

Grada A.A. (Ada) Wossink

Curriculum Vitae

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I. PERSONAL DETAILS

POSITION: Professor of Environmental Economics

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EDUCATION/QUALIFICATIONS

1993 Ph.D. Agric. & Environmental Sciences, Wageningen University, Netherlands

1983 M.Sc. Agric. Economics and Policy, Wageningen University, Netherlands

PREVIOUS EMPLOYMENT

- May 2005- Dec 2007 Professor, North Carolina State University, Dept. Agricultural & Resource Econ., Raleigh, USA.
- May 2002-April 2005 Associate Professor, NC State University, Agricultural & Resource Econ., Raleigh, USA.
- Aug. 1998-May 2002 Non-tenured Assoc. Prof., NC State University, Agric. & Resource Econ., Raleigh, USA
- Aug. 1998-Feb 2005 Assoc. Prof. (0.2 FTE Aug 1998-Jan 2001; 0.05 FTE Feb 2001-Feb 2005), Dept. Social Sciences, Wageningen University, Netherlands.
- March 1997-Aug. 1998 Associate Professor, Dept Economics and Management, Wageningen University, Netherlands.
- Aug. 1986-March 1997 Lecturer/Assistant Professor, Dept Farm Management, Wageningen University, Netherlands.
- Feb.1983-Aug. 1986 Research Associate, Research Division of the Agricultural Department, Statistics Netherlands, The Hague, Netherlands.

SCHOLARLY AND PROFESSIONAL HONOURS

- External Fellow, Wageningen School of Social Sciences (WASS), Wageningen University, Netherlands. Since March 2006.
- Professorial Research Fellow, Sustainable Consumption Institute at the University of Manchester, Sept 2010-Aug 2013.
- North Carolina Extension Education Team Award on Outstanding Subject Matter, 2004.
- J. William Fulbright Foreign Scholar Award, 1994.

VISITING APPOINTMENTS

- Oct 1994-April 1995 Visiting scholar, North Carolina State University, USA (Fulbright Grant).
- May-August 1990 Visiting scientist, University of Stuttgart-Hohenheim, Germany
Personal Grant, Netherlands National Science Foundation NWO).

