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## **APPLYING THE CONCEPT OF WELLBEING TO THE TRANSPORT DOMAIN: LESSONS AND RECOMMENDATIONS FROM A STUDY OF DUTCH NATIONAL TRANSPORT POLICY**

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### **1. INTRODUCTION**

The concept of wellbeing is receiving increasing attention in public policies. Dutch parliament has recently stated the ambition to broaden its measurement of welfare well beyond GDP to wellbeing. Similar changes are present in the transport domain, with a slowly shifting focus away from facilitating transport demand and reducing congestion as dominant goals, towards increased attention for health, safety, environmental issues and social impacts. In our current study, we have taken the debate on wellbeing as a starting point for future transport policies and to identify the research questions that follow from this. This paper is an abbreviated version of our report, focusing on the lessons for policy makers.

#### *Why wellbeing?*

Internationally, concerns over increasing inequality and climate change have led to a plea for a better measurement of welfare (Stiglitz et al. 2009; WCED 1987), shifting the perspective from measuring economic production to the quality of life of people (Stiglitz et al. 2009). This was followed by proposals from the United Nations and the OECD to capture this broadening of the concept of welfare in a conceptual framework. In doing so, they sought the connection to existing frameworks and international policy goals such as the Sustainable Development Goals (SDG's).

In 2015 Dutch parliament decided to set up a temporary committee exploring this new, broader approach to welfare, after realising that GDP is often used to measure welfare, but was never intended for that purpose. Exploring the subject, the committee concluded that if they wanted to measure welfare, they needed more than just GDP figures (Tijdelijke commissie Breed welvaartsbegrip 2016), which is in line with the 'beyond GDP' thinking of Stiglitz and others. Based on the conclusions of the committee, the government requested Statistics Netherlands to develop a yearly wellbeing monitor. Simultaneously, three government research institutes, among which is PBL, were requested to conduct periodical studies in order to make the broader concept of wellbeing applicable to policy making.

By now, the issue of wellbeing is prominently on the agenda in many policy fields in the Netherlands. In October 2020 the Dutch Advisory Committee on the Budgeting has issued the recommendation to embed wellbeing in the procedures for national budgeting (16e Studiegroep Begrotingsruimte 2020) and in a recent policy scheme for

regional development, wellbeing was the central concept for assessment of plans and progress (Evenhuis et al. 2020).

### *What are we talking about?*

Wellbeing, according to the general definition used by the three Dutch government research institutes, covers everything that people value (PBL et al. 2017). This does not only concern how an individual is doing, but also includes how other people are doing (close by or far away) or how our physical living environment is doing. So, it includes health, safety, being able to support oneself, personal development, social connections, leisure and quality of the living environment (PBL et al. 2017; Stiglitz et al. 2009).

### *Wellbeing in the transport debate*

While the concept of wellbeing is not necessarily being used in the transport debate, the debate has broadened in the past few decades in academia and among policy makers. Traditionally, the transport field adopted the ‘predict and provide’ approach: based on the notion that demand should be facilitated mainly by expanding road and rail capacity and smoothing traffic flows, and that that is the main aim of transport policy<sup>1</sup>. This has also determined the institutional framework for transport policy.

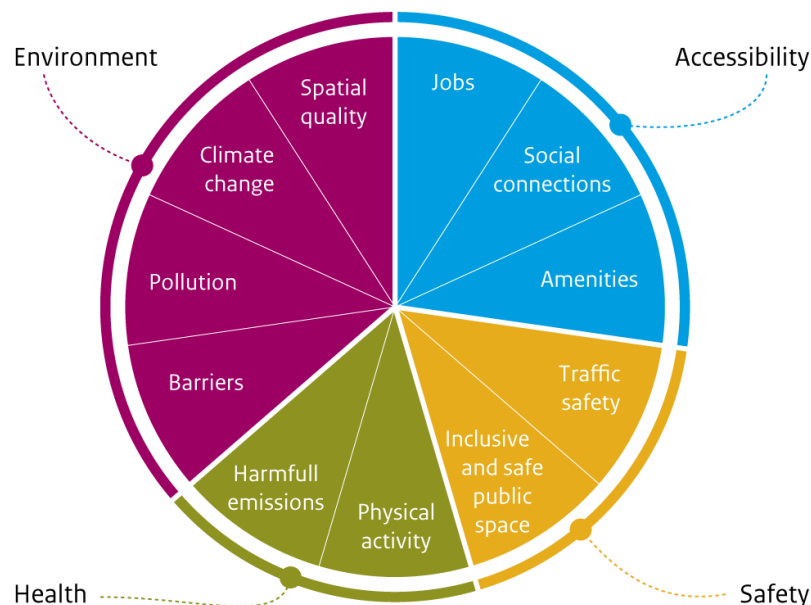
However, ‘side effects’ were not fully ignored. From the seventies onward, traffic safety became a real issue, following fierce protests by the public. Later on the environmental agenda came to the agenda, following the Brundtland report from 1987. Slowly but surely, the attention for the negative side effects of transport increased, not in the least by the more recent climate debate and the role motorised transport plays in greenhouse gas emissions. More recently, there has been an increasing attention for the health effects of transport and the issue of transport poverty. However, in comparison to the main goal of facilitating demand, these side effects are often still seen as inconvenient limiting conditions.

