



Economics in policy-making 4

Social CBA and SROI

Cost-benefit analysis (CBA) is the predominant tool used to assess whether a project or policy should be undertaken or not.

This briefing looks at how social considerations are incorporated into cost-benefit analysis, and describes the theory of Social Return on Investment (SROI) – a framework for incorporating ‘wellbeing’ impacts into such analyses.

Why cost-benefit analysis?

Cost-benefit analysis (CBA) is the predominant tool used in welfare economics in order to assess whether an intervention – be it a project or policy – should be undertaken or not. The criterion for an intervention to be undertaken is that its’ benefits outweigh its’ costs.

In some countries, undertaking a cost-benefit analysis for appraising public projects is mandatory, (see for example the US Presidential Executive Order 12291, or [HMT guidance in the UK](#)).

The question, however, is what should be included and excluded in the costs and benefits that are analysed? Should we consider solely financial costs and benefits (simple monetary returns on investment)? Or, should we consider a wider array of costs and benefits – including those not reflected in the ‘market’ such as environmental and social effects?

Traditional cost-benefit analysis has tended to emphasise the economic costs and benefits. Because projects are often driven by the economic imperative to generate jobs and growth, social and environmental

costs and benefits are often treated as secondary considerations. This is despite the fact they are of central concern to individuals and communities.

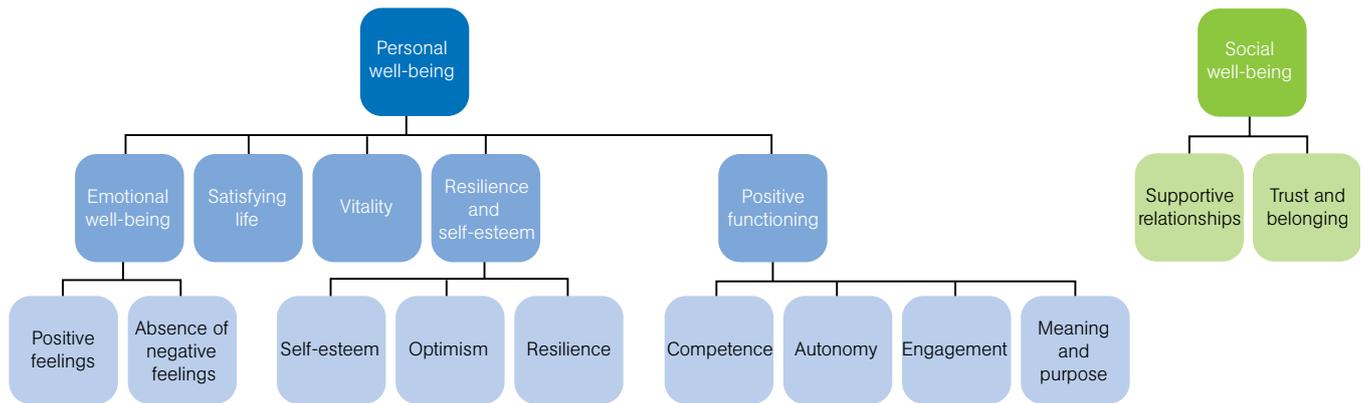
Progressively, alternative types of cost-benefit analysis have developed to complement the conventional method. These include social cost-benefit analysis (Social CBA) and social return on investment (SROI).

Social CBA

Social cost-benefit analysis is an extension of economic cost-benefit analysis, adjusted to take into account the full spectrum of costs and benefits (including social and environmental effects) borne by society as a whole as a result of an intervention.

However, to compare like-for-like these different types of costs and benefits with economic costs and benefits, they must first be monetarily valued. Once all impacts are translated into the same metric, then the condition for a project or intervention to be undertaken is that the sum of economic, social and environmental benefits outweighs the sum of economic, social and environmental costs.

Figure 1: Overview of personal and social wellbeing aspects included in nef's National Accounts of Well-being



The process also entails measuring the indirect, knock-on costs and benefits of an intervention. There are three types of these so-called 'externalities':

- 1 knock-on impacts which are tangible and have a "market" value (e.g. the number of jobs that are indirectly created or destroyed)
- 2 knock-on impacts which are tangible but do not necessarily have a market value *per se* (see *Economics in Policy-making Briefing 3 - Valuing the environment in economic terms*)
- 3 knock on impacts which are neither tangible (in an economic sense) nor have a market value (for example well-being or social capital)

In practice social CBA has often focused on economically tangible knock-on costs and benefits while disregarding well-being perspectives in economics. This disregard has deep roots: in practice (if not in formally stated theory), conventional economics consider societal wealth (market value, economic maximization) as an end, rather than as a means for achieving well-being.

