

Green is More than the Colour of the Bottle

Environmental Issues at Heineken Breweries over the Long Term

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‘Going green’ has been an important issue for business since the last decade of the twentieth century, but also earlier, companies had to deal with environmental concerns or took measures that had an environmental impact, either positive or negative. Based on archival research, this article looks at the way the Dutch brewer Heineken has reacted to a number of environmental issues during its long history and how it has responded to the evolving concept of sustainability. The article shows that in some cases the company reacted defensively, but in others it was proactive, especially when environmentally friendly measures offered opportunities for innovation. All these measures were taken in the hope of being allowed to keep growing the business.

Sinds het laatste decennium van de twintigste eeuw is ‘vergroenen’ een belangrijk onderwerp geworden voor het bedrijfsleven, maar ook in eerdere periodes moesten bedrijven milieuproblemen aanpakken of namen zij maatregelen die een positief of negatief effect op het milieu hadden. Dit artikel bespreekt, op basis van archiefonderzoek, op welke manier de Nederlandse brouwer Heineken gedurende zijn lange geschiedenis omging met een aantal milieukwesties en hoe hij reageerde op het steeds veranderende concept duurzaamheid. Het artikel laat zien dat deze onderneming in sommige gevallen defensief reageerde, maar in andere proactief, vooral wanneer het nemen van maatregelen een mogelijkheid tot innovatie inhield. Dit alles gebeurde in de hoop dat de onderneming mocht blijven groeien.

Introduction

In a special issue about environmental degradation and the buzzword ‘sustainability’, it makes sense to include the perspective of business. Companies are often seen as the main causes of environmental damage, but can they also be part of the solution? This article investigates the ways in which the Dutch brewer Heineken has dealt with a number of environmental issues during its long history, and how it has responded to the concept of sustainability.¹ Heineken was chosen as an example of a successful Dutch company that is connected to the larger business world. From the early twentieth century onwards, Heineken, as one of the major Dutch brewing companies, has played a leading role in trade associations. During the twentieth century it became one of the world’s top multinational brewers. As such, it has been very much in the public eye. The article focuses on the interaction between society’s environmental concerns and the reaction of Heineken’s management to those concerns. As environmental issues have become increasingly framed in a debate about sustainability, the article also discusses how companies in general and Heineken in particular have dealt with the evolving concept of sustainability. However, the article addresses environmental issues only and will not discuss all aspects of corporate social responsibility that have become associated with ‘sustainability’ over time.

For debates about environmental issues in relation to business I have consulted secondary literature and Dutch newspapers, while the information about Heineken’s responses is based on its company archives, as well as on published sources such as annual reports, articles and newspapers, including Heineken’s staff magazines.² I made use of the research I conducted in collaboration with Bram Bouwens for the book *Brewery, brand and family*, published in 2014 to mark the 150th anniversary of Heineken breweries.³ However, I have also undertaken new research for this article. This builds on my earlier study on corporate social responsibility of Dutch businesses and the research project *Bint*, which explores varieties of capitalism in historical perspectives.⁴

1 I would like to thank Peter van Dam, John Grin, Joost Dankers and Bram Bouwens, and an unknown reviewer for their stimulating comments on an earlier draft of this article.

2 The Heineken company archives are spread out over several locations. A large part of the archives is located at the Stadsarchief Amsterdam (hereafter SA), while another part, including annual reports and staff magazines, is preserved at the Heineken Collection Foundation (hereafter HC), to be consulted online or on-site. More

recent material is still stored at the Heineken headquarters in Amsterdam and some of it available on the company’s website.

3 Keetie Sluyterman and Bram Bouwens, *Brewery, brand and family: 150 years of Heineken* (Boom 2014).

4 Keetie Sluyterman, ‘Corporate Social Responsibility of Dutch entrepreneurs in the twentieth century’, *Enterprise & Society* 13:2 (2012) 313-349. DOI: <https://doi.org/10.1093/es/khs001>; Keetie Sluyterman (ed.), *Varieties of Capitalism*

In addition to the literature overview by Peter van Dam in the introduction to this special issue, here I will focus on the perspective of business and business history. The 1987 Brundtland report *Our Common Future* popularised the notion of ‘sustainable development’ and the term ‘sustainability’. It explicitly invited industry to play its part, since industry was seen as ‘central to the economies of modern societies and an indispensable motor of growth’. Through the development of new technologies, industries should become more efficient in terms of resource use, generate less pollution and waste, use renewable rather than non-renewable resources and minimise irreversible adverse impacts on human health and the environment. Under these circumstances, economic growth should still be feasible and sustainable, according to the report.⁵ For industry, this was a positive message to work with, because it seemed their businesses would be able to grow as long as they were prepared to innovate.

Analysing environmental strategies for industries, Kurt Fischer and Johan Schot distinguished three types of company strategies: defensive, offensive and innovative. Writing in 1993, they argued that between 1970 and 1985, companies overall had tended to resist adaptation to growing regulatory demands and public pressure, but between 1985 and 1992 they had become more open-minded towards environmental demands and willing to comply with rules and regulations, and to engage with pressure groups. They expected industry to become more proactive and innovative in the 1990s.⁶ Though it is too general to suggest that business always acted defensively before the 1980s, their distinction between three kinds of company strategies is useful.⁷ I will use this approach in exploring Heineken’s strategies.

Exploring the rise of environmentalism in France, Michael Bess concluded that France became a ‘light-green’ society during the 1990s. Green activists played their part in this transformation, but in his view, it was big business that had made the greater contribution by installing new technology to tackle polluting emissions and to reduce the use of scarce raw materials and energy. He formulated the following paradox: ‘The green identified

and Business History. *The Dutch Case* (Routledge 2015). DOI: <https://doi.org/10.4324/9781315768069>.

Bint stands for ‘Business in the Netherlands in the twentieth century’, a research project of Utrecht University in collaboration with the universities of Rotterdam and Eindhoven.

