

# TOWARDS A LEGISLATIVE FRAMEWORK TO DELIVER SUSTAINABLE TRANSPORT OUTCOMES

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## ABSTRACT

In terms of the relationship between humanity and the geophysical sphere, sustainable transport is an issue of steadily increasing importance, both in terms of a developing set of philosophical concepts and the consequential complexities of policy delivery. In this uncertain and changing context, the paper examines the potential of a recent tentative trend towards a greater focus on legislated sustainable outcomes as a framework for policy development – here called the *strategic outcome* approach.

Three examples of this developing approach – from the USA, Great Britain and Sweden – are investigated and evaluated, including identifying the ideal characteristics of the outcome approach; its' role in the political process; impacts on legislative and policy development; the involvement of a wider community in the decision-making process; potential changes in administrative accountability and implementation; and the role of monitoring outcomes.

The outcome approach to sustainable transport policy management is still at an early stage of experimentation, and its development may follow a number of different paths. However, an increased emphasis on outcomes can be seen as increasingly congruent with a growing awareness of the increasing need to reform existing regulatory systems and structures.

*Keywords: sustainability; strategic policy outcomes.*

## 1. INTRODUCTION

This paper first reviews current debates on the nature of sustainability and the practical complexities of delivering sustainable transport policy and its implementation.

In this context, the paper then examines the potential of a recent tentative trend towards a greater focus on legislated outcomes as a possible framework for policy development – here called the *strategic outcome* approach.

Three examples of this developing approach – from the USA, Great Britain and Sweden – are then investigated and evaluated in terms of improving policy conception and delivery.

## **2. THE COMPLEXITIES OF SUSTAINABILITY**

Current interest in sustainability first developed from an awareness of the changing relationship between human activity and the geophysical environment. The definitions of “sustainability” are numerous and none yet commands universal acceptance, though it can be essentially characterised as an overarching term for a range of social, economic and environmental approaches that promote the ability of humanity to “carry on.”

In practice, sustainability is currently a developing complex of ideas, within which a number of reference points can be identified, including:

<i>Counter sustainability</i>	The view that sustainability is neither desirable nor practical
<i>Nominal sustainability</i>	This approach uses the <i>language</i> of sustainability, but in reality implies only minor or superficial consideration of the issues
<i>Weak sustainability</i>	This approach assumes that all four types of capital (natural, human, social and industrial) are fully interchangeable and that ongoing technological development will enable the use of all four to any appropriate extent
<i>Strong sustainability</i>	Natural capital must be preserved if it is non-renewable; enlarged if it is renewable; while human, social and industrial capital must continue to grow as far as possible

While the detailed classification of types of capital remains under development (Ekins et al., 2003), the concept of strong sustainability now provides at least a basic ethical foundation for strategic policy development (Figure 1), though as Neumayer (2003) notes, both weak and strong sustainability are still non-falsifiable paradigms, since they inherently apply to long-term outcomes.

Developing concepts...

