

# Forests in the Netherlands and Their Many Functions since the 1900s

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In European forestry, ‘sustainability’ as a key concept is centuries old. State-managed production forests and wooded landscapes for nature conservation have co-existed for a similar timespan. Incrementally, the functions of forests in the densely-populated Netherlands have shifted from timber production and economic rationales to natural beauty, biodiversity and recreation. ‘Monofunctional forests’ were gradually replaced in the 1960s by ‘multiple use’ of forests, according to which many functions may co-exist and be brought into balance in one forest area. The emergence of this idea was a significant step towards the formulation of a holistic concept of ‘sustainability’.

In de Europese bosbouw is ‘duurzaamheid’ al sinds eeuwen een sleutelbegrip. Door de staat beheerde productiebossen en beboste landschappen voor natuurbehoud hebben een vergelijkbare tijdspanne naast elkaar bestaan. Geleidelijk aan zijn de functies van bossen in het dichtbevolkte Nederland verschoven van houtproductie en economische rationaliteit naar natuurschoon, biodiversiteit en recreatie. De stap van ‘monofunctionele bossen’ naar ‘multiple use’ in de jaren zestig van de twintigste eeuw, waarbij binnen hetzelfde bosterrein meerdere functies naast elkaar kunnen bestaan en met elkaar in evenwicht moeten worden gebracht, is een relevante vernieuwing op weg naar een alomvattende invulling van ‘duurzaamheid’ als nieuw interpretatiekader.

## Introduction: forests and sustainability

It comes as no surprise that the very concept of sustainability ('duurzaamheid' in Dutch; 'Nachhaltigkeit' in German) finds its historical origins in the forestry sector. The concept is crucial to forestry, since many tree species take decades, if not centuries, to reach maturity.<sup>1</sup> What we now identify as sustainable use of renewable natural resources was introduced in the practices of German scientific forestry during the eighteenth century. Therefore, forestry serves as a characteristic example in a 'long history' of sustainability (see introduction to this issue). The 'short history' of *ecologically-motivated* sustainability, however, did not begin until the 1980s.<sup>2</sup>

The present contribution focuses on the case study of forestry in the Netherlands in the twentieth century. After centuries of ever-more deforestation in the Netherlands, timber production became a key factor in economic modernisation in the early twentieth century. Today, the Netherlands (and Ireland) still have the lowest percentage of woodland in the European Union: eleven percent compared to 23 and 33 percent in Belgium and Germany, respectively. In the Dutch case, this scarcity is combined with the highest population density. Its forest area and the various functions of forests could therefore usually not satisfy the competing interests and groups of stakeholders. As a consequence, the history of sustainable forest use in the Netherlands has always been about the management of scarcity.

When the term 'sustainability' was first used in relation to Dutch forestry practices, it was closely linked to the *economic* sustainability of forests. Social and ecological practices were taken into account too: the 'natural forest' concept and open-air recreation played a role in Dutch forest management as early as the first decades of the twentieth century. This seems to fit in nicely with modern definitions of sustainability since the 1980s as the balancing of environmental, social and economic concerns.

The historical use of the concept, however, confronts the historian of a 'short history' of sustainability, so mainly focusing on the period since the 1980s, with a number of problems. Ecological and recreational functions of the forest were recognised as such by the 1920s or even before, but were not thought of as important elements of sustainability in their own right. Rather, these functions were merely thought to contribute to the most important form of sustainability of forests, namely timber output and economic revenue in the long term. If the costs of treating the forest as an ecosystem were disproportionate to possible future gains, such an ecological approach was considered 'not sustainable' by definition. Other functions of the forest, ranging from its aesthetic appeal to local water management and landscape

1 Richard Hölzl, 'Historicizing Sustainability: German Scientific Forestry in the Eighteenth and Nineteenth Centuries', *Science as Culture* 19:4 (2010) 431-460, DOI: <https://doi.org/10.1080/09505431.2010.519866>.

2 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>.

design, were a point of consideration throughout the twentieth century, but were rarely called 'sustainable' at the time, or even today.

Therefore, projecting the current concept of sustainability onto the past and identifying the historical roots of present-day ideas scattered among forestry debates with a very different background and direction, does no justice to how historical actors thought about forests and developed their forestry practices in the Netherlands. This article focuses instead on the different *functions* of Dutch forests. These functions each had their own historical development and were prioritised in the management of forests at different times or locations. The first and most obvious function was the production of timber, but other functions and concerns about their use by future generations came to the fore since the early decades of the twentieth century. The economic role of forests has now dwindled and is replaced by recreative and ecological roles. As of recent, forests are viewed as valuable assets for carbon storage in mitigating climate change. Recently, *Staatsbosbeheer* (the Dutch State Forestry Service, founded in 1899) and the private Dutch conservationist association *Natuurmonumenten* (Association for the Preservation of Natural Monuments in the Netherlands, 1905) were criticised in the media for cutting down and selling about one percent of their trees annually. Arguments on biomass heating or carbon storage were pitted against biodiversity and management costs.<sup>3</sup>

