



CURRICULUM VITAE

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| Name and title | Prof Dr. Ir. G.J. Nabuurs (Gert-Jan) |
| Christian names | Gerardus Johannes Martinus Maria |
| Present position | Professor European Forest Resources, Wageningen University & Research Lead Scientist European Forests at Wageningen Environmental Research |
| Private Address | Rondweg 13 5825 HT Overloon, The Netherlands |
| Nationality | Dutch |
| Date of birth | 20 May 1967 |
| Present employer | Alterra, Wageningen University and Research Po Box 47, 6700 AA Wageningen, Netherlands |
| Telephone | +31 6 10559433 |
| Email | gert-jan.nabuurs@wur.nl |
| H-index | 28 (scopus, Dec 2016). Total of 3720 citations |
| Work experience | 25 years |
| Marital Status | Married to Lian Nabuurs-Willems, 2 sons |

Short bio

Gert-Jan Nabuurs is currently professor European forest resources at Wageningen University and senior researcher at Wageningen Environmental Research. His background is in European scale forest resource analyses, their resources and management under climate change. His work has both scientific aspects, as well as very practical applications. He gives lectures at both top scientific conferences to applied forest owners and industry meetings.

He started the work with the EFISCEN model, the European forest resource, forest management and carbon balance model. EFISCEN is in use to set the Forest Management Reference Levels for the EU Member States climate targets. Further he has been IPCC Coordinating lead Author in GPG and IPCC 4AR. He was Assistant Director of the European Forest Institute in Finland from 2009-2012.

Further research topics include biomass provision, wood market, biodiversity, and bioenergy and the trade-offs. Almost all studies are based on ground truth data from national forest inventories from all European countries. He compiled unique NFI plot databases with more than 400,000 plots. Research work has resulted in many policy support studies and activities.

Positions:

- 6/2014 – present: Special Professor European Forest Resources, Wageningen University & Lead Scientist European Forests at Alterra, Wageningen University and Research
- Initiate, lead and carry out projects that centre around European forests: resource analysis, climate change, biomass provision, wood market, biodiversity, and bioenergy.
- 7/2013 – 11/2013: Interim Team leader. Team Vegetation, Forest, and Landscape, Alterra
- 1/2013 – present: Lead Scientist European Forests, Alterra, Wageningen University and Research
- 5/2009-12/2012: Assistant Director, European Forest Institute (EFI), Finland
Main responsibility: strategic research development and research quality related to the field of research of EFI. Internally with 6 offices across Europe involving some 50 researchers. Externally for member organisations, and to the European Commission.
- 1/2003 – 10/2008: Teamleader Forest Ecosystems, Alterra
- 1/2002 – 4/2009: Senior researcher European forest scenario studies, Alterra
Forest resource modelling for the entire European forests for sustainable management in combination with climate change and carbon sequestration studies.
- 1/1996 - 12/2001: Researcher European forest scenario studies IBN-DLO and European Forest Institute (leading to PhD)
- 6/1995 – 12/1995: Scholarship period at European Forest Institute. Scenario studies for European forests
- 5/1994 – 5/1995: Some short term contracts at IBN-DLO, partly on voluntary basis
- 9/1993-10/1993: Junior at European Forest Institute, Finland. Overview of forest carbon balance studies in European countries.
- 1/1992 – 4/1994: Junior researcher IBN-DLO
- 10/1991 – 12/1991 IKC- NBLF. Junior. Impact of man-induced drought on Dutch forests

Education

- 1996 - 2001: PhD Forest Planning and Economics, University East Finland
‘European forests in the 21st century: long-term impacts of nature oriented forest management assessed with a large scale scenario model’. Supervisor: Prof T. Pukkala.
Grade: ‘Cum laude approbatur’

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| 9/1986 - 10/1991: | MSc Forestry, Cum Laude, Wageningen University. Thesis: A root and soil scientific study of the relationships between oak decline in The Netherlands and the groundwater class. Supervisor: Prof. N. van Breemen. 2nd Thesis: Rooting strategy of <i>Deschampsia flexuosa</i> , <i>Vaccinium myrtillus</i> , and <i>Empetrum nigrum</i> in first generation Scots pine forests in the Veluwe area. Supervisor: Prof. R Oldeman. |
| 1984-1986: | VWO, Boschveldcollege Venray |
| 1979- 1984: | HAVO, Scholengemeenschap Stevensbeek |

Work experience (main international collaboration projects)

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| 6/2016 – Jan 2017 | Project lead for Climate KIC project 'Forvalor'. 40 k€ |
| 3/2016 – present | Project lead for DLO in H2020 Agriforvalor. 130k€ |
| 2/2015 – present | Project partner for DLO in H2020 PEGASUS |
| 4/2015- 12/2015 | Project lead EFI's 'From Science to Policy Study: A new role for EU forest and forest sector under the EU Post 2020 targets'. 11k€ |
| 1/2015 – present | Project lead for Dutch project 'Future wood' a scenario analysis of the Dutch forest and wood sector in international perspective. € 160k€ |
| 1/2014 – present | Project lead Biotrade2020+ (DG ENER), tool for sustainability in biomass trade. Alterra share 160k€ |
| 7/2013 – present | Project lead for Alterra in the EU FP7 funded project Sustainable Innovative Mobilisation of Wood (SIMWOOD). Alterra share 310k€ |
| 11/2011 – present | Vice coordinator of the FP7 funded Forest Research Infrastructure project 'Trees4Future'. Grant No 284181. Total project fund 9.1M€. EFI share 910 k€ |
| 5/2009 – present | EU funded FP6 project 'Greenhouse gas management in European land use systems' (GHG Europe). ENV.2009.1.1.3.1. Alterra has project lead on forest attribution. Total for this WP 765k€. Alterra share 280 k€. |
| 5/2005 – 11/2009 | Coordinator of the project 'Soil carbon dynamics and variability at the landscape scale: its relation to aspects of spatial distribution in national emission databases'. Dutch National Research Programme Climate <i>changes</i> Spatial Planning (Bsik ME3). Total project budget 1160k€ |
| 11/2005 – 10/2009 | Project lead for Alterra in the EU funded FP6 project EFORWOOD. Tools for Sustainability Impact Assessment of the Forestry-Wood Chain (518128-2) Alterra share 1072 k€ |

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| 2007 – 2009 | Partner in MASCAREF; study EEC 2152/2003 Forest Focus regulation on developing harmonized methods for assessing carbon sequestration in European forests |
| 3/2006 – 7/2009: | Project lead for Alterra in the EU funded FP6 project Adaptation and mitigation strategies, supporting climate policy. ADAM (GOCE-018476). Alterra share 550 k€ |
| 4/2005 – 4/2008 | Coordinator of WP4 'land inventories' in the FP6 EU funded project Carbo-Europe IP. Contract No. GOCE-CT-2003-505572. The wp share 320k€ |
| 4/2004 – 6/2007 | Project lead for Alterra in MEACAP (SSPE-CT-2004-503604). Impacts of environmental agreements on the CAP. Alterra share 206k€ |
| 2004 – 2008 | Coordinator of the project cycle for the 'Development of the Dutch National System for GHG reporting of the forest sector including annual reporting to UNFCCC'. Projects for NOVEM, funded by Ministry Agriculture, Nature Management and Fisheries. Total funding 350k€ |
| 11/2002 – 10/2005 | Project lead for Alterra in the EU funded FP6 project CAMELS, 'Carbon Assimilation and Modelling of the European Land Surface'. Responsible for forest inventory based carbon balance of the Carbon data assimilation system. (EVK2-CT-2002-00151). Alterra share 150k€ |
| 10/2001 – 10/2002: | Project coordinator of 'Future wood supply from European forests - with implications to the pulp and paper industry'. Project for the Confederation of European Paper Industries. (CEPI project, 70 k€) |
| 1/2000 – 12/2000 | Project partner in the project 'Support to the Dutch government towards the UNFCCC COP VI negotiations'. 120 k€ |
| 1/2001 – 12/2001 | Project lead of the project 'International carbon accounting of harvested wood products' for the Dutch National Research Programme Global Air Pollution and Climate Change. (80 k€) |
| 2001 – 2003 | Project lead for Alterra in the UNECE Forest Sector Outlook Studies. (EFSOS II). 50 k€ |
| 2001-2004: | Lead of the Alterra part in the EU-INCO Developing Countries project: Modelling Carbon Sequestration in Forested Landscapes (CASFOR-II; ICA4-2000-20041; Total budget 790 k€). |
| 1/2000 – 1/2001 | Project coordinator of the 'Resolving issues under the Kyoto Protocol project' for the Dutch National Research Programme on Global Air Pollution and Climate Change. (80 k€) |
| 01/1998-06/2001: | Project junior in EU-Environment and Climate Project: Long-Term Regional Effects of Climate Change on European Forests: |

- Impact Assessment and Consequences for Carbon Budgets (LTEEF-II; ENV-CT97-0577; total budget 2 M€)
- 12/1998-11/2001: Project partner in the INCO-Copernicus Project: 'Scenario analysis for sustainable wood production under different management regimes (SCEFORMA)'. (ERBIC15-CT98-0122; total budget 230 k€). Coordinator as of 5/1999
- 10/1998-09/2001: Project partner INCO-DC Project: "Carbon sequestration in afforestation and sustainable forest management" (CASFOR; ERBIC18-CT98-0324; Total budget 230 k€). Coordinator as of 5/1999
- 1996 – 1999 Scenario studies for European forests; developing and applying the European Forests Scenario Model (EFISCEN). Jointly funded by IBN-DLO and EFI
- 9/1993 – 10/1993 Overview of European forests sector carbon balance studies European Forest Institute
- 1993 Project on the Dutch forests carbon balance, carried out at IBN-DLO for NOVEM
- 1992 – 1993 FACE project "Carbon stocks and carbon flows in selected forest ecosystems of the world". Carried out at Dorschkamp under supervision of G.M.J. Mohren. Results presented at Banff workshop: Forest Ecosystems, Forest Management and the Global Carbon Cycle.

IPCC

- 2011 – 2013: Review editor of the AFOLU chapter in the IPCC Fifth Assessment Report, WG III.
- 2004 – 2007: Co-ordinating Lead Author of the Forestry chapter of the IPCC Fourth Assessment Report, WG III 'Mitigation'. Led a group of 15 co-authors.
- 2001 – 2003: Co-ordinating Lead Author in the IPCC Good Practice Guidance report 2003. Chapter 3: LUCF Sector Good Practice Guidance. IPCC NGGIP Programme. Led a group of 34 co-authors.
- 1999 – 2001: Lead Author in IPCC Third Assessment Report, WG III 'Mitigation'. Chapter: Technical and Economic Potential of Options to Enhance, Maintain and Manage Biological Carbon Reservoirs and Geo-engineering.
- 1998 – 2000: Lead Author of the IPCC special report on Land use, land use change and forestry. Chapter 2. Implications of different definitions and generic issues.

Supervision of PhDs and MScs.

co-supervision of PhD students:
Completed:

Mart-Jan Schelhaas: Impacts of natural disturbances on the development of European forest resources. University of Eastern Finland. 2002-2008.

Sabaheta Ramcilovic Suominen: Forest law compliance in the High-Forest Zone of Ghana: an analysis of forest farmers' livelihoods, their forest values, and the factors affecting law compliance behaviour. University of Eastern Finland. 2008-2012

Nynke Schulp: The role of land use history and management in SOC pool behaviour at the landscape level. Wageningen University. 2006 - 2010

Richard Sikkema: sustainability of woody biomass for bioenergy. University Utrecht. 2008 - 2014.

Ruben Valbuena: Lidar-based estimation of indices describing forest structure diversity in Spain, Scotland and Finland. University of Eastern Finland. 2011 - 2014.

Matteo Vizzari. Towards resilience thinking: the effects of forest management on ecosystem services provision. Univ deglie Studi del Molise. UNIMOL. Febr 2015.

Hans Verkerk: Analysis of the impacts and trade-offs of intensified biomass production from European forests. University of Eastern Finland. 2009 - 2015

Elias Hurmekoski: Outlook for European wood markets and trade. University Eastern Finland. Defence in 2016

In addition some 15 MSc student theses have been supervised.

