cases, the frequency may depend on activity levels. It is possible to know the total number of entities that have a certain predominant activity, but it is not known how often they meet a certain administrative requirement, i.e. how often they initiate an administrative procedure. In these circumstances, if there is reliable data on the total number of information requirements from the previous period in the records of the regulatory body, this data can be used as an approximation for the quantitative

component. Expert assessment is used only in exceptional cases, when it is not possible to estimate the frequency in any other way.

- **Unknown frequency, unknown number of regulated entities** — Information is valuable regarding the number of regulated entities affected by a particular information requirement, or regarding the number of fulfilled information requirements per year. In a number of cases, data will not be available, nor will it be possible to determine without the engagement of significant additional resources. In such circumstances, it is necessary to make an appropriate assessment, where it is desirable to do so according to the types of regulated entities, i.e. according to segments.

The information needed to determine the quantitative component is often available in other state bodies, i.e. relevant associations, chamber of commerce or research institutes.

After determining the quantitative component and the required time, **it is necessary to determine the cost of employees, or other engaged persons** who perform administrative activities.

Data from the Statistical Office of the Republic of Serbia are used for calculation purposes. Several cases need to be distinguished:

1) **Average salaries for a specific sector** are used when the procedure or requirement refers exclusively to that sector (e.g. the agricultural sector or the finance and insurance sector). For calculation, the following is used: the uniform classification of activities (UCA 2010) and data on average salaries available in the Statistical Office. When a requirement relates to more than one sector, average salary at the economic level can be used, e.g. all value added tax liabilities apply to all sectors, so it is necessary to use the national average. Finally, if the sectoral structure of regulated entities is known, it is possible to calculate the weighted average salary for a particular administrative procedure.

2) **Classification by level of qualifications required to perform the administrative activity.** In addition to classification by sector, it is possible to make distinction by level of qualifications. In that case, the person making the calculation may determine whether such a distinction is necessary. The simplest classification is **division into owners, management, directors and employees who conduct the administrative procedure**. The methodology starts from that simple classification because it is difficult to apply a more detailed division in practice.

3) **Tariff for persons engaged outside the regulated entity (lawyers, accountants, tax advisors, etc.).** In practice, it is common, especially for the SME sector, that administrative activities are performed by third parties, i.e. persons who are not employed by the regulated entity (e.g. accountants, tax advisors, lawyers). In that case, it is necessary to determine the appropriate standard fee to be paid to those persons. Then you should use either the existing tariffs or calculate the average price based on the obtained data - price list of third parties.

Other costs. In addition to the costs based on the time spent (expressed in money), it is necessary to calculate other costs incurred due to the fulfilment of the requirement. These costs include, for example, the part of the software costs that are necessary to fulfil the information requirement (only if it is not used for other purposes), postage costs, copying costs and the like. Finally, taking into account the importance of administrative fees, they should also be included in the calculation of costs.

Tools for determining the time required

Considering that the time calculation carried out by standard cost model uses the time required for the so-called average efficient or typical regulated entity to respond to the information requirement, it is necessary to determine that time. **Interviews can be used** both to identify normally efficient entities and the time they need to execute an information requirement. The same applies to third parties (accountants, lawyers, etc.) when they are hired. Depending on the available resources and other factors, interviews with persons engaged in the execution of the requirement (employees, owners, third parties) may be by telephone or face-to-face.

The advantage of telephone interviews is that the results are obtained quickly and the costs are insignificant, while the disadvantages are the absence of direct contact and simulation of administrative activities, which are also the advantages of face-to-face interviews. A telephone interview is suitable for simple administrative activities. Face-to-face interviews, on the other hand, can be more time consuming and costly. They are more suitable for more complex administrative activities, when a reliable result can be obtained with a small number of respondents. The advantage of interviewing experts is that such an interview can replace interviewing a larger group of regulated entities, as well as the fact that experts are familiar with more complex issues. On the other hand, the disadvantages may be that experts are not ready to give answers and often have a conservative approach. Interviewing experts is suitable for complex requirements related to a large number of regulated entities and for controlling the results obtained by other methods.

