



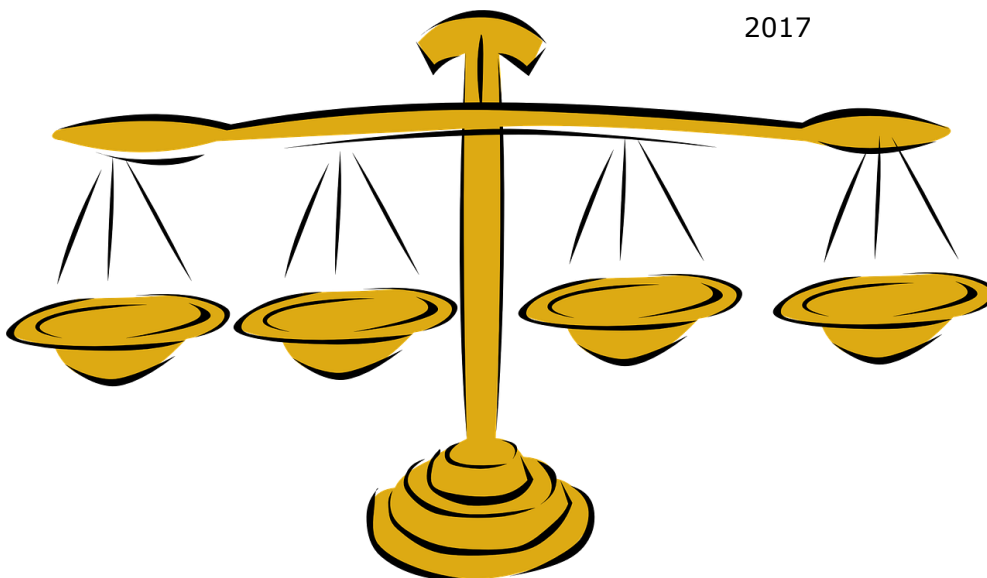
JRC SCIENCE FOR POLICY REPORT

Dealing with Fairness in *Public Policy Analysis*

A Methodological
Framework

Munda Giuseppe

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Title

Dealing with fairness in public policy analysis

Abstract

Fairness in the policy process can be seen as an ethical obligation to take a plurality of social values, perspectives and interests into account. This means that fairness is very much linked to the concept of democracy. How can we then implement some reasonable democratic principles in the policy analysis process? Two main tools exist: cost-benefit analysis and multi-criteria evaluation. The use of cost-benefit analysis implies strong distributional consequences, while multi-criteria evaluation seems to be a better tool to tackle conflicting points of view in the *ex-ante* policy evaluation process. The implementation of fairness inside a public policy framework mainly implies that a) social values, interests and desires should be considered as much as possible, b) distributional issues have to be illuminated at the maximum possible degree and c) the whole evaluation process should be transparent. Social multi-criteria evaluation can comprise all these three characteristics.

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Note

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Executive summary

Policy context

The European Commission has expressed its commitment to ensure that its proposals meet policy goals at minimum cost and deliver maximum benefits to citizens. In this framework, the Better Regulation agenda aims at supporting the whole policy cycle at the highest possible quality.

Key conclusions

Fairness in the policy process can be seen as an ethical obligation to take a plurality of social values, perspectives and interests into account in a coherent and transparent manner (coherence and transparency being key Better Regulation requirements). Social multi-criteria evaluation seems to be an appropriate public policy framework to integrate different scientific languages, when concerns about civil society and future generations have to be considered along with policy objectives and market conditions. In this framework, *ex-ante* assessment can be defined as the combination of *representation* (social actors, criteria, weights and actions considered), *valuation* (construction of criterion scores), *mathematical aggregation* (formal properties of the algorithms used) and *quality check* (transparency of the steps by which a multi-criterion model is built) connected to a given policy problem. In summary, the implementation of fairness inside a policy impact assessment framework mainly implies that a) social values, interests and desires should be considered as much as possible, b) distributional issues have to be illuminated at the maximum possible degree and c) the whole evaluation process should be transparent. Although Commission *ex-ante* Impact Assessment does not take the objective of fairness into account explicitly, it is argued here that this could easily be done.