Teaching

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| 2016- Nov | Co-organiser and lecturer at European League of Life Sciences' Summerschool 'European forest and the bio-economy'. |
| 2015- autumn | Capita Selecta class series 'European forests and the bioeconomy'. Totally new series set up at Wageningen University. |
| 2015-5-29 | Opponent in defence of Anna Repo's PhD defence. Aalto University, Finland. |
| 2015-2-17: | FAO online course: Economics of changing forest management practices as a mitigation measure. FAO course. |
| 2014 | Course European Forests at Young leadership Programme, 15-17 Dec 2014, Joensuu, Finland |
| 2008 - present: | Docent at the University of East Finland, Joensuu. |
| 2008 - present : | Once per year lecture 'European forests' in the WUR course 'Forest Ecology and Management'. |
| 2009 - 2011: | Lecturer 'European forests and climate change' at the Joensuu Forest Networking Week |
| 2006 and 2007: | Full course week 'European forests' in the European Forestry MSc at University of East Finland. |
| 10/1999: | Guest lecture at Princeton University |
| 9/1998 | Guest lecture at St. Petersburg Forest Technical Academy |

Professional affiliations

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| Dec 2016 – present | Co-chair of organising committee of International Conference 'Forest research in era of big data', Beijing, 6-9 Sep 2017 |
| Sep 2016 - present | Member of Steering Committee of the Global Forest Biodiversity Initiative |
| July 2016 - | Member of Marcus Wallenberg Price Selection Committee http://mwp.org/selection-committee/ |
| 1-6 Nov 2015 | Invited expert on a mission of Ministry of Economic Affairs to the SE USA pellet industry in Virginia and Alabama. |
| 2015 – present | Author in EASAC report 'Sustainability and multifunctionality in Europe's forests'. Appointed by KNAW. |
| 2015 – present | Co-author of the report State of Europe's forests 2016. |
| 2014 – 2015: | Co-author of the UNECE report on Global Objectives on Forests |
| 2014 – present | Member of ECAMOB; the EIP raw materials steering group for wood products sector research projects under H2020 in Europe. |
| 2015 | Member of Scientific Committee of PEER international conference. 'science for the Environment', Aarhus, 1-2 Oct 2015. |
| 2013 – 2015 | Member of Scientific Committee of the International conference 'Forests: a bridge to the future'. Sofia, Bulgaria. May 6-9 2015 |
| 2011 – present: | Member of IUFRO task force 'Global Forest Resources'. |
| 2013 – 2014: | Vice chair of IUFRO task force 'Climate Change' |
| 2013 – 2016: | Member of the Global Carbon Working Group. |
| 2012 – present: | COST action proposals reviewer |
| 2012- 2013: | Chair of the organising Committee of the International Conference Planted Forests. Estoril 19-21 May 2013 |
| 2009 – present: | Member of Board of appeal of the PEFC Netherlands |
| 2009 – 2011: | Member of organising committee of the Joensuu Forestry Networking Week |
| 2011 – 2012: | Member of organising committee of the EFI Winter- and Summerschool |
| 2008 – 2012: | Member of the Management Committee and Working Group III leader of COST-FP0703 'Expected Climate Change and Options for European Silviculture (ECHOES)' |

- 2010 – present : Voluntary Member of the COST Action FP1001: Improving Data and Information on the Potential Supply of Wood Resources: A European Approach from Multisource National Forest Inventories (USEWOOD)
- 2010-2011: Member of the Ad Hoc Working Group Climate change to the Standing Forest Committee of the European Commission.
- 2007 – 2011: Voluntary member the COST action FP0603 action 'Forest models for research and decision support in sustainable forest management.
- 2009 – present: Member of the Advisory Committee to the Forest Technology Platform
- 2009 – 2011: Member of the expert group for the UN-ECE's 'European Forest Sector Outlook Studies'
- 6/2004 – 12/2008: Member of the Management Committee of the COST E43 action 'Harmonisation of forest inventories and carbon balances'.
- 2002 – present: Deputy chair of the IUFRO group 4.02.07: 'large scale inventories and scenario studies'.
- 2001- 2005: Research Associate to the European Forest Institute
- 1998 – 2001: Member of the discussion group on the Northern Hemispheric Biospheric Carbon Sink. Held at U.S. National Center for Ecological Analysis and Synthesis, Santa Barbara, California, USA.
- 12/1999 – 12/2004: Member of the Management Committee of COST Action E21: 'Contribution of Forest and Forestry to mitigate the greenhouse effect'.
- 1990 – present: Member of the Royal Dutch Forestry Association

Reviews

- October 2013: Member of the COST Action FP0903 final evaluation panel. COST Action Climate Change and Forest Mitigation and Adaptation in a Polluted Environment (MAFor)
- October 2013: Member of external evaluation panel of the Wald, Schnee und Landschaft (WSL) Institute in Birmensdorf, Switzerland. WSL is part of the ETH.
- 16 June 2008: External examiner PhD defense of Marco Dekker 'growth patterns, competition, and co-existence in gap phase regeneration under close to nature silviculture. Wageningen University.
- Oct 2002: Member of the mid-term review panel for the Swedish LUSTRA Research programme

Reviewer of peer reviewed journals:

Climatic Change, Global Change Biology, Forestry, Silva Fennica, Science, Forest Ecology and Management, Forest Policy and Economics, Environmental Management, Acta Oecologica, Mitigation and Adaptation strategies for Global Change, European Journal of Forest Research, Ecological Applications, Ecological Modelling, PNAS, Forest Ecosystems, Scandinavian Journal of Forest Research, and Biofuels and Bioproducts.

Research funding obtained (excl national funding from Ministry Agriculture, Nature Management and Fisheries)

Climate KIC Agriforvalor: Lead 40k€

H2020 Agriforvalor. Project partner. DLO share: 130 k€

H2020 PEGASUS: partner. DLO share 400k€

Dutch project 'Future wood' a scenario analysis of the Dutch forest and wood sector in an international perspective. 160k€.

FP7 IEE programme project Biotrade2020+. 180k€ project share

EU FP7 funded project Sustainable Innovative Mobilisation of Wood (SIMWOOD). Alterra share 310k€

FP7 funded Forest Research Infrastructure project 'Trees4Future'. Grant No 284181, vice coordinator of Trees4future. Total project fund 9.1M€, EFI share 910 k€.

EU funded FP6 project 'Greenhouse gas management in European land use systems' (GHG Europe). ENV.2009.1.1.3.1. Alterra has project lead on forest attribution. Total for this WP 765k€, Alterra share 280k€

Soil carbon dynamics and variability at the landscape scale: its relation to aspects of spatial distribution in national emission databases in the framework of the Dutch National Research Programme Climate Changes Spatial Planning (Bsik ME3).Coordinator. Total project budget 1160k€

EU funded FP6 project EFORWOOD, Tools for Sustainability Impact Assessment of the Forestry-Wood Chain (518128-2). Alterra share 1072 k€

EU funded FP6 project Adaptation and mitigation strategies, supporting climate policy. ADAM (GOCE-018476). Alterra share 550 k€

FP6 EU funded project Carbo-Europe IP, the 'land inventories' Contract No. GOCE-CT-2003-505572. Alterra share 180 k€

MEACAP (SSPE-CT-2004-503604). Impacts of environmental agreements on the CAP. Alterra share 206k€

'Development of the Dutch National System for GHG reporting of the forest sector including annual reporting to UNFCCC'. Projects for NOVEM, funded by Ministry Agriculture, Nature and Fisheries. Total funding 350k€

CAMELS, 'Carbon Assimilation and Modelling of the European Land Surface'. Responsible for forest inventory based carbon balance of the Carbon data assimilation system. (EVK2-CT-2002-00151). Alterra share 150k€

'Future wood supply from European forests - with implications to the pulp and paper industry'. Project for the Confederation of European paper Industries. (CEPI project, 70 k€)

'Support to the Dutch government towards the UNFCCC COP VI negotiations'. 120 k€

'International carbon accounting of harvested wood products' for the Dutch National Research Programme Global Air Pollution and Climate Change. (80 k€)

UNECE Forest sector Outlook Studies. (EFSOS II). 50 k€

'Resolving issues under the Kyoto Protocol project' for the Dutch National Research Programme on Global Air Pollution and Climate Change. (100 k€)

Awards

1990: 'Hissink price 1990' for the graduate subject on oak decline

1995: 'Joensuu City Senior Research Scholarship' for work in scenario studies.

2000: 'Tim Peck Young Scientists Award' for contribution to research in European forests and forest industries.

2007: IPCC was awarded the Nobel Peace Prize. Personal Certificate. The Nobel Prize was awarded to Al Gore and the IPCC.

Presentations during recent years

31 Jan 2017. EU forests and the forest sector in the climate mitigation targets: facing new challenges. Invited Distinguished lecture at WSL, Birmensdorf

18 Oct 2016. Invited Keynote 'Potential of EU forest in achieving climate targets as well as bio-economy targets' at Forum2000, Prague Czech republic

9 Oct 2016. Introduction to Europe's forests challenges. Speech at Marcus Wallenberg Price Selection Committee.

7 Oct 2016. Invited key note 'EU forest for achieving climate targets as well as bio-economy targets' at Brasov Conference Forest and Sustainable Development. Brasov, Romania

29 Sep 2016. European forests, issues and challenges. Invited speech at Climate-KIC Land use theme meeting, Zurich

7 July 2016 Climate smart forestry in Netherlands; possibilities in bio-economy. Middachten, Bioenergy platform.

22 June 2016. Trends in European forest resources. Invited key note at KSLA seminar 'forests, bioenergy and global climate'. Stockholm.

14 June 2016. Sustainable biomass provision from the SE-USA: potential and sustainability. Biotrade2020 project final meeting, Brussels.

12 May 2016. Can Europe's forests supply sustainably? Invited talk at stakeholder conference 'A sustainable bioenergy policy after 2020'. Berlaymont, Brussels. Dg Energy.

5 April 2016. A new role for EU forests and forest sector in the EU post 2020 climate targets. Invited Keynote at Eustafor meeting in EU parliament 'Managing European forests responsibly'.

5 April 2016. Modelling European forests under climate change. Trees4future final conference, Brussels.

1 April 2016. The Paris agreement; implication for European Forest Management. Invited lecture for Royal Dutch Forestry Association. Zeewolde

16 Febr 2016. European forests and carbon cycle. EASAC meeting with European Commission stakeholders. Brussels.

4 Feb 2016. A new role for EU forests and forest sector in the EU post 2020 climate targets. Invited lecture at Imperial College, London

28 Jan 2016. European forests for the Bioeconomy. IEA task 43 meeting Wageningen

- 1 Dec 2015. A new role for EU forests and forest sector in the EU post 2020 climate targets. Keynote at EFI's Thinkforest event, COP21, Paris.
- 21 Oct 2015. New perspectives on the role of the Dutch forest sector in the EU Bioeconomy. Presentation at CASTLE scientific conference, Barcelona.
- 13 Oct 2015. A new role for EU forests and forest sector in the EU post 2020 climate targets. Keynote at EFI's Thinkforest event, Brussels. International Press Centre
- 28 May 2015: Challenges and trends in European forests. Invited lecture at SYKE the Environment institute of Finland, Helsinki
- 21-23 April 2015: FAO workshop: climate change guidelines for forest managers in Europe. Invited presentation at FAO meeting, Bialowieza.
- 31 March 2015 Keynote at CDC Climate meeting, Paris. Carbon sinks and forests balance. Preparation of UNFCCC COP 21.
- 15 December 2014: keynote at young leadership programme for Russian forest sector . Joensuu
- 2 December 2014: Keynote Future European forest research needs , at SUMFOREST meeting, Brussels
- 22 October 2014: European forests under climate change. COST Stress invited keynote. Lisbon
- 8 October 2014. Sub plenary address. Challenges to European forests. IUFRO world congress Salt Lake.
- 27 August 2014. European forests under climate change. Research needs. Invited keynote for COST strategic event, Sarajevo.
- 24 June 2014: Carbon sequestration in European forests. Invited note at Woods Hole Research Centre, USA
- 15 November 2013. European forests: challenges in biomass availability. Opening speech at the occasion of Visit of Benelux parliament to Wageningen Campus.
- 25 September 2013. Opening keynote at the European Forest Institute High Level Conference. Nancy
- 17 September 2013: First signs of carbon sink saturation in European forest biomass. GHG Europe Final Conference, Antwerp 16-19 September
- 28 August 2013. European Forests: Resources and Environmental Services. IUFRO Task force meeting, Vancouver.
- 27 May 2013. Global Carbon working Group Meeting; invited talk. Recent trends in European forests carbon sequestration. IIASA, Laxenburg.
- 20 May 2013. Role of forest plantations in Europe in meeting future demand. International conference on Planted Forests. Opening Keynote. Lisbon.
- 16 April 2013. Forest management practices in Europe and impacts on carbon. HENVI Science days. University of Helsinki. Invited Keynote
- 12 February 2013. Responsible management of forest resources. Opening address at the Forest Technology Platform meeting, Barcelona.
- 24 January 2013: Impacts of climate change on Central European forest biodiversity. Invited talk at Integrate symposium, Freiburg

Spare time: squash, racebiking, gardening, secretary of Racebiking club.