Online questionnaires have the advantage that they are relatively cheap, with a larger number of respondents, and thus greater reliability of the results obtained. Disadvantages are the possibility of poor response, as well as the risk that those who give an answer are not adequately acquainted with the administrative procedure or requirement. The approach is suitable for simpler administrative procedures, when a reliable result can be obtained only with a larger number of respondents.

Assessment of the time required should be approached pragmatically. In practice, for example, one of the companies interviewed may differ significantly from the other companies interviewed. Such data should not be taken into account when determining the time to meet the requirements needed by a "normally efficient company".

In certain circumstances, it is necessary to make an expert assessment of the time required for "normally efficient company" or conduct additional interviews, because due to a significant discrepancy in the answers received, it is not possible to estimate the time required to meet the requirements of a "typical company".

In practice, the **stopwatch method** is also used, in which the person performing the calculation is placed in the position of a regulated entity and tries to go through the procedure. Advantage of this approach is that each activity is measured individually. Also, this approach is suitable for very complex requirements related to a large number of regulated entities and for the control of problematic results obtained by other methods. On the other hand, disadvantage of this approach is subjectivity.

Another option is **to classify standard activities according to the time required**. For example, in the case of a standard administrative activity of getting acquainted with the administrative procedure, the possible time is 3 minutes, 10 minutes, or 21 minutes for simple, medium, and complex activity, respectively. This approach greatly simplifies the calculation. Disadvantage of this approach is that it can deviate significantly from real time, but also that it takes time to prepare the classification.

5.5.4 Cost-Effectiveness Analysis

Cost-effectiveness analysis (CEA) is a **method for comparing the costs of different public policy measures that achieve (approximately) the same level of effects.** This tool is recommended for step 5 of the public policy impact assessment, which compares the options and recommends the best solution. More information on cost-effectiveness analysis can be found in the Guidelines on Cost-Effectiveness Analysis, adopted by the European Commission, and the Guide to Cost-Effectiveness Analysis, adopted by the World Health Organization.[24]

In practice, cost-effectiveness analysis is most often performed when the authors have not conducted a cost-benefit analysis. The purpose of this analysis is to identify the least expensive public policy option. Cost-effectiveness analysis is applied when the benefits of public policies are difficult to quantify and express in monetary terms.

Essentially, the cost-effectiveness analysis determines the costs of achieving a specific physical volume (e.g. accidents avoided, production increases, emissions of harmful substances, number of the unemployed covered by the retraining programme, etc.). Unlike cost-benefit analysis, cost-effectiveness analysis does not require monetisation of costs, while benefits are expressed in units or percentages.[25] In other words, **the benefits in cost-effectiveness analysis are expressed in physical rather than monetary units**, while **costs in cost-effectiveness analysis, as well as in cost-benefit analysis, are expressed in monetary units**. Cost-effectiveness analysis allows alternatives to be ranked by cost per unit of effectiveness or unit of effectiveness for a given amount of cost. In addition to the basic difference between cost-effectiveness analysis and cost-benefit analysis in the way of expressing benefits, **cost-effectiveness analysis implies that there is an identical or similar dominant effect that would result from the application of alternatives**, while the discounting process refers only to the cost side of alternatives.

Cost-effectiveness analysis **cannot correct errors in identifying problems and its quality depends on whether adequate public policy measures are considered**. These limitations mean that cost-effectiveness analysis is primarily a supplement to other techniques and it is not desirable to use it as an independent analysis.

The main advantage of cost-effectiveness analysis is reflected in situations where it is difficult to monetise the benefits that regulatory alternatives bring. Cost-effectiveness analysis is useful when the key question is not whether the Government should regulate something and how much it costs to implement a certain alternative, but which of the considered alternatives is the best for a given quantity of costs, i.e. which of the alternatives can achieve certain goals at the lowest cost.

Cost-effectiveness analysis is applied when analysing regulations in areas such as health, traffic safety or education, where it is easier to determine benefits in physical units, or where there is a problem in expressing monetary equivalents of effects, such as reducing mortality or a better education system.