The study of functions of Dutch forests makes the question of the compatibility of different functions very relevant. Modern definitions of sustainability assume the co-occurrence of economic, social and ecological functions, suggesting that the 'long history' of the concept studies the historically shifting balance between these three functions. Focusing on the history of the functions of forests has the important asset that it may reveal alternative ideas and solutions in the past. Actors involved in forest management in the Netherlands did imagine a wide range of 'sustainable' functions of forests at a very early stage, but they allotted different functions to spatially separate forest areas. The point that 'multiple use' of forests did not emerge as an idea in the Netherlands until the 1960s sheds a very different light on the 'long history' of sustainability. Most of the existing literature on afforestation and forestry in the Netherlands analyses the development of forests as such over the centuries. It discusses the tree species, the woodland area and its functions for foresters, tourists, conservationists and (state) institutions managing forests to fulfil all or some of these diverging functions.<sup>4</sup> In order to trace the many functions of forests in Dutch history

3 Joop Bouma, 'Natuurmonumenten gooit het roer om: minder bomenkap en meer bossen', *Trouw* (3 juli 2019); Frank Straver, 'Meer dan zestig milieclubs eisen dat Staatsbosbeheer nu echt stopt met bomen kappen', *Trouw* (12 april 2019).

4 Jaap Buis, *Historia forestis. Nederlandse bosgeschiedenis* (Landbouwhogeschool 1985); Jaap Buis and Jan-Paul Verkaik, *Staatsbosbeheer. 100 jaar werken aan groen Nederland* (Stichting Matrijs 1999); J.N. van Laar, 'Historie van bos,

in what is called sustainable forest management today, this article will mainly cover the ideas and practices of two organisations. *Staatsbosbeheer* was established in the late nineteenth century to manage afforestation and timber production. *Natuurmonumenten* purchased forest areas with the objectives of nature conservation, the preservation of natural beauty and recreation for town-dwellers.

As these two organisations were among the largest forest owners of the Netherlands and can rely on a continuity of forest management for up to a hundred years in some of their possessions, they are an obvious choice for this long-term study. Moreover, these organisations have been key players in dealing with various concepts of sustainability and their implementation in their extensive forest areas in the Netherlands. The functions of forests, their management and the perceived compatibility of different functions varied significantly over time. Debates within and between organisations in the forestry field in the Netherlands are an excellent source for analysing the historical development of competing and conflicting views, priorities and taboos with regard to forests.

The article starts with a description of the envisaged functions of Dutch forests a century ago. The economic relevance of timber production was the main reason for the Dutch state's involvement in forestry, yet as early as around 1900, as discussed in the next paragraph, concerns over 'natural monuments' and views to consider the forest as an ecological life community emerged as well. At that time, the different possible functions of the forest were imagined in strict spatial separation. For timber production, open-air recreation and scientific research, three different forest areas were required in principle. In the last paragraph, we follow the changes since the 1960s, when 'multiple use' became the new buzzword for land use and spatial planning in the Netherlands. The emergence of a modern environmental consciousness in that decade was in the forestry sector translated into a critique on monocultures and a reassessment of the ecological and biodiversity impact of forests.

## Dutch forestry before the Second World War

The concept of 'scientific forestry' was coined in the German states in the course of the eighteenth century. With these states' financial support, for which timber was a significant natural resource and a source of revenue, foresters used experiments and applied scientific research to develop new

forestry practices. It should be noted that the ideal type of German scientific forestry changed significantly over time in its management practices. In a production sense, the forests were highly sustainable because the timber reserves were not depleted over time: trees were planted to be ‘harvested’ in twenty or thirty years. Thoroughly planned planting and logging, in addition to scientific research on suitable soil types, climate conditions and the best tree species, had to provide for maximum yields of high-quality timber over a long period of time.<sup>5</sup>

German scientific forestry was more a practical implementation of ‘sustainability’ than a fixed model, but that did not prevent it from becoming an influential source of inspiration for forestry systems all over the world. Colonial authorities in the Dutch East Indies actually adopted the view that sustainable management of forest reserves (in Dutch: ‘duurzaam boschbeheer’<sup>6</sup>) was a state responsibility well before the Dutch state in Europe did. A forest service was founded in the Indonesian archipelago in 1865 to supervise the sustainable use of forests on the island of Java, preserve the important reserves of teak forests and prevent large-scale deforestation and erosion.<sup>7</sup>

The European Netherlands followed suit with the founding of *Staatsbosbeheer* in 1899. Forests and timber were considered as valuable national assets. They formed a precious natural resource, which had to be managed in a sustainable way. Dutch politicians assigned a larger role to the state to take care of the future prosperity of the Dutch nation. The state should intervene, mitigate the short supply of timber as a result of the increasing demands of housing construction and the developing coal mining industry, and secure a guaranteed domestic supply of timber. Only the state, it was thought, was able to exercise patience for investments and management plans for Dutch forests, since economic revenue would not be forthcoming in the next few decades.<sup>8</sup>

These national assets should not just be managed and preserved in its present state. *Staatsbosbeheer* managed only about 2,000 hectares of forested state land in 1899, but its explicit assignment was to expand the Dutch national forest property by land acquisition, afforestation and the reclamation of wasteland, such as heaths, moors and marshes.<sup>9</sup> For this conversion of wasteland into forest, the state agency closely co-operated with the non-profit

5 Hölzl, ‘Historicizing Sustainability’. Cf. Frank Uekötter, *Im Strudel. Eine Umweltgeschichte der modernen Welt* (campus 2020) 63-71.