Publications (* indicates ISI peer reviewed)

2017

Teuling, A.J., Ch.M. Taylor, J.F. Meirink, L.A. Melsen, D.G. Miralles, Ch.C. van Heerwaarden, R. Vautard, A.I. Stegehuis, G.J. Nabuurs, J. Vila- Guerau de Arellano. 2017. Observational Evidence for cloud cover enhancement over Western European forests. Nature Communications. DOI: 10.1038/ncomms14065

2016

- *Liang, J., T.W. Crowther, N Picard, S. Wiser, M Zhou, G.M. Hengeveld, G.J. Nabuurs, M.J. Schelhaas, H. Lu, ... P.B. Reich. 2016. Positive biodiversity-productivity relationship predominant in global forests. **Science** 354, aaf8957, DOI: 10.1126/science.aaf8957
- Nabuurs G.J., M.J. Schelhaas, J. Oldenburger, A. de Jong, R. Schrijver, G. Woltjer, C.M.A. Hendriks en H. Silvis, 2016. *Nederlands bosbeheer en bos- en houtsector in de bio-economie; Scenario's tot 2030 in een internationaal bio-economie perspectief*. Wageningen, Wageningen Environmental Research, Rapport 2747. 84 blz.;
- * Nabuurs, G.J. Schelhaas, M. Arets, E.J.M.M. 2016. European forests show no carbon debt, only a long parity effect. *Forest Policy and Economics*, <http://dx.doi.org/10.1016/j.forpol.2016.10.009>
- Nabuurs, G.J. 2016. Filling knowledge gaps to sustain future forestry. *Research*EU*, Vol. 54, 2016, p. 4-5.
- Petz, Katalin; Schulp, Catharina J.E.; van der Zanden, Emma H.; Veerkamp, Clara; Schelhaas, Mart-Jan; Nabuurs, Gert-Jan; Hengeveld, Geerten 2016. Indicators and modelling of land use, land management and ecosystem services : methodological documentation. The Hague, PBL Netherlands Environmental Assessment Agency, 2016. 109 p.
- Verkerk, P.J.; Schelhaas, M.; Immonen, V.; Hengeveld, G.M.; Kiljunen, J.; Lindner, M.; Nabuurs, G.J.; Suominen, T.; Zudin, S. 2016. Manual for the European Forest Information Scenario model (EFISCEN 4.1). European Forest Institute, 2016. 49 p.
- Hendriks, C.M.A., E. Lambrecht, G.J. Nabuurs, X. Gellynck, and H. Welck, 2016. Compendium on research results on agro and forest-biomass side-streams. AGRIFORVALOR deliverable 1.1, Wageningen, Ghent, Stuttgart
- Fingerman, K., L Iriarte, U R. Fritsche, GJ Nabuurs, B Elbersen, I Staritsky, M Junginger, Th MaiMoulin. 2016. Biomass use and potential for export to the European Union from 2015 – 2030; United States Southeast Case Study. Biotrade2020+ Deliverable 3.3. 41 p.
- Nabuurs, G.J., I Staritsky, H de Groot, B Elbersen. 2016. User handbook for the Biotrade2020+ tool. Biotrade2020+ Deliverable 4.5. 16 p.

2015

- *Crowther, T.W., H. B. Glick, K. R. Covey, C. Bettigole, D. S. Maynard, S.M. Thomas, J. R. Smith, G. Hintler, M.C. Duguid, G. Amatulli, M.-N. Tuanmu, W. Jetz, C. Salas, C. Stam, D. Piotta, R. Tavani, S. Green, G. Bruce, S. J. Williams, S.K. Wiser, M.O. Huber, G.M. Hengeveld, G.J. Nabuurs, E. Tikhonova, P. Borchardt, C.F. Li, L.W. Powrie, M. Fischer, A. Hemp, J. Homeier, P. Cho, A. C. Vibrans, P. M. Umunay, S. Piao, C. W. Rowe, M. S. Ashton, P.R. Crane & M. A. Bradford. 2015. Mapping tree density at a global scale. **Nature** doi: 10.1038/nature14967
- *Schelhaas, M.J., G.J. Nabuurs, G. Hengeveld, et al. 2015. Alternative forest management strategies to account for climate change-induced productivity and species suitability changes in Europe. *Regional environmental Change*. DOI 10.1007/s10113-015-0788-z
- * Hengeveld, G.M., M.P. Didion, A.P.P.M. Clerkx, C Elkin, G.J. Nabuurs, M. Schelhaas. 2014. The landscape level effect of individual owner adaptation to climate change in Dutch forests. *Regional Environmental Change*. DOI 10.1007/s10113-014-0718-5
- * Reyer, C., G.J. Nabuurs, M. Hanewinkel . Editorial. Special issue in *Regional Environmental Change*
- *Bouriaud, L., M. Marzano, M. Lexer, G. Hengeveld, S Kellomaki, G. Kostov, G. J. Nabuurs, et al. 2015. Institutional factors and opportunities for adapting European forest management to climate change. *Regional Environmental Change*. DOI 10.1007/s10113-015-0852-8

- Nabuurs, G.J., P. Delacote, D Ellison, M. Hanewinkel, M. Lindner, M. Nesbit, M. Ollikainen, A. Savaresi. 2015. A new role for forest and forest sector in the EU post 2020 climate targets. From Science to Policy 2. European Forest Institute, 30 p.
- San Miguel-Ayanz, J., G. Dominguez, P. Gasparini, G. Stahl, J. Parviainen, M. Lier, I. Alberdi-Asensio, E. Cienciala, A. Freudenschuss, P. Godinho Ferrera, K. Korhonen, A Lanz, G.J. Nabuurs. 2015. Criterion 1: Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles. In: State of Europe's forests. Forest Europe. P. 67-86.
- Luysaert, S., K Naudts, T Suominen, H Verkerk, M.J. Schelhaas, G.J. Nabuurs and G.M. Hengeveld. 2015. D10.2 Report on implementation of improvements in large scale tools EFISCEN, Orchidee and Tosia. Trees4future Project deliverable. Brussels. 44p.
- Nabuurs, G.J., 2015. Forest and forestry in the Southeast USA. Confidential note for Ministry of Economic Affairs. 8 p.
- Schelhaas, M.J., G.M. Hengeveld, G.J. Nabuurs. 2015. Ch 4. Methods and initial results from modelling wood resource potential. In: Kerr, G. (Ed). D 3.1. – European model regions and regional impacts of current and potential future mobilization - synthesis report. 241 p. simwood project

2014

- *Sikkema, R., T. Ranta, J. Heinimö, Y.T. Gerasimov, T. Karjalainen, **G.J. Nabuurs**. In press. Mobilisation of biomass for energy from boreal forests in Finland and Russia under present sustainable forest management certification and new sustainability requirements for solid biofuels. *Biomass and Bioenergy* 71: 23-36
- *Nabuurs, G.J., M.J. Schelhaas, C Orazio, G. Hengeveld, M Tome, E.P. Farrell. 2014. European perspective on the development of planted forests, including projections to 2065. *New Zealand Journal of Forestry Sciences*. <http://www.nzjforestryscience.com/content/44/S1/S8>
- * Nabuurs, G.J., M.J. Schelhaas, K. Hendrik, G.M. Hengeveld. 2014. Can European forests meet the demands of the bioeconomy in the future? wood supply alongside environmental services. In: Nikolakis and Innes (Eds.) Ch 12. *Forest and Globalization*. Earthscan publishers.
- * Payn, T., J.M. Carnus, P. Freer-Smith, C. Orazio, G.J. Nabuurs. Third international congress on planted forests on the globe – renewable resources for the future. Editorial Special Issue *New Zealand Journal of Forestry Sciences*
- Schelhaas, M.J. & G.J. Nabuurs. 2014. Bioenergy, carbon neutral or not? In: Proceedings of the CEPI European paper week., the networking event. P. 1-19.
- Nabuurs, G.J. H. Croezen, E.J.M.M. Arets. 2014. Carbon debt, inzichtelijk maken van maatschappelijke risico's van het opnemen van carbon debt vereisten. *Alterra rapport* 2525.
- Houtkamp, J.M., Elbersen, E., Sikirica, N., Nabuurs, G.-J.(2014) *A survey of online tools for information on biomass supply chains*. BioTrade2020plus: Supporting a Sustainable European Bioenergy Trade Strategy. Intelligent Energy Europe, IEE/13/577/SI2.675534. Deliverable 4.1)
- Houtkamp, J.M., Elbersen, E., Sikirica, N., Nabuurs, G.-J.(2014) *Requirements of end users for the interactive BIOTRADE2020plus tool*. (BioTrade2020plus: Supporting a Sustainable European Bioenergy Trade Strategy. Intelligent Energy Europe, IEE/13/577/SI2.675534. Deliverable 4.2)

2013

- Nabuurs, G.J., A. de Jong, S Clerkx. 2013. Strategische agenda bos en hout internationaal. Intern rapport voor Ministerie Economische Zaken. 24 p.
- Lindner, M., F. Krumm, G.J. Nabuurs. 2013. Biodiversity conservation and forest management in European Forest ecosystems under changing climate. In: Integrative approaches as an opportunity for the conservation of forest biodiversity / Kraus, D., Krumm, F., European Forest Institute, p. 206 - 215

- *Groen, T.A., P.J. Verkerk, H Böttcher, G. Grassi, E Cienciala, K.G. Black, M. Fortin, M. Koethke, A. Lehtonen, **G.J. Nabuurs**, L. Petrova, V. Blujdea. In press. What causes the differences between national estimates of carbon emissions from forest management and large-scale models? *Environmental science and Policy*. 33: 222 – 232
- ***Nabuurs, G.J.**, M. Lindner, P.J. Verkerk, K. Gunia, G Grassi, R Michalak, P. Deda. 2013. First signs of carbon sink saturation in European forest biomass. *Nature Climate Change*. PUBLISHED ONLINE: 18 AUGUST 2013 | DOI: 10.1038/NCLIMATE1853
- *Schulp, C.J.E, P.H. Verburg, P.J. Kuikman, **G.J. Nabuurs**, J.G.J. Olivier, W de Vries, T Veldkamp. 2013. Improving National-Scale Carbon Stock Inventories Using Knowledge on Land Use History. *Environmental Management* 501: 709-723
- *Valbuena, R., M. Maltamo, S. Martín-Fernández, P. Packalén, C. Pascual, **G.J. Nabuurs**. Patterns of covariance between Airborne Laser Scanning metrics and Lorenz curve descriptors of tree size inequality. *Canadian Journal of Remote Sensing*. 39, S1_13,
- Wolfslehner, B., M. Lindner, **G.J. Nabuurs**. Chapter 2.1 European forests – setting the context. In: Pulzl, H., K. Hogl, D. Kleinschmit, D. Wydra, B. Arts, P. Mayer, M Palahi, G. Winkel, B Wolfslehner (Eds.). *European forest governance; issues at stake and the way forward. What Science Can Tell Us 2*. European Forest Institute. P 19-28.
- Hengeveld, G., M.J. Schelhaas, C Ryer, N.E. Zimmermann, D.A. Cullmann, G.J. Nabuurs. 2013. Ch VII. How fast van European forests adapt to changing climate? In: J. Fitzgerald and M. Lindner (eds.), *Adapting to climate change in European forests – results of Motive project*. P 80-82.