Recently, we are starting to see a shift. Local and regional governments show a much more integral approach to transport issues, and on a national level the Ministry of Infrastructure & Water Management (2021) has adopted a much broader scope than before, shifting from a focus on congestion to accessibility and more equal attention to the negative external effects. The dominance of ‘facilitating demand’ as main goal of transport policy seems to be fading, while the weight of other policy goals such as battling the climate emergency has increased. (e.g. Dutch Climate Agreement, Dutch Climate Law and Fit for 55). Also, the social dimension is gaining attention. In 2021 the Netherlands Council for the Environment and Infrastructure, a strategic advisory board for the Dutch government and parliament, recommended to make accessibility for all the starting point for transport policy (Rli, 2021).

## 2. WELLBEING APPLIED TO THE TRANSPORT DOMAIN

In this study, we firstly explored how a wellbeing approach could be adopted in transport policy, starting by mapping how transport relates to different aspects of wellbeing. Transport contributes substantially to peoples wellbeing, by providing access to jobs, amenities and social connections. Transport can also have positive health effects, depending on the model of choice. On the other hand, transport can compromise wellbeing, through traffic unsafety, noise, pollution and climate impact. All in all, we have discerned four dimensions, in order to structure thinking about this potentially complex concept (figure 1).

Figure 1 Four dimensions of wellbeing related to transport



Source: PBL

### *Accessibility*

Accessibility relates to the extent to which the spatial and the transport system enables people and goods to reach key destinations and opportunities (Geurs & Van Wee 2004). This makes transport a means to an end. Key opportunities people generally want to access are jobs, amenities and their friends and family. Underlying aims are to make a living, to take care of yourself and your family, to develop as a person and to have meaningful interaction with people that are close to you (Geurs & Van Wee 2004, Martens 2012). Transport poverty - lack of access or ability to utilise access to everyday activities – can exclude people from participation in society (Bastiaanssen et al. 2013; Lucas 2012; WRR 2018). While this is true for people, the same holds for transport of goods. Goods are not transported as an aim in itself and also not just out of economic gain. They are transported to provide in human needs. That is why stock

needs to reach the supermarket, raw materials and semimanufactures the factory and fuel the petrol station.

### *Safety*

Safety is primarily associated with traffic safety: casualties, dead or injured. The decrease of the number of traffic deaths has come to a halt in recent years and the number of seriously injured people is increasing substantially. The social costs of traffic unsafety in The Netherlands is estimated at approximately 17 billion euros every year (SWOV 2020), a larger number than the costs of congestion and environmental effects taken together. These wellbeing effects of traffic unsafety are not just about the medical costs and lost productivity, it is just as much about the pain and suffering it causes, both physically and mentally.

Furthermore, traffic safety issues can impact accessibility. If people are scared to travel, access quickly becomes a problem. Something similar holds for another safety effect of transport. Infrastructure and traffic influence public space, often compromising the inclusiveness and experienced safety. What's more, these negative effects are not equally distributed. Children and older people are more vulnerable in traffic (Lucas et al. 2019) and women and minority groups are disproportionately affected by lack of safe public spaces.

### *Health*

Health is directly related to transport, both in a positive and negative way. Active mobility can positively impact health. A recent study showed that Dutch people exercise relatively much, partly because of cycling on a daily basis. More exercise is good for your health. A study showed that statistically, every minute that you cycle, you live longer (Nijland 2017), even taking into account traffic safety and breathing in harmful substances. Furthermore, regular exercise, including active transport, is associated with reduced risk of depression (Hallgren et al 2019). These positive effects can be the result of trips made for work, leisure or social interaction. However, travelling can also have an intrinsic value: this is the case when the trip is a goal in itself, like nice walk or a cycle tour. Furthermore: travelling can give a sense of independence, adventure or even status. People also travel out of curiosity, a desire for variation and to reduce restlessness ('t Hoen 2017; Dal Fiore et al 2014). The result is a positive effect on mental and physical health.

Transport also has negative health effects, mainly related to air pollution and noise. The emission of NO<sub>x</sub> and particulate matter by motorised transport modes is related to an increased risk of early death and chronic illnesses like asthma, especially in more dense urban areas (Khreis et al. 2017, Milieudefensie 2014; RIVM 2018). Vibrations and noise can cause stress, impair memory, concentration and analytical thinking.

