Policy Brief

#1

Assessment of Policy Interrelationships and Impacts on Sustainability in Europe

Accounting for Unanticipated Effects of Environmental Policy Making

September, 2014

In APRAISE *we aim towards assisting European policymakers to achieve environmental objectives under different circumstances, by designing effective, efficient and efficacious policy mixes, which are socially acceptable and secure Europe's competitiveness.*

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APRAISE in Brief

Assessment on Policy Interrelationships and Impacts on Sustainability Europe (APRAISE), is a project funded under the European Union's Seventh Programme for research, technological development and demonstration, that **aims to assist European policymakers to achieve environmental objectives** under different circumstances, by designing **effective, efficient and efficacious policy mixes**, which are **socially acceptable** and **secure** Europe's competitiveness.

Indeed the end result of an environmental policy often differs from expectations. In order to understand how and why such differences emerge, APRAISE has developed a methodology, which helps to explain, for a range of environmental policy case studies:

- Whether and how the political and economic context during policy implementation differs from the anticipations;
- Whether and how the design and implementation of policies and policy instruments differs from planning;
- Whether and to what extent the effectiveness of environmental policy has been affected (positively or negatively) through interactions with other (environmental) policy areas.

The APRAISE methodology was applied in a series of country case studies, in the areas of renewable energy, energy efficiency and resource efficiency such as:

- The impact of the EU Renewable Energy Directive on other environmental objectives: Austria and UK,
- The impact of hydropower generation of river basins: Slovenia and Austria,
- Policies supporting renewable energy sources: Greece and Slovenia,
- Waste management – prevention, reuse and recycling of plastic package material: Germany and the Netherlands.
- Policy interactions in the fields of sustainable buildings: The Netherlands and Greece.

More information is available at http://apraise.org

Abstract

A major virtue of the APRAISE 3E method lies in its ability to examine the degree to which a policy has reached its intended effects, and explain how policy performance depends on the interactions between selected environmental policies and policy instruments. In addition, APRAISE case studied revealed a number of unanticipated effects of policies that occurred across the policy cycle, and analysed the extent to which these effects influenced the attainment of pre-established policy objectives. Unanticipated effects took place in particular prior to target-setting – a policy stage often neglected in policy evaluation. However, the 3E method could benefit if unanticipated effects were examined more systematically, as an integral part of the analysis. This policy brief suggests concrete steps towards such an extended 3E method, emphasising the inclusion of stakeholders as a crucial precondition for a legitimate and successful evaluation of unanticipated effects.

UNANTICIPATED EFFECTS – EXPLANATORY FACTORS OR POLICY CRITERIA IN THEIR OWN RIGHT?

The APRAISE 3E method focuses on the degree to which an environmental policy has reached its intended effects. It furthermore seeks to explain the success and/or failure of the policy notably by examining the interactions of the policy with selected other environmental policies on one hand and the general policy context on the other. A detailed analysis of unanticipated effects resulting from interactions between chosen environmental policies constitutes a major contribution of 3E. The explanatory factors identified and analysed in the APRAISE case studies included aspects that can shape the acceptance of the policy, such as equity (in terms of distribution of costs and benefits, through taxation and economic support mechanisms), process-related issues (transparency, flexibility, and predictability of policy development, inputs and outputs), and contextual aspects (notably changes in global economy).

However, APRAISE analysed the unanticipated effects in a relatively unsystematic manner, and treated these effects mostly as factors helping to explain the degree to which the policy had attained its pre-established objectives. The APRAISE 3E method could be further improved by more systematically examining the unanticipated impacts – as policy performance criteria in their own right, rather than as mere ancillary impacts alongside the intended outcomes.

Box 1. The APRAISE 3E Method

The APRAISE project ("Assessment of Policy Interrelationships and Impacts on Sustainability in Europe") evaluated EU environmental policies and their implementation in Member States by comparing the intended policy results with actual policy achievements and explaining why a policy may perform differently than expected. It did so by examining environmental policies in areas of key importance for a resource-efficient and environment-friendly Europe: energy, climate, agriculture, water, waste, air and biodiversity. Adopting a systems approach for examining policies within their broader context, and focusing in particular on interactions between policies relevant for the sought objectives, APRAISE evaluated policy results by asking three questions (3E):

1. Which were the expected effects of the chosen environmental policies in the Member State in question, in light of the best knowledge available at the time of policy design (**Efficacy**)?
2. Which were the actual effects of the policy instruments (**Effectiveness**)?
3. Could the achieved effects have been achieved with fewer resources or could better effects have been achieved with the same resources (**Efficiency**)?