2012

- *Brus, D.J., G.M. Hengeveld, D.J.J. Walvoort, P.W. Goedhart, A.H. Heidema, **G.J. Nabuurs**, K. Gunia. 2011. Statistical mapping of tree species over Europe. *European Journal of Forest Research*. 131: 145-157.
- *Hanewinkel, M., D.A. Cullmann, M.J. Schelhaas, **G.J. Nabuurs**, N.E. Zimmermann. 2012. Climate change may cause severe loss in economic value of European forestland. *Nature Climate Change* 3: 203-207. DOI: 10.1038/NCLIMATE1687
- *Hengeveld, G.M., **G.J. Nabuurs**, M. Didion, I. van den Wyngaert, A.P.P.M. Clerckx, M.J. Schelhaas. 2012. A forest management map of European Forests. *Ecology and Society*. 17(4): 53. <http://dx.doi.org/10.5751/ES-05149-170453>
- *Mohren, G.M.J., H. Hasenauer, M Köhl, **G.J. Nabuurs**. 2012. Forest Inventories for Carbon Change Assessments. *Current Opinion in Environmental Sustainability*. 4: 686-695
- Waal, R.W. de, F.K. van Evert, J.G.J. Olivier, B. van Putten, C.J.E. Schulp. G.J. Nabuurs. 2012. Soil carbon dynamics and variability at the landscape level: its relation to aspects of spatial distribution in national emission databases. *KvR Report*. 056/12. 41 p.

2011

- Arets, E.J.M.M., P.J. van der Meer, C.C. Verwer, G.M. Hengeveld, G.W. Tolkamp, **G.J. Nabuurs**, M. van Oorschot. 2011. Global wood production. *Alterra Report* 1808. Wageningen. 80 p.
- Nabuurs, G.J.** 2011. Doesn't grow on trees. *Public service review*. 14: 210.
- Nabuurs, G.J.** 2011. Future scenarios of European forests. In: EAI Special issue: Forests a millenary heritage that guarantees us life. *Bimestrale del ENEA, Supplemento* 4-5: 35-41.
- *Rosen, K., M. Lindner, **G.J. Nabuurs**, P. Paschalis-Jacobowitz (eds.). 2011. Special issue. Challenges in implementing sustainability impact assessment of forest wood chains. *European Journal of Forest Research*. 131: 1-5.

2010

- *Gallaun, H., G. Zanchi, **G.J. Nabuurs**, G. Hengeveld, M. Schardt and P.J. Verkerk. 2010. EU-wide maps of growing stock and above-ground biomass in forests based on

remote sensing and field measurements. *Forest Ecology and Management* 260: 252–261.

Kanninen, M., M. Brockhaus, D. Murdiyarsa, and **G.J. Nabuurs**. 2010. Chapter 3. Harnessing Forests for Climate Change Mitigation through REDD+. In: WFSE book. Forests and Society – Responding to global drivers of change.

*Muys, B., J. Hynynen, M. Palahí, M.J. Lexer, M. Fabrika, H. Pretzsch, F. Gillet, E. Briceño, **G.J. Nabuurs** and V. Kint. 2010 Simulation tools for decision support to adaptive forest management in Europe. *Forest systems* 19(SI): 86–99.

***Nabuurs, G.J.**, G.M. Hengeveld, D.C. van der Werf and A.H. Heidema. 2010. European forest carbon balance assessed with inventory based methods — An introduction to a special section. *Forest Ecology and Management* 260: 239–240.

Nabuurs, G.J. 2011. The carbon mitigation potential of Europe's forests. Internal report to the Ad hoc working group on climate change to the Standing Forest Committee. Brussels, Belgium, April 30, 2010.

2009

*Bolte, A., C. Ammer, M. Löf, P. Madsen, **G.J. Nabuurs**, P. Schall, P. Spathelf and J. Rock. 2009. Adaptive forest management in central Europe: Climate change impacts, strategies and integrative concept. *Scandinavian Journal of Forest Research*, 24: 473–482

Dai, X., Y. Xu, G. Jia, C. Fu, L. You, Z. Xiong, J. Yuan, Y. n. Hu, H. Yang, H. Wang, Y. Hu, Y. Zhang, H. Liu, Z. Liu, Y. Sun, J. Chou, S. E. Werners and **G.J. Nabuurs**. 2009. Climate change impacts and adaptation strategies in Inner Mongolia. Project Report P3d iii-2. ADAM Project (EU Project no. 018476-GOCE), Norwich, UK. 100 p.

Hulme, M., H. Neufeldt, A. Richie, D. van Vuuren, R. Klein, B. Knopf, A. Haxeltine, F. Bierman, P. Pattberg, F. Zelli, S.E. Werners, J.D. Tabara, X. Dai, Z. Flachner, **G.J. Nabuurs**, G. Eskeland, E. Jochem. 2009. ADAM final report. ADAM Project, Norwich, UK. 47 p.

Jochem, E., W. Schade, T. Barker, S. Scrieciu, N. Helfrich, S. Mima, P. Criqui, J. Morel, B. Chateau, A. Kitous, **G.J. Nabuurs**, M.J. Schelhaas, T. Groen, L. Quandt, F. Reitze, G. Catenazzi, M. Jakob, W. Eichhammer, A. Held, M. Ragwitz, U. Reiter, H. Turton, J. Köhler. 2009. Report of the Reference and 2°C Scenario for Europe. ADAM Project D M1.2, Norwich, UK. 250 p.

*Luyssaert, S., P. Ciais, S.L. Piao, E.-D. Schulze, M. Jung, S. Zaehle, M.J. Schelhaas, M. Reichstein, G. Churkina, D. Papale, G. Abril, C. Beer, J. Grace, D. Loustau, G. Matteucci, F. Magnani, **G.J. Nabuurs**, H. Verbeeck, M. Sulkava, G.R. van der Werf, I.A. Janssens. 2009 The European carbon balance. Part 3: forests. *Global Change Biology*. DOI 10.1111/j.1365-2486.2009.02056.x

Nabuurs, G.J. Bosbeheren is investeren. *Vakblad Natuur Bos en Landschap*. Sep 2009.

*Pussinen, A., **G.J. Nabuurs**, R. Wieggers, G.J. Reinds, G.W.W. Wamelink, J. Kros, J.P. Mol-Dijkstra and W. de Vries, 2009. Modelling long term impacts of environmental change on mid- and high-latitude European forests and options for adaptive forest management. *Forest Ecology and Management* 258: 1806-1813.

*Schulze, E.D., S. Luyssaert, P. Ciais, A. Freibauer, I. A. Janssens, J. F. Soussana, P. Smith, J. Grace, I. Levin, B. Thiruchittampalam, M. Heimann, A. J. Dolman, R. Valentini, P. Bousquet, P. Peylin, W. Peters, C. Rödenbeck, G. Etiope, N. Vuichard, M. Wattenbach, **G.J. Nabuurs**, Z. Poussi, J. Nieschulze, J. H. Gash. 2009. Importance of methane and nitrous oxide for Europe's terrestrial greenhouse-gas balance. *Nature Geoscience*. doi: 10.1038/ngeo686

Verkaik, E. and **G.J. Nabuurs**. 2009. Opwarmend Bos. *Vakblad Natuur Bos Landschap*, Vol 2009 juni, p.20-21.

Verkaik, E., L.G. Moraal, and **G.J. Nabuurs**. 2009. Potential impacts of climate change on Dutch forests: mapping the risks. Alterra report 1761, Wageningen.

Vries, W. de., J. Kros, G.J. Reinds, H.J.J. Wieggers, G.L. Velthof, D.A. Oudendag, **G.J. Nabuurs**, M.J. Schelhaas, M. Perez Soba, W.P. de Winter, J. van den Akker, M.M. Bakker, P.H. Verburg, A. Leip, J. Liski, B. Eickhout and A.F. Bouwman. 2009. Assess-

ment of nitrogen and greenhouse gas fluxes at the European scale in response to land use and livestock change. Proceedings of the AgSAP Conference 2009. Egmond aan Zee, The Netherlands. p. 412-413.

- Vries, W. de., W. Wamelink, G.J. Reinds, H.J.J. Wieggers, J.P. Mol-Dijkstra, J. Kros, **G.J. Nabuurs**, A. Pussinen, S. Solberg, M. Dobbertin, D. Laubhann, H. Sterba, M van Oijen. 2009. Assessment of the relative importance of nitrogen deposition. In: Climate change and forest management on the sequestration of carbon in forests in Europe. Wageningen Alterra Report 1538, 302 p.
- Werners, S.E., M. Bindi, F. Cots, X Dai, Z Flachner, Piotr Matczak, D. McEvoy, M Moriondo, N Luger, **G.J. Nabuurs**, H. Neufeldt, J.D. Tàbara, G. Trombi, J. West. 2009. Final results of the regional case studies. Project Report P3d-4. ADAM Project, Norwich, UK. 238 p.

2008

- Arets, E., T. Palosuo, A. Moiseev, **G.J. Nabuurs**, D. Slimani, C. Olsmat, J. Laurijssen, B. Mason, D. McGowan, D. Vötter. 2008. D 1.4.7. Reference futures and Scenarios for the European FWC. Eforwood deliverable to Brussels. 32p.
- *Ciais, P., M.J. Schelhaas, S Zaehle, A. Cescatti, S.L. Piao, G. Le-Maire, E-D. Schulze, J. Liski, O. Bouriaud, S. Luyssaert and **G.J. Nabuurs**. 2008. Carbon accumulation in European forests. *Nature geosciences*. 1:1-5.
- Dorland, R. van., M. van Drunen, B. Eickhout, B. Jansen, I. Kingma, N. Meijer, R. Prop, B. Schoenmackers, A. Seebregts, J.A. Veraart, J. Bessembinder, B. Bergman, **G.J. Nabuurs**, J. Verhagen, A.J.H. van Vliet, and C.C. Vos. 2008. De staat van het klimaat 2007. Report of PCCC, Platform communication climate change. 41 p.
- Hoogwijk, M., D.P. van Vuuren, S. Boeters, K. Blok, E. Blomen, T. Barker, J. Chateau, A. Grübler, T. Masui, **G.J. Nabuurs**, A. Novikova, K. Riahi, S. de la Rue du Can, J. Sathaye, S. Scricciu, D. Urge-Vorsatz, J. van Vliet. 2008. Sectoral emission reduction potential. Comparison of top down and bottom up approaches. EFOFYS, Utrecht 9 p.
- *Lindner, M., C.W. Woodall, C.H. Parry, **G.J. Nabuurs**, M.J. Sanz. 2008 Preface - Impacts of forest ecosystem management on greenhouse gas budgets. *Forest Ecology and Management* 256: 191-193.
- ***Nabuurs, G.J.**, B. van Putten, T.S Knippers and G.M.J. Mohren. 2008. Comparison of uncertainties in carbon sequestration estimates of a temperate and tropical forest. *Forest Ecology and Management* 256: 237-245.
- ***Nabuurs, G.J.**, E. Thurig, N. Heidema, K. Armolaitis, P. Biber, E. Cienciala, E. Kaufmann, R. Makipaa, P. Nilsen, R. Petritsch, T. Pristova, J. Rock, M.J. Schelhaas, R. Sievanen, Z. Somogyi, P. Vallet. 2008. Hotspots of the carbon cycle in European forests. *Forest Ecology and Management* 256: 194-200. **Nabuurs, G.J.** 2008. Book review. *Resource and Market Projections for Forest Policy Development: Twenty-five years of experience with the US RPA Timber Assessment*, Darius Adams, Richard W. Haynes (Eds.), *Forest Policy and Economics*. 10:523
- Nabuurs, G.J.**, E. Verkaik, U. Sass-Klaaassen, J. Den Ouden. 2008. Dendrometers geven inzicht in groeidynamiek van bomen onder veranderd klimaat. *Arbor Vitae*. 18: 18-20.
- *Schulp, C.J.E., **G.J. Nabuurs** and P.H. Verburg 2008. Future carbon sequestration in Europe; effects of land use change. *Agriculture, Ecosystems and Environment* 127: 251-264.
- *Schulp, C.J.E., **G.J. Nabuurs**, P.H. Verburg, R.W. de Waal. 2008. Effect of tree species on carbon stocks in forest floor and mineral soil and implications for carbon inventories. *Forest Ecology and Management* 256: 482-490
- *Smith, P., **G.J. Nabuurs**, I.A. Janssens, S. Reis, G. Marland, J.F. Soussana, T.R. Christensen, L. Heath, M. Apps, V. Alexeyev, J. Fang, J.P. Gattuso, J.P. Guerschman, Y. Huang, E. Jobbagy, D. Murdiyarso, J. Ni, A. Nobre, C. Peng, A. Walcroft, S. Qiang Wang, Y. Pan, G. Sheng Zhou. 2008. Sectoral approaches to improve regional carbon budgets. *Climatic Change*. 88: 209-249

- Verwer, C., P.J. van der Meer, **G.J. Nabuurs**. 2008. Review of carbon flux estimates and other greenhouse gas emissions from oil palm cultivation on tropical peatlands – identifying gaps in knowledge. Alterra report 1731. Wageningen. 44 p.
- *Vries, W. de., S. Solberg, M. Dobbertin, H. Sterba, D. Laubhahn, G.J. Reinds, **G.J. Nabuurs**, P. Gundersen, M.A. Sutton. 2008. Ecologically implausible carbon response? Nature 451: E1-E2.
- Wyngaert, I.J.J. van den., H. Kramer, P.J. Kuikman, **G.J. Nabuurs**, and H. Vreuls. 2008. Greenhouse gas reporting of the LULUCF sector, revisions and updates related to the Dutch NIR 2008 Wageningen. Alterra-rapport 1035.6. 130 p.