Main findings

Fairness is very much linked to the concept of democracy. A problem to be solved is then how can we implement some reasonable democratic principles in the policy analysis process?

The use of cost-benefit analysis implies strong distributional consequences, since it can be considered a direct application of the ancient principle that property owners should count more. Empirical applications try to correct this problem by using distributional weights, however it is not clear how to derive such weights, since they can be based on a variety of ethical, philosophical and methodological principles, and who should attach them. On the other hand, one has to note that failures to use any weighting system imply making the *implicit value judgement* that the existing distribution of income is optimal. *Therefore, there is no escape from value judgements*, the Kaldor-Hicks compensation principle is not the positivistic objective evaluation criterion Hicks hoped to be. On the other side it does not consider individuals as equal exactly the goal Kaldor aimed at.

Social multi-criteria evaluation seems to be a better tool to tackle conflicting points of view in the policy analysis process, since different metrics are linked to different objectives and values. The very essence of social multi-criteria evaluation is the recognition that:

- A multi-criteria framework is a very efficient means of applying a *multi/inter-disciplinary* approach.
- Science for policy implies *responsibility* of scientists towards society as a whole and not just towards a mythical policy-maker.
- *Public participation* is a necessary but not a sufficient component. Participation techniques are a tool for improving knowledge of the problem at hand, and not for

eliciting input for uncritical use in the evaluation process. Social participation does not imply *lack of responsibility*.

- *Ethical judgements* are unavoidable elements of the evaluation exercise. These judgements always influence the results heavily. As a consequence, *transparency* in the assumptions used is essential.
- In this framework, mathematical aggregation conventions still play an important role, i.e. in assuring that the rankings obtained are *consistent* with the information and the assumptions used.

Related and future JRC work

Operational aspects of the methodological discussion presented here will be tackled in forthcoming research on *ex-ante* impact assessment. The present report relates to the JRC report *What makes a fair society? Insights and evidence*.

Quick guide

The report starts by considering the current practice in Commission impact assessment; it is claimed that fairness should be considered as a relevant policy objective too. Two policy analysis tools for its practical implementation are surveyed critically, i.e. cost-benefit analysis and multi-criteria evaluation. Finally, some main conclusions are derived.

1 Introduction

When one wishes to implement public policies, there is a previous need of comparing different actions and analyse them to assess their social attractiveness; one of the key tasks of welfare economics is *valuation* and *evaluation* of policy actions. To define what exactly valuation and evaluation connote is not an easy task, " ... we value when comparing objects and evaluate when comparing the relative merits of actions. ... There is a sense in which valuation is passive, while evaluation signifies more of an active engagement. We frequently value in order to evaluate. But not always. We sometimes value simply because we wish to understand a state of affairs, such as the quality of life in a country. Welfare economics studies life's quality, valuing objects and evaluating policies being only a means to measuring the quality of life and to discovering ways to improve it" (Dasgupta, 2001, p. C1).

Commission Impact Assessment (IA) correctly considers both the objectives of effectiveness and efficiency; in fact it is of key importance understanding that efficiency alone cannot be a relevant policy objective. Effectiveness (i.e. the degree to which goals and levels of output are achieved or problems are solved) is at least equally important; otherwise there is the risk to drive the policy evaluation framework towards a situation where efficiency means just "cheap" (Agasisti *et al.*, 2017). On the other hand, the objective of *fairness* is not considered explicitly (the BR guidelines recommend of not assessing only global efficiency but also to ensure that the distribution of costs and benefits among the stakeholders affected is deemed acceptable). First of all, it has to be clarified that the concept of fairness is different from the one of an equal distribution of income. A society could have a *fair inequality* if the economic system promotes and rewards individual efforts. Clearly ethical connotations are there; this implies that people, social scientists and governments differ significantly on what they consider to be fair. Overall there is agreement on the fact that evaluation of fairness should be linked to the *social process* leading to a certain outcome and not to the outcome itself (i.e. when differences in the final income distribution of a society exist, this does not mean that the society has unfair rules). Fairness is a complex multidimensional concept characterized by a variety of scientific-technical dimensions and a plurality of social values, perspectives and interests. One obvious question is: *How should policy decisions be taken in such complex context?* From a public policy point of view, the narratives behind fairness determine which policy will be advocated; damage might result if those narratives are not checked against societal scrutiny (Benessia and Guimarães Pereira, 2015; Guimarães Pereira *et al.*, 2006; Funtowicz *et al.*, 1999; Lo and Spash, 2013).