6 ‘Berkhout’s rapport over de Surinaamsche bosschen’, *De Surinamer* (4 February 1904).

7 Peter Boomgaard, ‘Oriental Nature, its Friends and its Enemies: Conservation of Nature in Late-Colonial Indonesia, 1889-1949’, *Environment and History* 5:3 (1999) 261-264; Karel Davids, ‘Lage

Landen, verre horizonzen. De verbinding van natuur, landschap en ‘Nederlandse’ identiteit in internationaal perspectief’, *BMGN – Low Countries Historical Review* 121:4 (2006) 609-610. DOI: <https://doi.org/10.18352/bmgn-lchr.6522>.

8 Buis and Verkaik, *Staatsbosbeheer*, 11-19.

9 Auke van der Woud, *Het landschap, de mensen. Nederland 1850-1940* (Prometheus 2021) 98-101.

## The walking forest



Adriaan van Schermbek originally conceived 'natural forest' as a factor contributing to the timber production of Dutch forests. The balance between forest management and natural processes in forests is still a point of discussion today. As a response to the Dutch government's forest strategy, Stichting Ark prioritised ecological and biodiversity functions in its own policy paper *Begraasde, wandelende bossen* in January 2021, as shown in this drawing. The illustration depicts the many natural processes, ranging from seed dispersal by the wind or by birds, to grazing animals and predation, which cause a forest to 'wander' naturally over time. © 'Het wandelende woud' designed by illustrator Jeroen Helmer, ARK Rewilding Nederland, 2021. [https://www.ark.eu/sites/default/files/media/Bosvisie\\_lage\\_resolutie\\_o.pdf](https://www.ark.eu/sites/default/files/media/Bosvisie_lage_resolutie_o.pdf).

reclamation organisation *Nederlandsche Heidemaatschappij*. Both organisations even shared the same office in Utrecht and had the same founding director.<sup>10</sup>

In sum, ‘sustainability’ in economic terms dominated the view of forests in the Netherlands until the 1920s. The work of *Staatsbosbeheer* became even more vital when the outbreak of the First World War cut the Netherlands off from timber supplies from abroad. The new emergency forestry act of 1917 and the final *Boschwet* (Forestry Act) of 1922 significantly expanded the agency’s duties and powers. *Staatsbosbeheer* was given the authority to advise private forest owners on matters of forest management, and its representatives were mandated to survey private areas for its inventory of Dutch timber reserves. Logging without the permission of a *Staatsbosbeheer* official became illegal.<sup>11</sup>

### Biological forestry and natural monuments

The economics of timber production was not the only role assigned to Dutch forests in the early stages of *Staatsbosbeheer*’s existence. Timber production was dominant in contemporary considerations of ‘sustainability’. In the first half of the twentieth century, however, other roles were assigned and competed for attention in discourses about forest preservation and management. Ideas of a ‘natural’ or ‘biological’ forest and the concept of ‘natural monuments’ claimed their own position in the work of *Staatsbosbeheer* and other forest-owning organisations in the Netherlands.

The influential Dutch forest expert Adriaan Johannes van Schermbeek was trained in Germany and developed alternative ideas on forestry while working in the Dutch East Indies. He introduced the idea of a ‘natural forest’ to *Staatsbosbeheer*’s internal debates from day one (1899). He pointed out that conifer mono-cultures for timber production were susceptible to fires and plagues. In the long term, robust mixed forests, growing and developing naturally, would be a more sustainable form of forestry than using the strictly production-driven standards of German ‘scientific forestry’. This so-called ‘biological forestry’ remained a point of contention within *Staatsbosbeheer* over the next decades.<sup>12</sup>

It needs to be noted, however, that Van Schermbeek’s concept of biological forestry and the ensuing debates continued to evolve within the boundaries of the production role of the forest. Planting native hardwood trees, preventing monoculture plantations and allowing fungi, woodland vegetation and other healthy ecosystem elements into the production forests

10 Buis and Verkaik, *Staatsbosbeheer* 29-33.

11 Buis and Verkaik, *Staatsbosbeheer*, 57-61; J.A. van Steijn, ‘Staatsbosbeheer en natuurschoon’, *Natura* 35:9 (1936) 221-229.

12 Buis and Verkaik, *Staatsbosbeheer*, 35-38; Van der Windt, *En dan*, 168-175.



The estate Gooilust in 's-Graveland came into possession of *Natuurmonumenten* in 1934. This 'natural monument' provides a good illustration of the association's early purchasing strategy, in which aesthetic ideals of nature went hand in hand with the recreation function for town-dwellers. © Photo made by HenkvD, Gooilust 's-Graveland, 2 August 2012. Via Wikimedia Commons, [https://commons.wikimedia.org/wiki/File:%27s-Graveland\\_-\\_Gooilust\\_\(2\)\\_RM521478.JPG](https://commons.wikimedia.org/wiki/File:%27s-Graveland_-_Gooilust_(2)_RM521478.JPG). Licensed under the Creative Commons Attribution-Share Alike 3.0 Unported, 2.5 Generic, 2.0 Generic and 1.0 Generic licenses.