5 World Commission on Environment and Development, *Our Common Future* (Oxford University Press 1987) 206-234.

6 Kurt Fischer and Johan Schot, ‘Introduction: The Greening of the Industrial Firm’, in: Kurt Fischer

and Johan Schot (eds.), *Environmental Strategies for Industry: International Perspectives on Research Needs and Policy Implications*. The Greening of Industry Network Series (Island Press 1993) 3-33.

7 See, for instance: Geoffrey Jones and Christina Lubinski, ‘Making “Green Giants”: Environment Sustainability in the German Chemical Industry, 1950s-1980s’, *Business History* 56:4 (2014) 623-649. DOI: <https://doi.org/10.1080/00076791.2013.837889>.



In 1867, Gerard Heineken commissioned the building of a new brewery on the outskirts of Amsterdam in response to environmental problems. © Heineken Collection Foundation, Amsterdam.

Big Industry, with its smoke-belching factories and powerful political connections, as the quintessential Goliath that they David-like, would have to engage in an unrelenting battle for economic restructuring; in the end, it was the industrial sector that most nimbly and efficiently made the leap into a greener mode of production, far outstripping the changes undertaken by all other social constituencies.⁸ However, Bess questioned the continued emphasis on economic growth of business and consumers alike. Did Heineken belong to the Big Industry that reduced pollution through technology?

During the first decade of the twenty-first century, many companies started to embrace sustainability ambitions in their operations and public relations. Writing in 2013, Peter Dauvergne and Jane Lister confirmed Michael Bess' conclusion that many large multinationals, the so-called Big Brands, had achieved some environmental goals such as reducing energy, water use and waste streams, though progress was rather incremental. Moreover, the Big Brands had extended the sustainability goals along their whole supply chain. However, the authors were sceptical about the companies' true motives, because producing more efficiently made good business sense, and prescribing policies for their supply chain also increased their power over that supply chain. Furthermore, touting their sustainability ambitions and achievements supported their brand image. The authors argued that the Big Brands had captured the sustainability debate, while their actions did not contribute to 'true sustainability'. The authors did not define their term 'true sustainability', but they clearly considered economic growth itself a problematic ambition. They wondered: 'Is sustainability in any meaningful sense even possible within a world economy that relies on mass retail and growing consumerism?'⁹ In fact, they seemed to redefine the term sustainability as a situation of 'no growth'.

Geoffrey Jones, who studied green entrepreneurship from the nineteenth century onwards, took an equally pessimistic view. He described how early green entrepreneurs were mostly mavericks and idealists who deemed the message of nurturing nature often more important than their products, let alone their profits. According to Jones, their impact was limited. In the 1990s, big business became active in cleaning up their activities by making more efficient use of energy and other sources. Being seen as green also became an important instrument in their public relations and marketing. Jones supposed that these companies would not really make a difference, because in the end, shareholders of listed companies – and most big companies are listed – would prefer profits over green credentials. Moreover, he argued that: 'The all-embracing adoption of the language of sustainability diminished

8 Michael Bess, *The Light-Green Society. Ecology and Technological Modernity in France, 1960-2000* (The University of Chicago Press 2003) 210-217, 292 (quotation).

9 Peter Dauvergne and Jane Lister, *Eco-Business: A Big-Brand Takeover of Sustainability* (The MIT Press 2013) 1-27, 135-161, 159 (quotation). DOI: <https://doi.org/10.7551/mitpress/9203.001.0001>.

the distinctiveness, and the urgency, of the concept and the message.¹⁰ He was afraid that the broadening of the concept of sustainability would diminish attention to more specific environmental problems.

In *Green Capitalism? Business and the Environment in the Twentieth Century*, the editors Hartmut Berghoff and Adam Rome wonder whether capitalism can be green, or at least somewhat greener. In the opening article, Rome argues that business has caused environmental degradation and has often been the most vigorous opponent of environmental regulation. However, businesses also sometimes protected parts of nature, used natural resources more sustainably or sought collective action to improve the environment, even before they were forced to do so by state regulations. Nowadays many companies are eager to be seen as acting sustainably, but how effective are their initiatives in practice? This leads Rome to argue for a more systematic assessment of the movement to green capitalism.¹¹

This article wants to contribute to these discussions in four ways. First, it aligns with the ambition of exploring the intersection between the long and short history of sustainability (see Introduction) by underlining that Heineken's dealing with environmental problems is not a recent phenomenon but goes back a long time.¹² Second, the article compares Heineken's approach to different environmental issues at the same moment in time to see where and when Heineken followed defensive, offensive or innovative strategies, as coined by Fischer and Schot. Third, it addresses the difficult question of what motivated Heineken to take environmentally friendly measures. Finally, it increases our understanding of how an influential representative of Big Industry has interpreted the evolving term 'sustainability'.

Meeting environmental concerns in the nineteenth century

Beer is a natural product, consisting of water, barley or other grains, hops and yeast. That does not mean, however, that the industry does not have to

10 Geoffrey Jones, *Profits and Sustainability. A History of Green Entrepreneurship* (Oxford University Press 2017) 356-379, 402 (quotation). DOI: <https://doi.org/10.1093/oso/9780198706977.001.0001>.

11 Adam Rome, 'The Ecology of Commerce: Environmental History and the Challenge of Building a Sustainable Economy', in: Hartmut Berghoff and Adam Rome (eds.), *Green Capitalism? Business and the Environment in the Twentieth Century* (University of Pennsylvania Press 2017) 3-12; on this theme, see also Ann-Kristin Bergquist, Shawn A. Cole, John

Ehrenfeld, Andrew A. King and Auden Schendler, 'Understanding and Overcoming Roadblocks to Environmental Sustainability: Past Roads and Future Prospects', *Business History Review* 93:1 (2019) 127-148. DOI: <https://doi.org/10.1017/S000768051900031X>.