2007

- Eggers, J., M. Lindner, S. Zudin, S. Zaehle, J. Liski and **G.J. Nabuurs**. 2007. Forestry in Europe under changing climate and land use. In P. Freer-Smith et al. (Eds). Forestry and Climate Change. OECD Conference, Wilton Park. p 112-118.
- *Metz, B., O Davidson, P Bosch, R Dave, L Meyer I. Bashmakov, T. Barker, L. Bernstein, J. Bogner, B. Fisher, S. Gupta, K. Halsnaes, B.J. Heij, S. Kahn-Ribeiro, S. Kobayashi, M. Levine, D. Martino, O. Masera Ceruti, **G.J. Nabuurs**, A. Najam, N. Nakicenovic, H.H. Rogner, J. Roy, J. Sathaye, R. Schock, P. Shukla, R. Sims, P. Smith, D. Tirpak, D. Urge-Vorsatz. IPCC 2007. Technical Summary. In Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report. Published by IPCC, Geneva, p. 25-108.
- *Metz, B., O. Davidson, P. Bosch, R. Dave, L. Meyer, I. Bashmakov, T. Barker, L. Bernstein, J. Bogner, B. Fisher, S. Gupta, K. Halsnaes, B.J. Heij, S. Kahn-Ribeiro, S. Kobayashi, M. Levine, D. Martino, O. Masera Ceruti, **G.J. Nabuurs**, A. Najam, N. Nakicenovic, H.H. Rogner, J. Roy, J. Sathaye, R. Schock, P. Shukla, R. Sims, P. Smith, D. Tirpak, D. Urge-Vorsatz. IPCC 2007. Summary for Policy Makers. In Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report. Published by IPCC, Geneva, 23 p.
- ***Nabuurs, G.J.**, I.J.J. van den Wyngaert, W. Daamen, H. Kramer and P. Kuikman. 2007. The Dutch national system for greenhouse gas reporting. Mitigation and Adaptation Strategies for Global change. DOI 10.1007/s11027-007-9110-9
- ***Nabuurs, G.J.**, O. Masera et al. 2007. Ch 9 Forestry. In Metz et al. (Eds.), Climate Change 2007. Mitigation of Climate Change. WG III IPCC Fourth Assessment Report. Cambridge University Press, Cambridge. P. 541 - 584
- Nabuurs, G.J.** 2007. De extreme zomer van 2006, lange termijn gevolgen van klimaatverandering. Vakblad Natuur, Bos en landschap 4(8): 23.
- Nabuurs, G.J.** and P. Hommel. 2007. Klimaatverandering en het Nederlandse bos: geen doemscenarios graag. Vakblad Natuur, Bos en landschap 4(8): 8-12.
- Nabuurs, G.J.**, D.C. van der Werf, N. Heidema and I.J.J. van der Wyngaert. 2007. Ch 13. Towards a High Resolution Forest Carbon Balance for Europe Based on Inventory Data. In Freer Smith et al. (Eds). Forestry and Climate Change. OECD Conference, Wilton Park. Nov 2006. p 105-111
- Schelhaas, M.J., E. Cienciala, M. Lindner, **G.J. Nabuurs**, and G. Zanchi. 2007. Selection and quantification of forestry measures targeted at the Kyoto Protocol and the Convention on Biodiversity. Alterra Report 1508, 95 p.
- Schelhaas, M.J., J. Eggers, M. Lindner, **G.J. Nabuurs**, A. Pussinen, R. Paivinen, A. Schuck, P.J. Verkerk, D.C. van der Werf and S. Zudin. 2007. Model documentation for the European Forest Information Scenario Model (EFISCEN 3.1.3). Alterra Report 1559. 118 p.
- Vries, W. de., G.W.W. Wamelink, G.J. Reinds, H.J.J. Wieggers, J.P. Mol-Dijkstra, J. Kros, **G.J. Nabuurs**, A. Pussinen, S. Solberg, M. Dobbertin, D. Laubhann, H. Sterba, M. van Oijen. 2007. Assessment of the relative importance of nitrogen deposition, climate change and forest management on the sequestration of carbon by forest in Europe Wageningen. Alterra-rapport 1538. 302 p.

Wyngaert, I.J.J., W. de Groot, P. Kuikman en **G.J. Nabuurs**. 2007. Updates of the Dutch National System for Greenhouse Gas Reporting of the LULUCF sector. Alterra report 1035.5.

2006

- Cienciala, E., M.J. Schelhaas, **G.J. Nabuurs**, and M. Lindner. 2006. Expected impact of the Kyoto Protocol on European forestry. MEACAP Report Wp 4,D12. IFER, Alterra, EFI. Wageningen
- *Fang, J., S. Brown, Y. Tang, **G.J. Nabuurs**, X. Wang, and H. Shen. 2006. Overestimated biomass carbon pools of the northern mid- and high latitude forests. *Climatic Change*. 74: 355-368
- *Groen, T., **G.J. Nabuurs** and M.J. Schelhaas. 2006. Carbon Accounting and Cost Estimation in Forestry Projects using CO₂Fix V.3. *Climatic Change*. 74:269-288
- Kruijt, B., **G.J. Nabuurs**, and E.J.M.M. Arets. 2006. The potential for conservation of carbon stocks and carbon sequestration in the Trésor rainforest reserve, French Guiana: a quick scan. Alterra. Wageningen. 19 p.
- ***Nabuurs, G.J.**, J. van Brusselen, A. Pussinen. and M.J. Schelhaas. 2006. Future harvesting pressure on European forests. *European Journal of Forest Research*. 126: 391-400
- Schelhaas, M.J., E. Cienciala, M. Lindner, **G.J. Nabuurs**, J. Meyer. 2006
Survey of technical and management-based mitigation measures in forestry. MEACAP Report Wp 4, D13. IFER, Alterra, EFI. Wageningen
- Schelhaas, M.J., J. van Brusselen, A. Pussinen, E. Pessonen, A. Schuck, **G.J. Nabuurs**, V. Sasse. 2006. Outlook for the development of European forest resources. Geneva Timber and Forest Discussion Papers 41. Geneva, UN-ECE. 118 p.
- Trines, E., N. Höhne, M. Jung, M. Skutsch, A. Petsonk, G. Silva-Chavez, P. Smith, G.J. Nabuurs, P. Verweij, and B. Schlamadinger, 2006. Integrating agriculture, forestry and other land use in future climate regimes - Methodological issues and policy options. Report 500102 002. NRP, Bilthoven

2005

- Groot, W.J.M. de, R. Visschers, E. Kiestra, P.J. Kuikman and **G.J. Nabuurs**. 2005.
Nationaal systeem voor de rapportage van voorraad en veranderingen in bodem-C in relatie tot landgebruik en landgebruikveranderingen in Nederland aan de UNFCCC. Wageningen, Alterra. Alterra-rapport 1035-3. 52p.
- Meuleman, B., L. Kuiper and **G.J. Nabuurs** 2005. EFFECT: EU forests for renewable energy to mitigate the climate. Ecofys report. By order of the European Commission. ENV.B B4-3040/2003/363912/MAR/B3. Ecofys Utrecht 88 p.
- Moors, E., W. Jans, H. Dolman, T. Groen, A. Kononov, B. Kruijt, A. Maximov, T. Maximov, M. van der Molen, **G.J. Nabuurs**. 2005. Development of sustainable carbon conserving management strategies for far eastern Siberian larch ecosystem on permafrost. Final report of the Pin Matra project. 73 p.
- Nabuurs, G.J.**, I.J.J. van den Wyngaert, W. Daamen, A.T.F. Helmink, W.J.M. de Groot, W.C. Knol, H. Kramer, P.J. Kuikman. 2005. National system of greenhouse gas reporting for forest and nature areas under UNFCCC in the Netherlands. Wageningen, Alterra. Alterra-rapport 1035.1. 57p
- Nabuurs, G.J.**, P.J. Kuikman and H. Kramer. 2005. Nederlandse ontbossing bedraagt 1470 ha per jaar. *Vakblad Natuur, Bos en Landschap*. 7: 27
- Olsthoorn, A.F.M. and **G.J. Nabuurs**. 2005. Mobilizing extra wood in Europe: getting harvest closer to growth; report on BUS-ticket C12 Wageningen: Biomassa-Upstream Stuurgroep. 5p.

2004

- Aerts, J.C.J.H., H. van Asselt, S.J.A. Bakker, V. Bayangos, C van Beers, M. Berk, F. Biermann, L.M. Bouwer, L. van Bree, H.C. de Coninck, K. Dorland, R. Egging, M.G.J. den Elzen, J. Gupta, J van Heemst, J.C. Jansen, M.T.J. Kok, **G.J. Nabuurs**, F. van