were just other ways to guarantee the sustainability of timber production. Natural beauty or the preservation of wild plants and animals were recognised as positive side effects of biological forestry, and *Staatsbosbeheer* foresters definitely had an eye for these aspects, but the forests they managed remained strictly intended for production.<sup>13</sup> This prominence of timber production became most apparent under the constraints of high timber demand in the next decades. Biological forestry or other interpretations of sustainability seemed a luxury which *Staatsbosbeheer* often could not afford. In practical terms, state forests consisted of long lines of straight conifers, planted at the same time with the purpose to be cleared within the same year. Dutch conservationists mocked this type of plantation as ‘pine fields’ (‘dennenakkers’).<sup>14</sup>

The concept of ‘natural monuments’ referred to a very different function of Dutch nature, and of forests in particular. *Natuurmonumenten* played a decisive role in defining and propagating the term since its founding in 1905. Its 1905 statutes defined ‘natural monuments’ as ‘remarkable parts of the Dutch territory, all remarkable animals, plants and communities in the Netherlands [...], which are endangered by the expansion of culture or other causes.’<sup>15</sup> Natural monuments suggest spectacular and ‘monumental’ landscapes along the lines of the National Parks in the United States, which have to be preserved in their present state. Whereas the logging and clearing of monotonous conifer plantations were inevitable production aspects of Dutch forests, a monument is supposedly authentic and untouched by human influence. The concept parallels ‘cultural monuments’: ancient buildings, forests and other distinctive landscape features are parts of a common national heritage.<sup>16</sup>

Such natural monuments could diverge widely. *Natuurmonumenten* typically characterised all its properties as ‘natural monuments’. Among its first major land acquisitions were the Leuvenumse Bos and Hagenau in the Veluwe region, forest areas with a clear timber production background. Some parts of the natural monuments were reserved for natural forest development,

13 J. Vlieger, ‘Het belang van plantensociologische overwegingen voor het Boschbedrijf’, *Nederlandsch Boscbouw-Tijdschrift* 8:10 (1935) 377-393; J. Vlieger, ‘Vijftig jaar heimwee naar meer-natuurlijk bos’, *Nederlandsch Boscbouw-Tijdschrift* 57:9 (1985) 236-239; Antonie te Wechel, ‘Ter overdenking’, *Nederlandsch Boscbouw-Tijdschrift* 9:6 (1936) 189-200.

14 Cf. H.P. Gorter, *Ruimte voor natuur. 80 jaar bezig voor de natuur van de toekomst* (Vereniging tot Behoud van Natuurmonumenten in Nederland,

Uitgeverij Terra Lannoo 1986) 172-174; J.A. van Steijn, ‘Heden en toekomst van het Nederlandse bos’, *Natuur en Landschap* 5:2 (1951) 37-43.

15 English translation as per Henny J. van der Windt, ‘Biologists Bridging Science and the Conservation Movement: The Rise of Nature Conservation and Nature Management in the Netherlands, 1850-1950’, *Environment and History* 18:2 (2012) 220-221.

16 E.g. Willemien Roenhorst, ‘De natuurlijke natie. Monumentalisering en nationalisering van natuur en landschap in de vroege twintigste eeuw’,



Some of *Natuurmonumenten*'s possessions are classified as 'vulnerable natural areas'. The Winkelsven site on this picture, part of the Kampina 'natural monument', is therefore closed to the public. © Photo taken by Saxifraga-Jan van der Straaten, 7 January 2009. Saxifraga Foundation – Images of European biodiversity. <https://tinyurl.com/39x55ues>.

the preservation of sites featuring rare plant or animal species, or for scientific research. Public recreation, initially only accessible for the members of the association, but later extended to all Dutch citizens, constituted an intermediate function. Last but not least, *Natuurmonumenten* could not afford to do without the financial revenues generated by timber production, fishing and game hunting in its areas.<sup>17</sup>

*Natuurmonumenten* adopted a form of forestry which could qualify as ecological or biodiversity functions today. Pieter Gerbrand van Tienhoven, chairman of the association, ordered the planting of hardwood trees or decided not to clear entire areas, but rather to leave a few standard trees to provide shade to newly planted ones. These methods were based on Van Tienhoven's personal aesthetic ideas and were consequently ridiculed by Dutch forestry scientists. Only much later were these methods respected as trailblazers of mixed forests and as an ecologically sustainable form of forestry.<sup>18</sup> Van Tienhoven, like the *Staatsbosbeheer* employees trained by Van Schermbeek before, combined a clear priority for the economic value of timber production with aesthetic considerations, recreation for human visitors and the protection of rare flora and fauna. The co-existence of multiple functions within the same area in *Natuurmonumenten's* forests remained a rare exception in the Netherlands prior to the 1960s. The value of the forest as a source of 'natural beauty' (in Dutch: 'natuurschoon') as an area in which town-dwellers could seek open-air recreation for the sake of their physical and mental health first received state recognition in the Netherlands during the 1920s. Concerns over the demise of large estates and their characteristic tree avenues, forest parks and footpaths formed the background for new legislation in the Netherlands in 1928. The *Natuurschoonwet* (Law for the preservation of natural amenities) allowed tax benefits for estate owners, provided that they maintained the areas in their present state and allowed access to the public for open-air recreation. The 'natural beauty' in the title was narrowly defined and restricted to forests and woodlands. Hence, this legal restriction reinforced the associative nexus between 'forest' and 'natural beauty'.<sup>19</sup>

BMGN – Low Countries Historical Review 121:4  
(2006) 727-752. DOI: <https://doi.org/10.18352/bmgn-lchr.6527>.