12 Peter van Dam, 'The Age of Interdependence. Varieties of Sustainability in the Low Countries during the Twentieth Century', *BMGN – LCHR* 137:4 (2022). DOI: <https://doi.org/10.18352/bmgnlchr.11687>.

deal with environmental issues, though it is fair to say that they have received little attention in the business history literature about the brewing industry in general, in which themes such as branding, marketing, strategy and internationalisation dominate.¹³ In fact, breweries have been confronted with all kinds of environmental issues for a long time.

This is equally the case for Heineken. I will start in 1864, when Gerard Heineken bought the Amsterdam brewery *De Hooiberg*, established in 1592. This brewery was located between the Nieuwezijds Voorburgwal and the Nieuwezijds Achterburgwal, the present-day Spuistraat. This location alongside the Amsterdam canals had its advantages from a transport point of view, but the canals also created a problem. Neighbours complained about the smell of the canal water as a consequence of the brewery's waste water. And to eliminate the pollution caused by waste water, the city council developed plans to fill the Voorburgwal canal. Though the plans, made in 1867, were not executed until 1884, Gerard Heineken responded to both pressures by moving out of the inner city in 1868. He relocated his brewery to a site on the edge of the city, along a canal-side wharf later called Stadhouderskade, an area that was less densely populated. The move enabled him to build a larger and more modern brewery in line with the increasing demand for his beer. Thus, while addressing societal environmental concerns, he created a more profitable business.

In general, Gerard Heineken followed a policy of innovation, as illustrated by his interest in modern, bottom-fermented beer and his support for scientific research into the cultivation of pure yeast. Using pure yeast in the brewing process increased the beer quality but also reduced the risk of failed batches, which obviously had environmental as well as financial benefits.¹⁴ Heineken also pursued progressive policies – for example, he was involved in projects to build houses for the working population of Amsterdam, though it is not clear whether he intended these houses for his workforce. Furthermore, he promoted his beer as a healthy drink, compared to the Dutch gin that working-class men consumed in large quantities. At that time, the Amsterdam chamber of commerce welcomed new breweries in the city for that same reason.¹⁵ When, at the start of the twentieth century, all

13 See, for instance: Teresa da Silva Lopes, *Global Brands. The Evolution of Multinationals in Alcoholic Beverages* (Cambridge University Press 2007); Johan F.M. Swinnen (ed.), *The Economics of Beer* (Oxford University Press 2011). DOI: <https://doi.org/10.1093/acprof:oso/9780199693801.001.0001>; Jens Gammelgaard and Christophe Dörrenbächer (eds.), *The Global Brewery Industry. Markets, Strategies, and Rivalries*, in: *New Horizons in International Business series* (Edward Elgar Publishing 2013); Kenneth Bertrams et al.,

Becoming the World's Biggest Brewer: Artois, Piedboef and Interbrew, 1880-2000 (Oxford University Press 2019). DOI: <https://doi.org/10.1093/oso/9780198829089.001.0001>.

14 Sluyterman and Bouwens, *Brewery, brand and family*, 74-78, 89-92.

15 H.A. Korthals, *Korte geschiedenis der Heineken's Bierbrouwerij Maatschappij N.V., 1873-1948* (Allert de Lange 1948) 20; Sluyterman and Bouwens, *Brewery, brand and family*, 78.



In the 1970s, Dutch industry began to set up water treatment plants, and so did Heineken. The picture shows the water treatment plant at the company's new large-scale brewery in Zoeterwoude in 1986. © Heineken Collection Foundation, Amsterdam. Photo taken by Eppo W. Notenboom.

alcohol use came under fire due to health reasons, brewers resisted measures against the sale of their product to protect their business. In response to the prohibition movement in the United States and similar but less strict measures in the Netherlands, they set up a ‘Committee against excessive restrictions on our drinking habits’, in which Henri Heineken, the son of Gerard Heineken, acted as president. In the 1930s he became an honorary vice-president of the Anti-prohibition League, a lobbying organisation of American brewers.¹⁶ Strikingly, in this case, the company did not find the health argument relevant.

Clean water and congested cities

In the 1950s and 1960s, Heineken’s annual reports did not mention any environmental issues. The provision of clean water was an obvious concern for every brewery, and as such there was full understanding of the importance of the purification of waste water. Water pollution became a hot topic in society during the 1960s. In 1968 the Council of Europe issued a ‘European Water Charter’, which underlined the fact that there is no life without water, and that fresh water resources are not inexhaustible. It was, therefore, considered essential to conserve, control and, wherever possible, increase these resources. Heineken found this charter so important that it published it in full in its staff magazine of 1969.¹⁷ Air pollution – through traffic congestion in large cities, for instance – was another important issue on the company’s agenda. Lack of space for expanding the brewery and traffic congestion in the inner city of Rotterdam were the main reasons why Heineken decided to move this production site, constructed in 1874, to the countryside.

In 1969 the company selected a site at Zoeterwoude, near the city of Leiden, and it started discussions with the various authorities on the necessary permissions, including the discharge of waste water. Initially, a long pipeline deep into the North Sea seemed to be required. This type of solution was typical of government regulations before the 1970s, because it dealt with the consequences of pollution without addressing the pollution itself. The subsequent negotiations between Heineken and the Central Drainage Board of Rijnland focused on cleaning the water before discharging it into the environment. After long negotiations, they agreed to the discharge of purified waste water into a canal not far from the sea.¹⁸ Thus, the required pipeline

16 ‘Ligue intern. des advertaires des prohibitions’, *De Maasbode*, 26 June 1924; Korthals, *Korte geschiedenis*, 326.

