Chapter 22

The Long-Term Development: In Search of a Balance

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Abstract The chapter summarises the development of well-being and sustainability in the Netherlands between 1850 and 2010. It commences by establishing that any summary has a normative dimension. Issues relating to quality of life must consistently be analysed from a historical (contemporary) and a present-day perspective.

The summary shows the great transformation of a society with extreme poverty and a circular economy into a welfare society with a linear economy. Present-day sustainability issues, including climate change, resource depletion, raw materials dependency, and worrisome biodiversity have their roots in this transformation. Well-being and sustainability were in balance during only a brief period. Around 1960 the old historical challenge of extreme poverty had been solved and the quality of life as seen through contemporary eyes was reasonably in order, while the claims on nature and the environment were still modest. The balance would be shattered in the course of the 1960s.

Gradually, sustainability has become the new historical challenge. At the same time society is confronted with the so-called welfare paradox: despite the high level of welfare, there is much unrest among the populace.

Keywords Extreme poverty · Circular economy · Linear economy · Sustainability · Welfare paradox

22.1 The Historical Challenge

‘Global extreme poverty for the first time under 10%’ according to the newspaper *Nieuwe Rotterdamse Courant* on October 5, 2015.¹ For the first time in human history the scope of extreme poverty was expected to fall below 10% of the global population, a feat to be achieved by the end of 2015. While the reliability of the figures leaves room for doubt (data are lacking, for example, on a number of poor countries) the decline of extreme poverty is clearly evident. Only 25 years earlier – at the outset of the 1990s – the percentage had been nearly 40%! And the ambitions are hardly modest. ‘This is the best story in the world today,’ according to the president of the World Bank, ‘these projections show that we are the first generation in human history that can end extreme poverty.’²

In the Netherlands, extreme poverty – on the basis of a poverty line of \$ 1.90 per day (in 2015) as defined by the World Bank and the United Nations – fell below 10% at the end of the nineteenth century. That was for the first time in its history. But history shows that the struggle against extreme poverty is not a linear march to victory. At the beginning of the nineteenth century 40%–50% of the Dutch population also lived below the poverty line. That percentage declined to some 21% around 1850, only to increase again thereafter to about 40%. After 1870 a declining trend set in. Wars and economic recessions, among other factors, influenced the levels of poverty and would continue to do so throughout the twentieth century, even though in that century the percentage of the extremely poor in the Netherlands would never exceed 10%.

Another issue is also at play in the struggle against poverty. The World Bank and the United Nations aim to put an end to extreme poverty by 2030. The experience of the Dutch with the abolition of extreme poverty shows that that is by no means the end of poverty altogether. Extreme poverty is defined on the basis of a purchasing power (of \$ 1.90 per day) that is sufficient to provide a person with just the bare necessities: adequate means to feed and clothe himself and to protect himself, more or less, from the elements. That says little about the quality of dwellings, health

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¹S. Klumpelaars and M. Somers. ‘Extreme armoede wereldwijd voor het eerst onder 10 procent’, *NRC* 5 oktober 2015, retrieved from <https://www.nrc.nl/nieuws/2015/10/05/wereldbank-extreme-armoede-wereldwijd-voor-het-eerst-onder-10-procent-a1412636>

²World Bank Group. *World Bank Forecasts Global Poverty to Fall Below 10% for First Time; Major Hurdles Remain in Goal to End Poverty by 2030*, retrieved from <http://www.worldbank.org/en/news/press-release/2015/10/04/world-bank-forecasts-global-poverty-to-fall-below-10-for-first-time-major-hurdles-remain-in-goal-to-end-poverty-by-2030>. Consulted 20 January 2017.

care, education and labour. In the Netherlands in the last quarter of the nineteenth century, the conception of poverty broadened to include problems like the many slums, poor hygiene, miserable working conditions, and dubious food quality. Around 1960 these problems had been solved to a great extent.

That does not mean that poverty has disappeared in the Netherlands. Every generation defines poverty anew. Every year, the National Institute for Budget Information establishes a minimum budget that is just sufficient to meet basic costs (food, clothing, housing, internet etc.) and supplementary costs for social participation (vacation, sport, entertaining etc.).³ In 2014 this minimal budget for a family with two children was € 1830 per month or about \$ 16.40 per day. 1.2 million Netherlands (7.6% of the population) lived below this poverty line.

Banishing extreme poverty is seen as an historical challenge. In 2015, 193 government leaders proclaimed that extreme poverty should disappear by 2030.⁴ It was the first point of a broader United Nations agenda for sustainable development. In the Netherlands, the abolition of extreme poverty within the country had already been high on the social agenda at the beginning of the nineteenth century. History shows that the struggle had to be pursued on many fronts and that it demanded perseverance and patience. It included a social struggle, that is, a struggle around the distribution of material welfare. It was also a struggle between the Netherlands and the colonies about the way in which the colonies would be exploited. History also shows that banishing poverty involved trade-offs: the abolition of extreme poverty has sown the seeds of new problems. Those problems are first and foremost associated with the environment, the finiteness of raw materials, the quality of the landscape and greenhouse gas emissions. Or, in terms of this study: They are above all associated with the exploitation of natural capital in the Netherlands and elsewhere in the world.

To get a grip on this, the present study is built around three analytical points of entry (Chap. 1). First of all, use has been made of a new instrument developed by Statistics Netherlands (CBS), the Personal Wellbeing Index (aka the Monitor Well-Being). The instrument also provides an antidote to the misapprehension that societal progress is first and foremost a question of economic growth. It does this by showcasing three dimensions of well-being: quality of life 'here and now,' 'later' and 'elsewhere.' 'Here and now' includes issues like income, social inequality, health, education, environment and democracy. In this study the question of poverty is positioned in relation to these issues. The dimension 'later' reveals what a society confers on later generations in terms of natural, economic, human and social capital. The dimension 'elsewhere' reveals the effect of domestic activities on societal development in other countries.

³S. Hoff, J.M. Wildeboer Schut, B. Goderis and C. Vrooman (2016), *Armoede in kaart*. Den Haag: Sociaal en cultureel planbureau.

⁴United Nations, *Sustainable Development Goals. 17 goals to transform our world* (1. No Poverty). <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

In the second place, the institutional context plays an important role in our analyses. The developments revealed by the monitor are not abstract processes and the struggle against poverty is not an abstract struggle. They are the work of social groups that in the course of things abolish old institutions and create new ones. In this study the institutional context is broken down into state, market, the societal midfield (civil society), and technology (including science and innovation). These four contexts largely shape the activities of historical actors and are among other things the foundation of poverty (for example as supports for social inequality). Institutional changes are essential, but are often difficult to realise.