This economic 'truth' has been contested, notably by the Commission on the Measurement of Economic Performance and Social Progress presided by Nobel Laureates Amartya Sen and Joseph Stiglitz (See the **Further reading** box at the end of this briefing for full reference and access to the document).

Moving a step further: SROI

Social return on investment (SROI) is an adjusted form of social cost-benefit analysis which moves further than conventional analyses. It is strongly grounded in direct stakeholder engagement, to ensure that what matters to the people affected by an intervention is counted and that their voice is recognised and reflected in decision-making. SROI is therefore intended to provide

a better evidence framework for how to achieve good lives and human well-being.

The method emphasises sustainability by taking a long-term view of outcomes and recognising that not doing so can lead to false economies. SROI recognises that economic, environmental and social outcomes are all critical factors in achieving good lives and well-being and should be included in a 'triple bottom-line' approach.

Various aspects of personal and social wellbeing are included and evaluated in SROI; and one way of capturing these elements is through tools such as well-being frameworks. Figure 1 above shows the framework of well-being outcomes, impacts and indicators used in nef's [National Accounts of Well-Being](#).

Taking a well-being perspective does not negate the importance of economic outcomes, but rather stresses their insufficiency for illustrating the positive and negative impacts of an intervention on society in a holistic manner.

A loss of employment, for example, can be expressed in simple monetary terms as a reduction in income and tax revenue. But it could also be expressed in terms of a loss of well-being loss – such as reduced self-esteem, optimism and personal or community resilience. Similarly, the existence of parks or other natural amenities can 'in fine' (ultimately) impact both social and personal well-being in various ways, for example by creating a greater feeling of community.

Can we put a monetary tag on social aspects of life and well-being?

As mentioned before, both social CBA and SROI require social and environmental impacts to be translated into monetary terms in order to be compared like-for-like with economic impacts.

Putting a monetary tag on non-market goods may be challenging but it is important to recognise that market prices themselves are subjective, variable and inexact. For example, they are often a result of negotiating power rather than, as might be commonly expected, reflective of the real incurred costs.

The intention in SROI is to ensure that all material costs and benefits – economic, social and environmental – are assigned an approximate and evidence-based value. Not to do so is effectively to give outcomes like ‘strong communities’ or ‘self-confidence’, a value of zero in a key decision-making frameworks.

Nevertheless, difficulties of valuation are a key factor impeding the replacement of traditional appraisal and evaluation methods.

Whilst *Briefing 3* was dedicated to methodologies to valuing nature, here we focus on the valuation of social/well-being outcomes.

Instrumental vs. intrinsic value

As in environmental valuation (see *Briefing 3*), well-being outcomes can be valued in two main ways.

First, one can look at the instrumental value of well-being – i.e. its potential to lead to other outcomes that are more easily monetised. For example, many aspects of subjective well-being are associated with reduced risks of heart disease. This effect can be monetised in terms of the reduced costs to the health service of treating heart disease. More directly, increased self-esteem is associated with greater likelihood of finding a new job – so the direct monetary benefits of this in terms of income can be added to an SROI.

But, of course, well-being is not just of instrumental value. People do not want to be happier just because it means they will find a job. It has intrinsic benefit too. This is harder to assess. ‘Willingness to pay’ approaches, used often for environmental valuation (see *Briefing 3*) are not appropriate – you can’t really ask someone how much they would be willing to pay to be happy. But what you can do is assess how much a similar improvement in well-being would cost on the market – a form of what economists call ‘revealed preference’.

So if a self-motivation course that increased self-esteem by one point on a 1 to 10 scale costs £1,000, then a project that increased self-esteem by two points could be valued at £2,000 per person.

Another approach is to use national data sets to see what increase in income is required to increase well-being the amount that is seen in the project being valued. This is best done using ‘panel’ data – i.e. looking at data from people who are interviewed in a survey year on year, and seeing how their well-being changes as their income changes. The problem with this method

is that it tends to lead to very large values – you need a large increase in income to increase well-being. As a result projects increasing well-being are often associated with very high valuations.

Benefit transfer

In practice however, the two kinds of valuation approaches above are too time intensive and costly to implement. That’s why most analysts use ‘benefit transfer’ – which involves drawing values from other studies and applying them to the context in question. This means that “well-being values” used in many SROI analyses are scarcely – if ever – based on direct empirical research.