17 Heineken Collection (HC), ‘Zonder water is geen leven mogelijk’, *Vers van 't Vat*, November 1969,

18 HC, minutes of Heineken’s supervisory board, 29 January, 4 June, 20 August and 22 October 1970, 14 October 1971; Heineken annual report, 1969/1970 and 1970/1971.

became shorter than initially planned, but the water had to be cleaned thoroughly before it reached the environment. These negotiations delayed the building of the brewery by about a year. Because the treatment of waste water was unfamiliar territory for Heineken's technicians, they first built a pilot plant at the Den Bosch brewery. This experience helped them to ensure a smooth launch of the water treatment plant in Zoeterwoude in 1974. This water treatment plant was large enough to serve a city of 120,000 people.¹⁹

The location of the new brewery was also green, with offices set in landscaped gardens to create agreeable working conditions.²⁰ The Zoeterwoude site was a full 78 hectares (193 acres), in stark contrast to the 4-hectare site in Rotterdam. Initially, the buildings took up about 15 percent of the site, which was a park-like area with plenty of space for greenery and water features. The corporation saw this as an 'investment that has no direct economic justification yet cannot be dispensed with in today's world', because employees were entitled to agreeable working conditions.²¹ The extra space, however, was also intended for future expansion, with the executive board wanting enough space for the brewery to be expanded tenfold in later years. According to plan, the plant in Zoeterwoude took over production from the Amsterdam breweries in the 1980s. The old Amstel brewery on the Mauritskade, acquired by Heineken in 1968, closed its doors in 1982, in the depths of the economic crisis, and the Heineken brewery on the Stadhouderskade followed in 1988.²²

Following the successful commissioning in 1995 of a container terminal in Den Bosch to ship the beer to Rotterdam harbour, Heineken built a container terminal next to the brewery in Zoeterwoude in 2010, to ship directly to the ports of Rotterdam and Antwerp. The terminal was promoted as a contribution to the environment because it reduced the number of trucks on the often congested roads and reduced carbon dioxide (CO₂) emissions, but it also had logistical advantages for Heineken, and thus could be seen as a win-win solution.²³ In 2021, Heineken went a step further and commissioned the first electric-powered inland vessel in the Netherlands for transport between Zoeterwoude and the harbour, reducing CO₂ emissions further.²⁴

19 HC, *Vers van 't Vat*, April 1975, special issue about the Zoeterwoude brewery, 22-23.

20 Stadsarchief Amsterdam (SA), Heineken archives 834, inv. no. 533, talk by R. van Marwijk Kooy at the opening of the Zoeterwoude brewery, 1975; inv. no. 531, report from Bakx to Van Marwijk Kooy, 20 October 1975.

21 SA, Heineken archives 834, inv. no. 533, talk by R. van Marwijk Kooy at the opening of the Zoeterwoude brewery, 1975; inv. no. 531, report from Bakx to Van Marwijk Kooy, 20 October 1975.

22 HC, 'Amstelbrouwerij vervroegd dicht', *Vers van 't Vat*, March 1982, 7; HC, 'Nog volop activiteiten in brouwerij Amsterdam', *Vers van 't Vat*, August 1988, 12.

23 Heineken annual report 1995 and Heineken sustainability report 2010.

24 Simon Dequeker, Luuk Sengers, Evert de Vos and Micha Zaat, 'Groene industriële pioniers. Hoe bedrijven verduurzamen', *De Groene Amsterdammer*, 11 November 2021, 20.

The issue of waste water purification continued to engage Heineken technicians. In 1986 they started to explore the best way of purifying waste water: with or without oxygen, or, in other words, aerobic or anaerobic. In 1989 they built an anaerobic water purification plant for the brewery in Den Bosch, but aerobic installations also remained an option. In the 1990s, waste water treatment installations were established at all the European breweries, followed by installations in Asia. In 1998 the company started a project to develop effective waste water treatment for Africa, and a year later the decision was taken to build two installations in Africa, based on the anaerobic technology. By 2001 it was clear that all Heineken breweries worldwide should have and would get waste water treatment installations. Whether all these installations worked effectively is hard to tell. The technology was also improved in such a way that the resulting biogas offered a supply of clean energy.²⁵ This has proven important in the ongoing battle to reduce fossil-based energy use.

Saving energy

In 1972, in a report that was widely read in the Netherlands, the Club of Rome warned about future exponential growth of the world's population and the depletion of natural resources.²⁶ The oil price rise in 1973 constituted an even more effective warning that cheap fossil energy could no longer be taken for granted. In November of that same year, while the boycott of the Arab members of OPEC against the Netherlands was still in place, the Heineken executive board discussed whether they should stop their neon-illuminated advertising to save energy. They concluded that they would not stop on their own account, but only if it was explicitly requested by the government.²⁷ With rising energy prices, saving energy obviously became worthwhile from a cost-saving point of view. In 1979, after the second oil price hike, Heineken started an extensive research project to design short-and long-term plans to save energy. This research programme was motivated by the fact that the cost of energy in brewing beer had risen by 50 percent between 1971 and 1981. Also, it was clear that governments were stressing the importance of saving energy and protecting the environment, which for business meant, on the one hand, more regulations, but, on the other, also chances for subsidies.²⁸

25 Heineken annual reports, 1993-2001.

26 Geert Verbong, A. van Selm, R. Knoppers and R. Raven (eds.), *Een kwestie van lange adem: de geschiedenis van duurzame energie in Nederland* (Aeneas uitgeverij van vakinformatie 2001) 48-56.

27 HC, minutes of the Heineken executive board, 22 November 1973.

28 HC, 'Wees zuinig met energie', *Vers van 't Vat*, April 1981, 8-9; Heineken annual reports 1980 and 1981; HC, meeting documents (*vergaderstukken*), 16 April 1981.