In the third place, this study has granted pride of place to natural capital. It sees natural capital as the foundation of a given quality of life. The way a society deals with natural capital (soil, air, water, subsoil resources) in large part shapes social structure in the 'here and now' and 'elsewhere.' It also has a great impact on the quality of life 'later.' Trade-offs, as the study reveals, are essential in this context. Modern agricultural methods, for example, encourage greater productivity and are important for food production and food security, but at the same time influence biodiversity and have various environmental impacts. In this study, the role of natural capital is portrayed by dividing the capital into three types of raw materials and concomitant material flows: bio-raw materials (agriculture and foods), mineral subsoil resources (building and infrastructure) and fossil subsoil resources (energy and plastics).

We will summarise well-being and sustainability between 1850 and the present-day from the perspective of these three analytic approaches. We subsequently orient ourselves to the future from the point of view of natural capital. With respect to well-being this is one of the most important new historical challenges. Maintaining a certain level of well-being in the Netherlands requires a substantial investment in natural resources, here and elsewhere. Eliminating poverty elsewhere makes extraordinary demands on global natural capital, certainly if humanity wants to pursue this project for generations to come. Moreover, successive generations will continue to define well-being and sustainability in new ways and thus continue to make significant demands on natural capital.

22.2 Well-being and the Normative Point of Departure

An historical evaluation of poverty and well-being is determined by the norms and preferences cherished by us in the present or by contemporaries in earlier times. That can be illustrated with a number of graphs that portray the quality of life between 1850 and 2010 from different perspectives.

With Graph 22.1a we started in the prologue. It is based on ten indicators from the monitor.⁵ These are related to the four themes of quality of life: prosperity (including income), personal characteristics (such as health), natural environment (including air quality) and institutional environment (such as democracy). The graph provides a historical evaluation of the quality of life, with the well-being indicators between 1850 and 1960 being given the maximum weight in the calculations, while they are participating in average weight after 1960. On the other hand, the indicators of the natural environment until 1960 have been given a minimal weight, while after 1960 they are included maximal in the calculation. This picture roughly corresponds with the picture that contemporaries until 1960 put maximum value on the growth of prosperity and economy and considerably less on the envi-

⁵The Graphs 22.1a–c, compare the development of GDP per capita with an index for broad prosperity. This index consists of a weighted average of a number of sub-series concerning the quality of life (see table below). The various series move in different bandwidths. In order to perform the weighing in a technically clean way, all series are first normalized (they have all been given the same bandwidth) before applying the weighting factors.

Theme	Indicator	UNIT	22.1a		22.1b	22.1c
			1850–1960	1960–2010		
Welfare and well-being						
Consumption, income	Consumer expenditures per capita, constant prices	Annual expenses per capita. Index: 1850 = 100	2	1	2	0
	Income inequality, general	Gini coefficient: 0–1	2	1	2	0
Personal characteristics						
Health	Life expectancy	Years	2	2	0	0
Education	Level of education	Years	1	1	0	0
Labor	Unemployment	% workforce	1	1	0	0
Natural environment						
Biodiversity	MSA	% of original biodiversity	0	2	0	2
Air quality	SO ₂	Kg SO ₂ /capita	0	2	0	2
	Greenhouse gas emissions	Ton CO ₂ /capita	0	2	0	2
Institutional environment						
Physical safety	Murder victims	Number per 100.000 inhabitants	1	1	0	0
Political institutions	Democracy	Democracy-index 0–100	1	1	0	0

Graph 22.1 The development of well-being as viewed from different normative frameworks, 1850–2010 (compressed and composite index 1850 = 100). **(a)** Historically differentiated preferences. **(b)** Preferences: welfare and consumption. **(c)** Preferences: nature and environment
Source: See note 5 of this chapter

ronment and nature, while the environment and nature after 1960 repeatedly appeared as priorities on the societal agenda..

What does such a normative framing tell us? After an initial decline in quality of life, a reversal sets in after 1870 with an increase that is stronger than the growth of the GDP. After the 1950s, the rate of increase in quality of life slows down, declining absolutely in the 1970s and 1980s and increasing again at the end of the twentieth century, though the increase lags far behind economic growth.

How important normative frameworks are for evaluating the development of well-being is shown by the following two graphs. Graph 22.1b assumes a societal agenda that is only concerned with economic growth and health. It is the only graph in which throughout the entire period there is a direct link between economic growth and quality of life (which is of course hardly surprising). In Graph 22.1c are nature and the environment to be valued most highly after 1850, then well-being would decline over a long period and only rebound again during and after the 1960s, but it would never exceed the level of 1850.

In the following overview we shall have to indicate clearly the norms and preferences underlying the evaluation of the development of well-being and sustainability.

We started the study with a periodisation in which 1910 and 1970 formed the sample years, namely 1850–1910, 1910–1970 and 1970–2010. Historical research leads to a modified periodisation that will here be further developed, namely 1850–1900, 1900–1960 and 1960–2015, in which 1900 and 1960 are the watershed years.

Around 1900 poverty gets redefined in the Netherlands and the new definition is anchored in legislation, after which the struggle against poverty enters a new phase. Around 1960 the use of natural capital appeared to be increasing exponentially, at which point the problem of environment and nature entered a new phase.

22.3 Around 1850: Extreme Poverty in Context

The well-being monitor for 1850 shows that the Netherlands was rich, but not prosperous. Around 1850 the country was among the richest in the world, but the wealth was unequally distributed. Hundreds of thousands of Netherlands lived in extremely poor circumstances, regularly suffered hunger, were reduced to beggary or the dole in order to stay alive, lived in slums or on the streets clothed in rags. Some contemporaries might possibly speak of a prosperous country. Elsewhere in the world it was often more miserable. It is estimated that the extremely poor constituted about 85% of the population living south of the Sahara, about 77% of the Asian population, 69% of South Americans and 35% of West Europeans.⁶ In the Netherlands, the percentage came to 21%. Nonetheless, few Netherlands were acquainted with the situation elsewhere. Around the mid-nineteenth century they

⁶J.L. Van Zanden, J. Baten, P. Földvari, and B. van Leeuwen, *The changing Shape of Global Inequality 1820–2000. Exploring a new dataset* (Utrecht 2011), working paper no.1, table 12.

saw themselves confronted in their own country with cholera, failed harvests, high food prices and flooding rivers.