- 17 H.P. Gorter, 'Vijftig jaar 'Natuurmonumenten'', in: Idem (ed.), *Vijftig Jaar Natuurbescherming in Nederland* (Vereniging tot behoud van Natuurmonumenten 1956) 18-26; Jac. P. Thijsse, *Natuurbescherming en landschapsverzorging in Nederland* (Wereldbibliotheek 1946) 24-36; Van der Windt, *En dan*, 66-76.

- 18 E. Pelzers, 'De Munt- en Wolfsbergkwestie', *Jaarboek Numaga* 40 (1993) 135-145; Frans Bosscher and Jan Spijkerboer, *Piet van Tienhoven 1875-1953. Een biografische schets* (Natuurmonumenten 2015) 28-30; Van der Windt, *En dan*, 176-179.
- 19 Wybren Versteegen, *Vrije wandeling. Het parlement, de fiscus en de bescherming van het particuliere Nederlandse natuurschoon. De natuurschoonwet tussen 1924 en 1995* (Nederlands Agronomisch Historisch Instituut (NAHI) 2017).

*Staatsbosbeheer* became the state agency responsible for assessing this ‘natural beauty’ value of estates. The state forestry service had designated its first ‘state natural monuments’ in 1908. The majority of these natural areas, for example, bird breeding grounds or moorlands, were reserved for scientific research in the national interest and should not be afforested. A governmental decree of 16 February 1929 added the ‘protection of natural beauty’ to *Staatsbosbeheer*’s responsibilities.<sup>20</sup> For scientific advice about the selection, designation and management of such natural monuments, the agency appointed an advisory committee led by professor of botany Theodorus Weevers in 1928. The Weevers committee consisted of prominent natural scientists as well as Jac. P. Thijsse, one of the founders of *Natuurmonumenten*. With the Weevers committee, *Staatsbosbeheer* had the scientific expert body to advise on issues related to the ecological importance of forests and other natural areas. In the large-scale land reclamation, drainage and land consolidation projects of the 1930s, the responsible ministers obligated their respective state agencies and institutions to seek the committee’s scientific advice.<sup>21</sup>

In the subsequent practical decisions and administrative compromises, however, the different functions of an area rarely overlapped. On the contrary, the Weevers committee usually agreed to a strict spatial separation. Following the prevailing views in ecological and botanical sciences about ‘natural vegetation’, ‘natural monuments’ were small plots of ‘wild nature’, untouched by human influence. These scientifically valuable areas should be ‘set apart’, reserved as ‘open-air laboratories’ for the study of processes of natural succession.<sup>22</sup> The committee believed that any form of human interference, ranging from recreation to agricultural or forestry production, was incompatible with this purpose. Vice versa, the conservationist movement around *Natuurmonumenten* effectively excluded the cultural landscape from its area of concern. Natural vegetation, the preservation of wild flora and fauna or biodiversity were not deemed to be at issue in cultural landscapes.<sup>23</sup>

So, the discourse on forestry of the 1930s insisted upon a spatial separation of three functions: agricultural production took place in the cultural landscape, scientific research in the few selected natural monuments

20 ‘Koninklijk Besluit van den 16den Februari 1929, No. 45, tot vaststelling der organisatie van het Staatsboschbeheer’, *Staatsblad van het Koninkrijk der Nederlanden* (1929).

21 G.J. van Oordt, ‘25 jaar adviezen aan de staat inzake natuurbescherming’, *Natuur en Landschap* 7:1 (1953) 6-13.

22 J. Jeswiet, ‘De wetenschappelijke beteekenis van natuurbescherming’, *Tijdschrift der Nederlandsche*

*Heidemaatschappij* 44:5 (1932) 218-237; Th.

Weevers, ‘De beteekenis van natuurreservaten voor de botanische wetenschap’, *Nederlandsch Kruidkundig Archief. Serie 3* 48:1 (1938) 83-88.

23 Kristian Mennen, Marij Leenders and Wim van Meurs, ‘Tot elkaar veroordeeld. Landbouw en natuurbescherming in Nederland (1900-1960)’, *TSEG – Low Countries Journal of Social and Economic History* (2022, forthcoming).

and forests served the purposes of timber production and partly of open-air recreation. Both *Staatsbosbeheer* and *Natuurmonumenten* supported the view that a mix was not ‘sustainable’ in the long run. The biological forest or Van Tienhoven’s ideas about forest management were attempts to reconcile timber production and natural values in forest areas, but most foresters at the time did not believe such a reconciliation was possible.