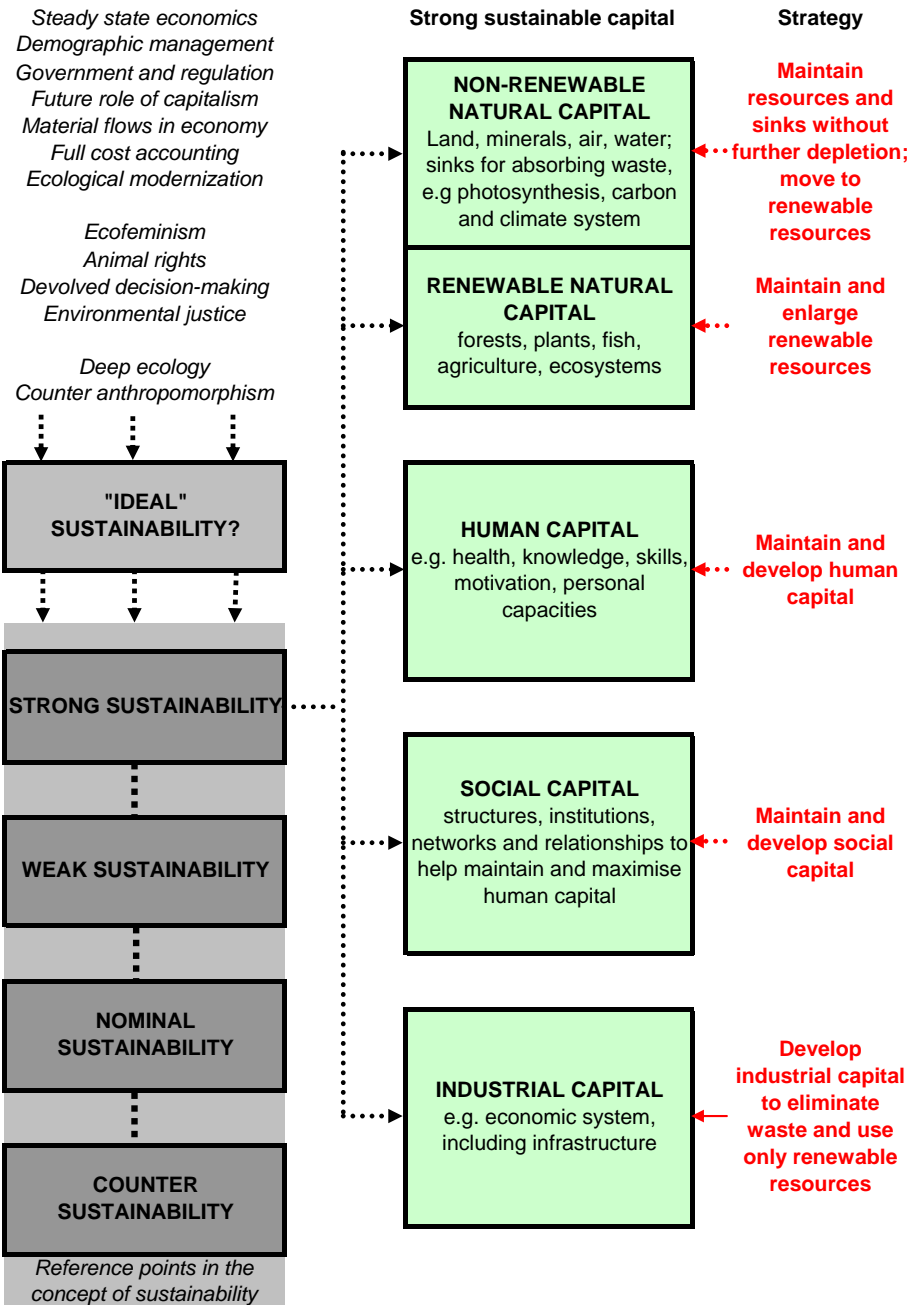


Figure 1 - The development of strong sustainability

It is evident that the conceptual development of sustainability is far from complete. There is an extensive and still developing range of ideas that could eventually reinforce strong sustainability or lead to a new framework of human behaviour that Baker (2006) characterises as "ideal" sustainability. Social issues in this category include ecofeminism (Warren, 2000); animal liberation and other ethical imperatives (Singer, 2002); the implications of different approaches to decision-making (Plumwood, 1998; Eckersley, 1996; Frey, 1999); as well as environmental justice and the rights of individual citizens (Sax, 1990; Agyeman and Warner, 2002). Major economic implications include questions related to

steady state economics and population stability (Sustainable Development Commission, 2009; Victor, 2008); changes to fundamental economic systems and the regulation of capitalism (Foster, 2008; Porritt, 2005); ecological modernization (Hajer, 2005); full cost accounting (Bebbington et al., 2001) and the need to account for material flows (Ayres, 2008). Philosophers such as Naess (1983) and Bookchin (1990) go beyond these issues into questions of the psychological and emotional relationship between human beings and their surroundings.

The complexities of these concepts make it evident that simply describing an appropriate desirable outcome as “sustainability” is an exercise in imprecision. At this stage, any desirable outcome should be precisely defined and explicitly set out in terms of its components. Effectively, this realistically translates into component sets of both societal and sectoral goals rather than a single concerted policy initiative.