In the eyes of the contemporary bourgeoisie extreme poverty was one of the most important social problems of their time. In present-day terms it was one of the key issues of well-being. In retrospect this historically stubborn problem could have been solved at the time by means of a more equitable distribution of wealth. If income inequality had been at the same level as now, then the incidence of extreme poverty would have fallen far under 10%. The necessary institutions (for example trade unions) that might have consolidated a struggle for more equality, simply did not exist. Moreover, the system of poor relief ensured adequate survival chances for the poor *and* most of the time for enough social tranquillity.

Another option to eliminate poverty was economic growth. It would have required an annual economic growth of 3.6% between 1820 and 1850. Given the existing natural capital of the Netherlands in combination with the technology of the day, that turned out to be impossible. Under King William I, the Netherlands achieved no more than 2.3% annual growth and even that was a considerable accomplishment. The King had done everything he could to modernise the economy and technology. He succeeded only in part. Old corporatist structures and institutions like protected local markets, urban autonomy and guild-like organisations persisted. Innovations in agriculture, industry and transportation were limited. The use of steam power as a key technology remained stuck in an introductory phase. King William I did succeed in realising economic growth with new colonial policy. He mobilised the Dutch East-Indies as a source of profit by using the cheap mass labour of Javanese farmers to generate income for the Dutch state and economy.

The basis of Dutch wealth was its natural capital: its situation in a delta at a crossroads of shipping and trade routes; the availability of turf as cheap source of energy and the exploitation of agricultural lands for the high-value production of dairy produce (butter and cheese) and industrial crops (among others, madder). And there was more than enough potential to intensify the exploitation of domestic natural capital. In the 'high' Netherlands, agriculture was only marginally integrated into national and international markets. The delta's infrastructure left much room for improvement. Dutch natural capital also contributed to biodiversity. The country had a rich variety of agricultural systems in addition to its wealth of original ecosystems like dunes and mudflats. But natural capital also had a downside. The Netherlands was a vulnerable country. The nation was forced to wage a never-ending battle against water. It was also confronted with an immense environmental problem, namely the urban detritus of human and animal faeces and food remnants. Organic waste was a major cause of the high mortality rates and the low life-expectancy. The combination with excessive and saline water exacerbated the problem in the low parts of the Netherlands.

Three developments provided a new perspective for well-being and sustainability around 1850. The liberalisation of international trade created opportunities for economic growth. The political revolution and the new constitution of 1848 put an end to the autocratic reign of William I and laid the basis for new constitutional relationships. The societal midfield, i.e. civil society, became much more dynamic thanks to the rise of a young generation of professional physicians, engineers and architects.

22.4 1850–1900: Manifold Dynamics

Economic growth was the motive force behind the assault on extreme poverty in this period. Initially, however, extreme poverty increased because agriculture and a small farming and urban elite profited from the liberalisation of international trade. After 1870 modernisation of the economy and growing welfare became linked. They were strongly influenced by the introduction of coal and steam technology.

From 1870 on, economic growth in the Netherlands definitively became dependent on fossil subsoil resources.⁷ Up to the middle of the twentieth century this meant coal and after the Second World War oil and natural gas. Economic growth around 1850 was still largely dependent on classical sources of energy like muscle power, turf, wind and water. Human and animal muscle power were the largest single source of energy, contributing about 38% of the total (against 16% for coal). By 1900 muscle power had declined to 20% (against 63% for coal). In the twentieth century physical labour as a source of energy would become almost irrelevant: in 1950 it dipped under 1% of the total energy consumption for the first time.⁸

The modernisation of the economy was also associated with a revolution in the food supply chain, the mass flow of bio-raw materials. Agriculture in the ‘high’ Netherlands became part of national and international markets and began to specialise in cattle husbandry, among other things. Heathlands were reclaimed. Farmers started to use artificial fertiliser. Food production became mechanised with the coming of bread and flour factories, dairies and slaughterhouses. Production and consumption in the food chain lost their circular character and acquired the characteristics of a linear economy. In the mixed farming sector, animal husbandry with its manure production was no longer subservient to crop farming; instead, crop farming became subservient to animal husbandry. Urban organic waste lost its function as fertiliser and was replaced by artificial fertiliser. Massive amounts of artificial fertiliser and cattle fodder were imported, while butter, cheese, cattle, meat and eggs left the country. Agricultural production was uncoupled from the local and regional production of raw materials.

The supply chain in construction, in other words the massive flow of mineral raw materials, kept much of its circular character and its national orientation. Sand, gravel and clay were mined and processed in the Netherlands. They were embodied in buildings, dikes, roads etc. and after use broken down into materials that were re-used. Production and use in this supply chain led to a substantial improvement in the Dutch transportation infrastructure (among others, railways and canals, including the North Sea Canal) and in this way contributed to economic growth. They also led to a considerable amelioration of the water management situation and thereby to

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⁷ Here it must be noted that turf – also a fossil fuel – played a crucial role during the lengthy period of economic growth of the Netherlands during its ‘Golden Century.’

⁸ Calculations based on appendix 1 uit: B. Gales and H. Hölsgens, ‘Energy consumption in the Netherlands (1800–2012), in: H. Hölsgens, *Energy transitions in the Netherlands: Sustainability challenges in a historical and comparative perspective* (Groningen 2016), 207–217.

the safety of the Netherlands in its struggle against water. An enormous effort went into the improvement of the rivers.

The modernisation of the economy was deeply rooted in a dynamic societal mid-field. Periodicals propagated a belief in progress. Organisations like the Society for Industry zealously advocated modern technology. A new generation of professionals created a network of trade schools, laboratories, knowledge institutes and professional associations. A new generation of politicians dedicated themselves to creating a modern society, but from different ideological perspectives: a progressive liberal, a confessional or a socialist perspective. In that connection they worked on a unique social structure, namely 'pillarisation': networks of social organisations for education, labour and entrepreneurship on the basis of a single mentality (liberal, confessional, socialist) that were anchored in political culture.

22.5 Around 1900: Poverty Defined Anew

The dynamic societal midfield defined the issue of poverty more broadly than it had been in the past. It was no longer only about the survival of the poor, but also about their quality of life. Cellar-dwellings, sod-huts, slums or – in general – dwellings of one or two rooms without hygienic facilities were no longer acceptable. A diet consisting chiefly of potatoes and grain products was considered inadequate for a healthy body. Having work was no guarantee for a humane existence. Long working hours, low wages, female and child labour were unworthy of a modern society. Labour ought to contribute to personal development. Safe machines ought to prevent dangerous working situations. Public health required public hygienic facilities. Public housing had to start complying with minimal standards of quality like adequate light, air and space. Domestic appliances were to lighten heavy housework. Foods had to be varied and safe.