Economic development implies the creation of new assets in terms of physical, social and economic structures. Within a process of "creative destruction" traditional environmental, social, and cultural assets derived from a society's common heritage may disappear. The existence of a plurality of social actors, with interest in the policy being assessed, generates a conflictual situation; distributional issues play a central role. Any social decision problem is characterized by conflicts between competing values, perspectives, interests and different groups and communities that represent them. Any policy option always implies winners and losers, thus it is important to check if a policy option seems preferable just because some dimensions (e.g. the environmental) or some social groups (e.g. the lower income groups) are not taken into account; this is considered more and more unacceptable in a public policy context in general and in the Commission in particular, as e.g. recently emphasized in the European Pillar of Social Rights.

Clearly, there is a need to look at the extent to which the issue of fairness plays (or may play) a role in the Commission's policy making processes (implicitly, explicitly or both) and how this role should be reflected in the *ex-ante* Impact Assessment accompanying a policy proposal to facilitate the co-decision process. Key questions to be answered are: in impact assessments, is it technically feasible for the Commission (or a support study) to assess the likely distributional impacts of its proposals? How can the Commission integrate a plurality of views into its policies in a coherent and transparent manner (coherence and transparency being key Better Regulation requirements)?

2 Fairness and Democracy in Policy Assessment

Historically, the classical *ex-ante* assessment tool for publicly provided goods is cost-benefit analysis (CBA), based on the kaldor-Hicks compensation principle; according to this principle, the social cost of a given option is defined as the sum of money paid as compensation to those who have suffered injury. The level of utility that the damaged people had before the event took place should determine the amount of compensation to be paid. CBA focuses on *efficiency* criteria¹, but any policy decision affects the welfare of individuals, regions or groups in different ways; consequently, the evaluation of any policy decision very much depends on the *distributional effects* of such a decision. It is worth remembering how economic values depend on inter- and intra-generational inequalities; in general, if the injured parties are poor (or even not yet born), the cost of the compensation is low (Munda, 1996). Some revisions of cost-benefit analysis try to include distribution issues directly in the analysis; however, all these revisions may sometimes present such theoretical and operational difficulties that it is rather tempting to ignore distributional aspects without further comment. This attitude is rarely defended theoretically, but unfortunately often practiced.

Obviously, the assessment of low values for impacts on a poor community is a "political decision", that is far from being ethically neutral². Choosing any particular operational definition for value and its corresponding valuation technique involves making a decision about what is important and real. One obvious question is *who has the legitimacy or power to simplify this real-world complexity?* Clearly here the concept of fairness is very close to the one of democracy. "*No one pretends that democracy is perfect or all-wise. Indeed, it has been said that democracy is the worst form of government except all those other forms that have been tried from time to time*". This famous quote attributed to Winston Churchill synthesizes the basic issue that the perfect form of government does not exist, however *any other form of government is much less desirable than democracy*. This is also the main message of the so-called impossibility theorem (Arrow, 1963), which proves that a perfect voting system cannot exist. In social choice, the reaction to Arrow's theorem has been the search for less ambitious voting structures making it necessary to retain a few basic requirements only. These basic requirements are generally threefold: 1) *anonymity*: all voters must be treated equally; 2) *neutrality*: all options must be treated equally and 3) *monotonicity*: more support for an option cannot jeopardize its success. Even though human rights are calling for citizen equality and clearly anonymity should then be a fundamental column of democracy, historically this basic requirement has been implemented very recently only. The concept of voters' equality was not embedded in real-world democracy for a very long period; almost everywhere in the past, voting rights were restricted to property owners³.