A society striving towards sustainability is therefore likely be interested in such issues as equity, disadvantage, justice, economic efficiency, safety, environmental management and material flows that apply to and affect the whole fabric of that society. Not all of these issues will apply equally throughout any social structure, and may have greater resonance in specific sectors. The current nature and scale of the transport sector, for example, means that pricing and charging, emissions to air and water, noise, safety and renewable energy will tend to have greater priority than the same issues in some other sectors (Government of Denmark, 2002).

It is an inevitably pragmatic approach that also requires understanding of the iterative consequences of change throughout the entire social system. As Kemp and Rotmans (2004) note, the approach to sustainability will inherently be a potentially endless and complex series of transitions and temporary equilibria.

### **3. THE POLICY PROCESS**

The progression of *any* policy process towards a specific goal or outcome ultimately has to recognise that all social change is dependent on the structures, values, beliefs, institutions, political and administrative systems of the relevant society. Figure 2 outlines the “building blocks” of this framework, distinguishes policy development from its implementation and highlights the importance of the associated information and learning flows.

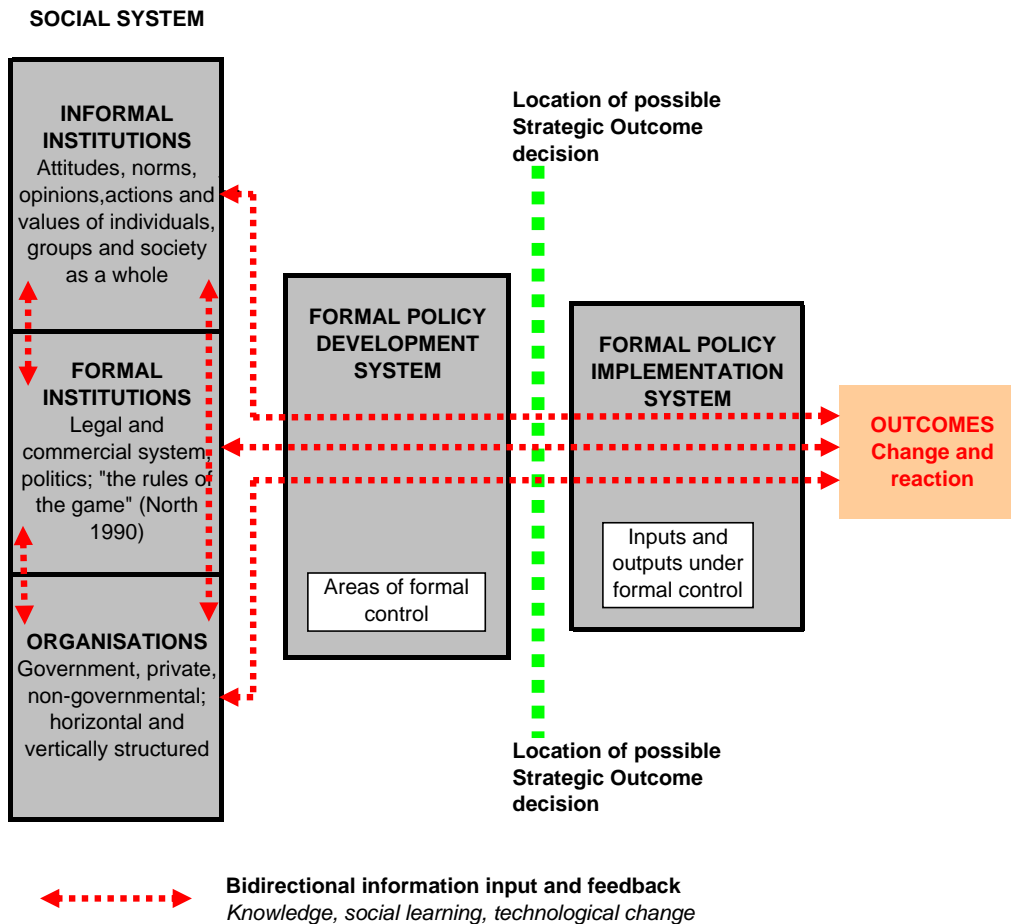


Figure 2 - Policy development structural overview

The *informal institutions* of any society are the deeply rooted attitudes, norms, opinions, actions and values of the individuals and groups that make up that society. They form the constantly evolving social and individually based framework of information, ideas and beliefs within which potential changes may develop, be modified or be rejected (Mitchell, 2005).