In the 1980s, Heineken technicians started a number of projects to reduce energy in their breweries. They studied the strategies followed by the Dutch company Philips in organising a company-wide energy-saving programme that had turned out to be very effective. The Philips approach had consisted of three key elements: a top-down approach through direct involvement of a member of the executive board, a campaign-like approach demanding a concentrated effort from all employees over five years, and clearly formulated quantitative targets. The Heineken managers concluded that such a structural approach was still lacking in their company. As a first step, it was proposed to appoint a manager to coordinate all technical and technological developments across all Heineken breweries, including water needs and energy saving.²⁹

Innovation played a role in energy saving. In 1983, Heineken and Shell formed a joint venture to construct a combined heat and power generation plant, powered by three gas turbines, for the main brewery in Zoeterwoude. By coupling the generation of power (electricity) with the generation of heat (steam), considerably less energy was wasted compared to the old situation, which meant reducing the energy bill by around 24 percent. The Dutch Minister of Economic Affairs, Gijs van Aardenne, opened the new plant in 1985.³⁰

Heineken's efforts to save energy were part of a larger movement in Dutch business that included the organisation of Dutch breweries (Centraal Brouwerij Kantoor, CBK). The drive to save energy resulted in a covenant between the Dutch Ministry of Economic Affairs and CBK, agreed in 1992, to reduce energy use by about 20 percent between 1989 and 2000. When evaluated in 2001, it appeared that the Dutch brewers had done better than promised, and had achieved energy savings of 29 percent. The eight largest brewers in the Netherlands subsequently agreed with the Ministry of Economic Affairs to reach a position among the world's top 10 percent most energy-efficient brewers in the next twelve years. The agreement stipulated that in the first years the brewers were allowed to select measures that would also be cost-effective, but if the target could not be reached within eight years, they had to take other measures that might increase costs.³¹

The company's efforts to save energy could be at odds with efforts to bring in more consumers. In its ambition to constantly develop novel ideas for consumers, Heineken came up with a campaign 'Heineken Extra Cold' in 2006. The programme covered both draught and packaged beer and incorporated sub-zero-degree fridges for pubs and shops, as well as

29 HC, mission scope, Heineken Technisch Beheer, 1987-1990, 1 June 1986; HC, memorandum from P. van Eerde, 5 June 1986.

30 HC, 'Zoeterwoude gets own energy source', *Heineken International Magazine*, 1 November 1985, 6.

31 Productschap voor Bier/CBK, annual reports 2001-2007.

frozen draught beer founts for pubs. These innovations allowed Heineken to be served at -2°C . Obviously, those lower temperatures cost more energy. Aware of this problem, Heineken also promoted energy-efficient fridges.³² However, the drive to consume beer colder undeniably had a negative impact on the ambition to save energy. Reconciling commercial ambitions with environmental concerns had also been a difficult issue two decades earlier with regard to the yellow Heineken crates.

Yellow crates under pressure

In 1984, Greenpeace started a campaign against the waste discharge of the producers of titanium dioxide. Though the product titanium dioxide itself was not harmful to consumers, the waste discharge, including the metals chrome, mercury and cadmium, found its way into the North Sea and thus polluted the environment.³³ The campaign drew attention to the use of metals in paints in general, and to the use of paints in objects such as children's toys or beer crates in particular. In this context, the Heineken crates came under scrutiny, because the bright yellow crates contained cadmium pigments. In 1985, six Dutch consumer and environmental organisations encouraged consumers to bombard Heineken with postcards to ask the company not to use paint with cadmium pigments for their familiar yellow crates, arguing that brand recognition was not worth polluting the environment.³⁴

Heineken was initially undeterred. In an interview with its pub and retail magazine *Tap en Schap* in October 1985, the Managing Director of Heineken Nederland, A. Oostra, explained that the company had studied the problem carefully. He stated that no other yellow paint with the same brightness was available, and that it was absolutely no option for Heineken to move to another colour – for instance, grey or blue. 'Our identity is yellow with regard to the Heineken crate, and red with regard to the Amstel crate', he argued. And: 'That is part of our image, of our personality, just as the name or the brand.' The only concession the company was prepared to make, was to promise that when replacing the crates, after about fifteen years of use, it would recover the cadmium, so that the metal would not leak into the environment.³⁵ The company started discussions with the

32 HC, 'Proost', *Heineken NL Magazine*, August 2006, 14; HC, 'Enjoying the Heineken Extra Cold experience', *World of Heineken*, 38 (Summer 2008) 38; HC, 'Going green is cool', *World of Heineken*, 42 (Summer 2010) 26-27.

33 'Greenpeace-actie tegen lozing van afvalzuren', *Nederlands Dagblad*, 3 November 1984, 4.

34 'Briefkaartlawine dreigt voor Heineken', *Het Vrije Volk*, 30 August 1985, 5.

35 HC, 'Waarom Heineken toch cadmium verwerkt in de nieuwe kratten', *Tap en Schap*, 1 October 1985, 4-5. See also: Julian Bracco Gartner, 'Heineken wacht niet op cadmiumvrije kleurstof', *Het Vrije Volk*, 11 October 1985, 5.



In 1985, *Milieudefensie* (Friends of the Earth Netherlands), represented here by its at that time well-known 'Poison Frog', offered Heineken's Managing Director Oostra a cadmium-free crate from its competitor Grolsch to playfully encourage the company to replace its familiar yellow Heineken crates. © Photo taken by Sjakkelien Vollebregt (Anefo). National Archives, (cco), Photo collection Anefo, 2.24.01.05, 933-4516, <http://hdl.handle.net/10648/ad4b6472-dob4-102d-bcf8-003048976d84>.

Dutch government and Members of Parliament to learn their views on the use of cadmium, but it also contacted the supplier of the yellow paint to discuss alternatives.³⁶ Thus, both defensive and more forward-looking actions were taken, although the mood was basically defensive. When in November 1985 the environmental movement threatened Heineken with a consumer boycott, the company changed its tune. Together with the members of the Dutch brewers' association, it signed an agreement with six environmental and consumer organisations to not order any new crates containing cadmium from 1995 onwards. The agreement also promised to recover the cadmium safely after the disposal of the current plastic crates after their life cycle of fifteen years.³⁷ In 1989, Heineken reported that its supplier of yellow paint had succeeded in developing an environmentally friendly yellow colourant. A few years later, in 1993, Heineken announced that it had succeeded in developing a process to remove material containing cadmium pigments from old crates.³⁸ However, this was vastly optimistic, as it turned out that it took decades to get rid of the cadmium-contaminated crates.³⁹

After initially defending the yellow crates so stubbornly, the company switched gradually to green crates in combination with a green bottle. The first green crate was introduced in Germany in 1993, and other foreign markets followed suit. Finally, in 1999, the yellow crate was replaced by a green crate in the home market. The change of colour was part of a new marketing strategy in which the colour green played a bigger role.⁴⁰ The choice of the green colour turned out to be convenient when 'greening the business' became an important topic.