It was not only about improving the material condition of the people, but also about inculcating bourgeois values. The bourgeois elite insisted that in addition to the construction of better public housing a rigorous inspection of family life was also necessary. Next to the introduction of a bath and shower also exercises in bodily hygiene; next to providing qualified work also training in labour discipline and doing one's duty; next to improvement in foodstuffs also education for a healthy diet.

Around 1900, the broader definition of poverty acquired a footing in social legislation directed at, among other things, labour and housing. This initiated a new phase in the development of well-being, one that would lead to the emergence of the caring state in the Netherlands.

New values around nature and environment also emerged in the periphery of the dynamic midfield. These still had little political influence. It would take more than a half-century before they had social consequences. In this period the exploitation of natural capital, both from domestic sources and abroad, would increase significantly.

22.6 1900–1960: The Historical Challenge Realised

Though it is true that around 1900 a start had been made with social legislation, many questions had to be worked out more precisely or addressed by additional legislation in the subsequent decades. Nederlanders invested a lot of energy in debates about the minimum floor area of workers' housing, the eight-hour working day, a proper diet, a minimum wage, mandatory health insurance, a mandatory collective old-age pension and many other social issues. In the course of this period and these debates they defined the minimal demands on quality of life in the Netherlands. That took place in the framework of new social relations.

The dynamics of the societal midfield had eventuated in a corporatist social structure that would long remain dominant in the twentieth century. Trade unions, employers' associations, professional societies and the 'pillars' had pride of place in this new constellation. Dutch citizens were connected in manifold ways, partly within separate worlds, but always with connections to politics and the government. Within this constellation, social inequality decreased. Income differences declined and societal incomes were redistributed by means of government subsidies and collective measures. Declining inequality together with economic growth were the primary trends responsible for the near-elimination of extreme poverty and of poverty as seen from the modified perspective of 1900.

Solving the question of poverty was no straightforward process. Two world wars and the economic crisis of the 1930s were a considerable setback. It is significant that around the wars, life expectancy decreased by no less than 10 years. That was also the case during the First World War, even though the Dutch themselves were not at war. The social disruption in Europe claimed victims far beyond the battlefield. Popular welfare had a fragile basis in this period. The national government was burdened with the task of managing these vulnerabilities by means of interventions in the economy and social life.

These interventions concerned, among other things, the exploitation of natural capital, seen as the most important prerequisite of economic development and well-being. Food security had to be built in to agricultural policy. State mines served to secure the supply of coal. The founding of the Hoogovens iron and steel plant was intended to make the Netherlands independent of steel imports. Governmental management of the mining of sand and gravel was necessary to solve the post-Second World War housing shortage and complete the Delta Works. In short, the Netherlands had to become self-sufficient with respect to its crucial raw materials.

Intervention by the state was not the only change in the exploitation of natural capital and the concomitant supply chains of production, consumption and use. Compared to the nineteenth century the supply chain had become significantly more complex. That was due in part to the rise of new technologies that revolutionised existing supply chains or that facilitated new supply chains altogether, particularly in the domains of electrical engineering and chemistry. More often than in the past, for example, agricultural raw materials were mechanically processed (pressed, sifted, cut and rasped) and chemically treated (with a variety of methods of extrac-

tion). The substances thus isolated could be recomposed into new products by means of mixing, kneading, pressing and spraying (as in the fabrication of margarine). There were also all kinds of new techniques by means of which foodstuffs could be roasted (for example in the case of coffee), baked (bread, among others), fermented (as with cheese), pasteurized (for example, milk) etc. More and other kinds of processing became common in the case of mineral sub-soil resources (for example the making of concrete and concrete products) and fossil sub-soil resources (such as the production of plastics from coal and petroleum).

This processing could take place in different plants in sequence (lengthening of the chain) or within a single firm at the same location (intensification of the chain) or it could be split up into different chains (differentiation of the chain). Some companies like Unilever ceased to be simply a link in a chain, but developed into a node in a network of international and domestic flows of matter. These flows came together in the firm and left it as a variety of products destined for domestic and foreign markets. New kinds of organisations like inspectorates and research institutes became part of the supply chains and their networks.

A characteristic of the dynamics in these chains is also the increase in the mass flows through them. This was inherent to an economy of mass production and mass markets, dominated by large firms and multinationals like Philips, Shell and DSM. They had to ensure that the complex flows of raw materials, semi-products, goods and products were skilfully managed. Cooperative organisations did the same in agriculture as did family firms in the medium and small business sector. Cooperation in the form of cartels was part of what was considered the essential regulation of the economy. As might be expected in a corporatist state structure, the government supported this strategy.

Mass production presupposed mass consumption. This link was already in the making prior to the Second World War. The middle class experimented with a wide range of new products that were on offer: the gas stove, the refrigerator, the automobile, the radio, to name just a few. It gained experience with a broader range of food products, new services (like telephony) and white goods (for example the washing machine). Its daily life changed as a result of new ideas about comfort, hygiene, beauty, adventure, personal development and the quality of life. This middle class was the vanguard of the new consumer society.

A fragment of the middle class was also the vanguard for the protest generation of the nineteen-sixties, that would address the consequences of mass production and mass consumption for natural capital across a broad front. Up to then, the increasing exploitation of natural capital had incited incidental resistance, mostly locally oriented and focused on detail problems. The smouldering unease about land reclamations in the 1930s was resolved with the acquisition of parcels of heathland by the Society for the Preservation of Natural Monuments. The delving of marl for cement production incited limited opposition in and around Maastricht. Gravel mining caused opposition in communities in South Limburg. Chemical herbicides and pesticides were criticised by agronomists immediately after the Second World War. Air pollution due to coal combustion was a nuisance that was addressed by the Netherlands Association against Water, Soil and Air Pollution. Serious opposition to

polluted air emerged in Rotterdam in 1960 when that led to smog – but only because it was considered a public health hazard.

More or less universal disquiet surfaced around only one issue. Intensive hunting of whales for the production of soap and margarine at the start of the twentieth century resulted in a rapid decline of the whale population and encouraged concerted international political action by the 1930s. But the agreements were hardly enforceable in the international constellation of the time. They were not in the first place inspired by concern about the extinction of species, but above all by concern about economic losses due to a shortage of whales.