The *formal institutions* of society are the legal, political, economic and administrative rules, legislation and structures that reflect the translation of ideas and beliefs into social operating systems at any given time, and formally express "the rules of the game" (North, 1990)

*Organisations* – which can be governmental, commercial, non-governmental or simply informal associations – can be included in the formal institutions of society, but are often analysed separately (Zografos et al., 2004). Their behaviour generates activity or dependency paths that can further drive or restrain change (Pierson, 2000).

Information flows and the possibilities of learning lead to change or reaction in this framework, and influence the *policy development system*. Models of learning in policy development processes include Kingdon's (1995) work on agenda setting; Sabatier's (2007) advocacy coalition framework approach; and Boyer's (1998) study of the links between

markets and institutional and social relations. Hajer (2005) and Schmidt (2002) emphasize that information management underlies the narratives and storylines that can drive the politics of change, while the seminal article on the British coal industry by Berry et al (1986) emphasises the importance of the reliability of basic information as an input into policy development.

Policy change generates *implementation*. Implementation is rarely the linear administrative consequence of policy decisions, and may, in its turn, generate ongoing iterative changes throughout the entire institutional and organisational system. Even in the traditional model of policy implementation, the links between inputs (the financial and administrative resources applied to an issue), outputs (the product or service delivered), and outcomes (the result of the policy changes) are rarely simple (Pawson, 2003). When these processes are further examined as functions of the actual range of public policy control, they regularly provide evidence of what Mulgan (2008) calls the “frequent gap between what governments are doing and what they think they are doing”.

Greater recent understanding of the “complicated” and “complex” models of implementation is reflected in Rogers (2008), Hospes (2008) and Barnes et al (2003) building on Rittel and Webber’s (1973) fundamental analysis of “wicked problems” that reflect the complexities of societal structures. Recent models such as the Institutional Resource Regime (Gerber et al., 2009), directly linking institutions to capital and resource use, emphasise that policy development and its implementation remain part of the much wider process of social change.

#### **4. TRYING TO MANAGE POLICY DIRECTION AND DELIVERY**

Developing and implementing transport policy is a complex, iterative and often uncertain process. This outline of the relationship between social systems, information and policy and implementation is necessarily brief, but provides an initial frame of reference for understanding some of the systemic difficulties that face the implementation of policies that seek to start the journey towards the goal of a sustainable transport system.

It is easy to criticise existing policy failures or political inaction and to note that problems such as climate change emissions, water quality and other pollution issues continue to grow. Research and development can develop potential solutions to policy issues but they have to be implemented within particular social structures – and that relies on the effectiveness of the policy and implementation system (Kemp et al., 2005).

In recent decades, governments have attempted a range of initiatives to improve the policy and development process in an increasingly uncertain world. A brief selection of examples of recent initiatives to bring greater certainty and reliability to policy processes includes:

- The proliferation of strategic transport policy documents in recent years can be characterised as an attempt by politicians and administrators to give greater direction to policy and its implementation. However, few of these documents have formal legal status and do not commonly enjoy a long life beyond the currency of the government

that introduced them. Still fewer address a path to desired outcomes as future desirable conditions, instead usually specifying desired inputs (levels of funding) or outputs (defining specific roles for particular sectors) as goals in themselves (Government of Victoria, 2008).

- The development of centralised implementation units in some government bureaucracies seeks to administratively mandate unified policy direction and implementation in a complex world – though in existing compartmentalised bureaucratic systems success has generally been uneven (Tiernan, 2006). Not the least of the problems with this approach has been the lack of recognition of the complex interactions between government systems and society as a whole.
- In some jurisdictions, such as California or Switzerland, there has been a high-profile recourse to direct democracy. Government or citizen-initiated referenda have been used as a means of determining policy direction on specific land use or taxes, though in California these have often demonstrated a reaction against “big” government rather than an improvement in the policy process (Gordon, 2004).
- The transfer of substantial elements of government activity to the private sector in recent decades was also expected to permit greater reliability in policy development and implementation through clear separation of functions, though increasing experience tends to suggest that this has only partially been achieved (Everett and Pettitt, 2006).

This list of attempts to improve the policy process is not intended to be exhaustive, but gives some sense of the scope of attempts at process improvement in recent decades.