The ambitious goals of sustainability

As mentioned in the introduction, the 1987 Brundtland report *Our Common Future* offered industry the attractive prospect of sustainable growth. In particular, its emphasis on reducing energy, raw materials and waste meant that companies could invest in environmental measures that would also

36 HC, minutes of the Heineken executive board, 13 June 1985, 4 July 1985, 7 August 1986, and 4 and 25 September 1986.

37 Wouter Klootwijk, 'Heineken geeft gebruik cadmium in kratten op', *Volkskrant*, 11 December 1986, 1; HC, 'Overeenkomst met milieuorganisaties over cadmium', *Vers van 't Vat*, January 1987, 14-15.

38 Heineken annual reports for 1989 and 1993.

39 *AfvalOnline*, 10 November 2003, August 2009, September 2009 and October 2018; *c2w/Mens en Molecule*, 11 August 2009.

40 HC, 'Small-scale introduction of Heineken in Germany', *World of Heineken*, 1 January 1993, 14-16; HC, minutes of the Heineken executive board, 25 August and 2 September 1992, 23 September 1993 and 11 December 1998; Heineken annual report 2000.

save money.⁴¹ Companies were encouraged to look at environmental issues not as costs but as opportunities to increase their competitiveness. This approach was promoted by John Elkington, business advisor and co-founder of the consultancy SustainAbility. He wrote about ‘green’ business and in 1994 introduced the slogan ‘people, planet & profits’ or the ‘triple bottom line’, further popularised in his 1997 book *Cannibals with Forks*.⁴² Interestingly, Elkington was full of praise for the Dutch way of organising environmental measures via the instrument of a ‘covenant’: a voluntary but not optional agreement between government and trade associations or individual companies. He recommended this as an instrument for other countries, though he admitted it was not suitable for all countries, nor applicable to all problems and all circumstances.⁴³ The Dutch brewers and their association used the instrument of the ‘covenant’ not only to achieve energy savings, but also for agreements about packaging, including refilling bottles, recycling bottles and cans, and reducing litter.⁴⁴

Heineken did not use the term ‘sustainability’ until 2001. In the 1990s, Heineken’s annual reports routinely contained paragraphs on environmental issues, initially organised under the heading ‘research’, but from 1993 onwards as an important item in its own right. Initially, the focus was on the European breweries, partially in response to European rules and regulations. To show progress in achieving environmental goals, Heineken published the first environmental report of its activities in the Netherlands in 1994, while its first European environmental report appeared in 2000. The ‘best practices’ developed in Heineken’s European breweries were subsequently applied in its breweries in other countries.⁴⁵

In 2000, in a letter to the top hundred senior managers worldwide, Heineken’s CEO at the time, Karel Vuursteen, referred to Elkington’s triple bottom line in the following way:

‘World opinion no longer appraises a company’s performance and value solely on financial performance. Respect for the environment and sustainable development, social accountability for safety and health and other factors all play their part. This whole matter is identified as the 3P concept: Profit – Planet – People. We could add Passion to this, so it becomes “3 P with Passion”.’⁴⁶

41 United Nations and World Commission on Environment and Development, *Our Common Future* (New York 1987).

42 John Elkington and Tom Burke, *The Green Capitalists: How to Make Money – and Protect the Environment* (Gollancz 1989); John Elkington, *Cannibals with Forks: the Triple Bottom Line of the 21st Century* (New Society Publishers 1997).

43 Elkington, *Cannibals with forks*, 236-237.

44 Productschap voor Bier/CBK, annual reports 2001-2007.

45 Heineken annual reports, 1990-2000.

46 HC, President’s letters, 5 January 2000.

As we can see from this quote, for Heineken, the term ‘sustainability’ included more than just environmental issues. Heineken’s first full sustainability report included a passage presenting its perspective on corporate social responsibility (CSR). The company proclaimed its adherence to the Organisation for Economic Co-operation and Development (OECD) guidelines for multinational companies and announced its own three fundamental values: respect for individuals, society and the environment; enjoyment (‘we bring enjoyment to life’); and passion for quality.⁴⁷ Heineken committed to the Millennium Development Goals (MDGs), which included the eradication of hunger and poverty, universal primary education, gender equality and empowering women, reduction of child mortality and combatting HIV/AIDS.

In its sustainability reports, the company explained all measures taken in this context, including support for local schools, local agrarian projects and HIV/AIDS and health schemes. In the 2009 report the company defined its view on ‘being green’: ‘Being green is Heineken’s colour, and green is synonymous with sustainability. To us, being green is an overarching, all-inclusive concept, not simply another word for environmental credentials. It means sustainability across all aspects of our business – not just the environment. Being green is about making a commitment to people, communities and society.’⁴⁸ In 2015, Heineken explained that the introduction by the United Nations of the seventeen Sustainable Development Goals (SDGs), designed to end poverty and to address a broad set of additional CSR topics, provided ‘additional input for our approach to creating a sustainable business’.⁴⁹ In its sustainability reports, available on the company website, Heineken translated many of the SDGs into quantitative targets, to enable the public to follow progress (or not) year by year. Heineken’s environmental targets with relation to water use, CO₂ emissions and the use of renewable energy will be discussed below.