¹ *Economic efficiency* can be defined in various ways, here the general concept of Pareto Efficiency, which evaluates whether a society could produce more or make some people better off without making others worse off is used.

² One should note that the issue of *value free* Science is a key issue for real-world policy and not a philosophical debate only. For example, an influential economist claimed that his work for the Intergovernmental Panel on Climate Change (IPCC), where lives of people in rich countries are valued up to fifteen times higher than those in poor countries, was a matter of *scientific correctness* versus *political correctness*. (New Scientist, August 19th, 1995). Is it really a matter of value free scientific correctness to use valuations based on assessments of a community's willingness and ability to pay to avoid risks of death? What that economist was saying in reality was that efficiency is the only societal value according to which policy options should be evaluated; *concerns on fairness and equity are not relevant*.

³ Just to give a few examples, when the US electoral system started (in the 18-th century), only white male property owners (about 10 to 16 percent of the nation's population) had the right to vote. Property ownership and tax requirements were eliminated in 1850, at this stage almost all adult white males could vote. Only in 1965 the Voting Rights Act protected the rights of minority voters and eliminated voting barriers such as the literacy test. In Italy, the modern electoral system started in 1861 when the voting right was limited to male property owners; the property ownership requirement was eliminated in 1882, only in 1946 everybody could vote (including women and illiterate people). In Switzerland, only in 1971, Swiss males by a two thirds majority referendum, finally gave their female compatriots their full federal voting rights. In the UK, in 1432 it was established that only male property owners were entitled to vote in a county, and there was no major reform until the Reform Act in 1832. In 1918 all men over 21 were given the right to vote, and finally it was the

Income distribution was considered the most important selection criterion; this vision applied to the evaluation of policy options too, in fact the compensation principle was invented to achieve two clear objectives:

- 1) To compare individuals' preferences according to the efficiency oriented utilitarian calculus, explicitly avoiding the principle one individual, one vote⁴.
- 2) To implement an objective evaluation criterion, that could be accepted in the framework of the positivistic philosophical paradigm⁵.

A relevant question now is: *are these objectives still relevant in the 21st Century?*

The Kaldor-Hicks principle declares a social state **A** "socially preferable" to an existing social state **B** if those who gain from the move to **A** can compensate those who lose and still have some gains left over. Such a situation is consistent with a Pareto improvement since we have **B** indifferent to **A** for the losers (once they are compensated) and **A** preferred to **B** for the winners (if they can over-compensate). If the monetary value of benefits exceeds the monetary value of costs, then the winners can hypothetically compensate the losers and still have some gains left over. The excess of gains over required compensation is equal to the net benefits of the policy to be implemented.

The notion of individual preference that is relevant to the Kaldor-Hicks compensation principle (and cost-benefit analysis), is the preference expressed on the market place (or which would be expressed if there were a market), and not the preference expressed by a political vote. The main underlying idea of using preferences expressed on the market is that individuals can be compared by means of *one common property*, being consumers, and *one measurement unit* i.e. money values measuring their willingness to pay for a good or service. One obvious consideration is that the comparison of individuals is possible according to the characteristics of this property and measurement unit only: money values are worth to be used when they are connected to *one objective* and *one institution* only, i.e. economic efficiency and markets. They fail to incorporate other objectives and values⁶.

The classical Adam Smith's example on the value of diamonds versus water is relevant here. No doubt in a city environment everyone would prefer diamond over water,

Representation of the People Act in 1928 that made women's voting rights equal with men, with voting possible at 21 with no property restrictions.