What are the implications of social valuation?

Valuing social and well-being outcomes poses two main problems: one of a technical nature and another of an ethical/normative nature.

Problem 1: lack of figures

Social valuation studies are scarce. The lack of robust academic figures creates a problem when it comes to valuing well-being outcomes using “benefit transfer” technique. Similarly, the use of very different “proxy” (substitute) figures to “monetize” social outcomes means that the results of different SROIs are hardly comparable: choosing a high proxy figure can “inflate” or alternatively “underestimate” social benefits thus leading to over or under-claiming.

Problem 2: ethical acceptability

There is also an ethical question mark over whether we should try to express well-being impacts in market (monetary) terms in the first place. In doing so, we could risk merchandising well-being by creating the illusion that it can be substituted for money. (Remember, in the cost-benefit framework any well-being cost could potentially be outweighed by financial or economic benefits).

The theory of including social considerations and well-being into cost benefit analysis has been presented. To provide an example of how this works in a marine context, this case study presents a summary of research carried out by **nef** (in the report *Value slipping through the net*), which shows how an SROI (albeit a soft-touch version) or a 'social CBA' type approach can be used in fisheries.¹

Fish are a public good, owned by everybody. They are also valuable to the country, to its economy, its society, and its environment. Ensuring that society actually benefits from (and continues to benefit from) fishing is therefore a key factor in fisheries management. Well-managed fisheries can benefit society in a multitude of ways, from sustaining food supply, livelihoods, and coastal communities, to permitting a healthy marine environment.

What did the *Value slipping through the net* report show?

The report argued that societal, value-based criteria are necessary components of EU fisheries management and makes the case that a key condition to manage our fisheries sustainably – apart from restoring fish stocks – requires allocating access to the resource (fish) to those that create most value to society.

The report demonstrated that in the UK North Sea cod fishery, the fleet that has greatest access to the resource is not the one that delivers the most value to society; in fact it is more destructive than it is 'value-adding'. The one that performs best (in terms of value created for society) is actually given the smallest quota. While the language of decision-makers and policy documents talks about 'maximising benefits to society from fisheries', there are no actual fisheries which are managed following a 'best value to society' criteria.

Fish stocks are a resource that can be exploited by many different types of fishing. Each type of fishing has different impacts, ranging from how many people have jobs and whether the benefits support resilient coastal communities, to how severe environmental damage is, how many fish are discarded, and the level of greenhouse gas (GHG) emissions.

How can fisheries be assessed and valued using SROI?

How can fisheries managers prioritise those fishing activities or communities that deliver the most benefit to the public? Beyond their value as providers of food, jobs, and revenue, fish stocks also have real, albeit economically 'softer', value to the social and cultural fabric of many coastal communities. Also, as an integral

piece of marine ecosystems, they are key to the provision of other ecosystem services, such as nutrient recycling and climate regulation.

Defining value can be done in several different ways. *Value slipping through the net* looked at the six parameters listed below (although it left out some other relevant parameters, i.e. seabird bycatch which can be an issue for gillnets).

What six factors were compared to see which fishery provided the best value to society?

1 Private fishing costs

Using a 'soft-touch' SROI approach, we estimated the following parameters of the private economic costs of fishing: crew, fuel, repair, capital, variable, fixed, and total costs. Also covered was fuel use (litres per subfleet vessel) which was in turn used to calculate vessel GHG emissions, as well as indirect fuel subsidies (tax rebates on fuel used for commercial fishing).

2 GHG emissions

Fuel costs for catching cod were divided by the fuel cost per litre. This gave an estimate of fuel consumed in catching cod. GHG emission costs were estimated by multiplying fuel use in litres by the carbon equivalent (CO₂e) emissions per litre (0.0026694 t/CO₂e) and then by the short-term non-traded price of £60 per tonne of CO₂e in 2020.²

3 Employment

Crew cost per full time employment (FTE) employee was calculated and then multiplied by the cod-specific crew costs. This told us the number of employees that could be supported (in total and in FTE) by cod revenues.

4 Subsidies

Direct subsidies were calculated by cross-matching each vessel in the study sample with an EC-derived database of direct transfer subsidies for the years 2006–2008.

Marine diesel consumption by commercial fishing vessels is exempt of fuel duty, which we considered

CASE STUDY

an indirect subsidy. We valued this subsidy by assuming a duty for marine diesel equal to diesel for recreational marine vessels, and normal diesel used by land vehicles, both of which are taxed by the UK government at £0.5895 per litre, and then multiplying this by the estimated fuel use per vessel (and specific to cod fishing).