In this context, this paper looks at a further tentative initiative to improve transport related policy development and delivery by first strengthening the fundamental importance of *strategic policy outcomes*. A number of countries have partially reconceptualised the traditional approach to policy by establishing legislatively based long-term policy outcomes in various sectors.

As shown in Figure 2, the fundamental aim of this approach has been to effectively introduce a new stage in policy development, formally setting overall strategic outcomes *before* consequential legislation, regulation and administrative implementation begins, thereby seeking to provide a greater sense of direction in these subsequent processes. The use of strategic outcomes in this way is still in its early stages, but the overall aim has been to give a greater sense of certainty and continuity over periods of time longer than any specific government’s term. At the same time, this approach can give greater recognition to the role of formal and informal social institutions and organizations into policy setting and delivery, especially in areas that are outside the formal control of government administration.

## **5. THREE NATIONAL APPROACHES**

This paper reviews three examples of this strategic outcome initiative using the Americans with Disabilities Act (Congress of the United States of America, 1990, as amended 2008), the Swedish Road Traffic Safety Act (Swedish Parliament, 1997), and the Climate Change Act (Parliament of the United Kingdom of Great Britain and Northern Ireland, 2008). All three initiatives were developed separately and at different times, but the overall approach they reflect may offer a new path through the maze leading to more sustainable transport.

The three Acts cover a period of twenty years, and could be conceived of in terms of a developmental progression. However, it is far from clear that there has been a process of learning across borders in these specific cases, and the analysis has therefore been built around national legislative systems.

The United States Congress passed the Americans with Disabilities Act (ADA) in 1990. It was amended in 2008 to address issues of interpretation raised by a number of Supreme Court cases in the intervening period. The scope and strategic outcome of the Act remained fundamentally unaltered.

The Swedish Road Traffic Safety Act 1997 formally established the concept of “Vision Zero” as the desired road safety outcome of zero road traffic fatalities and serious injuries. A full external review of the Act was undertaken and published in 2008 (Breen et al., 2008).

The British Parliament passed the Climate Change Act in 2008, setting goals for greenhouse gas emissions in the period to 2050. In 2009, the British Government released a series of documents collectively known as the Low Carbon Transition Plan, which represent the initial stages towards achieving the strategic outcomes set out in the Climate Change Act 2008.

These three examples of transport-related legislation built around the strategic outcome concept have been analysed to test the degree to which the concept has been developed and used to improve the overall policy conception and delivery process, and the degree to which these attempts have been successful at this point. Each case is assessed against a number of principles for the development of strategic outcomes. These principles are described in the following section. A tabular summary is then used to present the results and the rationale for the individual assessments against each principle is explained.

## **6. DEVELOPING STRATEGIC OUTCOMES**

If this strategic outcome process is designed to give greater direction to subsequent policy implementation, then it is important to identify the ideal elements of the successful use of this approach that will provide the framework for subsequent analysis of specific initiatives. The three groups of principles set out below are developed from Edvardsson and Hansson’s (2005) review of an ideal approach to goal setting, reformulated to the specifics of the strategic outcome model.



### **(i) Simplicity and ethical focus**

Complexity is the enemy of successful strategic outcome setting. Outcome statements must provide *clear, unambiguous direction in legislation* for subsequent implementation and decision-making at the governmental, personal and organisational levels of society (Smokers, 2008). Any legislatively defined outcome will automatically be subject to review through the courts, and while judicial challenges over the pace or nature of delivery may be relevant, arguments over the *nature* of the outcome are likely to be counter-productive to the overall concept.

In addition to this clearly expressed outcome, every policy decision inherently has an *ethical foundation* that should be formally expressed in legislation to provide the basis for the development and long term implementation of the strategic outcome (Ingebrigtsen and Jakobsen, 2009).

### **(ii) Political and community support**

The strategic outcome approach inherently has to have at least *stable long term political support* from a significant majority of parties in any specific legislature.

More fundamentally, the legislated strategic outcome must also be accepted by a majority of the general community. It must outlast the life of successive governments, providing a significant degree of long term certainty of direction for a wide range of personal, organisational and political implementation decisions.