⁴ Kaldor first presented Harrod's criticism to welfare economics, where *equality* was considered a serious problem to be avoided when evaluating the social desirability of different policy options: "*Consider the Repeal of the Corn Laws. This tended to reduce the value of a specific factor of production-land. It can no doubt be shown that the gain to the community as a whole exceeded the loss to the landlords-but only if individuals are treated in some sense as equal. Otherwise how can the loss to some-and that there was a loss can hardly be denied-be compared with the general gain?*" (Kaldor, 1939, p. 549); and then presented the solution to this "criticism": "... *It is only as a result of this consequential change in the distribution of income that there can be any loss of satisfactions to certain individuals, and hence any need to compare the gains of some with the losses of others. But it is always possible for the Government to ensure that the previous income-distribution should be maintained intact: by compensating the "landlords" for any loss of income and by providing the funds for such compensation by an extra tax on those whose incomes have been augmented. In this way, everybody is left as well off as before in his capacity as an income recipient; while everybody is better off than before in his capacity as a consumer. For there still remains the benefit of lower corn prices as a result of the repeal of the duty*" (Kaldor, 1939, p. 550).

⁵ Hicks was very worried by a positivist attack to normative economics, which he himself agreed with "... *Positive economics can be, and ought to be, the same for all men; one's welfare economics will inevitably be different according as one is a liberal or a socialist, a nationalist or an internationalist, a Christian or a pagan*" (Hicks, 1939, p. 696). The compensation principle was a solution to this problem: "*By adopting the line of analysis set out in this paper, it is possible to put welfare economics on a secure basis, and to render it immune from positivist criticism*". (Hicks, 1939, p. 711) "... *I have accomplished my end if I have demonstrated the right of Welfare Economics - the "Utilitarian Calculus" of Edgeworth - to be considered as an integral part of economic theory, capable of the same logical precision and the same significant elaboration as its twin brother, Positive Economics, the "Economic Calculus"*" (Hicks, 1939, p. 712).

⁶ It is interesting to note that, Walras himself already noted that the market cannot be used as a basis for *rational collective decision-making* and that "*human destinies are not absolutely independent, but to some extent dependent on one another. There is a social morality which is distinct from individual morality*" (cited in Burgenmeier, 1994, p. 347).

however in a different environment, e.g. a boat in the middle of the ocean, water has definitely a higher value than diamonds. Economic values depend on subjective human preferences, no discussion about this. Attempts to explain economic values through objective, context invariant categories such as energy are an obvious non-sense. On the other side, e.g. Odum's Emergy measures (Odum, 1996) can be a good proxy of the ecological value of an ecosystem. Galapagos Islands have a higher ecological value than the Dutch Inside Sea surely, but the same does not necessarily apply to the economic value (the economic value indeed would favour the Inside Sea, which, since totally eutrophised, offers an important economic service receiving all the nutrients coming from human activity). *Different values, since they are related to different objectives and institutions, cannot be merged into only one metric.*

From a social point of view, issues connected with actions outside of markets and behaviour of people different from the class of consumers should also be taken into account. The point here is not to be against giving economic value to natural resources, to human health or even lives⁷, or to cultural heritage. A location may be valuable for its biodiversity (measured in richness of species or genetic variety), and also as a landscape, and have also economic value (measured by monetary valuation methods such as the travel cost method or contingent valuation). These are different types of value. The point is that social decisions involve multiple types of values, of which economic efficiency is only one. Therefore it is misleading to make social decisions based only on that one value; indeed, the key question is *value for what and for whom?* Clearly it is impossible to deal with the concept of value (and connected policy instruments) as an objective value free category. In empirical assessment of public policies and publicly provided goods, multi-criteria evaluation seems to be an appropriate policy tool, since it allows taking into account a wide range of assessment criteria (e.g. environmental impact, income distribution, social inclusion, and so on) and not simply profit maximization, as a private economic agent might do (Munda, 2016).

⁷ The issue is not maintaining that a human life has infinite value; for example, a reduction in road accidents can be secured at some cost, but of course society is unlikely to devote the whole of the national income to this end. The point is that often this valuation is made *implicitly* and stating that is a technical issue, when it is a political one instead.

3 Social Multi-Criteria Evaluation

The fact that "one's welfare economics will inevitably be different according as one is a liberal or a socialist, a nationalist or an internationalist, a Christian or a pagan" (Hicks, 1939, p. 696) is the normal state of affairs in policy decisions. There is no obvious reason why this issue of existence of a plurality of values should be considered a problem that can be solved by considering consumers' preferences as the only relevant social values. A question arises here: is it more scientific (and fair) an approach dealing with such a plurality of values explicitly or one which solve all conflicts by imposing a perspective considered superior on some ethical or technical grounds?