### Tourism and recreation since the 1950s

In the immediate post-war period, the production value of the Dutch forests initially remained the predominating obligation of *Staatsbosbeheer*. In a period characterised by reconstruction, strict austerity and the rebuilding of national wealth, any suggestion to refrain from timber production to allow for a more ecological interpretation of forests was unthinkable.<sup>24</sup> Nonetheless, *Staatsbosbeheer* developed a broader expertise in landscape design. Since 1954, the drafting of a landscape plan was mandatory for each land consolidation measure. *Staatsbosbeheer* prescribed where existing trees and copses should be preserved or where trees and forests should be planted alongside newly constructed roads, in order to reach the optimal aesthetic quality of the novel landscape.<sup>25</sup> Agricultural organisations, agronomists, engineers and *Heidemaatschappij* employees usually resented the emphasis on what they considered mere landscape decoration. In most cases, however, a balance was struck between the objectives of efficient agricultural and forestry production and non-agricultural uses of the land.<sup>26</sup>

This landscaping work was organised in a separate office of *Staatsbosbeheer* and was referred to in a separate section of each annual report.<sup>27</sup> Planting trees in road-building designs or designating large areas for new forest development, for example, in the newly created polders of Flevoland, were considered elements of the future liveability of the Dutch landscape.<sup>28</sup>

24 Vlieger, ‘Vijftig Jaar’, 239-240; Van der Windt, *En dan*, 175.

25 R.J. Benthem, ‘Het werk van staatsbosbeheer voor de verzorging van ons landschap’, *Natuur en Landschap* 4:1 (1950) 2-14; Gorter, *Ruimte voor natuur*, 220-228; Rik de Visser, *Een halve eeuw landschapsbouw. Het landschap van de landinrichting* (Uitgeverij Blauwdruk B.v. 1997) 54-67.

26 Gerrie Andela, *Kneedbaar landschap, kneedbaar volk. De heroïsche jaren van de ruilverkavelingen in Nederland* (Uitgeverij Thoth 2000) 65-77, 155-160; M.C. Bloemers, ‘Het aandeel van de overheid’,

in: *Vijftig jaar natuurbescherming in Nederland* (Vereniging tot Behoud van Natuurmonumenten 1956) 67-79; Buis and Verkaik, *Staatsbosbeheer*, 174-181; Joannes Nicolaas Maria Dekker, *Dynamiek in de Nederlandse natuurbescherming* (Universiteit Utrecht 2002).

27 Buis and Verkaik, *Staatsbosbeheer*, 172-176.

28 Zef Hemel, *Het landschap van de IJsselmeerpolders. Planning, inrichting en vormgeving* (NAI Uitgevers, EFL stichting 1994); Dirk Jan Wolffram, *70 Jaar Ingenieurskunst. Dienst der Zuiderzeewerken 1919-1989* (Sociaal Historisch Centrum voor Flevoland, Stichting voor het



The established State Forestry Service meets the young protest generation of the *Kabouterbeweging*. At their 'Green Day' in the Amsterdamse Bos on 30 April 1970, political activist Roel van Duijn (left) enters into discussion with a uniformed *Staatsbosbeheer* official. © Photographer unknown. The National Archives, The Hague, Photo collection Anefo, cco, 2.24.01.05, 923-4830, <http://hdl.handle.net/10648/ab95a34a-dob4-102d-bcf8-003048976d84>.

So, trees played a role in the ‘sustainable’ design of the Dutch landscape for future generations, but the planted forest itself was not necessarily understood as ‘sustainable’, except in the narrow economic sense of timber production.

The 1960s and 1970s witnessed fundamental changes in the understanding of forests and their functions in the Netherlands. Three reasons stand out, explaining these changes. First, the emergence of a ‘modern environmental consciousness’ in the early 1970s is often referred to as the starting point of post-materialism in Dutch post-war culture. Younger generations weighed material welfare and environmental pollution in a different way.<sup>29</sup> The influence of the report of the Club of Rome of 1972 on discourse in the Netherlands can hardly be exaggerated.<sup>30</sup> The report stressed that there were limits to growth, and that economic activities had to take the boundaries of the planet and the environment into account. The practical impact of these new insights on Dutch forestry must be questioned, however. Because forestry already had a long history of ideas about working for future generations, the new environmental paradigm failed to impress long-standing *Staatsbosbeheer* employees.<sup>31</sup> Moreover, environmental activism in the 1970s focused, first and foremost, on pollution and the depletion of natural resources.<sup>32</sup>

Secondly, by the 1970s, the economic value of Dutch forests had decreased overall. Due to the closing of the Dutch mines, rising wages and the emergence of alternative materials such as plastics, the potential profits of timber production plummeted. Existing forests and forestry techniques became much less sustainable in a business sense of profitability and investment return.<sup>33</sup>

In terms of the roles of Dutch forests and the future concept of ‘sustainability’, the third reason is the most relevant one. The monofunctional land use of the first half of the twentieth century was replaced by the concept of ‘multiple uses’ in the 1960s. The monopoly of production was

Bevolkingsonderzoek in de drooggelegde  
Zuiderzeepolders 1997) 205-263.

- 29 Jacqueline Cramer, *De groene golf. Geschiedenis en toekomst van de Nederlandse milieubeweging* (Van Arkel 1989); Gorter, *Ruimte Voor Natuur*, 294-305; John McCormick, *The Global Environmental Movement. Reclaiming Paradise* (Belhaven Press 1989) 1-46; Egbert Tellegen, *Groene herfst. Een halve eeuw milieu* (Amsterdam University Press 2010).
- 30 Geert Buelens, *Wat we toen al wisten. De vergeten groene geschiedenis van 1972* (Querido 2022); Peter

Peters, ‘De toekomst volgens de Club van Rome’, in: Kees Waagmeester (ed.), *Houdbare economie. Kroniek van duurzaam Nederland* (NCDO 1997) 15-37.