### **(iii) Measurement and delivery**

While the desired strategic outcome may well be seen as a “stretch” target at the start of the process, participants should be able to at least conceive of the target being *realised* at a point in the future. The outcome should be expressed in a simple measure that enables ongoing and visible analysis of progress. The strategic outcome should also include a *timescale* for at least the initial stages towards achievement, recognising that precise timing of long term achievement may not be immediately possible

A *reliable monitoring system* must be built in to the strategic outcome process, so that the state of progress towards the outcome is easily visible at any stage

### **(iv) Accountabilities**

Each strategic outcome should formally *allocate appropriate rights and obligations* to all those involved in or affected by the desired outcome, as well as *avoiding “let out” clauses* in terms of achieving the chosen outcomes. Strategic outcomes are not constitutional principles of the sort promoted by the Brundtland Commission (World Commission on Environment and Development, 1987). As Sax (1990) notes, they are the next legislative level down, and should identify precise responsibilities for each particular outcome. In consequence, there

must be a very specific *definition of the accountabilities for delivery* with precise operational specifications (Nihlén Fahlquist, 2006).

## 7. THE LEARNING EXPERIENCE

The principles set out above provide a framework to examine the structure and progress of specific national examples of approaches to strategic outcome development. While each jurisdiction may have distinctive legislative approaches, the key issue remains effectiveness in delivery – or progress towards delivery – of identified long term outcomes.

A tabular analysis summary of the three examples is set out in Table 1. The degree to which each piece of legislation achieves the ideal outcomes reviewed in the previous section, is indicated using a three point rating system. The following subsections provide insight into the basis for those assessments.

Table 1 - Strategic outcome approach analysis

	<b>USA</b>	<b>UK</b>	<b>Sweden</b>
	Americans with Disabilities Act 1990/2009	Climate Change Act 2008	Road Traffic Safety Act 1997
<b>Strategic outcome features</b>			
<i>1: Simplicity and ethical focus</i>			
Clear, specific outcome in law	*	**	***
Ethical foundation in law	***		***
<i>2: Political and community support</i>			
Multiparty support in legislature	***	***	***
Majority societal support	**	*	***
<i>3: Measurement and delivery</i>			
Outcome perceived as attainable	**	**	***
Measurable progress possible		***	***
Defined timescale for achievement		***	*
Reliable monitoring process built in		***	*
<i>4: Accountabilities</i>			
Individual rights & obligations	**		
Realistic: no "let out" clauses			**
Clear accountabilit(ies) for outcome	**	*	

## **Simplicity and ethical focus**

Both the Swedish and American Acts set out ethically founded strategic outcomes. The Swedish law confines itself to a statement that it can never be ethically acceptable for people to die or be seriously injured in the road transportation system (Tingvall, 1998). The American Act begins with a detailed “Findings “ section, which gives a statement of the rights of the disabled; affirms that disability does not limit the rights of citizens; rejects negative discrimination against disabled citizens; defines disability as “a physical or mental impairment that substantially limits a major life activity”; and sets a wide-ranging outcome (or goal) of eliminating such limits and discrimination. While the ethical principles are evident, the inevitable wide scope of the outcome has meant continuing definitional problems leading to significant clarifications in the 2008 Amendment.

The Climate Change Act has a simple technical outcome of an 80% reduction of greenhouse gases (compared to a 1990 baseline) by 2050. However, given that the Act and the associated Plan envisage nuclear power, carbon sequestration and offsets as significant paths to the outcome, the legislation is perhaps understandably silent on matters of ethical or intergenerational justification.

## **Political and community support**

All three Acts reflect strong support from their legislatures. Multiparty support for the Swedish Road Traffic Act 1997 has clearly been retained and there is little evidence that the Vision Zero outcome does not continue to enjoy public support (Breen et al., 2008) Both the initial American legislation and the 2008 amendment were supported by the Bush administrations and a wide range of sector groups, and were passed with large bipartisan majorities in Congress. Extensive problems with the local delivery of services adapted to the needs of the disabled (Acemoglu and Angrist, 2001) tend to suggest, however, that national political acclaim may not immediately translate into universal popular support for action.

The British Climate Change Act 2008 received significant Parliamentary support with a 345:5 Second Reading Vote, followed by a 463:3 Third Reading vote when amendments had been included to incorporate the future regulation of shipping and aviation emissions.