Much could be learned on this from *Social Multi-Criteria Evaluation (SMCE)* (Munda, 2004, 2008), where the plurality of views and the multiplicity of technical criteria (social, economic, financial, environmental, regional, etc.) for assessing public policy options have to be considered together in a *coherent and transparent* manner.

A "discrete multi-criterion problem" can be formally described as follows (see e.g. Arrow and Raynaud, 1986; Figueira *et al.*, 2016). A is a finite set of N feasible actions (or alternatives). M is the number of different points of view, or evaluation criteria, g_m , that are considered relevant to a specific policy problem. Where action \mathbf{a} is evaluated to be better than action \mathbf{b} (both belonging to the set A), by the m -th point of view, then $g_m(\mathbf{a}) > g_m(\mathbf{b})$. In this way a decision problem may be represented in an N by M matrix P called an *evaluation or impact matrix*. In such a matrix, the typical element p_{mn} ($m=1, 2, \dots, M; n=1, 2, \dots, N$) represents the evaluation of the n -th alternative by means of the m -th criterion, in other words, each criterion score represents the performance of each alternative according to each criterion (see Table 1). The impact matrix may include quantitative, qualitative or both types of information.

		Alternatives			
Criteria	Units	\mathbf{a}_1	\mathbf{a}_2	\mathbf{a}_3	\mathbf{a}_4
\mathbf{g}_1		$g_1(\mathbf{a}_1)$	$g_1(\mathbf{a}_2)$.	$g_1(\mathbf{a}_4)$
\mathbf{g}_2	
\mathbf{g}_3	
\mathbf{g}_4	
\mathbf{g}_5	
\mathbf{g}_6		$g_6(\mathbf{a}_1)$	$g_6(\mathbf{a}_2)$.	$g_6(\mathbf{a}_4)$

Table 1. Example of an Impact Matrix

For example, if one wishes to buy a new car, her/his choice could depend on the economic, safety, aesthetic and driving characteristics of the various cars taken into account. The criteria measuring some characteristics can be incommensurable (in the technical sense, i.e. price in euro, speed in Km/h, etc.) and conflicting in nature. The peculiar characteristic of multi-criteria evaluation (MCE) is that an action \mathbf{a} may be better than an action \mathbf{b} according to one criterion and worse according to another. When several criteria are taken into consideration, in general, there is no solution optimising all the criteria at the same time (ideal or utopia solution), and therefore "compromise solutions" have to be found by means of a mathematical aggregation rule (the so-called "multi-criteria method") (Roy, 1996).

The management of a policy process involves many layers and kinds of decisions, and requires the construction of a dialogue process among many stakeholders, individual and collective, formal and informal, local and not. As a consequence, the question arises: who makes the decisions? Some critics of MCE say that in principle, in cost-benefit analysis, votes expressed on the market by the whole population can be taken into account (naturally with the condition that the distribution of income is accepted as a means of

allocating votes). On the contrary, multi-criteria evaluation may be based on the priorities and preferences of only a few policy-makers (we could say that the way these policy-makers reach their position is accepted as a way of allocating the right to express these priorities). This criticism may be correct if a "technocratic approach" is taken, in which the analyst constructs the problem relying solely on expert input ("expert" meaning those who know the "technicalities" of a given problem), but it is not correct in the framework of SMCE surely.

In the framework of SMCE, the building of an impact matrix in practice requires the *generation of policy options* and *selection of evaluation criteria*; ideally this process should be a collective creation resulting from a dialogue between the scientists and the social actors. For example, at a regional scale, potential sites for the location of wind parks generating renewable energy could be found by considering factors relevant for investors only, such as technical and economic feasibility depending on wind availability. But if concerns of local people are considered too, other factors may appear e.g. visual impact or closeness to places of a high symbolic value for the community (e.g. an ancient monument or a peculiar landscape). The same argument applies for the evaluation criteria to be used. For example, if the local community has worries about the possible noise produced by wind-mills, a possible evaluation criterion is sound pressure computed in decibels; if a desire is to keep young generations in a rural area, a clear relevant criterion is number of people employed by the wind park, and so on. As one can see, *there is a direct relationship between the criteria used and the preferences/desires/values of the various social actors*; this is the key characteristic of social multi-criteria evaluation which makes it particularly suitable in the framework of public policy.