### *Environment*

The environment encompasses a large set of predominantly negative effects of transport and transport infrastructure on nature, climate, landscape and public space, through pollution, noise, vibrations, barriers et cetera. It also includes the impact on space and how this space can be used both from a planning as well as a user perspective.

The transport sector is a large contributor to air pollution, negatively impacting not only humans (see section on health), but also the ecosystem we depend on. Nitrogen deposition makes some plants grow better, repression other species and so reducing biodiversity. Infrastructure crosses habitats, forming a barrier for animals to move about. While emissions have decreased a lot in recent decades, as a result of environmental policies and standards set, there are still many negative effects. The emissions of CO<sub>2</sub> and other greenhouse gasses is a currently an major issue in transport. In comparison to other sectors, the transport sector is falling short in reducing emissions. Total CO<sub>2</sub> emissions of road traffic have hardly reduced (PBL et al 2020). Only in the covid year of 2020, there was a significant reduction, as a result of the stringent pandemic measures.

Infrastructure and transport also impact the quality of landscapes as well as public space in built up areas. It is not just animals that suffer from infrastructural barriers. Furthermore, infrastructure and traffic strongly influence the way we can use the surrounding space.

### *Some additional notes*

Important to realise is that it is not about the emissions or barriers themselves, but on the positive or negative impact on the lives of people and the things that have value for them. So it is not about the CO<sub>2</sub> emissions, but about the effects of the changing climate, it is not about nitrogen, but on the effects on nature, it is not about a larger modal split for active modes, but about better health and it is not about the number of jobs you can access, yet on if that enables you to make a living.

Another important aspect is the fact that transport effects on the dimensions discussed above not just impact people here and now, but also people elsewhere in the world and future generations. Some health effects will only become visible in our children or grandchildren, our desire for raw materials affects people far away and climate change does not care about borders and its full blown impact will be felt by generations to come.

## **3. WELLBEING IN NATIONAL TRANSPORT POLICY**

Having established how wellbeing is related to transport, we proceed with an assessment of how the four dimensions of wellbeing are represented in national transport policy documents.

*All dimensions of wellbeing are found in policy documents, but facilitating transport growth comes first.*

The Second Structure Scheme Transport from 1988 explicitly mentions different dimensions and discusses the tensions between them. As a result, this policy document set the goal to discourage unnecessary car use and to improve public transport. It also included goals for reducing air pollution and improving traffic safety. Later policy documents also mention air quality and safety, yet adopt an overarching aim to facilitate growth and guarantee fast and reliable travel times in order to strengthen the economy. Safety and the environment are seen as limiting conditions. The Transport Memorandum from 2004 explicitly states that '*reducing mobility is not an option*' because of its relevance for the economy and because there is public demand for it. All recent policy documents since then stress the importance of transport for the economic competitiveness of the Netherlands, putting the focus on investments in infrastructure in the main economic areas of the country. Implicitly, these transport strategies assume that meeting transport demand is necessary. However, whether these investments actually contribute to better accessibility, improved economic performance of businesses, increased participation of people in work, their ability to use amenities and partaking in social interaction, or whether there are better ways to achieve those things, is not considered.

*Goals and indicators focus on the performance of the transport system, not the outcomes for people*

Main indicators for accessibility mentioned in the transport policy documents are travel time loss and the ratio of travel times peak and off-peak. These highly aggregated measures are indicative of traffic flow, yet say nothing about the actual accessibility of destinations and activities and the wellbeing outcomes for (groups of) people. In doing so, they do not provide insight in how transport policy can enhance wellbeing, or for who accessibility as a result of a deficient transport system is really a problem. While traffic safety policies set very specific goals for the desired reduction of dead and injured people, the focus remains on the numbers and not on who is killing who (cyclists and pedestrians are usually killed by drivers of motorised vehicles, rarely the other way around) and therefore which groups are mainly affected. In the domain of health and environment, the focus is mainly on (EU) standards, though negative effects of emissions below these thresholds are not considered. Health is generally looked at through the lens of harmful emissions, not the (groups of) people that endure the consequences. And there is very little attention to the positive effects on health through active modes.

So while the link with wellbeing is present in the documents, aggregated measures are usually applied to assess the situation on a national level, hiding whose health or safety is affected (positively or negatively).