Cost-effectiveness analysis is **the preferred method in cases where the market or prices do not fully reflect all the costs and benefits of the proposed regulations**. When the market is

[24] Sources: https://www.betterevaluation.org/en/resource/website/evaluation_tools, http://aei.pitt.edu/50270/1/methods.guidelines.evaluation.v.4.pdf and http://www.who.int/choice/publications/p_2003_generalised_cea.pdf.

[25] Cost-effectiveness analysis is recommended especially for health policies, so where the benefits of these policies are difficult to monetise.

competitive and when most of the costs and benefits are reflected in market prices, a financial assessment can provide an adequate answer about the social desirability of the proposal.

Most often, alternatives are ranked on the basis of “cost per unit of effectiveness” or on the basis of “unit of effectiveness per monetary unit”, and cost effectiveness is expressed as the ratio of average cost and unit of effectiveness

$CER = C/E$

where CER represents the cost effectiveness ratio, C represents the costs in monetary units, and E represents the effectiveness, i.e. benefits expressed in physical units.

In addition, the simplest way to express the effectiveness of a regulatory proposal or public policy option, decision makers may be interested in comparing the existing regulatory solution with the new regulatory proposal, or comparing the old public policy with the new one. It is then possible to calculate the incremental cost-effectiveness ratio

$ICER = (C_n - C_c)/(E_n - E_c) = \Delta \text{ costs} - \Delta \text{ effectiveness}$

where C_n is the cost of the new proposal, C_c is the cost of maintaining the existing condition, E_n is the effectiveness of the new proposal and E_c is the existing effectiveness. The lower this ratio, the higher the cost effectiveness.

The following is a brief example of a cost-effectiveness analysis to illustrate the logic of the method described:

For example, Option 1 reduces the number of infections by 1,000 at a price of 5,000 dinars, and Option 2 reduces the number of infections to 800 at a price of 4,800 dinars. The cost of one unit of benefit is obtained as follows:

Option 1: 5,000 / 1.000 = 5.0

Option 2: 4,800 / 800 = 6.0

This indicates that Option 1 is cheaper because the cost per unit of benefit is lower than the cost in the case of Option 2. Therefore, Option 1 is more cost effective and should be recommended.

5.6 Annex 6 – Example of Impact Mapping

The way of marking significance of impacts depends on the persons who conduct the assessment. In the below example, the significance of the impact is marked by the Latin letter *x*, so for significant impacts in the appropriate column is written *xxx*, for medium impacts *xx*, for small impacts *x*, and in the case of minor impacts or if none (-).

The example shows that for the purposes of an impact assessment of the following several areas, it is necessary to further assess:

- Costs of implementing public policy options - financial impacts;
- Direct costs of economic entities due to state intervention (considered options) - economic impacts;
- Impacts on prices, product selection and quality - economic impacts;
- Impacts on micro, small and medium-sized enterprises - economic impacts;
- Negative impacts on consumer health - environmental (and health) impact assessment;
- Distributive impacts - social impact assessment.

Impacts	Size of the expected impact	Significance for stakeholders	Probability of impact	Length of duration	Comment
Financial					
Impacts on public revenues	X	XX	X	X	In the short term, a significant drop in tax revenues is possible due to reduction in the turnover of food products that contain trans fats. It is expected that this impact will be time limited as consumers and manufacturers will adapt to the new circumstances.
Implementation costs	XX	X	XXX	XX	Significant increase in implementation costs are expected due to increased inspection costs, additional training costs, and other implementation costs.
International financial liabilities	-	-	-	-	No significant impacts are expected.
Expenses of other institutions	-	-	-	-	No significant impacts are expected.