A perennial issue in the Netherlands was water pollution.⁹ This was so in the nineteenth century around the issue of increasing salinity and water polluted by urban wastes. In the twentieth century it acquired a new dimension with discharges of industrial waste, the use of agricultural chemicals and the introduction of household detergents. The Netherlands Association against Water, Soil and Air Pollution asked for legal restrictions as early as 1919. A research institute, the Government Institute for the Purification of Waste-water (RIZA), was founded the very next year. In subsequent decades the Rijkswaterstaat appropriated the issue. The motivation was not preserving the environment but safeguarding agriculture and the food and water supply. But policy to combat water pollution failed to crystallise. Incidents like the massive fish starvation on the Hollandse IJssel in 1959 due to the dumping of toxic wastes had little effect. Industrialisation triumphed over the struggle against pollution.

The opposition possessed no common denominator like ‘environment,’ ‘energy,’ or ‘sustainability’ that could channel political action or coordinate campaigns. It was never a mass movement, but only mobilised a small group of concerned citizens and committed professionals like chemists and agronomists.

22.7 Around 1960: Well-being, Sustainability and Economic Growth in Balance

After the Second World War, the Netherlands immediately initiated a fast-paced process of reconstruction. The associated normative framework was for the most part in place. The basic principles for quality of life were undisputed. Reconstruction proceeded along the lines of existing networks among government, business and trade unions. Social relations remained pillarised, but the parties were willing to cooperate and agreed on the ideal of a caring and welfare state.

By 1960, that ideal had been all but realised and with that the classic historical challenge of well-being had been substantially met. Extreme poverty had been all but banished and the basic facilities to guarantee quality of life for the poor, workers and the aged were in place. A few issues remained that continued to make the issue

⁹A. Bosch and W. van der Ham, *Twee Eeuwen Rijkswaterstaat. 1798–2015* (revised edition, Asten 2015). 182–187.

of well-being problematic. One of these was the housing shortage that had risen to new heights due to war-damage and under the onslaught of a burgeoning post-war population. The government, public housing associations and building companies worked hard on this problem.

Another aspect of well-being that made great strides was the securing of the vulnerable Delta. This specifically Dutch issue had culminated in a worthy response to the threat of the sea in the form of the Zuiderzee Closure Dike and the Delta Works. That did not mean that the struggle against water was over. As early as 1956, Rijkswaterstaat concluded that the river dikes were too low and began to formulate new safety norms for the rivers. But for the moment the Delta Works had priority.

How was natural capital faring? The creation of the caring state had only been possible thanks to an intensified exploitation of natural capital. The increase in exploitation of natural capital in the first half of the twentieth century was roughly the same as in the second half of the nineteenth century. For example, the use of fossil raw materials between 1850 and 1910 increased by approximately 3.2% per annum and between 1910 and 1960 by 2.7%. Around 1960, however, there was a trend break: Between 1960 and 1975, the annual growth rate suddenly rose to 7.0% (Table 22.1), after which the growth started to fall again. A trend break around 1960 can also be observed for the other two mass flows (Graph 22.2).¹⁰ The sixties and early seventies show a strong growth of the bio-raw per annum materials and mineral raw materials with a strong decline after 1975. It is remarkable that the growth figures of the Dutch population lag behind those of the raw materials. The pressure on natural capital is not only related to population growth (Table 22.1).

Similar shifts can be seen in emissions and the use of substances like artificial fertiliser. CO₂ and SO₂ emissions increase gradually up through the 1950s, after which they exhibit a steep increase (Graphs 22.3 and 22.4). The same is the case for the use of artificial fertiliser (Graph 22.5). Remarkably, present-day norms for CO₂

¹⁰ Graph 22.2 consists of various long-term datasets in the field of fuels, agricultural and mineral products. The trend lines are calibrated with the detailed datasets from the study of the reference years 1850, 1913, 1970 and 2010 (see: F. Lambert, *Massastromen in Nederland. In de jaren 1850, 1913, 1970, 2010* (researchrapport Technische Universiteit Eindhoven, oktober 2016). The trend for fossil fuels is made up of data from the final use of coal, lignite, peat, petroleum and gas (taken from Rick Hölsgens, *Energy Transitions in the Netherlands*, Dissertation University of Groningen, 2016). For agricultural products an average was taken for a number of long-term production statistics (derived from Statistics Netherlands Historical series: Agriculture, from 1851). These are the production statistics of starch (potatoes), milk and sugar beet (from 1895). The trend of these agricultural products was indicative of the normalized trends including cereal and meat production. The trend line mineral products is formed by the consumption of cement. This trend was indicative of the normalized consumption of fill sand, industrial sand, masonry bricks, sand-lime bricks and gravel. The datasets of mineral materials derived from CBS: Minerals extraction, CBS: Production statistics for Sand-lime-brick industry 1961; CBS History minerals and industry; Cement production: A. Heerding, *Cement in the Netherlands* (IJmuiden: Cement factory IJmuiden, 1971); N. Smit Kroes, *Basis Ontgronden*, policy memorandum on surface mineral resources for the long term, House of Representatives of the States General (Parliamentary document number 21.100, under numbers 1 and 2), session year 1988–1989 and Cement & Betoncentrum (<http://www.cementenbeton.nl/>).

Note: Graph 2.1 and Graph 19.5 are based on the same datasets of Graph 22.2.

Table 22.1 Growth in the use of bio-raw materials, mineral subsoil resources and fossil subsoil resources in the Netherlands, 1850–1910, 1910–1960, 1960–1975 and 1975–2010 (percentages)

	1850–1910	1910–1960	1960–1975	1975–2010
Bio-raw materials	1.6	1.8	3.3	1.0
Mineral subsoil resources	2.9	3.5	4.1	0.5
Fossil subsoil resources	3.2	2.7	7.0	1.3
All raw materials	2.3	2.7	5.1	1.0
Dutch population	1.1	1.3	1.2	0.6

Graph 22.2 Estimation of the trend in bio-raw materials, mineral sub-soil assets and fossil sub-soil assets, 1850–2010 (kton)

Source: See note 10 of this chapter

emissions and the use of artificial fertilisers are not, or if so only marginally, exceeded up to the time of the trend shift. By contrast, SO_2 emissions had already exceeded present-day norms as early as the 1950s.

On the basis of the historical account we can advance the hypothesis that by comparison with the rest of Dutch history, well-being and sustainability were best in balance around 1960, at least from the point of view of the issue of poverty. The historical challenge of poverty had been resolved with the realisation of the caring state, while demands on natural capital were still relatively modest by present-day standards. Not only had material wealth increased substantially, but numerous aspects of individual quality of life (health and level of education) were in excellent shape, while social stability was high. Reasonable economic growth (on the basis of mobilisation of natural capital) and increasing social equality laid the groundwork.