*Changing ambitions*

The recent Transport Outline (Schets Mobiliteit – Ministry of Infrastructure & Water Management 2019) offers a preview of the new transport policy the Dutch national

government is developing. In line with previous transport policy documents, concerns about bottlenecks on roads, railways and waterways negatively impacting the economic competitiveness of the Netherlands still receive a lot of attention, but safety and emissions are now higher on the agenda. The document lists three main goals: a fast and reliable door-to-door travelling time, zero traffic casualties and zero CO2 emissions in 2050. The government indicates that it wants to make a broad assessment when making investment decisions, with, in addition to travel time loss and contribution to economic competitiveness, '*consideration of the impact of mobility solutions on (traffic) safety, robustness, sustainability, liveability, a healthy living environment and climate adaptation*'. Thus, the Transport Outline offers a broader ambition for mobility policy. The ambition for traffic safety has been changed to zero traffic victims, which is a considerable change from previous policy statements. However, all goals are considered important, and it is not clear how they will be weighed up against each other and what tension arises between them as a result of the high ambitions. It is also unclear how transport policy can promote wellbeing for different (groups of) people.

#### *Most of the budget goes to infrastructure investment*

Goals and ambitions are translated to policy execution and investment decisions. Looking at the budget of the Ministry of Infrastructure & Water Management, a relatively large sum goes to national road and railway infrastructure investments, distributed via the MIRT programme, the national instrument for decision making on infrastructure spending, while substantially less funds are geared towards health, safety and the environment. Traffic safety is only a very small part of total national spending, which is considered a task for local and regional governments, although safety efforts are partly financed from infrastructure budgets. The institutional framework of the MIRT programme is currently set up favouring projects that improve travel times and reduce congestion and delays rather than improving accessibility to activities. This is mainly driven by the fact the official problem assessment in transport policy, typically updated every four years, focussed on bottlenecks in the networks. The most recent version of the national problem assessment (Integral Transport Analyses 2021) reports a much broader set of indicators. In addition to challenges with road and rail capacity and reliability of the transport system, this document also analyses accessibility to jobs and amenities, some issues related to climate change, emissions of harmful substances, and traffic safety issues, but lacks a focus on distributional effects. Future developments will show if these changes also lead to different choices in transport investments.

#### *Conclusions*

The emphasis in transport policy is therefore on facilitating mobility growth and improving traffic flow, based on the idea that more mobility by definition improves welfare. However, if transport policies are to incorporate wellbeing, they must take into account both the positive and negative contributions of transport to various aspects of wellbeing.

Firstly, the question is to what extent transport enables people to reach relevant destinations and activities such as jobs and amenities and the related consequences for their well-being, such as being able to work in a job that suits their skills or being able to follow the course of choice. An increase or decrease in mobility is in itself is therefore not good or bad for society. Secondly, the question is to what extent more (or better) mobility/accessibility may be at the expense of safety, health or the living environment. These different aspects of wellbeing, and the role of transport in this, must then be weighed up against each other in practice. This is not a technical issue that can be optimised, but is about choices to be made by politicians on the basis of preferred values or goals. Finally, the question is not only how the different dimensions of transport should be weighed up against each other, but also how the benefits and costs of transport can be distributed fairly among groups of people. In our analyses of transport policy documents it became clear that little attention is being paid to the actual contribution of transport to wellbeing of different groups of people. Different views on what constitutes a fair distribution can lead to different results. In the next chapter, we discuss three distinct distributional principles and apply these to transport policies around accessibility to show how this leads to different policy priorities.

#### 4. DISTRIBUTIONAL PRINCIPLES

The choices made in transport policy affect the distribution of benefits and burdens of transport. This makes transport policy, in essence, a distributional issue. It is generally accepted that no policy decision is completely value free. This also applies to the evaluation methods that are used when making (mobility) policy. That is why it is important to be explicit about the assumptions on which mobility policies and evaluation methods are based, because these may lead to different conclusions with regard to policy interventions (Lucas et al. 2016; Martens 2012;).

Table 1 Ethical principles in short

	<b>Maximum accessibility</b>	<b>Equal accessibility</b>	<b>Sufficient accessibility</b>
Ethical principle	Utilitarianism	Egalitarianism	Sufficientarism
Unit	Benefit (willingness to pay)	Income or characteristics of people	Access to (primary) goods
Distributional principle	Maximisation for the largest group	Everyone the same	Everyone enough
Methods (example)	CBA	GINI index, Palma ratio	Boundaries (upper and lower limits)
Policy (example)	Investing in major road network	A bus stop in every neighbourhood	15 minute city

Based on Buitelaar (2020)



In relation to transport, we discern three contrasting ethical principles (inspired by Buitelaar 2020), namely utilitarianism, egalitarianism and sufficientarianism (see table 1 for a short overview). We use these to illustrate how different principles can result in different considerations of interests and needs and thus in different policy choices and outcomes.

*Utilitarianism: maximising utility for the greatest number of people*

In utilitarianism, the priority is the maximisation of aggregate wealth or 'utility'. This ethical movement, which originated from the British philosophers Jeremy Bentham and John Stuart Mill, assumes that prosperity or utility is the only thing with intrinsic value. Because everyone's welfare has equal value, regardless of a person's preferences or situation, society benefits from policies that maximise welfare or utility for the greatest number of people (Kymlicka 2002).