- Oostvoorn, J. Veraart, A. Verhagen. 2004. Climate Change. Beyond Climate, Options for broadening climate policy. Bilthoven, RIVM/ Netherlands Research Programme on Climate Change. RIVM report 500019001. 256p.
- Brumme, R. K. Butterbach-Bahl, J. Grace, A. Lehtonen, S. Lettens, J. Liski, M. Mencuccini, R. Milne, **G.J. Nabuurs**, M. Olsson, K. Schadauer, K. Troeltzsch, N. van Camp, W. de Vries, M. Williams, S. Zaehle, S. 2004. Specific study on forest greenhouse gas budget. Viterbo, Italy. European Commission, 62p.
- Caldeira, K., M. G. Morgan, D. Baldocchi, P.G. Brewer, C-T.A. Chen, **G.J. Nabuurs**, N. Nakicenovic, G.P. Robertson. 2004. A portfolio of carbon management options. In: Field, C. and M Raupach (Eds.), The global carbon cycle. SCOPE 62. p. 103-129
- *Janssens, I., A. Freibauer, B. Schlamadinger, R. Ceulemans, P. Ciais, A.J. Dolman, M. Heimann, **G.J. Nabuurs**, P. Smith, et.al. 2004. The carbon budget of terrestrial ecosystems at country scale – a European case. Biogeosciences discussions 1. 167-193.
- Kuikman, P., L. Kooistra, and **G.J. Nabuurs**. 2004. Land use, agriculture, and greenhouse gas emission in the Netherlands: omissions in the national inventory report and potential under kyoto article 3.4. Alterra report 903. 60 p. Wageningen
- Lindner, M., W Lucht, O Bouriaud, T. Green, I. Janssens, R. Brummer, K. Butterbach Bahl, J. Grace, **G.J. Nabuurs**. 2004. Specific study on forest greenhouse gas budget. Carbo Europe GHG. Report 8/2004. Specific study 1. 62 p. Viterbo Italy.
- Mohren, G.M.J. and **G.J. Nabuurs** 2004. Bomen en bossen. In: Roos, R and S Woudenberg (eds) opgewarmd Nederland. Stichting Natuurmedia, Amsterdam p 155-161
- Nabuurs, G.J.** 2004. Current consequences of past actions: how to separate direct from indirect. In: Field, C. and M Raupach (Eds.), The global carbon cycle. SCOPE 62. p. 317-326
- Nabuurs, G.J.** and T.A. Groen. 2004. management in boreal forests for C sequestration In: Proceedings of the international semi-open workshop "C/H₂O/energy balance and climate over boreal regions with special emphasis on eastern Eurasia". p. 107 - 108.
- ***Nabuurs, G.J.**, N.H. Ravindranath, K. Paustian, A. Freibauer, W. Hohenstein, W. Makundi and 34 others. 2004. LUCF Sector Good Practice Guidance. In Penman et al. (Eds.), IPCC Good practice Guidance for Land Use, Land Use Change and Forestry. IPCC NGGIP Programme. p 3.1 – 3.312. Published by IGES for IPCC. Japan.
- *Schelhaas, M.J., **G.J. Nabuurs**, W. Jans, E. Moors, S. Sabate, and W.P. Daamen. 2004. Closing the carbon budget of a Scots pine forest in the Netherlands. Climatic Change 67: 309-328
- Schelhaas, M.J., P.W. van Esch, T.A. Groen, B.H.J. de Jong, M. Kanninen, J. Liski, O. Maser, G.M.J. Mohren, **G.J. Nabuurs**, T. Palosuo, L. Pedroni, A. Vallejo, T. Vilén. 2004. CO₂FIX V 3.1. A modelling framework for quantifying carbon sequestration in forest ecosystems Alterra report 1068. 122 p. Wageningen
- Schelhaas, M.J., M. Cerny, I.F. Buksha, E. Cienciala, P. Csoka, T. Karjalainen, L. Kolozs, **G.J. Nabuurs**, V.P. Pasternak, A. Pussinen, M. Sodor, J. Wawrzoniak. 2004. Scenarios for sustainable forest management in Czech Republic, Hungary, Poland and Ukraine. SCEFORMA final report. EFI Research Report 17. Brill Leiden. 107 p.
- Sijm, J.P.M., O.J. Kuik, M. Patel, V. Oikonomou, E. Worrell, P. Lako, E. Annevelink, **G.J. Nabuurs**, H.W. Elbersen. 2004. Spillovers of climate policy; an assessment of the incidence of carbon leakage and induced technological change due to CO₂ abatement measures. Bilthoven. RIVM, Report 500036 002. 251p.
- Trines, E., **G.J. Nabuurs**, and A. Verhagen. 2004. Possible role of land use change and forestry in future climate regimes, an inventory of some options. Treeness Consult. 58 p.
- Verhagen, J., P.J. Kuikman, T. Gorissen, J.W. van Groenigen, **G.J. Nabuurs**, R.E.E. Jongschaap, B. Kruijt, I.J.J. van den Wyngaert, A. Smit, C.A. van den Berg, D.C. van der Werf, K.B. Zwart, and R. Visschers. 2004. Separation of direct and indirect effects on carbon sequestration and C stocks: an inventory of methodologies. Plant Research International. PRI, Report 88.

2003

- Dolman, A.J., **G.J. Nabuurs**, et al. (2002). Land use and Terrestrial Carbon Sinks. In: Heij, B.J. (Ed.), *Integration in climate change*. Bilthoven, National research Programme Global Air Pollution and Climate Change.
- *Janssens, I.A., A. Freibauer, P. Ciais, P. Smith, **G.J. Nabuurs**, G. Folberth, B. Schlamadinger, R.W.A. Hutjes, R. Ceulemans, E.-D Schulze, R. Valentini, A.J. Dolman 2003. Europe's terrestrial biosphere absorbs 7 to 12% of European anthropogenic CO₂ emissions. *Science* 300: 1538-1542.
- *Karjalainen, T., A. Pussinen, J. Liski, **G.J. Nabuurs**, T. Eggers, T. Lapvetelainen and T. Kaipainen 2003. Scenario analyses of the impacts of forest management and climate change on the European forest sector carbon budget. *Forest Policy and Economics* 5: 141-155.
- *Maser, O.R., J. Garza-Caligaris, M. Kanninen, T. Karjalainen, J. Liski, **G.J. Nabuurs**, A. Pussinen, B.H.J. de Jong, G.M.J. Mohren 2003. Modelling carbon sequestration in afforestation and forest management projects: The CO₂FIX V2 approach. *Ecological modelling* 164: 177-199.
- Minne, J.G. van, E. van Ierland and **G.J. Nabuurs**. 2003. Chapter 8. Terrestrial carbon sinks and biomass in international climate policies. Bilthoven, National research Programme Global Air Pollution and Climate Change.
- ***Nabuurs GJ** and M.J. Schelhaas 2003. Spatial distribution of whole tree carbon stocks and fluxes of forests in Europe; where are the options for bio-energy? *Biomass and Bioenergy* 24: 311-320
- ***Nabuurs, G.J.**, M.J. Schelhaas, G.M.J. Mohren and C.B. Field. 2003. Temporal evolution of the European Forest sector carbon sink 1950-1999. *Global Change Biology*. 9:152-160
- Nabuurs, G.J.**, M.J. Schelhaas, A. Ouwehand, A. Pussinen, J. Van Brusselen, E. Pesonen, A. Schuck, M.F.F.W. Jans, L. Kuiper. 2003. Future wood supply from European forests - with implications to the pulp and paper industry. *ALTERRA Report*. 140 p.
- Nabuurs, G.J.**, R. Päivinen, A. Pussinen and M.J. Schelhaas. 2003. Development of European forests until 2050 - a projection of forests and forest management in thirty countries. *EFI Research Report 15*. European Forest Institute. Joensuu, Finland
- Nabuurs, G.J.**, W. Daamen, G. Dirkse, J. Paasman, P. Kuikman, and J. verhagen. 2003. Present Readiness of, and white spots in the Dutch national System for greenhouse gas reporting of the Land Use, Land Use change and Forestry sector (LULUCF). *Alterra report 774*. 95 p. Wageningen.
- *Schelhaas, M.J., **G.J. Nabuurs** and A. Schuck. 2003 Natural disturbances in the European forests in the 19th and the 20th centuries. *Global Change Biology* 9: 1620-1633.

2002

- *Goodale, C., M.J. Apps, R.A. Birdsey, C.B. Field, L.S. Heath, R.A. Houghton, J.C. Jenkins, G.H. Kohlmaier, W. Kurz, S. Liu, **G.J. Nabuurs**, S. Nilsson and A.Z. Shvidenko. 2002. Forest carbon sinks in the northern hemisphere. *Ecological Applications* 12(3): 891-899.
- *Karjalainen, T., A. Pussinen, J. Liski, **G.J. Nabuurs**, M. Erhard, T. Eggers, M. Sonntag, M. and G.M.J. Mohren. 2001. "An approach towards an estimate of the impact of forest management and climate change on the European forest sector carbon budget: Germany as a case study." *Forest Ecology and Management* 162: 87-103.
- ***Nabuurs, G.J.** and M.J. Schelhaas 2002. Carbon profiles of typical forest types across Europe assessed with CO₂FIX. *Ecological Indicators* 1(3): 213-223
- ***Nabuurs, G.J.**, A. Pussinen, T. Karjalainen, M. Ehrhard and K. Kramer. 2002 Stemwood volume increment changes in European forests due to climate change; a simulation study with the EFISCEN model. *Global change Biology* 8: 304-316

- ***Nabuurs, G.J.**, D.M. de Goede, B. Michie, M.J. Schelhaas, and J.G. Wesseling. 2002. Long term international impacts of nature oriented forest management on European forests - an assessment with efiscen through wood products trade flows. *Journal of World Forest Resource Management* 9: 101-129.
- Nabuurs G.J.** 2002. A spotted owl in the backyard. *Nederlands Bosbouw tijdschrift*. 74(4):30. In Dutch
- Nabuurs, G.J.** and R. Sikkema. 2002. Het Good Practice Guidance rapport van het IPCC; de laatste stap naar implementatie van het Kyoto Protocol. *Ecologie en Ontwikkeling*. 10(3): 14-16.
- Nabuurs, G.J.**, JF Garza-Caligaris, M. Kanninen, T. Karjalainen, T. Lapvetelainen, J. Liski, O. Maser, G.M.J. Mohren, M. Olguin, A. Pussinen, and M.J. Schelhaas 2002. CO2FIX V 2.0: manual of a modelling framework for quantifying carbon sequestration in forest ecosystems and wood products. Wageningen, ALTERRA report 445. 45 p.
- Schelhaas, M.J. M.N. van Wijk and **G.J. Nabuurs**. 2002. Koolstofvastlegging in bossen: een kans voor de boseigenaar? *Nederlands Bosbouw tijdschrift*. 74(4): 10-12. In Dutch
- Schelhaas, M.J., **G.J. Nabuurs**, W. Jans, E. Moors, S. Sabate. 2002. Converging estimates of the forest carbon sink- a comparison of the carbon sink of a Scots pine stand in The Netherlands as presented by the eddy covariance and the forest inventory method. ALTERRA rapport 631. 44 p.
- *Schelhaas, M.J., **G.J. Nabuurs**, M. Sonntag, and A. Pussinen. 2002. Simulating the development of Swiss forest resources under natural disturbances and climate change. *Forest Ecology and Management* 167: 13-26
- Schelhaas, M.J., M.N. van Wijk and **G.J. Nabuurs**. 2002. Koolstofvastlegging in bossen: een kans voor de boseigenaar? *Altterra rapport 553*. Wageningen. 52p. (in dutch)
- Sikkema, R., M.J. Schelhaas, and **G.J. Nabuurs** 2002. International carbon accounting of harvested wood products: evaluation of two models for the quantification of wood product related emissions and removals. Bilthoven, Dutch National Research Programme Global Air Pollution and Climate Change. Report 410 200 111. ALTERRA and FORM Ecology Consultants. 73 p.

2001

- Brinkman S., R. Wichink-Kruit, P. Kuikman and **G.J. Nabuurs** (2001). National submission by the Netherlands to UNFCCC - credits through article 3.3 and 3.4 activities under the Kyoto Protocol, August 1st, 2000. Wageningen, ALTERRA report 162.1. 44 p.
- Brinkman, S., R.J. Wichink Kruit, **Nabuurs G. J.**, P. J. Kuikman, A. J. Dolman (2001). The Kyoto Article 3.3. and 3.4 toolbox (KAT). Wageningen, ALTERRA report 162.2. 36 p.
- Dolman, A. J., **G.J. Nabuurs**, P. Kuikman, B. Kruijt, S. Brinkman, L. Vleeshouwers and J. Verhagen. 2001. Terrestrial carbon sinks and the Kyoto Protocol: the scientific issues. 410 200 068, ALTERRA and Plant Research International as commissioned by The Dutch National Research Programme Global Air Pollution and Climate Change, Wageningen and Bilthoven. 31 p.
- Hutjes, R., A. J. Dolman., **G.J. Nabuurs**, M.J. Schelhaas, et al. (2001). Land use, climate and biogeochemical cycles: feedbacks and options for emission reduction., Bilthoven, National research Programme Global Air Pollution and Climate Change, Report 410 200 107. ALTERRA, PRI.: 221 p.
- *Kauppi P., R.J. Sedjo, M. Apps, C. Cerri, T. Fujimori, H. Janzen, O. Krankina, W. Makundi, G. Marland, O. Maser, **G.J. Nabuurs**, W. Razali, N.H. Ravindranath (2001). Technical and Economic Potential of Options to Enhance, Maintain and Manage Biological Carbon Reservoirs and Geo-engineering. *Mitigation 2001*. The IPCC Third assessment report. In: Metz, B et al. (Eds.), Cambridge, Cambridge University Press.
- *Martin, P.H., **G.J. Nabuurs**, M. Aubinet, T. Karjalainen, E.L. Vine, J. Kinsman, L.S. Heath 2001. Carbon sinks in temperate forests. *Annual reviews in Energy and the Environment* 26: 435-465.