- 31 ‘Instandhouding van ons bosbezit’, *Jaarverslag Staatsbosbeheer 1977*, 13-14; ‘Denken op lange termijn’, *Jaarverslag Staatsbosbeheer 1980*, 5-7.
- 32 Cramer, *De groene golf*, 35-88; Tellegen, *Groene herfst*, 44-62, 115-129.
- 33 A. Stoffels, ‘De meervoudige functie van het bos in Nederland’, *Nederlandsch Boschbouw-Tijdschrift* 38:4 (1966) 134-135; Van der Windt, *En dan*, 181.



Staatsbosbeheer's conifer production forests were heavily damaged by the autumn gale of November 1972. This picture was taken near Dalfsen in the Province of Overijssel. © Photographer unknown, The National Archives, The Hague, cco, Photo collection, *Nederlandse Heidemaatschappij*, 2.24.06.02, 167-0934. <http://hdl.handle.net/10648/ae8460dc-dob4-102d-bcf8-003048976d84>.

effectively challenged by the emergence of open-air recreation and mass tourism.<sup>34</sup> *Staatsbosbeheer* accepted recreation as a function at a theoretical level at first, and the foresters began to acknowledge that the different roles could no longer be spatially separated. On the restricted land surface of the Netherlands, it was necessary to allow recreation activities in production forests and, vice versa, to make good use of timber production in recreational forests.<sup>35</sup> State expenditure in and measures for recreation in state-owned forests increased rapidly. *Staatsbosbeheer* initially welcomed city-dwellers who visited the forest over the weekend by providing cycling lanes, direction signs, parking and camping lots.<sup>36</sup>

The downsides of motorised visits and mass recreation, however, also became more obvious. Air pollution, noise nuisance and damage to trees and wild flora posed a direct threat to the other objectives of forest, namely nature preservation and timber production, but also recreation preferences by ramblers who wished to enjoy the quiet of nature in the forests. There was also a financial element to mass recreation. With falling timber prices, admission tickets for recreation grounds or camping spaces or the sale of rambling maps were a source of financial revenue.<sup>37</sup>

The actual discussion within Dutch forestry about the different roles of forests was kicked off as a result of the devastating gales of 1972 and 1973. The damage in *Staatsbosbeheer* properties revealed the vulnerability of production forests to natural calamities and triggered a debate about alternative forms and methods of forestry.<sup>38</sup> The critics of *Staatsbosbeheer* united under the banner of the *Landelijke Werkgroep Kritisch Bosbeheer*, founded in 1977. They deplored the lack of attention to ecological principles in forestry practice. Their ideal was a 'natural forest' as a self-sustained and balanced ecosystem. Practical discussions concerned the required management of forests. To what extent should man interfere to restore the conditions of the prehistoric, primal forest, to re-introduce grazing animals or iconic predators such as the wolf or lynx?<sup>39</sup>

34 Dekker, *Dynamiek*, 189-216; Gorter, *Ruimte Voor Natuur*, 325-333; R.J. de Wit, 'Touwtrekken om de recreatie', *Natuur En Landschap* 17:1 (1963) 1-9.

35 G. Hellinga, 'Ontwikkeling in de Bosbouw in de Periode 1888-1963', in: A. Lammerts van Bueren and Edw. Katan (eds.), *Driekwart eeuw plattelandsgroei 1888-1963. Jubileumnummer van het Tijdschrift der Nederlandsche Heidemaatschappij* (Heidemaatschappij 1963) 42-44; H.A. van der Meiden, 'Houtproductie En Recreatie', *Nederlands Bosbouw-Tijdschrift* 38:4 (1966) 127-131; Stoffels, 'De Meervoudige Functie'.

36 Buis and Verkaik, *Staatsbosbeheer*, 148-154.

37 Buis and Verkaik, *Staatsbosbeheer*, 148-161; W.A. Dieleman, 'Recreatie en bos', *Nederlandsch Bosbouw-Tijdschrift* 38:4 (1966) 136-141.

38 Buis and Verkaik, *Staatsbosbeheer*, 125-137; Van der Windt, *En dan*, 181-183.

39 Van der Windt, *En dan*, 183-193; Cf. R. Cosijn and H. van der Lans, 'Bossen, bosbouw en natuurbeheer', *Nederlandsch Bosbouw-Tijdschrift* 50:1/2 (1978) 13-21; H.M. Heybroek, 'Het Gelijk En Ongelijk van Kritisch Bosbeheer', *Nederlandsch Bosbouw-Tijdschrift* 50:4 (1978) 94-100.

The discussions in the 1970s can be summarised as follows: since the concept of a ‘sustainable forests’ in the sense of high timber production had resulted in monotonous conifer woods, which were too vulnerable to pests and storms and no longer fulfilled their promises of profitability, it was advised to move towards a broader understanding of forest use. The monofunctional production forests, with perhaps open-air recreation and natural amenities as welcome side effects, gave way to the reconciliation of multiple functions within one forest area. *Staatsbosbeheer* gradually gave attention to and invested in the function of recreation. Its range of ‘services to the Dutch taxpayer’ continued to develop after the 1970s. The work of *Staatsbosbeheer* now includes other aspects of sustainability, like the forest ecosystem, biodiversity and the protection of vulnerable species of plants and animals.