Economic					
Costs of implementing regulations	XXX	XXX	XXX	XX	Economic sector will bear the costs of developing new products and bringing them to market. Costs can vary considerably. Direct costs of the economy can also have indirect impacts on competitiveness, foreign trade, etc. Therefore, a more detailed assessment of these impacts is needed.
Administrative costs	XX	XXX	XX	X	Reducing the content of industrial trans fats will require the economy to spend time and resources in order to understand rules, implement new rules, inform consumers. It can make significant impacts in respect of administrative burden.
Competitiveness/impacts on specific economic sectors	X	XX	XX	X	Representatives of the food industry sector expressed concern about the potential impacts related to compliance with the restrictions on the content of trans fats. The relative impacts of the different options should be carefully assessed.
Impacts on competition	X	X	X	X	No significant impacts are expected other than those related to the indirect impacts of applying the new restrictions.
Technology transfer and application of innovation	XX	XX	XX	X	Reducing the content of trans fats in food products requires the use of alternative ingredients and technological processes. In this context, measures to reduce trans-fat content will contribute to innovation and technology transfer. This, in turn, will have a positive impact on competitiveness and economic growth.
Impacts on consumers	XX	X	XX	X	The option will affect the consumers` choice and their disposable income through the price impact.
Impacts on the quality and status of the labour force and the position of employers	-	-	-	-	No significant impacts are expected.
Impacts on micro, small and medium-sized enterprises	XXX	XXX	XXX	XXX	A significant number of micro, small and medium-sized enterprises in agriculture and food production will be affected by the option. The MSME test needs to be performed.

Social					
Specific groups/ distributive impacts	XX	XX	XX	X	The option will have a significant impact on consumers who had a higher intake of trans fats, i.e. who bought food products with a high content of these fats.
Labour market and employment	X	XX	X	X	No significant impacts are expected.
Discrimination	-	-	-	-	The benefits of state intervention will be greater in those parts where the consumption of products with a high content of trans fats is higher.
Regional aspect	-	-	-	-	No significant impacts are expected.
Change in financing, quality and availability of social protection system, health system or education system	-	-	-	-	Smaller impacts are expected.
Environment					
Quality of water, food ...	XXX	XXX	XXX	XXX	Health impacts are a key reason for intervention and are a key component of the benefits. The health benefits will be greater in those parts where the consumption of products with a high content of trans fats is higher.
Quality and structure of ecosystems	X	X	X	X	Certain impacts on the quality and structure of ecosystems are possible.
Human health	XXX	XXX	XXX	XXX	Health impacts are a key reason for intervention and are a key component of the benefits. The health benefits will be greater in those parts where the consumption of products with a high content of trans fats is higher.
Environmental risk	-	-	-	-	No significant impacts are expected.
Land protection and use	-	-	-	-	No significant impacts are expected.

Management impacts					
Organisational and institutional changes					There may be organisational changes in the field of monitoring the option implementation
Compliance with existing regulations					No significant impacts are expected.
Rule of law and safety					No significant impacts are expected.
Accountability and transparency of public administration work					No significant impacts are expected.

5.7 Annex 7 – Impact Assessment Checklist for Proponents

Using the checklist implies that a report on the conducted impact assessment is being drafted.

Assessment step		Question	Yes/No	Comment/ Reminder	See the Handbook pages for help
Preparation	1.	Is the reason for the intervention clearly described, including the context?			
	2.	Is connection between impact assessment and other public policy documents described?			
	3.	Is the reason for intervention (public policy measure) clearly linked to priorities, long-term and medium-term planning documents?			
	4.	Is the detail level of the assessment determined based on the impact test and priority level? Are quantitative or qualitative criteria for development of impact assessment satisfied?			
	5.	Is it necessary to conduct MSME test or gender equality test?			
Identifying the desired change/ problem	6.	Is the problem or desired change clearly determined, including nature and size of the problem, with appropriate quantitative indicators?			
	7.	Have stakeholders been identified, i.e. who will be directly or indirectly affected by public policy / regulation?			
	8.	Have certain causes and effects of the problem been identified (conditions for reaching the desired state)?			
Setting objectives	9.	Are overall and specific objectives in compliance with public policy documents and the legal framework, primarily with the Government priority objectives?			
	10.	Are the objectives specific, measurable, realistic and time-bound?			
	11.	Are the relevant indicators of impact, outcomes and outputs clearly defined?			

Identifying options	12. Has *status quo* option (baseline scenario) been considered and presented?	
	13. Are the proposed options opposed but lead to a similar objective?	
	14. Have alternative options been considered?	
	15. Have all relevant options been presented?	
Comparing options and selecting the best one	16. Have relevant financial, economic, social, management and environmental impacts been identified?	
	17. Have relevant financial, economic, social, management and environmental impacts been assessed?	
	18. Have administrative costs/ administrative burden been calculated?	
	19. Have risks on implementing the selected option been indicated?	
	20. Have the criteria on the basis of which selection of option was made been clearly indicated?	
Monitoring the implementation and evaluation	21. Has the manner of monitoring the implementation and evaluation been presented?	
Consultations	22. Have other ways of consulting with the stakeholders been considered?	
	23. Does the report contain a summary of the consultation process?	