## **Measurement and delivery**

Support for any strategic outcome partly depends on a perception that it is eventually attainable with progress capable of being measured, even if no specific timetable is in place.

The Swedish Road Traffic Safety Act does not have a specific timetable for completion, although it does set out a timed review process. The primary outcome of no deaths or major injuries has been put under significant pressure since surveys revealed that previous calculations of 4000 serious injuries per year were significantly under reported and were actually 13000 per year (Breen et al., 2008). Nevertheless, as Breen et al. also note, the problems arising from the Vision Zero approach to road safety still primarily relate to the pace

of progress rather than to commitment or measurement and to conflicts between an ethical approach and cost-benefit based policies elsewhere in government.

The British legislation sets a precise and measurable target and reinforces this with a formal specific reporting timeframe built around Annual Statements of Emissions and a Final Statement in 2050. This approach has been subsequently further strengthened with the Low Carbon Transition Plan (Secretary of State of Energy and Climate Change, 2009).

The Americans with Disabilities Act differs from the other strategic outcome legislation by being explicitly based on individual rights rather than overall targets (Nussbaum, 2005). The rights of disabled citizens were automatically established on enactment, and generally precluded any timetabled progression on the British and Swedish examples. Despite provisions for research and reporting requirements in the Act, progressive measurement of the application of rights was always going to be more difficult than the simpler accounting of the British and Swedish cases.

## **Accountabilities**

The successful delivery of any strategic outcome depends on the attribution of clear accountability to the relevant organisations and individuals. As Nihlen Fahlquist (2006) notes, while the Swedish Road Traffic Safety Act certainly began to widen the perceived range of road safety participants to include manufacturers and infrastructure managers, the concept of legal accountability for participants was initially seen as too difficult to implement. However, the independent review of this legislation (Breen et al., 2008) returns to the need for legal accountability as an important next step in pursuing the Vision Zero objective.

The Climate Change Act 2008 formally establishes a number of reporting and operational accountabilities. The general responsibility for the overall achievement of the strategic outcome is left with the relevant Minister who is also the administrator of the emissions trading scheme and other spending and taxation initiatives. This relatively precise approach to setting accountability is then significantly weakened by legislating an opportunity for that Minister, on the advice of an appointed Climate Change Committee, to change the overall strategic outcome target in the light of future circumstances.

The rights approach in the American legislation inherently brings with it an extensive list of accountabilities for implementation – and therein lies its major weakness. The Americans with Disabilities Act uses the term “covered entity” to define public and private responsibilities for providing disabled access to public space, but then exempts various persons and organisations where such access changes are not “readily achievable” or where the owner faces “extraordinarily expensive structural changes”. Other questions of scope have ranged from the application of the Act to foreign registered cruise liners (*Spector v. Norwegian Cruise Line Ltd*) and to prisons (Robbins, 1997). Furthermore, the operational definition of the term “disability” continues to be legally and politically challenged (Mueller, 2008).

The basic ethical principles and overall direction of the Americans with Disabilities Act retain public support, as pragmatically shown by the large political majorities for the 2008 Amendment Act. However, as Switzer (2001) notes, definitional complexities and the resultant legal action have materially slowed implementation of the overall strategic outcome.

## **8. STRATEGIC OUTCOMES IN THE TRANSPORT SECTOR**

The developing model of legislated strategic outcomes that is set out in the previous sections offers prospects for the staged promotion of a sustainable transport sector.

However, the use of strategic outcomes in the transport sector raises an important issue of scope. Transport policy has traditionally focussed on an input or output approach centred on the perceived performance of specific modal technologies at given points in time (Aberle, 2003), rather than on the long term performance of the transport system *as a whole*. While there are clearly technical issues peculiar to specific modes, a wider perspective suggests that the lack of a broad sectoral focus has substantially fragmented transport policy in a way that militates against an *integrated* approach to sustainability (Begg and Gray, 2004).

If the ultimate goal of sustainable transport policy is to have each mode providing long term mobility in the way for which it is best suited, then there is a strong case for setting strategic outcomes that apply across the *whole* transport sector, allowing individual technologies to develop and adapt within this broad framework (Smokers, 2008). Emissions to air or water runoff from the transport system have the same broad impact on the geophysical system and humanity whether they come from airports, roads or ports – and should all be treated within the same sustainable policy framework.