From this point of view, social multi-criteria evaluation can be considered as a tool for implementing fairness in the form of political democracy. SMCE puts its emphasis on the transparency issue; the main idea being that results of an evaluation exercise depends on the way a given policy problem is structured and thus the assumptions used, the ethical positions taken, and the interests and values considered have to be made clear.

As a tool for conflict management, SMCE has demonstrated its usefulness in many real-world policy problems in various geographical and cultural contexts (see e.g. Cerreta and De Toro, 2010; Gamboa, 2006; Gamboa and Munda, 2007; Garmendia and Stagl, 2010; Monterroso et al., 2011; Özkaynak, 2008; Scolobig et al., 2008; Soma and Vatn, 2009; Straton et al., 2010; Zendehdel et al., 2010). The main achievement of SMCE is the fact that the use of various evaluation criteria (incommensurable in a technical sense) has a direct translation in terms of plurality of values and dimensions (incommensurable in a social sense) used in the evaluation exercise. SMCE accomplishes the goals of being *inter/multi-disciplinary* (with respect to the technical team), *participatory* (with respect to the community) and *transparent* (since all criteria are presented in their original form without any transformations in money, energy or whatever common measurement rod). Of course, policy assessment is not a one-shot activity. On the contrary, it takes place as a *learning process* which is usually highly dynamic, so that judgements regarding the political relevance of items, alternatives or impacts may present sudden changes, hence requiring a policy analysis to be flexible and adaptive in nature. This is the reason why policy assessment processes have a *cyclic nature*. By this is meant the possible adaptation of elements of the process due to continuous feedback loops among the various steps and consultations among the actors involved.

In this framework, mathematical models still play a very important role, i.e. the one of guaranteeing consistency between assumptions used and results obtained; otherwise, even if everybody would agree on the considerations developed till now, their implementation in a real-world evaluation exercises would be impossible.

4 Conclusions

Any policy option always implies winners and losers, thus it is important to check if a policy option seems preferable just because some dimensions (e.g. the environmental) or some social groups (e.g. the lower income groups) are not taken into account. Key questions to be answered are: in impact assessments, is it technically feasible for the Commission (or a support study) to assess the likely distributional impacts of its proposals? How can the Commission integrate a plurality of views into its policies in a coherent and transparent manner?

Fairness in the policy process can be seen as an ethical obligation to take a plurality of social values, perspectives and interests into account. This means that fairness is very much linked to the concept of democracy. A problem to be solved is then how can we implement some reasonable democratic principles in the *ex-ante* policy evaluation process? Two main evaluation tools exist: Cost-benefit analysis (CBA) and multi-criteria evaluation (MCE).

The use of CBA implies strong distributional consequences, since it can be considered a direct application of the ancient principle that property owners should count more. Empirical applications try to correct this problem by using distributional weights, however it is not clear how to derive such weights, since they can be based on a variety of ethical, philosophical and methodological principles and who should attach them (economists, policy-makers, society, ...). On the other hand, one has to note that failures to use any weighting system imply making the *implicit value judgement* that the existing distribution of income is optimal. If, and only if, one is happy with such a value judgement, it is reasonable to use un-weighted market valuations to measure costs and benefits. *Therefore, there is no escape from value judgements*, the compensation principle is not the positivistic objective evaluation criterion Hicks hoped to be. On the other side it does not consider individuals as equal exactly the goal Kaldor aimed at.