Utilitarianism forms (often implicitly) an important basis for transport policies, which is often focused on facilitating travel that maximises aggregate welfare or utility. The emphasis is on the instrumental value of travel; travel is an instrument or means to promote the activities from which people derive utility (Pereira et al. 2017). How important or useful people find the activity is usually deduced from the extent to which they are willing to pay for shorter travel times. The benefits of transport projects are traditionally assessed in terms of the monetary value of travel time savings; travel time savings are therefore an important indicator in mobility policy. Distributive effects for different (groups of) people play no role in this perspective.

Utilitarianism also forms the basis of (social) cost-benefit analyses, which are generally used in mobility policy to evaluate benefits and costs of transport projects in monetary terms (as far as possible), aimed at maximising the cost-benefit balance (Van Wee 2011). The most important benefits of transport projects are expressed as travel time savings, both for passengers and freight transport. The value of these savings (value of time) is monetised based on the willingness to pay. Because of their higher willingness to pay, freight transport and business traffic are assigned a higher travel time valuation than commuter or social recreational traffic. This is also higher for road traffic than for bus, tram and metro. In this way, CBA favours people with higher incomes travelling by car.

Despite its relative simplicity, utilitarianism as a basis for mobility policy has important limitations. Importantly, distributional effects and individual rights of people are ignored. Aggregate measures such as travel time savings also offer no insight into the extent to which improvements in accessibility affects different (groups of) people (Martens 2011; Van Wee 2011). This is particularly problematic when maximising the total welfare or utility for the largest group comes at the expense of the least well-off (Kymlicka 2002; Sen 2009). It is, therefore, perfectly acceptable to promote accessibility for higher income groups and motorists at the expense of accessibility for lower income groups and public transport users, as long as this promotes welfare or

utility for the greatest number of people. Based on the Kaldor-Hicks compensation principle, investments in transport projects are then justified if the benefits hypothetically enable the 'winners' to compensate the 'losers', even if that compensation does not actually take place.

*Egalitarianism: reducing differences between groups*

Egalitarianism seeks to prioritise equal outcomes for all. This ethic principle is often used as an implicit yardstick to assess the fairness of a situation: the more equal, the more just (Atkinson 2015; Piketty 2014). Policy is then aimed at reducing the differences between (groups of) individuals and/or areas.

Egalitarianism often underlies discussions on the distribution of benefits and burdens of transport across different groups and areas. In analyses of the modal split, travel distances and transport costs, this principle is often implicitly used when describing differences between (groups of) people or areas and drawing conclusions from that: differences in access to mobility (such as car ownership, proximity to a bus stop in the neighbourhood) or differences in accessibility (such as access to jobs and facilities by car or public transport), and the related welfare outcomes, such as a greater chance of employment or participation in education and access to care (Bastiaanssen et al. 2020).

The aim of egalitarianism is a distribution of accessibility (or other effects of transport policy) that is as equal as possible across different (groups of) people and areas, such as equal access to basic amenities and work locations for different groups (Van Wee & Geurs 2011) and reducing the differences. Accordingly, this principle requires an evaluation method in which the benefits of a bus connection for low-skilled job-seekers, for example, should be valued higher than is currently the case according to people's willingness to pay, and therefore higher than the total travel time gain for the entire population. For example, by using an equal travel time valuation in CBAs or by including variations in benefits/costs between (groups of) people (Lucas et al. 2016). In the case of road safety or environmental impacts, this involves reducing differences in accidents or CO<sub>2</sub> emissions and noise nuisance between groups and areas. Egalitarianism is thus particularly useful for underpinning policies that strive for equality of outcomes.

Although intuitively appealing, equality – in essence – says very little about the well-being or quality of life of (groups of) people. A situation with a part of the population experiencing no air pollution and others experiencing a low level is less equal but probably more desirable than an even distribution of air pollution among both groups. In addition, transport by definition has a spatial dimension, so benefits and burdens will always be unevenly distributed across space. Furthermore, people differ in their abilities to appropriate potential accessibility to meet their basic needs and serve their well-being, and so having a bus service in every neighbourhood is very equal, but may be of little use if the bus line does not serve the right job locations.

*Sufficientarianism: providing enough for everyone*

Sufficientarianism focuses on minimum levels that people need to meet their basic needs and ensure their well-being (Lucas et al. 2016). How someone relates to other people's situations is not important in itself: what is important is that people have enough to pursue their well-being (Frankfurt 1987). The policy priority from the point of view of sufficientarianism is with people who fall below a certain minimum standard or norm. Policy can focus on improving the situation of all people below that minimum standard (moderate sufficiency), or give absolute priority to the group furthest below the minimum level (strong sufficiency). The lower the level of well-being, the more important it is to improve people's well-being (Meyer & Roser 2009).