What lies outside or at the margin of the 3E analysis

The 3E method can be seen as a modified version of the conventional goal-attainment model of evaluation (e.g. Vedung 1999, 37-49), as it holds the degree of achievement of intended policy objectives as its organising principle and performance criterion. The 3E method avoids two major weaknesses of goal-attainment evaluation: it integrates an analysis of costs (through efficiency analysis) and it considers various unanticipated impacts that a pure goal-achievement evaluation would exclude. By seeking to explain policy outcomes, it also partly avoids another weakness of goal-achievement model, such as the lack of attention to policymakers' "hidden agendas" that may in policy practice take precedence over the officially declared objectives. However, the unanticipated effects could be explored more systematically than was possible within the APRAISE project.

Figure 1 provides a starting point for such an improved analysis of unanticipated effects, by categorising the possible types of effects from environmental policies according to three distinctions: 1) anticipated and unanticipated effects; 2) effects occurring within or outside of the target area; and 3) beneficial and detrimental effects.

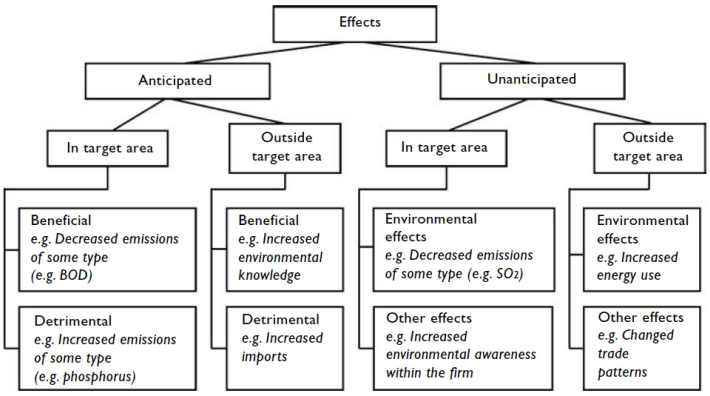

Figure 1. Typology of anticipated and unanticipated effects of an environmental policy
Source: Mickwitz, 2003

In line with goal-attainment evaluation in general, the 3E method focuses on the anticipated beneficial effects in the target area. Such a focus is justified, because official policy goals provide an objective criterion against which the value of a policy can be assessed, but above all for democratic accountability reasons: policy goals are typically adopted in political assemblies of democratically elected officials, and the citizens have the right and duty to control to what extent the civil service executes the policies appropriately, and in a manner that indeed fosters the achievement of the objectives.

However, the unanticipated impacts are often equally or even more significant than the intended effects (in Figure 1, the anticipated beneficial effects in the target area). Moreover, the anticipated effects outside the target area (e.g. social impacts) would also deserve systematic attention. Indeed, the prevalence of unanticipated effects from policies – whether such effects be positive or negative – can be considered as the fundamental raison for conducting evaluations in the first place. Unanticipated effects can be classified into categories such as "null effects" (e.g. financial support to investments in renewable energy, when the producers would have undertaken such investments even in the absence of support), perverse effects that run counter to the declared objectives (e.g. when RE support leads to increased greenhouse gas emissions), beneficial unanticipated effects (e.g. technological improvement or broader environmental awareness stimulated by a RE support policy), detrimental unanticipated effects (e.g. rising opposition to wind power), and broader unanticipated effects (e.g. on trade policies or trade balance) (Vedung 1999, 53-54; Mickwitz 2003).

UNANTICIPATED EFFECTS AND THE POLICY CYCLE

Beyond typologies distinguishing anticipated and unanticipated effects, a useful evaluation would

explore the reasons lying behind the unanticipated effects. Identifying effects according to their occurrence at different phases of the policy cycle, and in relation to the various possible policy performance criteria, can help in explaining policy outcomes. Figure 2 below describes the relationships between various performance criteria and the phases of policy cycle. In the following, unanticipated effects are illustrated in relation to these performance criteria and the phases of policy cycle.

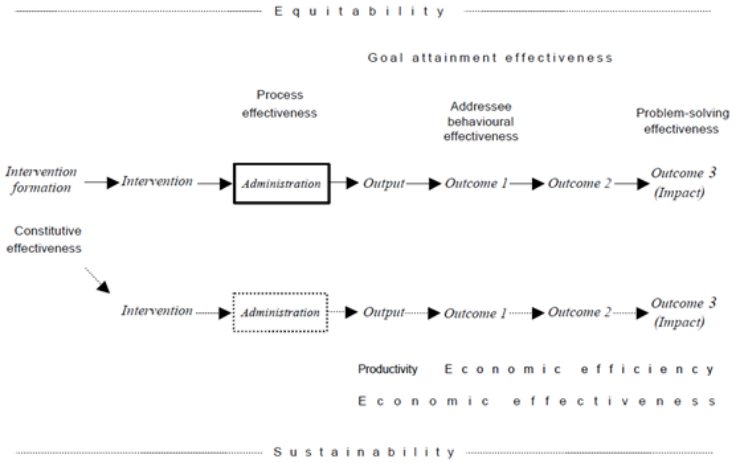

Figure 2. Different types of effectiveness as they relate to the public intervention cycle model
Source: Román and Vedung, 2000