Graph 22.3 CO₂ emissions in kiloton, 1850–2010, set out against the EU sustainability norm for 2030

Source: H. Hölsgens, *Energy transitions in the Netherlands: Sustainability challenges in a historical and comparative perspective* (Groningen 2016), figure A.V.1, 231

Graph 22.4 SO₂ emissions in kiloton, 1800–2010, set out against the EU sustainability norm

Source: H. Hölsgens, *Energy transitions in the Netherlands: Sustainability challenges in a historical and comparative perspective* (Groningen 2016), figure 4.1, 90

Up to around 1960, well-being increased at the same rate as economic growth (or even forged ahead of it, see Graph 22.1a).

This hypothesis demands additional research. Were environmental problems up to then – as this study postulates – above all local and limited in scope? Did the big changes in the landscape and the associated decline in biodiversity take place primarily after the Second World War with land consolidation, urbanisation and the coming of the automobile? Et cetera.

Graph 22.5 Use of fertilizer, 1850–2010, compared with sustainability standards of the European Union

Remark: There are norms for the agricultural use of nitrogen. Since 1990 the general norm has been the EU nitrate guideline that stipulates a maximum of 170 kilograms of nitrogen per hectare. Exceptions to this can be granted. The Netherlands has such an exception (a derogation) that includes the provision that a precise accounting is to be kept for the various types of soil. The higher norm (with the derogation) is 250 kg/ha. The Netherlands itself has worked out norms for different crops and for five different soil types (clay, sand – northern, western and central, sand southern, loess and peat).

Source: CBS (*Agriculture and Fisheries 1899–1999*) and reworked CBS (*Nitrogen in animal manure, artificial fertiliser and gaseous losses, 1990–2015*)

The image of a balance among economic growth, well-being and sustainability needs some correction. ‘Balance’ suggests an equilibrium for an extended period. But a number of factors in the 1950s were responsible for a rapid disruption of the equilibrium. The Netherlands were confronted with a strong population growth that had to be accommodated. The country placed its bets on industrialisation as a strategy for employment and economic development. Moreover, during the interbellum a middle class had explored a modern lifestyle that also became an attractive perspective for the working class. After the Second World War the Netherlands strove to realize a welfare society. This new dynamic demanded strong economic growth. From the 1960s on, well-being lagged far behind the significantly higher economic growth that set in and that required a considerably larger mobilisation of natural capital (Graph 22.1a). The trend reversal around 1960 thus had its roots in the preceding period.

22.8 1960–2015: Well-being, Sustainability and Economic Growth Out of Balance

In this period, growth in well-being was out of kilter with that of the economy and the rapidly increasing GDP. That had various causes. An important cause was the rapidly changing relationship with the natural environment. On the one hand the Dutch were confronted with phenomena like strong algae growth due to the leaching of fertilisers (eutrophication), the impacts of pesticides including massive bird

starvation and incidents of smog-formation due to the emission of SO₂ and smoke. On the other hand, norms regarding nature and the environment changed and these phenomena began to be defined as problems. The idea took root that the natural environment was suffering inordinately under the onslaught of economic growth and that many important subsoil resources were characterised by finite supplies. The alarm set off by the Club of Rome in the 1970s was loud and widely heard. A new normative framework for well-being began to take shape, one which revealed that the norms for the exploitation of the environment and nature were being seriously violated. If humanity did not succeed in rigorously changing its production and consumption patterns, then vital ecological limits would soon be transgressed.

An entirely different cause for laggard well-being was the massive unemployment and wage moderation in the 1980s and during the crisis of 2008. These depressed welfare levels and household consumption. Social inequality in terms of income and wealth increased.

But while unemployment, wage moderation and a deferred increase in consumption had an adverse effect on well-being, the health and educational levels of the Dutch population continued to increase. These aspects of quality of life appeared to be relatively unaffected by the vagaries of economic cycles.

The dramatic decline of well-being in the domains of safety and democracy is remarkable. Having reached a peak in the mid-1950s, indicators for this category subsequently exhibited a steady decline. To an important degree, this development can be attributed to the process of de-pillarisation that set in during the 1960s. Within the pillarised structure the elites of the different religious and ideological pillars were in close touch with their constituencies through numerous societal organisations. This made the societal agendas propagated by the elites sufficiently recognisable by the grassroots constituencies of the pillars. At the same time the system of pillarisation was characterised by a large measure of social control. The literature speaks of a 'decently pillarised society.' From the 1960s on, religion no longer provided a fixed normative framework for Netherlanders.

This process intensified toward the end of the twentieth century, when political party-formation on the basis of traditional ideological orientations began to become less important. This did not mean that citizens were bereft of social visions, only that these were experienced less and less in the context of a group and on the basis of established religious or political viewpoints.

De-pillarisation also contributed to a process of individualisation. From the viewpoint of well-being, this had many positive effects. More than ever, citizens could make choices in complete freedom. But the process also had its dark sides. The self-evident connection of political elites with their constituencies that had previously been the rule became weaker. In the last quarter of the twentieth century the contours of a new societal midfield had become visible, but the connection with political parties remained weak. This was one of the reasons that citizens could no longer see their reflections in 'Hague politics.' Trust in political institutions declined visibly, especially after the turn of the century (and particularly after the assassination of the populist politician, Pim Fortuyn, in 2002). The erosion of traditional societal bonds characteristic of the 'decent pillarised society' and the concomitant

Fig. 22.1 Results of an Index Decomposition. Analysis of the growth of CO₂ emissions, 1960–1974, 1975–1989 and 1989–2008. (change in CO₂ emissions in megatons)

Source: R.P. van der Helm, R. Hoekstra en J.P. Smits, *Economic growth, structural change and carbon dioxide emission: The case of The Netherlands 1960–2008*. Article presented at the 18th International Input-Output Conference (2010)

decline in social cohesion and control, also brought in its wake increasing crime rates, more suicides and a strong increase in alcohol consumption (that by international standards had always been relatively low in the Netherlands).

Looking back, another important issue manifested itself in this period, namely the issue of climate change. Initially the issue led a covert existence among contemporaries. Nowadays, however, climate change due to greenhouse gas emissions is seen as one of the most pernicious problems in the domain of nature and environment. The figure below shows how the emission of one of the most important greenhouse gases, CO₂ can be explained (Fig. 22.1).