This ethical principle is reflected in recent debates around social exclusion and transport poverty, where the focus is not so much on an equal distribution, but on a distribution in which everyone has sufficient opportunities to participate fully in society. Limited transport options can lead to a lack of accessibility to work, facilities or social contacts, which could lead to social exclusion (Bastiaanssen et al. 2013; Lucas 2012). Sufficientarianism offers an ethical justification for developing policies that offer a minimum level of accessibility to important destinations and activities. The discussion on the 15-minute-city, for example, is based on this line of thinking. For people below this standard, there is a risk of transport poverty (Lucas et al. 2016; Martens & Bastiaanssen 2019; Van Wee & Geurs 2011). When evaluating transport policies, sufficientarianism puts the emphasis on groups that fall below a minimum standard. The fact that there are also people above this minimum, having more than others, is not considered immoral (Frankfurt 1987).

Various studies have proposed minimum accessibility levels for facilities such as shops, education and medical services (Delbosc & Currie 2011; Van Wee & Geurs 2011). This translates into transport policies aimed at improving accessibility for people living in deprived neighbourhoods or policies that give priority to transport modes that are used most frequently by people on low incomes (Van Wee & Geurs 2011). This principle also offers an ethical justification for policies to limit mobility or bring about a modal shift, when mobility developments are accompanied by negative externalities for (groups of) people or the environment. For instance, (moderate) sufficiency also underlies (legal) limits for maximum exposure to air and noise emissions.

A challenge when applying this ethical principle is determining sufficient minimum levels of accessibility, safety, health impacts, that meet people's basic needs and ensure their well-being (Farrington & Farrington 2005; Martens & Bastiaanssen 2019; Pereira et al. 2017). For which aspects a minimum standard should be established (supply and/or capabilities, which activities), what an acceptable minimal standard is and where the policy priority lies, is ultimately a political choice.

### *Conclusions*

The distributional principles discussed above show that a policy goal such as 'improving accessibility' can be interpreted very differently and leads to different policy choices and outcomes. Utilitarianism is dominant in transport policy and -instruments; central to this is facilitating movements that maximize aggregated utility for the largest number of people. A major shortcoming of this principle is that it ignores distributional effects and individual rights of people; after all, the focus on aggregated prosperity or utility ignores the distribution of this among different groups of people. As a result, there is a lack of insight into the extent to which mobility policy can promote wellbeing for different groups of people. The transport domain also differs in this sense from domains such as housing, care or education. Everyone has the right to housing, education and care, but there is no right to adequate access to work and facilities.

Alternative distributional principles are currently receiving little (explicit) attention in transport policies. The principles of egalitarianism (reducing differences between people) and sufficiency (guaranteeing a minimum level for everyone) offer a better justification for a wellbeing perspective in transport policy, because the focus here is on the role of transport in (lagging) aspects of wellbeing for different groups of people.

## **5. SEVEN LESSONS AND RECOMMENDATIONS FOR POLICY**

In this paper, we have explored what it means when mobility is considered from a wellbeing perspective. In this final chapter, we discuss the consequences that adopting the perspective of wellbeing may have for mobility policy:

### *1. Wellbeing as basis for transport policy requires a wider view*

Full adoption of the wellbeing perspective means paying attention to a range of aspects in policy making, including health, safety, economic performance, personal development, social connections, a liveable climate, clean air, biodiversity and a good quality living environment. Currently, these aspects get varying attention in policy. Some have priority, others are considered limiting conditions. Health is underrepresented, as well as distributional effects.

### *2. Transport is a means to an end, not the end itself*

Transport is a means to improve the quality of life of people. It enables people to participate in society, earn a living, develop oneself as a person, take care of oneself and others and to maintain social connections. If you put wellbeing central stage, it is not about the performance of the transport system, but about how transport contributes to those aims and aspirations. So it is not about whether there is a bus stop on the industrial estate, but how transport supply actually improves access to jobs for different groups in society in order to improve their lives.

### *3. Capabilities to utilise transport matter*

Peoples capabilities to utilise transport supply matter. It is not just about the distribution of transport resources (public transport, (shared) cars, accessible destinations, safe routes et cetera), but also about the measure to which people can actually use this supply. These capabilities are the result of a person's economic, legal, physical, social and mental capacities. Examples are the actual access to destinations for those without a car available or the accessibility of car or moped sharing systems for people with limited digital skills.

### *4. A wider scope increases options to improve wellbeing*

A major advantage of this broader wellbeing approach, is that it also enables a new debate on what is really the problem at hand and what types of solutions are available. It opens the mind to realising that not every accessibility problem is best served by a transport solution, as options can also be found in the spatial, the fiscal or the social domain, by bringing destinations closer by or by making transport more affordable. It could also be that not every transport problem needs to be solved. Maybe, a more integral assessment leads to the conclusion that better public space, cleaner air or more safety are more important than more accessibility and more travel.