In several APRAISE case studies unanticipated effects were related to the **stages that precede target-setting**. Sometimes policy targets appeared as excessively easy to reach (e.g. Estonian wind power policy), while at other times the problem definition was inadequate, leading to effects contradictory to intended policy objectives. The global modelling exercises suggested that policy targets were sometimes established without due regard to international trade, such as in the area of biofuel and packaging waste policies.

These issues at the upstream of the policy cycle help to address the question of **relevance** or **problem-solving effectiveness**, which denotes the relation between the ultimate policy outcomes and the societal problem to be solved: to what extent does the policy in question adequately address the fundamental issue at stake? Related issues at the upstream of the policy cycle that would merit more systematic attention include an analysis of the processes of target-setting and policy formulation (e.g., stakeholder participation, policy controversies, negotiations, and power relations).

This would allow the evaluator to identify and examine neglected or underrated policy goals (e.g., exclusion of relevant policy actors and/or asymmetries of power between the involved actors), and better understand the reasons for their exclusion and/or underestimation. Further process-related aspects preceding target setting concern **"constitutive effectiveness"**, i.e. the impacts of a policy on problem-solving in other areas (e.g. through learning, networking, and enhanced reflexivity in policymaking). Processes in a given environmental policy may foster learning and collaboration in other domains of environmental policy, or the lessons learned may feed into policymaking in other sectorial policies.

The criterion of **"problem-solving effectiveness"**, at the right-hand side of figure 2, concerns the relation between the ultimate policy outcomes and the societal problem to be solved. This leads back to the discussion concerning the policy design stage, given that problem-solving effectiveness measures not only target-achievement, but also the relevance of the target itself. Stakeholder consultations conducted within APRAISE revealed numerous occasions at which inadequate problem definition compromised the ability of the policy to solve the root problem.

A more systematic examination of such 'upstream' issues would improve the understanding of the unanticipated effects of the policies under analysis. Lessons from APRAISE also highlighted the importance of analysing the policy process, not only as a determinant of the effectiveness and efficiency of the policy in question, but also as a source of policy impact.

Process criteria and unanticipated effects

APRAISE identified a number of effects on the **equity** of policy outcomes. Many of such effects were unanticipated. As figure 2 above suggests, equity relates not only to policy outcomes, such as burden-sharing and distribution of benefits from e.g. renewable energy support measures, but also covers procedural criteria and cuts across the entire policy cycle. Equity, in turn, is part of a broader set of "democracy-related criteria", alongside factors such as procedural fairness, transparency, legitimacy, and public participation. All these criteria have an instrumental value by virtue of their potential to improve policy effectiveness, efficiency, and acceptance, but they also constitute policy performance criteria in their own right. Examples of the instrumental value of such criteria included effects from increased transparency through sustainability certification and new, more transparent electricity billing. Greater transparency does not always work in favour of the intended policy objectives: for instance, making visible in consumer bills the subsidies granted to renewable energy fed resistance against wind power projects in Estonia. Negative impacts from the lack of transparency were also detected, such as when the waste management policies led to part of the packaging waste being channelled to incineration, but this deviation went undetected for lack of appropriate monitoring systems.

As for **participation**, the exclusion of key actors may explain not only the exclusion of relevant policy objectives in policy formulation, but also their neglect in the **policy evaluation process**. Including the relevant policy actors constitutes a key challenge for the evaluation process itself, not least because policies typically have multiple, sometimes mutually contradictory and vaguely defined objectives. Evaluating policy performance automatically implies prioritising between such diverse policy objectives. As an unavoidably political exercise, such prioritisation and weighting between objectives should arguably be driven by the relevant stakeholders. Inclusive processes of evaluation would help to ensure that a maximum of relevant perspectives are considered.

More broadly, **"process effectiveness"** concerns the adequacy of the implementation processes and administrative arrangements (e.g. resources and capacities) in relation to the intended policy objectives. In the 3E method, assessment of the adequacy of laws, regulations, and other policy instruments constitutes the essence of efficacy analysis, whereas the adequacy of the administrative organisation – including its resources and capacities – is evoked as part of attempts to explain the observed policy outcomes. The exploration of policymakers' "intervention theories", i.e. the implicit assumptions that underlie expectations concerning the relationships between a policy and its anticipated and unanticipated effects, would help to identify especially the process-related unintended effects at the implementation phase.