On this basis, a number of indicative examples of outcomes could initially be identified that would make significant steps towards a sustainable transport system:

- The transport sector will not generate any emissions to air that are harmful to human health or the ecosystem
- No water runoff or impact on water from the transport system will be harmful to human health or the ecosystem
- No noise generated by the transport sector will be harmful to human health or the ecosystem
- The transport system will directly or indirectly use only renewable energy

In addition, the Swedish Vision Zero approach to road safety could be extended to apply to the whole sector:

- Nobody will be killed or seriously injured in the transport system

A sustainable transport sector would also be characterised by users directly bearing all the costs imposed on society. However, given the economic and social complexities of average and marginal pricing and charging systems involved, a strategic outcome in these terms would certainly not meet the simplicity requirement. In this case, a progressive set of tightly focussed strategic outcomes would need to address separate and staged components of the wider outcome, such as the purpose of charges; hypothecation of revenue; recycling of local or national taxes; and related administrative systems.

The outcomes suggested above do not claim to cover the full scope of the transport system's relationship with society, and would obviously be linked into strategic outcomes related to the whole of society, as suggested earlier. Any outcome with claims to move the transport sector towards sustainability would require careful consideration of its impacts on other areas of society, together with possible remedial action. They do, however provide an initial set of steps of strategic outcomes to progress down the uncertain path toward sustainability.

## **9. CONCLUSIONS AND DIRECTIONS**

The strategic outcome approach outlined in this paper is a cluster of long term policy initiatives at an early stage of development. While the framework context that underlies the strategic outcome concept seems at least to offer the potential for more coherent policy making, it is still too early in the development cycle to undertake definitive comparative analysis against alternative policy development approaches. As Breen et al. (2008) note in the Swedish context, early difficulties should be put in the context of the process being still in the "establishment phase" with many layers of development still to be achieved.

A strategic outcome framework is certainly not a "magic bullet" leading to sustainable transport, but it does seem to offer potential in that direction. In its present form, the strategic outcome approach has so far sought to build on and implement a limited number of key societal values in our present environment (Edvardsson and Hansson, 2005). It does not imply a utopian reconstruction of society, but seems consistent with the view that sustainability will more likely be achieved through a stepped refocus of elements of the existing social and economic system (Porritt, 2005; Speth, 2008).

The basic requirements of a strategic outcome approach to sustainable transport are set out above, ranging from an ethical foundation through to a unified approach to the whole transport sector. Within this framework, experience to date suggests that two major elements must be especially emphasized.

First, a high level of interaction between governments and their communities is needed to develop long term commitment to specific policy directions within a given social structure of formal and informal institutions and organisations. . Developing this commitment in terms of specific components of sustainable transport seems to imply a greater use of collective educative approaches in the way that Stockholm's congestion pricing trial eventually shifted public opinion behind a significant sustainable transport initiative (Eliasson et al., 2009). Smith (2003) further makes it clear that there are potential opportunities for a greater range

of deliberative democratic processes to assist in the development of strategic outcomes, including binding referenda and minimum voting majorities.

The second implication relates to accountability systems. Ethical statements and precise outcomes are crucially important, but without clearly defined accountabilities for results the desired strategic outcomes are unlikely to be achieved. The formal institutions, organisations and patterns of accountability that developed to address the problems of one era do not necessarily address those of a new environment. In Parsons' terms (2004), the strategic outcome approach is not just policy "steering", but has to be based on a fundamental "weaving" of policy into effective and accountable implementation systems, through careful consideration of the scope and potential of government regulation (Levi-Faur, 2006) together with organisational boundaries and clearly defined producer, operator and user responsibilities (Grey, 2005).

The slowly developing strategic outcome process is ultimately about setting direction. By focussing on legislatively defined outcomes, ethics, outcomes and structures, a framework is generated that potentially rearranges more traditional policy processes for a more productive result. By putting traditional input and output decisions processes into the longer view, it has a better chance of maintaining overall direction. In a constantly changing world that is increasingly seeking not just improved policy processes but a wide range of new initiatives towards sustainability, the developing strategic outcome approach offers potential for more coherent policy development.

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