As one would expect, the increase in CO₂ emissions can be explained to a large extent by the growth of production (the production effect). Production is of course to a significant degree associated with the burning of fossil fuels and hence with CO₂ emissions. In the period 1961–1974 – when CO₂ emissions increased significantly – this growth was also caused by two other factors. First, by energy-intensity, that is the amount of energy necessary to produce a unit of GDP. Up to 1974, a higher energy-intensity appears to have been a driver of the increase in CO₂ emissions. In addition, the structure effect also played a big role. This should be taken to mean that the growth in emissions cannot be explained only with reference to economic growth in the various sectors of the economy. Emissions are exacerbated by a shift of the economic centre of gravity in the direction of more energy-intensive activities (industries using relatively large amounts of energy in the production process). Due to the active industrialisation policy that was pursued in the first post-war decades, the share of energy-intensive branches like petrochemicals and iron- and steelmaking in the GDP increased strongly up to the early 1970s. The discovery of the Groningen natural gas field amplified the production and structure effects on CO₂ emissions.

In the period after 1974 this developmental pattern changed. Economic growth remained the strongest driver of CO₂ emissions, but the increase in these emissions was mitigated to some extent because energy intensity improved as a result of technological developments. In addition production during this period shifted increasingly in the direction of activities like services, in which traditionally less energy was consumed. Though these two developments have tempered a further increase in CO₂ emissions, the latter still remains at a high and unsustainable level. Significantly, industrial emissions have declined in the most recent period while households and especially the transport sector continue to emit more and more CO₂.

In retrospect we can say that in the period from 1960 to the present, by contrast with earlier periods, economic growth and increasing well-being no longer marched to the same drummer. Though certain specific forms of welfare suffered, well-being in general continued, *grosso modo*, to increase. But only thanks to the depletion of natural capital and at a cost in terms of pollution that has become increasingly evident. If we look at the quantity of CO₂ that has been emitted since 1960 and how much it will cost to reduce these emissions to levels that have been agreed upon in international climate accords, then we can only conclude that we will be facing costs estimated at about 12% to 25% of the GDP in 2010. To a significant degree, current and coming generations will be paying the price for the energy-intensive industrialisation and the concomitant growth in prosperity since 1960.

22.9 Around 2015: Sustainability as New Historical Challenge

It was only quite recently –some 50 or 60 years ago – that well-being and sustainability were still reasonably in balance: the classical issue of poverty had been solved while claims on natural capital remained reasonably modest. Since then, the monitor for well-being manifests a deep duality: a considerable increase in material welfare, while well-being lags behind and sustainability is seriously compromised. The perennial question since then has been: to what extent does economic growth contribute to quality of life in the ‘here and now’ and is the claim on natural resources not so exorbitant that the costs will have to be paid for by lower quality of life ‘later’ and ‘elsewhere’? What can we learn from history in this connection?

As early as the 1960s and 1970s there was already broad public concern about environmental problems and the finiteness of raw materials. Groups of citizens mounted forceful protests and environmental groups flexed their muscles. In some areas progress was rapid, for example in the area of water and air pollution. In other areas it took decades before results could be seen, for example, biodiversity, the decline of which has been halted (although many still consider it to remain at a pitifully low level). And in yet other fields like energy, the yield is even more meagre – even after all this time. Sustainability is a stubborn problem.

Early environmental successes were related to the corporatist state order with its ‘pillars,’ cartels, multi-national corporations and professional organisations that formed the institutional framework of the Dutch striving for well-being until well into the twentieth century. Environmental policy could be rapidly implemented in those cases where the established political parties embraced the environmental issues, the professional organisations possessed the requisite expertise and the proposed measures did not overly disturb existing relations of production and consumption. Legislation and subsidies encouraged the large-scale construction of sewage treatment plants, the installation of smokestack gas scrubbers and the cleaning up of polluted industrial sites. These ‘end of pipe’ solutions had a very beneficial effect on the environment. In the 1980s the Netherlands belonged to the European vanguard in addressing environmental issues and was a creative force in the conceptualisation of EU environmental guidelines and measures.

But the corporatist structure also impeded progress on the road to sustainability, in particular when it appeared necessary to intervene in existing institutions. The problem of excess manure demanded breaking through the ‘green front,’ a coalition of parties in the agricultural sector that was united as one man against fundamental changes in agricultural policy. The Cooperating Electricity Producing Companies (the SEP, disbanded in 2000) long blocked experiments with alternative means of generating electricity (using windmills and solar panels). Until the 1990s, the Rijkswaterstaat found it very difficult to integrate ecological values into their water management policies. To a certain extent old institutions had to be demolished in order to give solutions to sustainability issues a chance.

That said, the erosion of the corporatist state structure would not in the end lead to a breakthrough in the problem of sustainability. The national state was weakened by the emergence of the EU. The liberalisation of the economy, the retreat of the state and the abolition of corporatist organisations created great rents in the social fabric. Environmental improvement did proceed, partly thanks to EU guidelines, but in three key areas little or no progress was made.¹¹

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¹¹ The *Compendium voor de Leefomgeving* (Compendium for the Environment) provides the following time series data along with norms and conclusions:

Air quality

Fine dust in NL decline since 1990. Fine dust in Rotterdam decline since 1970. Currently under the EU norm.

See: <http://www.clo.nl/indicatoren/nl0243-fijn-stof-pm10-in-lucht>

Nitrous oxides NO_x in NL and Rotterdam, decline since 1973. Currently under the EU norm <http://www.clo.nl/indicatoren/nl0231-stikstofdioxide>

Acidification and large-scale air pollution emissions. Decline since 1980. Currently under EU norms, except for concentration NH₃ that is somewhat above the norm.

<http://www.clo.nl/indicatoren/nl0183-verzuring-en-grootchalige-luchtverontreiniging-emissies>

Water / Fertiliser load

Fertiliser load large rivers decline since 1970. Currently under EU norms, except for Meuse.

<http://www.clo.nl/indicatoren/nl0249-vermesting-in-grote-rivieren>

Lakes and ponds 1980–2014. Concentration nitrogen, phosphor, algae and transparency above the targets.

<http://www.clo.nl/indicatoren/nl0503-vermesting-van-meren-en-plassen->

The CBS monitor for 2014 is clear about the present situation: ‘Of the four forms of capital, the preservation of natural capital in the Netherlands has the bleakest outlook.’¹² Four capitals (the economic, social, human and natural capital) must safeguard well-being of future generations. The way in which we leave behind the natural capital at this moment, is worrying in that respect. CBS defines three main problems in particular¹³:

- Energy and climate: The Netherlands consumes much fossil fuel (compared to other EU countries) has high per capita emissions of greenhouse gases and has an extremely low share of renewable energy sources.
- Exhaustion of raw materials: Over the past decades the Netherlands has largely exhausted its own supply of natural gas. It belongs to the group of European nations making the biggest claims on raw materials from the least developed countries in the world. Finally, the country contributes to the exhaustion of those raw materials whose total depletion may be expected in the present century, like petroleum, antimony and zinc.¹⁴
- Nature and environment: In a number of ways the Netherlands is still not compliant with EU environmental norms. Natural habitats and biodiversity are (compared to other EU nations) still under considerable pressure. The country also places a great environmental burden on other countries, in particular developing countries.