### *5. Make explicit how you weigh up conflicting aspects of wellbeing*

Not all needs and wants related to transport can be served simultaneously. Facilitating the demand for car travel is simply at odds with issues like a quality of public space, clean air or safety. This is why it is necessary to make explicit in policy which needs and wants are considered, what tensions exist and how they are weighed up. So policy makers cannot just state that all dimensions are important. Key is where you go from there. Stating that everything is important is easy and will get you seemingly consensus, but leads to choices 'happening to you' and postpones conflict.

### *6. It matters which ethical principles are used*

Transport policy always involves distribution issues. Purposeful and legitimate policy also requires policy makers to be explicit about the ethical principles that form the basis of their choices. Currently, utilitarianism is dominant in transport policy, which aims to maximise utility for the largest group of people. This principle matches not really well with the wellbeing perspective, as this is focussed on the wellbeing of people. Ethical approaches like egalitarianism and sufficientarianism fit better with the wellbeing concept, because they shift the focus to the meaning or value of transport for different groups of people.

### *7. New indicators and policy instruments are needed*

The implication of all of this is that the results of policies will need to be measured differently and that we need different instruments to provide the relevant information to weigh up policy options. We also need more insights in why wellbeing may be lacking in different groups and in different locations. And also our modelling needs to be adapted.

## NOTE

<sup>1</sup> Setting aside a short period at the end of the 20th century when reducing ‘unnecessary car mobility’ actually was a goal of national transport policy (SVV II and VINEX policies).

## BIBLIOGRAPHY

- 16e Studiegroep Begrotingsruimte (2020) Koers bepalen. Kiezen in tijden van budgettaire krapte. (Setting the course. Making choices in times of budgetary stringency). The Hague: Ministry of Finance.
- Atkinson (2015) *Inequality; What can be done?* Harvard University Press
- Bastiaanssen, J., H. Donkers & K. Martens (2013), *Vervoersarmoede; Sociale uitsluiting door gebrek aan vervoersmogelijkheden*. *Geografie*, p. 6-10.
- Bastiaanssen, J., D. Johnson & K. Lucas (2020), Does transport help people to gain employment? A systematic review and meta-analysis of the empirical evidence, *Transport Reviews*, 40:5, 607-628, DOI: 10.1080/01441647.2020.1747569.
- Buitelaar, E. (2020), *Maximaal, gelijk, voldoende, vrij. Vier perspectieven op de rechtvaardige stad*. In: *Stadsessays transcityxvaliz ism PBL*.
- Dal Fiore, F., P.L. Mokhtarian, I. Salomon & M.E. Singer (2014), Nomads at last? A set of perspectives on how mobile technology may affect travel. *Journal of Transport Geography*, 41, 97-106. doi:10.1016/j.jtrangeo.2014.08.014.
- Delbosc, A. & G. Currie (2011), Using Lorenz curves to assess public transport equity. *Journal of Transport Geography*, 19, p.1252-1259.
- Evenhuis, E., A. Weterings & M. Thissen (2020), *Bevorderen van brede welvaart in de regio: keuzes voor beleid. (Advancing wellbeing in regions: policy choices)*. The Hague: PBL.
- Farrington, J. & C. Farrington (2005), *Rural Accessibility, Social Inclusion and Social Justice: Towards Conceptualisation*. *Journal of Transport Geography*, 13(1), 1-12.
- Frankfurt, H. (1987), *Equality as a Moral Ideal*. *Ethics*, 98, p.21-42, reprinted in Frankfurt, H. (1988) *The Importance of What We Care About*, Cambridge: Cambridge University Press.
- Geurs, K. & B. van Wee (2004), *Accessibility evaluation of land-use and transport strategies: review and research directions*. *Journal of Transport Geography*, 12, p.127-140.
- Hallgren M., T. Nguyen, A. Lundin, D. Vancampfort, B. Stubbs, F. Schuch, R. Bellocco & Y. Trolle Lagerros (2019) *Prospective associations between physical activity and clinical diagnosed major depressive disorder in adults*. *Preventive Medicine* 2019;11:38-43
- Hoen, M. 't (2017), *Wat kunnen we nog leren van de BreVer-wet? Contribution the Colloquium Vervoersplanologisch Speurwerk, November 2017, Gent*.
- Khreis, H., A. May & M. Nieuwenhuijsen (2017), *Health impacts of urban transport policy measures: A guidance note for practice*. *Journal of Transport & Health*, 6, 209-227.
- Kymlicka, W. (2002), *Contemporary political philosophy : an introduction (2nd ed.)*. Oxford: Oxford University Press.
- Lucas, K. (2012) *Transport and social exclusion, where are we now?* *Transport Policy*, Vol. 20, p.105-122
- Lucas, K. B. van Wee & K. Maat (2016), *A method to evaluate equitable accessibility: combining ethical theories and accessibility-based approaches*. *Transportation*, 43, p.473–490.
- Lucas, K., G. Stokes, J. Bastiaanssen & J. Burkinshaw (2019), *Inequalities in Mobility and Access in the UK Transport System*. Foresight, Government Office for Science.
- Martens, K. (2011)
- Martens, K. (2012), *Justice in transport as justice in accessibility: applying Walzer's 'Spheres of Justice' to the transport sector*. *Transportation*, 39(6), 1035-1053.
- Martens, K. & J. Bastiaanssen (2019), *An index to measure accessibility poverty risk*. In: Lucas, K., K. Martens, F. Di Ciommo & A. Dupont-Kieffer. *Measuring Transport Equity*. Amsterdam, The Netherlands: Elsevier.