- ***Nabuurs, G.J.** and R. Sikkema 2001 International trade in wood products: its role in the Land Use Change and Forestry carbon balance. *Climatic Change*, 49:377-395.
- ***Nabuurs, G.J.**, R. Paivinen and H. Schanz 2001. Sustainable management regimes for European forests - a projection with EFISCEN until 2050. *Forest Policy and Economics* 3: 155-173
- ***Nabuurs, G.J.**, R. Paivinen, M.J. Schelhaas, A. Pussinen, E. Verkaik, A. Lioubimow, and G.M.J. Mohren. 2001. Nature oriented forest management in Europe: modelling the long term effects. *Journal of Forestry* July:28-33
- Nabuurs, G. J.** 2001. Europese productie daalt door duurzaam bosbeheer - Mogelijke prijsstijgingen en hogere Russische aanvoer. *Houtwereld* 54:30-31.
- Nabuurs, G. J.**, A. Pussinen, J. Liski and T. Karjalainen (2001). Upscaling based on forest inventory data and EFISCEN. Long term effects of climate change on carbon budgets of forests in Europe. In: Kramer, K. and G.M.J. Mohren. *Alterra report 194*. Wageningen. p. 220-234.
- Nabuurs, G.J.** 2001. European forests in the 21st century: long- term impacts of nature oriented forest management assessed with a large scale scenario model. *Research Notes 121*. PhD Thesis University of Joensuu, Finland. *ALTERRA Scientific Contributions 2*. Wageningen The Netherlands. 130 p.
- Nabuurs, G.J.** M.J. Schelhaas and D. de Goede. 2001. Long term effects of integrated forest management. *Nederlands Bosbouw tijdschrift*. 73(5): 29-32. In Dutch.
- Pussinen, A., M.J. Schelhaas, E. Verkaik, E. Heikkinen, R. Paivinen, and **G.J. Nabuurs**. 2001. Manual for the European Forest Information Scenario Model (EFISCEN); version 2.0. *EFI Internal Report 5*. European Forest Institute. Joensuu, Finland. 49 p.
- Schelhaas, M.J. and **G.J Nabuurs** 2001. Spatial distribution of carbon stocks and fluxes in the Veluwe forest area in the Netherlands. *ALTERRA Report 301*, ALTERRA, Wageningen.
- Schelhaas, M.J. and **G.J. Nabuurs** 2001. Spatial distribution of regional whole tree carbon stocks and fluxes of forests in Europe. *ALTERRA Report 300*, ALTERRA, Wageningen.

2000

- Karjalainen, T., **G.J. Nabuurs**, J. Liski, A. Pussinen, T. Lapvetelainen and T. Eggers 2000 Kohlenstoff-speicherung in Wäldern - 10 häufig gestellte Fragen. *AFZ der Wald*. 55(11): 577-578
- *Liski, J., T. Karjalainen, A. Pussinen, **G.J. Nabuurs** and P. Kauppi. 2000. Trees as carbon sinks and sources in the European Union. *Environmental Science and Policy*. 3: 91-97.
- ***Nabuurs, G.J.** and A.V. Lioubimow 2000. Future development of Leningrad region forest under a nature oriented forest management. *Forest Ecology and Management* 130:235-251.
- ***Nabuurs, G.J.**, A.V. Dolman, E. Verkaik, P.J. Kuikman, C.A. van Diepen, A. Whitmore, W. Daamen, O. Oenema, P. Kabat and G.M.J. Mohren 2000 Article 3.3 and 3.4. of the Kyoto Protocol - consequences for industrialised countries' commitment, the monitoring needs and possible side effect. *Environmental Science and Policy*. 3: 123-134
- ***Nabuurs, G.J.**, G.M.J. Mohren and H. Dolman 2000 Monitoring and reporting carbon stocks and fluxes in Dutch forests. *Biotechnologie, Agronomie, Society and Environment* 4(4): 308-310.
- ***Nabuurs, G.J.**, M.J. Schelhaas and A. Pussinen 2000. Validation of the European Forest Information Scenario Model (EFISCEN) and a projection of Finnish forests. *Silva Fennica* 34: 167-179
- Nabuurs, G.J.** and R. Paivinen 2000 Forest scenario studies for European forests. In: J.M. Vasievich, J.S. Fried and L.A. Leefers (Eds), *Seventh Symposium on Systems Analysis of Forest Resources*. Traverse City, MI. 28-31 May 1997. USDA, North Central Research Station. General technical report NC 205. p. 465-470.
- *Noble, I., M. Apps, R. Houghton, D. Lashof, W. Makundi, D. Murdiyarto, B. Murray, W. Sombroek, R. Valentini, M. Amano P.M. Fearnside, J. Frangi, P. Frumhoff, M. Kirsch-

- baum, **G.J. Nabuurs**, R. Persson and others. 2000 Chapter 2. Implications of different definitions and generic issues. In: Land Use, Land use Change and Forestry. IPCC Special Report. Cambridge Univ Press, Cambridge. p 53-126.
- Pussinen, A., **G.J. Nabuurs**, M.J. Schelhaas and R. Paivinen 2000 Endlose forststressourcen in Europa! Oder vielleicht doch nicht? AFZ der Wald. 55(11): 568-570
- Verkaik, E., and **G.J. Nabuurs** 2000. Wood production potentials of Fenno-scandinavian forest under nature oriented management. Scandinavian Journal of Forest Research 15: 445-454.
- Waterloo, M.J., P. Kabat, **G.J. Nabuurs** and R.N. de Graaf 2000 Potentials of terrestrial CO2 sink activities and emission reductions through international afforestation and forest protection measures. Wageningen University and Research Center. ALTERRA and Dept. Forestry. Alterra Report 100. 27 p.

1999

- Daamen, W., **G.J. Nabuurs** and A. Oosterbaan. 1999. Verhoogde bijgroei, oorzaken en gevolgen. Verslag van de International Seminar on causes and consequences of accelerating tree growth in Europe'. Nederlands Bosbouw tijdschrift. 71: 13-16.
- Kuikman, P., H. van Dobben, H. Dolman, R. Foppen, K. Kramer, F. Mohren, **G.J. Nabuurs**, D. Prins, G van Tol and A. Whitmore 1999 Natuurbeleid in een veranderend klimaat - discussie stuk tbv de LNV nota Natuur, Bos en Landschap 21e eeuw. Nota 198. Wageningen
- Lim, B., S. Brown, B. Schlamadinger, Y. Sokona, K. Abel, R. Boer, W. Breed, J. Ford-Robertson, T. Karjalainen, **G.J. Nabuurs**, O. Maser, T. Weir and others. 1999 Evaluating approaches for estimating net emissions of carbon dioxide from forest harvesting and wood products. IPCC/OECD/IEA Programme on National Greenhouse Gas Inventories. Meeting Report. Dakar Senegal 5-7 May 1998. 51 p.
- Mohren, G.M.J., J.F. Garza Caligaris, O.M. Maser, M. Kanninen, T. Karjalainen, A. Pussinen and **G.J. Nabuurs**. 1999. CO2FIX for windows: a dynamic model of the CO2 fixation in forests: version 1.2. IBN Reserch Report 99/3. Institute for Forestry and Nature Research, Wageningen, The Netherlands. 33 p.
- Nabuurs, G.J.** 1999. Will Kyoto turn world forest management upside down? Nederlands Bosbouw tijdschrift 71:220-221. (In Dutch)
- Nabuurs, G.J.** and A. Moiseyev. 1999. Consequences of accelerated growth for the forests and forest sector in Germany. In: T. Karjalainen, H. Spiecker and O. Larousinie (eds.), Causes and consequences of accelerated tree growth in European Forests. EFI Proceedings No 27. European Forest Institute. Joensuu, Finland. p. 197-206.
- Nabuurs, G.J.** and E. Verkaik. 1999. De 10 meest gestelde vragen over koolstofvastlegging in bos. Nederlands Bosbouw tijdschrift. 71: 2-5.
- Nabuurs, G.J.**, A.J. Dolman, E. Verkaik, A.P. Whitmore, W.P. Daamen, O. Oenema, P. kabat, and G.M.J. Mohren. 1998. Resolving issues on terrestrial biospheric sinks in the Kyoto Protocol. Report 410 200 030. Dutch National Research Programme on Global Air Pollution and Climate Change. Bilthoven, The Netherlands. 100 p.
- Nabuurs, G.J.**, P.J. Kuikman and C.A. van Diepen 1999. Kyoto Article 3.4. Insights from access to country specific data (ACSD). Leaflet. Alterra, AB and European Forest Institute. 4 p.
- Päivinen, R., **G.J. Nabuurs**, A.V. Lioubimow and K. Kuusela. 1999. The state, utilisation and possible future developments of Leningrad region forests. EFI Working Paper 18. European Forest Institute Joensuu, Finland.
- Paivinen, R., T. Karjalainen, J. Liski, A. Pussinen, and **G.J. Nabuurs**. 1999. Carbon removals by European forests. Technical Report 35. European Environment Agency. Background report for 'The environment in the European Union at the turn of the century'. Denmark. 33 p.

1998

- Karjalainen, T., **G.J. Nabuurs** and C.J. Westman. 1998. Role of forests, forest soils, and peatlands in Europe as reservoirs, sinks and sources of carbon in order to understand

- the role of European forests in global fluxes especially in the carbon cycle. Annex to the International Report on Resolution H4. In: Third Ministerial Conference on the protection of forests in Europe. Lisbon 2-4 June 1998. p. 9-11.
- Lindeijer, E., M. van Kampen, P. Fraanje, H. van Dobben, **G.J. Nabuurs**, E. Schouwenberg, D. Prins, N. Dankers and M. Leopold. 1998. Biodiversity and life support indicators for land use impacts in LCA Publication series raw materials Nr. 1998/07. IVAM Environmental Research and Institute for Forestry and Nature Research. Amsterdam and Wageningen 58 p + app.
- Lioubimow, A.V., Kudriashov, **G.J. Nabuurs**, R. Paivinen, S. Tietiukhine, and K. Kuusela. 1998. Leningrad region forests, past and future development. St. Petersburg Forest Technical Academy in cooperation with Forest Committee of Leningrad Region and European Forest Institute. 84 p. (In Russian).
- Nabuurs, G.J.** 1998. Bos wordt meer geld waard. (The value of a CO2 tax for the Dutch forest) *Nederlands Bosbouw tijdschrift* 70 (2): 69.
- Nabuurs, G.J.** and M.N. van Wijk. 1998. Indicators for the physical products of the forest. (Graadmeters voor de fysieke produkten van het bos). Intern document Instituut voor Bos- en Natuuronderzoek. Werkdocument Natuurplanbureau. 35 p. (In Dutch)
- Nabuurs, G.J.** and R. Päivinen 1998. Forestry scenario studies for European forests. In: G.J. Nabuurs, T. Nuutinen, H.H. Bartelink, and M. Korhonen (eds.), *Forest scenario modelling for ecosystem management at landscape level*. Wageningen, 26 June 3 July 1997. *EFI Proceedings* 19. European Forest Institute Joensuu, Finland. p. 343-350.
- Nabuurs, G.J.** and R. Sikkema 1998 The role of harvested wood products in national carbon balances - an evaluation of alternatives for IPCC guidelines. IBN Research report 98/3. Institute for Forestry and Nature Research. Institute for Forest and Forest Products. 53 p.
- Nabuurs, G.J.**, H. Pajuoja, K. Kuusela, and R. Paivinen. 1998. Forest resource scenario methodologies for Europe. *EFI Discussion paper* 5. European Forest Institute Joensuu. 30 p.
- Nabuurs, G.J.**, R. Päivinen, M.J. Schelhaas and G.M.J. Mohren. 1998. What do the European forests look like in 2050? Long-term effects of nature oriented forest management. *Nederlands Bosbouw tijdschrift* 70(5): 221-225.
- Nabuurs, G.J.**, R. Sikkema, G.A.J. Vis and G.M.J. Mohren 1998. Kyoto forests. *Change* 43: 1-5.
- Nabuurs, G.J.**, T. Nuutinen, H.H. Bartelink and M. Korhonen (eds.), 1998. *Forest scenario modelling for ecosystem management at landscape level*. *EFI Proceedings* 19. European Forest Institute Joensuu, Finland. *Proceedings of the Seminar and Summerschool held in Wageningen, 26 June 3 July 1997*. 382 p.
- Nabuurs, G.J.** and E. Verkaik. 1998. How much forest do you have under the Kyoto Protocol? *Change* 44: 12-15.
- Sikkema, R. and **G.J. Nabuurs**. 1998. De groene route van Kyoto naar Buenos Aires. *Bos en Houtberichten* Nr 6. 4 p.