MCE seems to be a better tool to tackle conflicting points of view in the policy evaluation process, since different metrics are linked to different objectives and values. In particular, social multi-criteria evaluation (SMCE) is proposed as a public policy framework to integrate different scientific languages, when concerns about civil society and future generations have to be considered along with policy imperatives and market conditions. The very essence of SMCE is the recognition that (see Figure 1):

- A multi-criteria framework is a very efficient means of applying *multi/inter-disciplinary* approach (e.g. criterion scores can be measured on the basis of economic, environmental, ... simulation models).
- Science for policy implies *responsibility* on the part of scientists towards society as a whole and not just towards a mythical policy-maker.
- *Public participation* is a necessary but not a sufficient component. Participation techniques are a tool for improving knowledge of the problem at hand, and not for eliciting input for uncritical use in the evaluation process. Social participation does not imply lack of responsibility.
- *Ethical judgements* are unavoidable elements of the evaluation exercise. These judgements always influence the results heavily. As a consequence, *transparency* in the assumptions used is essential.
- In this framework, the final mathematical compromise solution has a value only as a product of the *assessment process* and is not an "ultimate Truth". *Mathematical aggregation rules* still play an important role, i.e. in assuring that the solutions obtained are *consistent* with the information and the assumptions used in the process.

Finally, it should be noted that the SMCE approach is fully consistent with the most recent research directions in the field of welfare economics and public policy, which are characterised by the attempt of introducing political constraints, interest groups and

collusion effects into the analysis explicitly (see e.g. Laffont, 2000). In this context, transparency becomes an essential feature of public policy processes (Stiglitz, 2002).

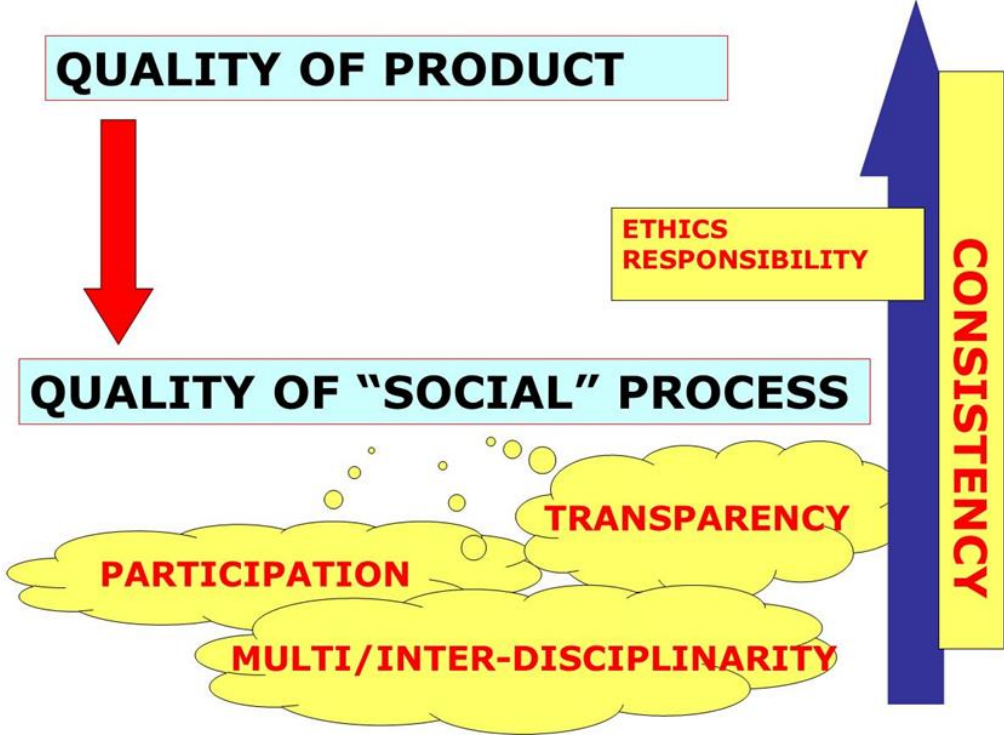


Figure 1. Main Elements of a SMCE Process

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List of abbreviations and definitions

IA	Impact Assessment
CBA	Cost-Benefit Analysis
MCE	Multi-Criteria Evaluation
SMCE	Social Multi-Criteria Evaluation

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