- Meyer, L.H. & D. Roser (2009), Enough for the future. In: Gosseries, A., L.H. Meyer (Eds.), *Intergenerational justice*. Oxford: Oxford University Press.
- Milieudefensie (2014), *Informatieblad Luchtvervuiling en de gevolgen voor onze gezondheid*.
- Ministry of Infrastructure & Water Management (2019), *Schets Mobiliteit naar 2040. Veilig, robuust, duurzaam. (Transport Outline to 2040. Safe, robust, sustainable)*. The Hague: Ministry of Infrastructure & Water Management.
- Ministry of Infrastructure & Water Management (2021) *Integrale Mobiliteitsanalyse (Integral Transport Analyses)*. The Hague: Ministry of Infrastructure & Water Management.
- Nijland, H. (2017), *Fietsen leidt tot langer en gezond leven (Cycling leads to a longer and healthier life)*. [www.pbl.nl/publicaties/fietsen-leidt-tot-langer-en-gezond-leven](http://www.pbl.nl/publicaties/fietsen-leidt-tot-langer-en-gezond-leven).
- <http://dx.doi.org/10.1787/9789264121164-e> PBL, SCP & CPB (2017), *Naar een Verkenning Brede welvaart*. Den Haag: Planbureau voor de Leef-omgeving, Sociaal en Cultureel Planbureau en Centraal Planbureau.
- PBL, TNO, CBS & RIVM (2020), *Klimaat- en Energieverkenning 2020*. Den Haag: Planbureau voor de Leefomgeving.
- Pereira, R.H.M., T. Schwanen & D. Banister (2017), *Distributive justice and equity in transportation*. *Transport Reviews*, 37:2, p.170-191.
- Piketty, T. (2014), *Kapitaal in de 21ste eeuw*. Amsterdam: De Bezige Bij.
- RIVM (2018), *Volksgezondheid Toekomstverkenning 2018. Een gezond vooruitzicht*. Synthese. Bilthoven: Rijksinstituut voor Volksgezondheid en Milieu.
- Rli (2020), *Toegang tot de stad: hoe publieke voorzieningen, wonen en vervoer de sleutel voor burgers vormen. (Access to the city: how public amenities, housing and transport are the key for citizens)*. The Hague: Council for the Environment and Infrastructure.
- Robeyns, I. (2017), *Well-being, Freedom and Social Justice: The Capability Approach Re-examined*. Cambridge: Open Book Publishers.
- Sen, A. (1985). *Well-Being, Agency and Freedom: the Dewey Lectures*. *The Journal of Philosophy*, 82, p. 169-221.
- Sen, A. (2009) *The idea of justice*. Cambridge: The Belknap Press of Harvard University Press, Cambridge.
- Stiglitz, J., A.K. Sen & J.-P. Fitoussi (2009), *The measurement of economic performance and social progress revisited: reflections and overview*. OFCE Document de travail, 2009-33.
- Swov (2020), *Kosten van verkeersongevallen. SWOV-Factsheet*. Den Haag, SWOV.
- Tijdelijke commissie Breed welvaartsbegrip (2016), *Parlementair onderzoek Breed welvaartsbegrip. Tweede Kamer, vergaderjaar 2015–2016, 34 298, nr. 3*.
- WCED (1987), *Our common future*. World Commission on Environment and Development. Verenigde Naties.
- Wee, B. van (2011), *Transport and Ethics; Ethics and the Evaluation of Transport Policies and Projects*. Cheltenham, UK: Edward Elgar.
- Wee, B. van & K. Geurs, (2011), *Discussing Equity and Social Exclusion in Accessibility Evaluations*. *EJTIR*, 11(4), p. 350-367.
- WRR (2018) *Sturen op de sociale waarde van Infrastructuur (Steering toward social value of infrastructure)*. The Hague: The Netherlands Scientific Council for Government Policy