1997

- Diemont, W.H., **G.J. Nabuurs**, J.O. Rieley and H.D. Rijksen 1997. Climate change and management of tropical peatlands as a carbon reservoir. In: J.O. Rieley and S.E. Page (eds.), *Biodiversity and sustainability of tropical peatlands*. International Symposium Palangka Raya, Indonesia, 4-8 september 1995. Samara Publishing, Cardigan, UK. p. 363-368.
- Jorritsma, I.T.M., G.M.J. Mohren, S.E. van Wieren, A.F.M. van Hees, H.H. Bartelink, **G.J. Nabuurs** and P.A. Slim 1997 *Bosontwikkeling in aanwezigheid van hoefdieren: een modelbenadering*. In: S.E. van Wieren, G.W.T.A. Groot Bruinderink, I.T. M. Jorritsma and A.T. Kuiters. (eds.) *Hoefdieren in het boslandschap*. Backhuys Publishers, Leiden. p 147-164.
- Karjalainen, T., **G.J. Nabuurs** and S. Kellomäki 1997. Carbon sequestration in the forest sector under climate change: upscaling from the plot level to the European forests

- level. In: Mohren, G.M.J., K. Kramer and S. Sabate (eds.), Impact of global change on tree physiology and forest ecosystems. Wageningen, November 26-29, 1996. Kluwer Dordrecht. p. 351-361
- ***Nabuurs, G.J.**, R. Päivinen, R. Sikkema and G.M.J. Mohren 1997. Role of European forests in the global carbon cycle - a review. Biomass and Bioenergy 13(6): 345-358. Proceedings of the workshop 'Greenhouse gas balances of bioenergy from forestry and wood industry', organised by IEA Taskgroup XV, Stockholm, Sweden May 29-31 1996
- Nabuurs, G.J.**, A.F.M. Olsthoorn and E.J. Dik. 1997 European forests are growing faster. Nederlands Bosbouw tijdschrift 69: 24-27. (In Dutch)
- Nabuurs, G.J.**, K. Kramer and G.M.J. Mohren 1997 Effects of climate change on Dutch forests and forest management IBN report 256. Institute for Forestry and Nature Research Wageningen 55 p.
- Nabuurs, G.J.**, R. Päivinen, O. Sallnäs, and I. Kupka 1997 A large scale forestry scenario model as a planning tool for Europe. In: N.A. Moiseev, K. von Gadow, and M. Krott (eds.), Planning and decision-making for forest management in the market economy. Proceedings of the IUFRO conference Pushkino, Moscow Region, 25-29 September 1996. Cuvillier Verlag, Göttingen; 89-102.
- Päivinen, R., and **G.J. Nabuurs**. 1997. Scenario modelling for European forests as a tool for assessing criteria and indicators for sustainable forest management. In: XI World Forestry Congress. Part G, Session 33: Forestry Sector Planning. Antalya, Turkey 13-22 October 1997. p. 291 (summary)

1996

- ***Nabuurs, G.J.** 1996. Quantification of herb layer dynamics under tree canopy. In: A.T. Kuiters, G.M.J. Mohren and S.E. van Wieren (eds.), Ungulates in temperate forest ecosystems. Forest Ecology and Management 88: 143-148.
- Matthews, R., **Nabuurs, G.J.**, Alexejev, V., Birdsey, R., Fischlin, A., MacLaren, J.P., Marland, G., and D.A. Price 1996 Evaluating the effects of alternative forest management regimes on the role of forests and forest products in the carbon cycle. In: Apps, M.J. and D. Price (eds.) Forest Ecosystems, Forest Management and the Global Carbon Cycle, NATO Advanced Science Institutes Series, Series I: Global Environmental Change, Vol. 40, Springer-Verlag, Heidelberg, 469 pp. NATO-ARW workshop September 12-16, 1994. Banff, Canada. pp. 293-301.
- Nabuurs G.J.** and R. Päivinen 1996. Large scale forestry scenario models: a compilation and review. Working paper 10 European Forest Institute Joensuu, Finland. 174 p.
- Nabuurs, G.J.** 1996 EFI New European Forest Resource Database. Internal Document no 1. European Forest Institute Joensuu, Finland 756 pp.
- Nabuurs, G.J.** 1996 Significance of wood products in forest sector carbon balances. In: Apps, M.J. and D.T. Price (eds.) Forest Ecosystems, Forest Management and the Global Carbon Cycle, NATO Advanced Science Institutes Series, Series I: Global Environmental Change, Vol. 40, Springer-Verlag, Heidelberg, 469 pp. NATO-ARW workshop September 12-16, 1994. Banff, Canada. pp. 245-256.
- Nabuurs, G.J.** 1996 Think globally, act locally; of maken we wel de juiste keuzes? Nederlands Bosbouw tijdschrift 68(2): 65.
- Nabuurs, G.J.**, G.M.J. Mohren and M.F.F.W. Jans 1996. Cost-effectiveness of carbon sequestration in forests and forestry. IBN-report 248. Institute for Forestry and Nature Research Wageningen, The Netherlands 52 p. In dutch with English summary.
- Sikkema, R. and **G.J. Nabuurs**. 1996 Forests and forest products: the challenge for a better carbon balance. In: Deuterick, D. (ed.), International conference on application of life cycle assessments in agriculture, food and non-food agro-industry and forestry: achievements and prospects. EandM.RA9602 Vlaamse Instelling voor technologisch onderzoek. Proceedings of the workshop held 4-5 April 1996 Brussels, Belgium p. 113-119
- Sikkema, R. and **G.J. Nabuurs**. 1996. Forests and forest products: a challenge for a better carbon balance. In: Fruhwald, A. and B. Solberg (eds.), Life cycle analysis - a

challenge for forestry and forest industry. EFI Proceedings no 8. European Forest Institute. Joensuu, Finland. Held in Hamburg, Germany. 3-5 May 1995. p. 169-176.

1995

***Nabuurs, G.J.** and G.M.J. Mohren 1995. Modelling analysis of potential carbon sequestration in selected forest types. *Canadian Journal of Forest Research*. 25: 1157-1172.

Nabuurs, G.J. 1995 Climate change: global forests as victim and remedy. *BOS N(i)e(u)wsletter* 31, vol 14(2): 13-19.

Nabuurs, G.J. 1995 Quantification of forage supply to ungulates in forests. Part 1: dynamic simulation of the herb layer. *IBN-Research Report 95/4*. Institute for Forestry and Nature Research. Wageningen, The Netherlands. 90 p.

Nabuurs, G.J. and G.M.J. Mohren 1995 Carbon relations of Dutch forests. In: Swerver, S., Berk, M.M. and R.S.A.R. van Rompaey (eds.). *Climate Change Research: Evaluation and policy implications - proceedings of an International Conference*. 6-9 December 1994, Maastricht. Elsevier, Amsterdam. pp 553-556. *Studies in the Environmental Sciences* 65A

Nabuurs, G.J., Karjalainen, T., Kupka, I. and R. Milne 1995 Towards a European forest sector carbon balance study. Paper presented at the Workshop on a global terrestrial carbon flux tracking system. Organised by US-EPA. Corvallis, OR. March 28-30. 1995. In: Brown, S. and M. Cairns. (eds). *Internal report US-EPA*. pp.

Sikkema, R. and **G.J. Nabuurs** 1995 Forests and wood consumption on the carbon balance; carbon emission reduction by use of wood products. In: Swerver, S., Berk, M.M. and R.S.A.R. van Rompaey (eds.). *Climate Change Research: Evaluation and policy implications - proceedings of an International Conference*. 6-9 December 1994, Maastricht. Elsevier, Amsterdam. pp 1137-1142. *Studies in the Environmental Sciences* 65B

1994

Nabuurs, G.J. and G.M.J. Mohren 1994 Carbon stocks and sequestration in Dutch forests. *Nederlands Bosbouw tijdschrift* 66 (4): 144-157. (in Dutch).

Nabuurs, G.J. 1994. State-of-the-art in the field of Forest Sector Carbon balance studies. -with reference to the European situation. *EFI-Working paper 2*. European Forest Institute. Joensuu, Finland. 87 pp.

Sikkema, R. and **G.J. Nabuurs** 1994 Forest and forest products on the carbon balance; study of the CO₂ emission reduction possibilities of four Dutch forest types. *Dutch Foundation for Energy and Environment. NOVEM Report 9416*. Foundation for Forest and Wood in co-operation with the Institute for Forestry and Nature Research. Wageningen, The Netherlands. 46 pp + app. (in Dutch, with English summary)

Sikkema, R. and **G.J. Nabuurs** 1994 Forests and forest products: the opportunity for a better CO₂-balance. *Bos en Hout Berichten*. 1994, nr 3. 4 pp.

Sikkema, R. and **G.J. Nabuurs** 1994 Wälder, Holz und Holzprodukte: Chancen für eine bessere CO₂-Bilanz. *Holz-Zentralblatt*. 120 (126): 2059.

1993

Nabuurs, G.J. and G. van Tol 1993 Effects of man-induced drought on the Dutch forests. *Bosbouwvoorlichting* 32 (4) : 57-61. (in Dutch)

Nabuurs, G.J. and G.M.J. Mohren 1993 Carbon stocks and fluxes in Dutch forest ecosystems. Report of the Dutch National Research Programm on Global Air Pollution and Climate Change. *IBN-Research Report 93/1*. Institute for Forestry and Nature Research. Wageningen 85 pp.

Nabuurs, G.J. and G.M.J. Mohren 1993. Carbon fixation through forestation activities. A study of the carbon sequestering potential of selected forest types, commissioned by the Foundation Face. Institute for Forestry and Nature Research, Wageningen, The Netherlands. *IBN-Research Report 93/4*. 205 pp.

***Nabuurs, G.J.** and G.M.J. Mohren 1993. Carbon in Dutch forest ecosystems. Netherlands Journal of Agricultural Science 41(4): 309-326.

1992

Nabuurs, G.J. 1992 Effects of man-induced drought on the Dutch forests. National Reference Centre for Nature, Forests, Landscape and Fauna. Utrecht, The Netherlands. Workdocument IKC-NBLF nr 13. 37 pp. (in Dutch).

1991

Nabuurs, G.J. 1991 Oak decline and groundwaterclass. In: Siwecki, R. and W. Liese (eds.). Oak decline in Europe. Proceedings of the International Symposium. Kornik, Poland. May 15-18, 1990. IUFRO S2.06 06. Polish Academy of Sciences. Institute of Dendrology. Kornik, Poland. pp. 211-212.

Nabuurs, G.J. 1991 Rooting strategy of *Deschampsia flexuosa*, *Vaccinium myrtillus*, and *Empetrum nigrum* in first generation Scots pine forests in the Veluwe area, The Netherlands. Thesis, Faculty of Forestry, Agricultural University Wageningen 65 pp. (In Dutch)

*Oosterbaan, A. and **G.J. Nabuurs** 1991 Relationships between oak decline and groundwater class in The Netherlands. Plant and Soil. 136: 87-93.

1990

Nabuurs, G.J. 1990 A root and soil scientific study of the relationships between oak decline in The Netherlands and the groundwater class. Thesis faculty of Soil Science and Geology, Wageningen Agricultural University. 72 pp (in Dutch)

Nabuurs, G.J. 1990 Practical period at the Institute of Terrestrial Ecology, Bangor Research Unit. Practical period report. Faculty of Forestry, Agricultural University Wageningen.

Oosterbaan, A., **Nabuurs, G.J.** and G.J. Maas 1990 Study of the relations between dieback in oak stands in The Netherlands and the groundwaterclass. Dorschkamp, Institute for Forestry and Urban Ecology. Wageningen. Report nr. 601. 61 pp (in Dutch)