By embracing a broad concept of sustainability, Heineken acted in line with other Dutch multinationals. In 2012, eight Dutch companies operating internationally and the Dutch employers’ organisation (VNO-NCW) founded the Dutch Sustainable Growth Coalition (DSGC), facilitated by Ernst & Young partner Jan Peter Balkenende, a former Dutch Prime Minister. The purpose of the coalition, set up by Paul Polman (then CEO of Unilever) and Feike Sijbesma (then CEO of DSM), was to exchange ideas for a more sustainable economy and to encourage the Dutch government to support policies that stimulated sustainable growth. In other words, it is a platform for large Dutch companies to lobby the government for subsidies to ease investments in green policies. Jean-François van Boxmeer, then CEO of Heineken, was eager to be part of this initiative. The coalition is still active.⁵⁰

47 Heineken sustainability report, 2004-2005.

48 Heineken sustainability report, 2009.

49 Heineken sustainability report, 2015.

50 DSGC website, 3 January 2022: other companies are KLM, Unilever, Philips, Shell, Friesland-Campina, AKZO-Nobel and DSM.

By publishing extensive sustainability reports, Heineken was also in line with other multinational spirits and beer companies. A 2011 study of the websites of ten major spirits and beer producers, including ABInbev and Heineken, found that all the companies provided plenty of information in their CSR or sustainability reports about environmental issues such as greenhouse gas emissions, reducing energy consumption, saving water resources and reducing the impact of waste and packaging. Responsible sourcing, workplace commitments, local communities and responsible alcohol consumption were other topics on the list. Often the companies underpinned the qualitative information with carefully formulated quantitative indicators and their results. All ten companies signalled progress against their stated ambitions. The study, however, also noted areas of concern: companies were difficult to compare, and external independent assessment of the information provided was limited.⁵¹ With regard to the issue of responsible alcohol consumption, the industry, including Heineken, acted predominantly defensively, arguing consistently that voluntary measures were more effective than government regulations, and that a distinction should be made between alcohol use and abuse.⁵² However, with the development of non-alcoholic beer of sufficient quality to be sold under the Heineken brand and other low-alcohol or non-alcoholic beverages, Heineken and other brewers can claim to offer consumers a real alternative to alcohol. Here again, innovation helped the companies step up their sustainability message.⁵³

It is outside the scope of this article on Heineken's dealing with environmental concerns to discuss the company's broader sustainability goals, such as supply chain responsibility, health care or diversity targets. It is fair to say that the greater the stated ambitions, the more sensitive the company has become to criticism. For instance, in 2009, Heineken was taken to task for the ways in which women, so-called Promotion Girls, were employed to sell beer in bars in Cambodia. They had to sit at the table of often male customers, a context which was prone to sexual harassment. Though the employment of Promotion Girls was standard in several Asian countries, and though

51 Peter Jones, David Hillier and Daphne Comfort, 'The leading spirits and beer companies and corporate social responsibility', *Corporate Governance* 13:3 (2012) 249-260. DOI: <https://doi.org/10.1108/CG-03-2011-0023>; the ten companies included in the study are the beer companies ABInbev, SABMiller, Heineken, Carlsberg and Tsingtao, and the spirits companies Diageo, Pernod Ricard, Bacardi, Brown-Forman and Fortune Brands.

52 In the 1990s, Heineken provided information in its annual reports under the heading 'Heineken and Society'. This subsection was entirely devoted to the issue of alcohol use and the preferred voluntary measures the company undertook.

53 Sluyterman and Bouwens, *Brewery, brand and family*, 390, 498-499; Heineken annual report, 2020.

Heineken was not directly involved in the bars, it profited from the beer sales and as such could be held responsible. In reaction to criticism on this matter, Heineken admitted its responsibility and took some action to improve the women's situation. It also encouraged the beer industry to take collective action, but the sales system itself was not changed.⁵⁴

In two books the Dutch journalist Olivier van Beemen heavily criticised Heineken's presence in Africa. He particularly questioned the political connections between some Heineken breweries and the governments of Nigeria, Burundi, Rwanda and the Democratic Republic of the Congo. He blamed Heineken for the indirect support to those governments via the payment of beer excise and other taxes. Furthermore, the delivery of free crates of beer to local politicians seemed to have been common practice. Moreover, Van Beemen underlined that Heineken put much effort into promoting beer consumption, while measures to encourage 'responsible drinking' were ineffective and counterproductive. He argued that while Heineken voiced the ambition of helping develop African countries, the profits ended up in Europe. Only in its programme to tackle HIV/AIDS did Heineken make a real difference, according to Van Beemen.⁵⁵ Though these issues are important, it is outside the scope of this article to discuss whether these criticisms are justified, as this article focuses on the environmental aspects of the concept of sustainability.

With regard to environmental issues, it is important to note that Heineken's sustainability reports defined clear targets for reducing energy and water use and CO₂ emissions. Heineken worked towards these targets through a mix of innovation and investment. Comparing figures over a longer period of time is difficult, because the company is constantly changing through the acquisition of new breweries or changes in ownership structures. Nevertheless, the figures from 2008 to 2020 are fairly consistent and show that the average water use per hectolitre (hl) of beer and soft drinks fell from 5.0 hl in 2008 to 3.4 hl in 2020, a reduction of 33 percent in twelve years.⁵⁶ Between 2008 and 2020, direct and indirect CO₂ emissions from production decreased from 10.4 kg CO₂ equivalent per hectolitre of beer and soft drinks

54 Wim Dubbink et al. (eds.), *European Business Ethics Cases in Context. The Morality of Corporate Decision Making*, Issues in Business Ethics 28 (Springer 2011). DOI: https://doi.org/10.1007/978-90-481-9334-9_10. See chapters 7 and 9 in particular.

55 Oliver van Beemen, *Heineken in Afrika* (Prometheus 2015); Oliver van Beemen, *Bier voor Afrika. Het best bewaarde geheim van Heineken* (Prometheus 2018). The second book

is a revised version of the first book, including some new revelations and an interesting chapter on discussions the journalist had with Heineken. After first ignoring his criticism, the company then belatedly tried to defend its policies and to explain the dilemmas from its point of view.