5 Discards

To value the discarded fish, we used the catch and discard (for each age) rates for each gear type, and combined these with their weights (at each age) to calculate the relative weights that make up one tonne of catch.

6 Productivity

Catch per unit effort (CPUE) was calculated by dividing the catch of each species by the effort required per species, while revenue per unit effort (RPUE) was calculated by dividing cod revenues per species by effort.

We found that over the 2006–2008 period:

- For every tonne of cod landed, trawlers delivered negative value ranging from -£116 for the smallest trawlers to almost -£2000 for the largest.
- Gillnets, on the other hand, generated a net +£865 of value.
- Trawlers landed almost 6000 tonnes of cod, while gillnets landed less than 3 per cent of this – just 163 tonnes.
- The largest trawlers received direct subsidies of £219/tonne of cod landed, while gillnets received £38.

The results presented demonstrate the differences between two major fleets in the North Sea targeting cod, an iconic stock of enormous economic value both for the UK and the EU generally.

The figures speak for themselves: for every tonne landed, gillnets deliver £865 of net value, while trawlers destroy value of between £116/tonne for the smallest vessels (0–12 metres) and £1992/tonne for the largest vessels (over 40 metres).

What does this mean for our approach to fisheries?

The implications are clear: the current quota-allocation system in the UK is costing the British public real value. Where fish resources can be exploited by a variety of gear types, access should be granted to those that create most value to society. Using an SROI approach can help decision-makers and managers make the right decisions in terms of what fisheries create best value to society.

Although this study focuses on the UK, similar situations might be found across the EU's fisheries. It is surprising that no access criteria or even comparative socio-environmental assessments are used by the EU in allocating fishing resources.

While the results themselves cannot be generalised – which type of fishing is best for society depends on the location, fish stocks, gear used, and so on – the principle itself can be, both nationwide and EU-wide. Fishing privileges and subsidies across the fleet can be assessed in this manner and we can thereby ensure a move from low-value to high-value sectors, where such alternatives exist, which would deliver tangible returns to the public.

There are surprisingly few assessments comparing fishing practices, and fewer still that incorporate the social and environmental factors (which is even more surprising considering that the *objective of fisheries management is to maximise society's gains*).

Value slipping through the net shows one widely applicable approach to measuring such value.

Endnote

- 1 Esteban, A. and Crilly, R. (2011) *Value slipping through the net*. London: nef. Retrieval from <http://www.neweconomics.org/publications/entry/value-slipping-through-the-net>
- 2 Department of Energy and Climate Change (DECC) (2009). *Carbon Valuation in UK Policy Appraisal: A Revised Approach*. Climate Change Economics, Department of Energy and Climate Change. London.

Further reading and useful resources

The International Commission on the Measurement of Economic Performance and Social Progress
http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf

Seven principles for valuing what matters
http://www.neweconomics.org/sites/neweconomics.org/files/Seven_principles_for_measuring_what_matters_1.pdf

National accounts of well-being
<http://www.nationalaccountsofwellbeing.org/learn/download-report.html>

A guide to social return on investment
http://www.neweconomics.org/sites/neweconomics.org/files/A_guide_to_Social_Return_on_Investment_1.pdf

The Marine Socio-Economics Project (MSEP) is a project funded by The Tubney Charitable Trust and coordinated by nef in partnership with the WWF, MCS, RSPB and The Wildlife Trusts.

The project aims to build socio-economic capacity and cooperation between NGOs and aid their engagement with all sectors using the marine environment.

Economics in Policy-making briefings:

- 1 An overview of economics
Sagar Shah
- 2 How economics is used in government decision-making
Susan Steed
- 3 Valuing the environment in economic terms
Olivier Vardakoulias
- 4 Social CBA and SROI
Olivier Vardakoulias
- 5 Discounting and time preferences
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- 6 Multi-criteria analysis
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- 7 Beyond GDP: Valuing what matters and measuring natural capital
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- 9a Finance and money: the basics
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- 9b What's wrong with our financial system?
Josh Ryan-Collins
- 10 Property rights and ownership models
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Edited by: Chris Williams

Design by: the Argument by Design – www.tabd.co.uk

Published by nef (the new economics foundation), April 2013 as part of the MSEP project to build the socio-economic capacity of marine NGOs.
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