5.8 Annex 8 – Proposed Model of a Report on Monitoring the Regulation Implementation

<table>
<tr><td colspan="4">Name of the regulation:</td></tr>
<tr><td colspan="2">Name of the body/authority responsible for developing the report :</td><td colspan="2">Reporting period :</td></tr>
<tr><td colspan="4">1. Summary</td></tr>
<tr><td colspan="4">2. Introduction — Context, connection with planning documents</td></tr>
<tr><td colspan="4">3. Brief overview of activities carried out during the reporting period (content and sequence of activities undertaken varies from case to case)</td></tr>
<tr><td>A. Adopted bylaws</td><td colspan="2"></td><td></td></tr>
<tr><td>B. Information campaigns</td><td colspan="2"></td><td></td></tr>
<tr><td>C. Training sessions conducted</td><td colspan="2"></td><td></td></tr>
<tr><td>D. Resources engaged</td><td colspan="2"></td><td></td></tr>
<tr><td>E. ...</td><td colspan="2"></td><td></td></tr>
<tr><td>F. ---</td><td colspan="2"></td><td></td></tr>
<tr><td colspan="4">4. Method of data collection, sources, review of data quality</td></tr>
<tr><td colspan="4">5. Impact and outcome indicators</td></tr>
<tr><td rowspan="2"></td><td colspan="2">Indicator</td><td rowspan="2">Comment (interpretation of the indicator)</td></tr>
<tr><td>Baseline year</td><td>Reporting period</td></tr>
<tr><td>Overall objectives (impact indicators) and specific objectives (outcome indicators)</td><td></td><td></td><td></td></tr>
<tr><td>Output indicators</td><td></td><td></td><td></td></tr>
<tr><td colspan="4">6. Conclusions and recommendations — corrective measures to be taken to ensure the implementation of the regulation, i.e. steps which a public authority should take or steps it intends to take to eliminate the identified problems. Potential risks for the next reporting period (Are there problems or uncertainty with respect to certain activities or external factors which could impact the implementation?).</td></tr>
</table>

5.9 Annex 9 – Input-Output Evaluation Model

The input-output evaluation model is based on the "if–then" relationship between resources, activities, outputs, outcomes and impacts. If resources have been provided for implementation of a public policy, then the activities can be implemented, if the activities have been successfully implemented, then certain outputs and outcomes can be expected, and if the outcomes are achieved, impacts will be created.

Bear in mind that resources, activities and results are identified in the first step of the evaluation. It is the same with objectives. By applying the input-output evaluation model, state authorities specifically assess the following:

A. Are the resources available, activities implemented and results achieved?

B. Have the expected outcomes been achieved and to what extent have the public policy outputs contributed to this?

C. Have the expected impacts been created and to what extent have public policy outcomes contributed to this?

D. Did the intervention cause unexpected consequences, either positive or negative?

E. Is public policy in line with all or some of the evaluation criteria (relevance/relevance, effectiveness, efficiency and sustainability)?

It is clear that **outcomes and impact measure the success or failure of public policy**. The government can influence resources, activities and, in part, outputs, but in most cases the final outcomes and impacts depend on other factors beyond the Government's control. It can happen that the impacts are achieved thanks to some other processes that are not related to the subject public policy, so the evaluation of these outcomes and impacts would suggest that the public policy was successful, while in reality some other outputs contributed to the outcomes and other factors determined the impacts. This is the most complicated part of evaluation, and the quality of evaluation depends on the extent to which the role of public policy in achieving outcomes and impacts can be determined.