Amongst the unanticipated **policy outcomes**, the APRAISE case studies identified changes in stakeholder behaviour (**"addressee behavioural effectiveness"** in Figure 2). These included not only the intended positive impacts on stakeholder behaviour, but also the positive and negative impacts. Resistance against wind power projects as a result of changes in knowledge was an example of the latter, whereas the development of new waste management technologies in reaction to packaging waste regulations provided a positive example.

TOWARDS A BETTER ANALYSIS OF UNANTICIPATED EFFECTS

A number of measures could help to complement the strength of APRAISE 3E method – its capacity to address the unanticipated effects stemming from the interaction between specified environmental policies – and allow a more systematic exploration of unanticipated effects at

large, including those that stem from other processes than the interaction between pre-identified policies.

Systematising unanticipated effects: Basic typologies

First, in line with the typologies presented above, future efforts to better integrate the unanticipated effects in the APRAISE 3E method could entail distinguishing between:

1. First-, second-, and third-order effects. First-order outcomes refer to the effect of policy instruments on target groups in terms of knowledge, attitudes, and motivations to act. Subsequent actions taken by target groups form second-order outcomes, while third-order outcomes denote the immediate consequences of these actions on the environment of the addressees.
2. Effects within the target area (e.g. effects of feed-in tariffs on offshore wind power development), and in other areas (e.g. on biodiversity or on state economy); and
3. Desirable and undesirable effects (with the caveat that the judgement of desirability varies across stakeholder groups and according to the adopted perspective).

Uncertainty, sources of information, and policy merit criteria

Second, analysing the unanticipated effects raises three practical challenges. These relate to uncertainty, the sources of information that allows one to identify unintended effects, and the merit criteria against which the value of the unanticipated effects can be evaluated.

The numerous **uncertainties** in policymaking include those concerning the underlying knowledge; the development of technology, economy and society; and political and normative assumptions. An analysis of the unanticipated effects of policies should therefore highlight major points of uncertainty, and explore uncertainties in collaboration with stakeholders, instead of neglecting potential effects merely because they cannot be readily measured.

Numerous **sources of information** can be drawn upon to identify unanticipated effects. These include social science theory; the legislative history of the policy in question; the views and apprehensions expressed by the opponents of the policy at the time of its adoption; public controversies that may have followed the implementation of the policy; government and parliamentary debates and publications assessing the impacts of the policy; and interviews with officials, civil servants in charge of implementation and design of the policy.

Given the essentially political character of the process of **valuing policy outcomes** and weighing between rival performance criteria, the relevant stakeholders should be at the driving seat when judging the desirability and acceptability of the unanticipated effects, and in weighing harmful impacts against the benefits. In practice, this would entail adopting a "descriptive approach to valuing" (Vedung 1997, 58): the evaluator would describe the anticipated and unanticipated effects, but leave it to the stakeholders to ascertain their value and judge the overall performance of the policy. Focusing on unanticipated effects in such a process would force the stakeholders to extend their attention to values other than those initially incorporated in the policy.

Analysing unanticipated effects in practice

Further improving the APRAISE 3E method could include the following steps, conducted, to the extent possible, in collaboration with the relevant policy actors:

1. As part of the efficacy analysis, identify and distinguish between the anticipated and unanticipated effects of the policy. This implies a distinction between effects anticipated by the policymakers (e.g. in documents justifying the adopted policy) and those stemming from the

evaluator's knowledge (e.g. from literature, interviews and modelling exercises).

2. Explore the implicit assumptions that underlie policymakers' expectations concerning both anticipated and unanticipated effects (identification of the intervention theories). Focus the empirical analysis of policy implementation on the assumptions that are crucial for the realisation of the expectations.
3. Examine the actual impacts of a policy, with an attempt to identify unanticipated effects also beyond those that the policy interaction analysis would reveal (i.e. involving other policies and policy areas than those included in the policy interaction model – which usually only covers two policies).
4. Evaluate, in close collaboration with the involved stakeholders, the acceptability and desirability of the various unanticipated effects.
5. Include the analysis of unanticipated effects in the formal processes of policy/regulatory impact assessments at the EU and Member State levels.

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Contact Us:

AUTHORS

Markku Lehtonen,
M.Lehtonen@sussex.ac.uk

Science Policy Research Unit (SPRU)
University of Sussex

EDITOR

Energy Policy Unit (EPU)
National Technical University of Athens (NTUA)

Find us at:

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