Environmental pressure on Nature (acidification / fertiliser load / dessication)

‘The environmental conditions in water and nature preserves have improved, but are often still insufficient for sustainable conservation of biodiversity. Policy is aimed at achieving conditions that make the sustainable conservation of plants and animal species possible.’<http://www.clo.nl/indicatoren/nl1522-milieudruk-op-natuur>

Green growth

From: CBS, *Green growth in the Netherlands* (The Hague, 2015)

Direct environmental pressure by the Dutch economy has declined. All the environmental efficiency indicators pertaining to wastes and emissions get a green score, while the economy is growing. One can therefore speak of an uncoupling of economic growth and environmental effects. The Netherlands is an average (or poor) performer compared to other countries. <http://www.download.cbs.nl/pdf/green-growth-in-the-netherlands-2015.pdf>

¹² *Monitor duurzaam Nederland 2014. Indicatorenrapport* (Den Haag 2014), 32–33.

¹³ See also: CBS, *Meten van SDGs: een eerste beeld voor Nederland* (Den Haag 2016), 27 and CBS, *Internationaliserings-monitor 2015, vierde kwartaal* (Den Haag 2016), 12–17. SDG refers to Sustainable Development Goals.

¹⁴ For zinc and antimony see: Th. Henckens, *Managing raw materials scarcity* (Dissertation Utrecht University, 2016), 27–33.

22.10 Around 2015: The Welfare Paradox

Well-being is a vulnerable prosperity and not just for future generations. When we compare the achievements of the Netherlands in the domain of well-being to those of other countries, it is obvious that the Netherlands scores well on a large number of aspects. As far as the sense of happiness is concerned, the 2016 *World Happiness Report* pegs the Netherlands at no less than seventh place in a field of 156 nations. At the same time, parts of Dutch society are oppressed by great worries and feel sombre about the future. Is this a question of ‘emotion,’ and can we dismiss this unease as simple ‘cantankerousness,’ or is there perhaps more at issue?

This paradox is also visible in the CBS monitor for 2014.¹⁵ The general level of well-being has been high and stable over a long span of time and the Netherlander has on average a bit more to spend than 10 years ago; still, satisfaction with life has declined (though still remaining high by international standards). How can we explain this welfare paradox? The historical analysis presented in this book can give us more insight into this issue. Four factors that have played a role in this study immediately spring to mind:

22.10.1 Social Inequality

A society can experience a welfare-increase, but that says nothing about how it is distributed. Halfway through the nineteenth century the Netherlands was the richest-but-one nation in the world, while a large part of its population balanced around the bare minimum of existence. This kind of social inequality can have a great influence on the way citizens experience welfare, as shown by the literature on the economics of happiness. It seems that people’s satisfaction with life not only depends on their objective welfare, but above all on whether there are people in their immediate surroundings that are much more prosperous. People with a low level of welfare can be more satisfied if people in their environment enjoy a similar quality of life, than they would be if they were more prosperous but those around them even more so.

Even though at the moment in the Netherlands extreme poverty such as prevailed in the nineteenth century has ceased to exist, nonetheless the contours of a new societal duality are becoming visible. A recent report by Statistics Netherlands (CBS) demonstrates that the schism runs along the distinction between the less and the better educated. The less-educated have a lower chance of employment, are

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¹⁵ *Monitor duurzaam Nederland 2014. Indicatorenrapport* (Den Haag 2014), 29 and figure 2.2.2, p. 31.

often less healthy and report a lower degree of satisfaction with their existence. These satisfaction scores seem to be lower than might be expected on the basis of the actual material welfare. The level of schooling appears to have deep consequences for very many aspects of quality of life.

22.10.2 *Insecurity and Vulnerability*

Satisfaction with life often depends not so much on objective welfare factors, but rather on the fear of losing a given level of welfare. In the past there have been periods of political uncertainty and disruptions of the global economy that resulted in extensive societal unrest (think for example of the Great Depression of the 1930s). At the present time the Netherlands is suffering greater uncertainty than it has been for a long time. Processes of globalisation and flexibilisation, even though generating an enormous economic momentum, also increase feelings of insecurity among large parts of the population. The Monitor Sustainable Netherlands reports that people are above all concerned about keeping their jobs and incomes. The young and less-schooled are especially vulnerable. Half of the youthful population up to the age of 25 and more than 35% of the less-educated employees had a flexible (i.e. temporary) labour contract in 2014. This is 50% more than in 2003. These groups are facing big obstacles in ensuring pensions and taking out mortgages. The welfare paradox can thus be partly explained by increasing uncertainty and the fear of losing ground in the future.

22.10.3 *Changing Preferences*

A certain measure of critical awareness in society is quite healthy. This enables problems and blockages to be identified, making it possible to work on solutions. In the period 1850 to the present this was a perennial phenomenon. In 1910, for example, when the grinding poverty of the mid-nineteenth century had been solved, much higher demands began to be made on quality of life and social criticism consequently began to address new issues. Every generation determines what *it* sees as quality of life. As soon as old welfare problems have been solved, a new standard for quality of life begins to take shape. Societal dissatisfaction is therefore not as such a negative thing, as long as problems are tackled in an active way and citizens do not turn their backs on society.

22.10.4 *Channelling the Societal Debate*

One of the essential aspects of the institutional quadrants that have been used as an analytical tool in this book concerns the way in which ‘civil society’ (the societal midfield) and the government are connected. Halfway through the nineteenth century the Netherlands was confronted with big social problems that did not admit of an easy solution. This situation improved after the 1870s as a result of the rise of a broad societal midfield and pillarisation in particular. The political elites of the various societal groups were closely tied to their constituencies via the diverse organisations in civil society. In this way concerns and wishes that circulated in society could be quickly and clearly communicated to the political level. At the same time, social acceptance of the policies was high.

The process of de-pillarisation was the main factor in increasing the distance between government and citizens. The result is that at present a substantial segment of the electorate feels that it is not being heard. The fact that a significant number of political decisions have been delegated to Brussels has not increased the involvement of citizens in political processes. As in earlier historical junctures, it is now essential to find new forms in which the state and society can reciprocally fortify one another. This is absolutely essential given the fundamental issues, the Grand Challenges, now facing the world in the domain of well-being and sustainability.

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