The provided example of the application of the input-output evaluation model to the public vaccination policy illustrates the evaluation of two evaluation criteria - effectiveness and efficiency. In this example, public policy was both efficient (the cheapest option was selected) and effective (inputs were used to achieve objectives). It also gave the expected impact: the incidence of infectious diseases dropped by 20% within five years. The evaluation did not reveal any negative or side effects. At the same time, however, negative outcomes emerged — 12 cases of complications, which have been successfully resolved. In general, the summative evaluation leads to the conclusion that the public policy was successful because it was effective, efficient and, most importantly, gave the desired impacts. This is just a rough illustration of the evaluation findings — it should not be forgotten that other questions may be asked or criteria set for evaluating public policy during the evaluation.

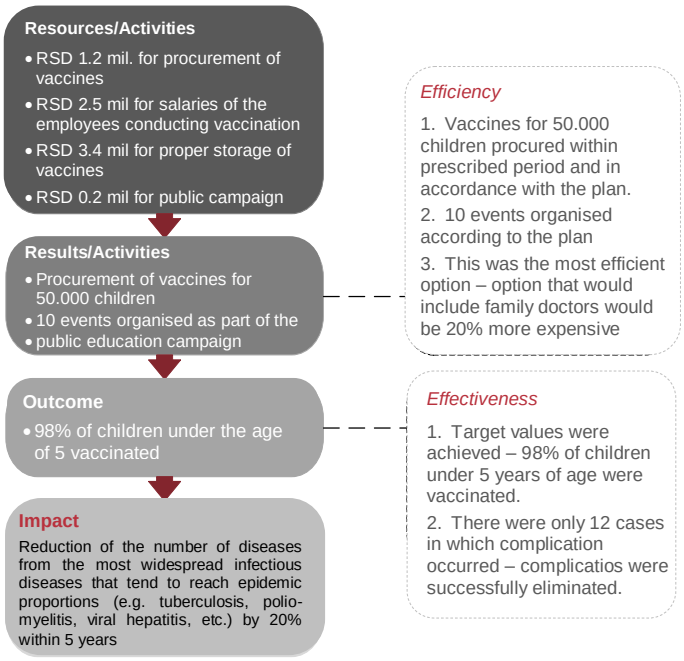


Figure 23. Example of application of input-output evaluation model to vaccination policy

5.10 Annex 10 – Competition assessment checklist

Competition Assessment Checklist is a tool designed to help determine whether a certain proposal/draft regulation can distort competition in the market. If, by using the checklist, such impact to competition could be considered, the proposal/draft regulation should be submitted to the Commission for Protection of Competition for an opinion.[16]

The proposal/draft is considered to impact competition, if answer to any of the below listed questions is 'YES'.

1. Does the proposal/draft directly or indirectly restrict the number or range of suppliers[17] or buyers OR reinforces dominance of certain existing market players? **YES** **NO**

Answer to question 1 will be YES if the proposal imposes restrictions such as, for example:

i) Awards exclusive rights to a supplier/buyer (e.g. concessions),
ii) Requires procurement from a single supplier or limited number of suppliers (e.g. rules of origin) and/or limits the options of a supplier to offer or a buyer to procure goods or services (e.g. quantity quota, rationing and similar),
iii) Creates geographical barriers on purchase or sale of goods and services (e.g. minimum distance rules for retailers),
iv) Establishes licenses, permits, approvals, opinions or authorization processes as a precondition for business operation (e.g. disproportionate requirements or mandatory membership in a professional or business associations are set as requirements for obtaining a license),
v) Significantly increases costs of market entry, exit or growth (e.g. introduction of required product standards),
vi) Limits the number of market participants (e.g. limited number of licenses).

In case of other restrictions for market entry or supplier/buyer switching with similar effect, the draft regulation should be submitted to the Commission for Protection of Competition for an opinion.

2. Does the proposal/draft limit the ability or incentives to compete OR facilitate collusion among competitors? **YES** **NO**

Answer to question 2 will be YES if the draft regulation imposes restrictions such as, for example:

i) Limits the ability of market participants to set prices of goods or services they offer (e.g. price fixing, setting minimum prices or margins),
ii) Requires or supports exchange of information between market participant (e.g.