Pollution and the depletion of natural resources had remained the key concerns of Dutch and European environmentalists during the 1970s. They stated that the declining biodiversity and the non-sustainability of forests and other habitats vis-à-vis acid rain were symptoms and the writing on the wall, rather than concerns in their own right. To them it was clear that mankind was about to destroy planet Earth and endangered its own survival as a species.<sup>40</sup> When the Brundtland Report of 1987 and the UN Conference in Rio in 1992 put sustainability firmly on the political agenda, they did so on a global scale. Sustainability was a key concept to define world-wide environmental problems such as the reduction of CFCs (Chlorofluorocarbons), the deforestation of tropical rainforests, the protection of endangered species and the development of human societies in the Global South.<sup>41</sup> These were prominent issues in the Netherlands as well. Concerns about deforestation in tropical rainforest regions were referred to in the *Staatsbosbeheer* annual report as early as 1980 as an explicit legitimisation of its own work and the role of nature and biodiversity in its forests.<sup>42</sup>

Mobilisation and protest against deforestation by environmentalists were few and far between in Dutch society and politics. They felt that the Netherlands lacked sizeable forests of a respectable age and therefore the fight against deforestation had to be fought and won in other parts of the globe. At home, the case of the country estate of Amelisweerd in the centre of the Netherlands is a telling exception. The manor house dates back to the eighteenth century, giving the surrounding forest stature and quality. Around 1980, plans for a motorway eastwards from nearby Utrecht triggered widespread protests. Some protesters petitioned parliament, others occupied the forest and climbed into trees. Arguments of landscape aesthetics,

40 Hein-Anton van der Heijden, *Tussen aanpassing en verzet. Milieubeweging en milieudiscours* (Ambo 2000) 53-90.

41 Andrés R. Edwards, *The sustainability revolution: portrait of a paradigm shift* (New Society Publishers 2005).

42 *Staatsbosbeheer, Jaarverslag 1980* (1980) 5.

recreation, biodiversity and the inherent value of nature motivated hardened activists and angry citizens to come together.<sup>43</sup>

Although part of Amelisweerd was a unique floodplain woodland, while in other parts it was more a landscaped park rather than a natural forest, its protection nevertheless became a showcase of Dutch environmentalism – one of the few cases that involved trees and forests, rather than industrial pollution and public health or nuclear power and arms.<sup>44</sup> Overall, however, the management of forest areas by *Staatsbosbeheer* and *Natuurmonumenten* went unchallenged for many decades. By the turn of the twenty-first century, *Staatsbosbeheer* had fully embraced the view that the Dutch forests had two core functions: first, the provision of recreation areas for the citizens of one of the world's most densely populated states and, secondly, the protection and development of nature and environmental values. Originally founded to secure the economically significant timber supply in the Netherlands, the state agency has, a century later, become a provider of ecological services to the country.

## Conclusion

The practical use of forests in the Netherlands passed through a number of stages during the twentieth century. Most functions assigned to forests, ranging from timber production to open-air recreation, were rooted in times prior to the First World War. They developed over time and priorities shifted, also within the two organisations under review here, *Staatsbosbeheer* and *Natuurmonumenten*. These shifts are even more remarkable when comparing the 'short histories' of sustainability with this 'long history' of sustainable forest use and its broad range of functions. The preservation of natural beauty, once the most prominent legitimisation of *Natuurmonumenten's* work, did not make it to present-day definitions of 'sustainability'. Carbon storage to prevent global climate change was added after the 1980s, while the functions of tourism and recreation have been the subject of contention for decades.

The most important developments in the twentieth century, however, are found in the changing ideas among foresters and policy makers about how to *combine* these different functions. With some exceptions, discourse in

43 Hans Schmit, 'Amelisweerd zo mogelijk sparen', *Trouw* (11 september 1980); Jos Gerards, 'Amelisweerd: 10 jaar actie', *Algemeen Dagblad* (24 januari 1981).

44 L.H. Albers, *Amelisweerd en Rhijnauwen: cultuurhistorisch onderzoek* (Albers Adviezen Historische Parken 2009); Cees Grimbergen, Rob

Huibers en Dick van der Peijl, *Amelisweerd: de weg van de meeste weerstand* (Uitgeverij Ordeman 1983); Vrienden van Amelisweerd, *Amelisweerd verdient meer. Zevende rapport van de Vrienden van Amelisweerd* (Vereniging Vrienden van Amelisweerd 2008).

the interwar period strongly favoured a monofunctional forest. A production forest could allegedly not suit the interests of scientific research, which was in turn fundamentally incompatible with public recreation. Attention to and investment in other functions was believed to be detrimental to the sustainability of the production forest: its ability to produce high-quality timber in the long term. This changed as a result of thinking about ‘multiple use’ in the 1960s. Debates about forests of the Netherlands have since become discussions about balancing and reconciling different functions in one and the same area, some of which are now associated with the concept of ‘sustainability’. The introduction of ‘multiple use’ in Dutch forests is indicative of the advent of an ‘age of interdependence’ (see introduction).<sup>45</sup> The reconciliation of environmental, social and economic functions was the result of practical considerations of costs, financial revenues and the limited amount of space in the Netherlands. It did not follow the sweeping philosophical ideas commonly associated with the emergence of a ‘modern environmental consciousness’, ‘holistic world views’ or ‘sustainability’. In this ‘long history’ of sustainable use of forests in the Netherlands, the roots of the concept are found in functions and practices, and much less so in ideas and discourses.

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