56 Heineken sustainability reports, 2004-2015 and combined annual and sustainability reports 2016-2020.

to 5.1 kg, a decrease of 5.1 percent over 12 years, or an average of 4 percent per year.⁵⁷ These figures were assessed by the auditor of Heineken's annual reports, and from 2016 onwards the sustainability report formed part of the annual report.

In the 2013 Dutch Energy Agreement, government, industry, trade unions and environmental organisations formulated the ambition to increase the share of renewable energy from the existing 4 percent to 12 percent by 2020.⁵⁸ During the negotiations, Greenpeace dropped a wind turbine blade in front of the Heineken Experience in Amsterdam to remind the company of its environmental obligations.⁵⁹ Heineken took the suggestion to heart: over the next years, it erected four wind turbines at its large brewery in Zoeterwoude and installed solar panels on the roofs of its Dutch warehouses and the breweries in Den Bosch and Zoeterwoude. Comparable initiatives were taken abroad. Worldwide, the company increased the share of renewable energy in its production to 22 percent in 2020.⁶⁰ In short, the company has made progress against its ambitions to reduce water use and CO₂ emissions, while increasing the use of renewable energy. But is this enough to combat climate change?

Dolf van den Brink, present CEO of Heineken, argued in 2021 that sustainability and economic growth can go together, in particular at Heineken, because the company is 'family-controlled', and families think in generations rather than about the next quarter's results.⁶¹ This is an interesting remark to reflect on, but more comparative research is needed to assess whether Heineken, as a family-controlled company, has indeed followed a greener policy than competitors that are not family-controlled, or whether perhaps a smaller family-owned brewery such as the Gulpener Bierbrouwerij is greener than Heineken.⁶² What is striking about Van den

57 *Ibid.*

58 Sociaal-Economische Raad, *Energieakkoord voor duurzame groei*, 6 September 2013, <https://open.overheid.nl/repository/r/nl-archieef-2c12d99a-e816-4e93-a199-f9e9feef318c/1/pdf/energieakkoord-voor-duurzame-groei.pdf> (accessed 21 September 2022).

59 Greenpeace NL, 'Greenpeace herinnert Heineken aan groene voornemens', 5 June 2013, <https://www.greenpeace.org/nl/natuur/3269/greenpeace-herinnert-heineken-aan-groene-voornemens/> (accessed 21 September 2022).

60 Heineken annual report, 2020.

61 Interview with Dolf van den Brink, NOS Buitenhof, 14 November 2021, https://www.npostart.nl/dolf-van-den-brink-ceo-heineken/14-11-2021/POMS_AT_16692369 (accessed 21 September 2022).

62 Gulpener Bierbrouwerij started in the mid-1990s with local sourcing. In 2020 it opened a new, innovative and more energy-efficient brewery and received the King Willem I Award for Sustainability. Because the company website does not contain annual reports, it is impossible to assess the resulting savings in energy and water consumption. With about 60 employees compared to Heineken's 85,000 worldwide, the company is very small and lacks the efficiency advantages of large-scale production. *De Volkskrant*, 24 November 2003; *Boerderij Vandaag*, 23 December 2004; *De onderneming*, 9 August 2017; <https://www.kw1prijs.nl/koningin-maxima-bezoekt-gulpener-bier>.

Brink's comment is the self-evidence of pursuing economic growth. Many who worry about the environment and climate change consider economic growth itself the fundamental problem. In that respect, the concept of sustainability has recently undergone another change: 'true' sustainability now implies renouncing economic growth and perhaps even accepting the need to contract the economy to save the planet.

Conclusion

Throughout its history, Heineken has had to take environmental concerns on board. Neighbours, consumers, environmentalists and the general public have all played a role in stimulating the brewer to take action, and so has the prospect of innovation. Kurt Fischer and Johan Schot argued that before 1985, companies acted predominantly defensively, and after that more offensively and innovatively. In the case of waste water and water pollution, Heineken responded proactively as early as the 1970s, because clean water was an obvious concern in the industry itself, but state regulation also played a part. Even if higher costs were implied, necessary measures in this field were embraced without too much ado. Yet, in the case of energy saving, it took the company a few years to understand the seriousness of scarce energy resources, but once energy saving was recognised as a worthwhile goal in 1979, all kinds of innovations were introduced. Reducing the use of energy and water obviously benefited the company's profits as well as the environment. When marketing and branding issues were at play, Heineken tended to act defensively. In addressing the environmental problem of cadmium in its yellow crates, Heineken initially refrained from change, because there was no easy solution, and yellow was considered key to the brand image. Only when consumers threatened a boycott and sales were at stake, did the company adopt a more positive approach to find technical solutions, even if they entailed cost increases. Innovations were often initiated in the Dutch breweries, then moved to other European countries, and only lastly to other parts of the world. As marketing and branding considerations also had their own dynamics, these were occasionally inconsistent with the company's environmental efforts.

Since the 1990s, Heineken has achieved clear reductions in water use and CO₂ emissions, and increased its use of renewable energy, in line with what Michael Bess observed about big companies. Peter Dauvergne and Jane Lister admit that big business might undertake substantial environmental efforts, but they are doubtful of the companies' motives. Heineken has been motivated by a mix of government laws and regulations, public concerns and consumer preferences, as well as higher profits from efficiency gains and innovation. Moreover, the company has gradually realised that the public would only accept further growth of the company if it took measures to reduce environmental damage.

The 1987 Brundtland report on sustainable development demanded from businesses all their ingenuity to reduce the use of energy, water and other resources. Heineken has embraced these environmental goals because they also make good business sense. The company has equally followed the general trend of multinationals to broaden the concept of sustainability by including more and more ambitions to improve the world in several domains while maintaining economic growth. This broader perspective has not distracted Heineken from its purely environmental goals, as Geoffrey Jones feared. However, thirty years later, the concept of sustainability has changed again. The issue of climate change has become so pressing that many critics believe that sustainable development implies rejecting economic growth altogether. That is a path, however, that most businesses, including Heineken, are very reluctant to take as yet.

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