[16] In accordance with Article 21, paragraph 1 item 7) of the Law on Protection of Competition ("Official Gazette of the Republic of Serbia no 51/09 and 95/13)

[17] A supplier is an entity that operates at all levels of sale and supply of the market, such as producer, wholesaler, distributer, retailer or similar.

sharing information about production, sale, price and expenditure within business associations), supports self-regulation or co-regulation (e.g. by business associations),

iii) Limits the ability of customers to choose their suppliers or limits suppliers' or customer' switching (e.g. required minimum contract length or long-term contracts, or increase of cost of supplier or customer switching etc.),

iv) Sets requirements (e.g. quality standard requirements) that give advantage to certain suppliers or are above the level that well-informed customers would choose or, in other ways, significantly increases the production cost for some suppliers (especially if such distinction is made between suppliers entering the market and the existing ones),

v) Limits the scope for innovations, in particular (a) introducing new products, (b) placement of existing products in new ways (e.g. using different sales formats and technologies) (c) purchasing products in new ways (e.g. using different procurement channels),

vi) Restricts information available to buyers or producers which would allow them to make an informative decision on purchase or sale (e.g. restrictions on advertising, introduction of rules on marketing channels).

In case of other restrictions with similar effect, the draft regulation should be submitted to the Commission for Protection of Competition for an opinion (for example the activity of a particular industry or of a group of firms is exempt from application of competition law).

3. Does the proposal/draft facilitate discrimination against certain businesses?	**YES**	**NO**

Answer to question 3 will be YES if proposal imposes restrictions such as, for example:

i) Introduces discriminatory application of rules against certain groups (discrimination of e.g. new market participants, foreign citizens, small firms, private firms),

ii) Setting out imprecise requirements for obtaining permits, licenses, authorizations and similar which cannot be objectively verified and which lead to discrimination in application of such requirements,

iii) Introduces subsidies, state support measures, incentive policies and requirements for access to limited resources (e.g. land, water, frequency spectrum) in a way that distorts the principle of equality and/or does not facilitate clear and effective basic infrastructure access policy (i.e. non-discrimination principle, clear access requirements or access fees that do not reflect actual cost),

iv) Allows government institutions to provide goods or services in competition with private players under their oversight.

In case of other restrictions with similar effect, the draft regulations should be submitted to the Commission for Protection of Competition for an opinion.

6 GLOSSARY OF KEY TERMS

A

Administrative burden - part of the administrative costs arising exclusively due to the obligation to comply with the regulation;

Administrative costs - costs incurred due to the obligation to comply with the regulation, which consist of costs that regulated entities have due to the very nature of the activity (business as usual costs) and which they would have without the requirements imposed by the regulation and administrative burden.

C

Cost-benefit analysis (CBA) - a set of methods and rules by which all social benefits and costs of the considered options are compared and monetised. The basis of monetisation is usually the willingness to pay for something (or to compensate). It involves calculating present value using a discount rate at the level of society.

Cost-effectiveness analysis (CEA) — a method of comparing the costs of different public policy options (alternatives) that create the same or approximately the same aspect of benefit (results, outcomes or impacts), and which is used when the benefits are difficult to monetise;

Costs - the amount or value to be paid or waived for the purpose of something else; expenses are costs, but not all costs are expenses.

Criterion - one of the measures used when evaluating and comparing options in relation to the degree of achievement of certain goals.

D

Direct costs - costs (of labour force, materials and other direct costs) that can be consistently linked to certain public policy measures or regulations.

Discounting - procedure by which the costs and benefits incurred in different periods of time are reduced to a common denominator - the procedure of reducing future values to the present value using an appropriate discount rate.

Discount rate - the rate used to calculate the present value (i.e. for discounting future Values) or to reduce the benefits and costs that will be realised in the future to the present value.

E

Effect (or impact) - a change that can be credibly attributed to state intervention (public policy measures, regulations).

***Ex-ante* impact assessment** - a process implemented from the earliest phase of planning and designing a public policy, and/or drafting and adopting a public policy document or regulation, which consists of a number of steps to determine potential positive and negative direct and indirect impacts.

***Ex-post* impact assessment** - an analytical process carried out during and after the implementation of public policies and regulations, in order to evaluate the impact of these public policies and regulations, i.e. to review and improve them.

G

Gender equality - implies equal participation of women and men in all areas of the public and private sectors, in accordance with generally accepted rules of international law, ratified international treaties, the Constitution and laws of the Republic of Serbia.

I

Impact assessment - an analytical process conducted during the process of planning, development and adoption of public policies and regulations, as well as during and after their implementation;

Indicator - a variable that provides quantitative or qualitative information about the observed phenomenon.

M

Methods - various techniques and tools that usually consist of procedures (steps) that ensure consistency of the analysis; may be aimed at collecting or analysing information and data; they can be quantitative or qualitative and they try to describe, explain, predict or shape the public policy action.

Monitoring the implementation of public policies - systematic and continuous collection and analysis of data during the implementation of public policies, i.e. their measures in order to establish whether the set objectives are achieved, as well as whether the planned measures and activities are implemented according to the plan and efficiently.

Multicriteria analysis - a method by which, in a structured manner and on the basis of established criteria, options are compared, the preferred option is determined, options are ranked or acceptable options are determined; it is usually used when the criteria include values that are not monetised.

O

Options - ways in which it is possible to achieve goals; they may be one or several measures of a public policy which selection is to be decided.

Overall objective of public policy - a long-term goal determining the expected situation at the level of society, in the area of the public policy action.

P

Performance evaluation of public policies - evaluation of efficiency and effectiveness of the public policy which implementation is in progress or was completed, its performance on the basis of relevant data and analyses, as well as the results of monitoring its implementation, in order to review and improve that public policy, that is to determine whether it is necessary to introduce certain changes.

Performance indicator - quantitative and/or qualitative parameters that are determined with a view to monitoring the degree of achievement of the overall or specific public policy objectives in relation to the baseline values.

Performance matrix - a matrix (table) that shows the performance (evaluation) of each of the considered options according to the established criteria, and which is the basis of multicriteria analysis.

PEST(LE) analysis - a method to identify and analyse political, economic, social, technical and technological (legal and environmental) factors in the environment.

Problem tree - graphical presentation of the problem with all its direct and indirect causes and effects based on the conducted analysis of the problem.

Proportionality principle - the principle according to which the coverage and detail of the impact assessment should be proportional to the possible impact of the proposed policy option or solution in the regulation.

Public policies - directions of action in certain areas in order to achieve the desired goals at the level of society.

Public policy impact - long-term impact of a public policy at the level of society in the area of the public policy action.

Public policy incentive measures - fiscal measures (subsidies, direct financial benefits, taxes, etc.) and other financial and non-financial measures that affect prices and/or fiscal burden.

Public policy regulatory measures - regulations and other general acts introducing or changing standards and/or rules governing social relations.

Public policy information and educational measures - information campaigns, distribution of publications, educational programmes and similar activities that raise the level of awareness and influence the behaviour of certain target groups.

R

Regulatory costs - costs that can be attributed to the adoption of regulations, regardless of whether these costs are by their nature direct or indirect and whether these costs are borne by economic entities, consumers, state authorities or some other groups.

Result - the final consequence of an activity, decision or public policy that can be described qualitatively or quantitatively.

Risk - a situation in which it is possible to determine the probability of an event occurring; risk is a combination of the probability that an event will occur and the probable severity of its consequences.

Risk analysis - a method of determining the probability or chance that a certain event will occur, as well as the intensity of its impact.

S

Shadow prices — estimated resource costs that represent their actual opportunity costs, which are calculated when it is not possible to determine market prices or when they deviate from them due to market imperfections.

Specific objective of public policy — objective defined in relation to certain entities and/or relations in the field of the policy action, whose achievement should create preconditions for the achievement of the overall objective.

Stakeholders — authorities and organisations, natural and legal persons having an interest in the public policy measures.

Stakeholder analysis — a method by which stakeholders are identified and categorised and their capacities assessed.

Standard cost model ((Dutch model) — a method of measuring administrative costs and burdens imposed by regulations on economic entities.

SWOT analysis — a method that identifies key strengths, weaknesses, obstacles and opportunities and establishes cause-and-effect relationships; it is used when considering the problem and the context in which public policies are made.

U

Uncertainty — situations in which the probability of an outcome is unknown.