MEMBERSHIP OF ACADEMIC AND PROFESSIONAL ORGANIZATIONS

Fulbright Association, 1995- present

American Agricultural Economics Association, 1998-present

Association of Environmental and Resource Economists, 1998-present

International Assoc. of Agricultural Economists, 1995- present

American Agricultural Law Association, 1999-2000

European Assoc. of Environmental & Resource Economists, 1996-present

European Association of Agricultural Economists, 1990-present

II. RESEARCH AND PROFESSIONAL STANDING

PUBLICATIONS

ACADEMIC JOURNAL ARTICLES

1. Dennis, M., Barker, A., Anderson, J., Ashton, J.C., Cavan, G., Cook, P.A., French, D., Gilchrist, A., James, P., Phillipson, C., Tzoulas, K., Wheater, C.P., Wossink, A., Lindley, S.J. (2022) Integrating knowledge on green infrastructure, health, and well-being in ageing populations: Principles for research and practice, *AMBIO* 52: 107-125.
2. Emediegwu, L., Wossink, A., Hall, A. (2022) The Impacts of Climate Change on Agriculture in Sub-Saharan Africa: A Spatial Panel Data Approach, *World Development* 158: 105967.
3. Banerjee, P., Pal, R., Wossink, A. and Asher, J. (2021) Heterogeneity in Farmers' Social Preferences and the Design of Green Payment Schemes, *Environmental and Resource Economics* 78: 201-226.
4. Tajudeen, I.A., Wossink, A., (2020) The underlying trend of OPEC's energy intensity and the environmental implications, *OPEC Energy Review* 44(3): 278-318.
5. Tajudeen, I.A., Wossink, A., Banerjee, P. (2018) How Significant is Energy Efficiency to Mitigate CO₂ Emissions? Evidence from OECD Countries, *Energy Economics* 72: 200–221.
6. Nguyen, T.T., Do, T.L., Parvathi, P., Wossink, A., Grote, U. (2018) Farm production efficiency and natural forest extraction: Evidence from Cambodia, *Land Use Policy* 71: 480-493.
7. Ruijs, A., M. Kortelainen, A. Wossink, C.J.E. Schulp and R. Alkemade (2017) Opportunity costs estimation of ecosystem services, *Environmental and Resource Economics* 66(4): 717-747.
8. Yaduma, N., M. Kortelainen and A. Wossink (2015) The Environmental Kuznets Curve at different levels of economic development: a counterfactual quantile regression analysis for CO₂ emissions, *Journal of Environmental Economics and Policy* 4(3): 279-303.
9. Mulatu, A. and Wossink, A. (2014) Environmental regulation and location of industrialised agricultural production in Europe, *Land Economics* 90(3): 509-537.
10. Afidchao, M.A., Musters, C.J.M, Wossink, A., Balderama, O.F. and de Snoo, G.R. (2014) Analysing the farm level economic impact of GM corn in the Philippines, *NJAS - Wageningen Journal of Life Sciences* 70: 113-121.
11. Panzone, L.A., A. Wossink and D. Southerton (2013) An environmental index to measure progress towards more sustainable household food consumption using supermarket data, *Ecological Economics* 94: 44-55.
12. Ruijs, A., A. Wossink, M. Kortelainen, R. Alkemade and C.J.E. Schulp (2013) Trade-off analysis of ecosystem services in Eastern Europe, *Ecosystem Services* 4: 82-94.
13. Sauer, J. and A. Wossink (2013) Marketed outputs and non-marketed ecosystem services: the evaluation of marginal costs, *European Review of Agricultural Economics* 40(4): 573-604.
14. Admiraal, J., A. Wossink, W. de Groot, G. de Snoo (2013) More than Total Economic Value: How to combine economic valuation of biodiversity with ecological resilience, *Ecological Economics* 89: 115–122.
15. Yaduma, N., M. Kortelainen and A. Wossink (2013) The mortality and economic costs of particulate air pollution in developing countries: The case of Nigeria, *Environmental & Resource Economics* 54(3): 361-387.

16. Erdem, S., D. Rigby and A. Wossink (2012) Using best-worst scaling to explore perceptions of relative responsibility for ensuring food safety, *Food Policy* 37(6): 661-670.
17. Frija, A., A. Wossink, J. Buysse, S. Speelman, G. Van Huylenbroeck (2011) Pricing policies and impact on water demand in Tunisia: A DEA-based methodology for the estimation of individual input demand functions, *Journal of Environmental Management* 92(9): 2109-2118.
18. Mulatu, A., Gerlagh, R., Rigby, D. and Wossink, A. (2010) Environmental Regulation and Industry Location in Europe, *Environmental & Resource Economics* 45(4): 459-479.
19. Kuminoff, N. and A. Wossink (2010) Why isn't More U.S. Farmland Organic? *Journal of Agricultural Economics* 61(2) 240-258.
20. Sydorovych, O., C. Raczkowsky, A. Wossink, N. Creamer, S. Hu, M. Bell, C.Tzsu (2009) A Technique for Assessing Environmental Impact Risks of Agricultural Systems, *Renewable Agriculture and Food Systems* 24(3): 234-243.
21. Olha Sydorovych and Ada Wossink (2008) The Meaning of Agricultural Sustainability: Evidence from a Conjoint Analysis, *Agricultural Systems* 98(1): 10-20.
22. Wossink, A. and S. Swinton (2007) Jointness in Production and Farmers' Willingness to Supply Non-Marketed Ecosystem Services, *Ecological Economics* 64(2): 297-303
23. Wossink, A. and Z. Denaux (2007) Efficiency and Innovation Offsets in Nonpoint-source Pollution Control and the Role of Education, Invited paper for the *International Journal of Agricultural Resources, Governance and Ecology* 6(1): 79-95.
24. Wossink, A. and Z. Denaux (2006) Environmental and Cost Efficiency of Pesticide Use in Transgenic and Conventional Cotton Production, *Agricultural Systems* 90(1-3): 312-328.
25. Cates, S., J. Chvosta and A. Wossink (2006) Swine Producers' Perceptions of Alternative Waste Management Systems, *Journal of Sustainable Agriculture* 29: 53-74.
26. Wossink, A. and C. Gardebroek (2006) Environmental Policy Uncertainty and Marketable Permit Systems: The Dutch Phosphate Quota Program, *American Journal of Agricultural Economics* 88 (1): 16-27.
27. Zhengfei, G., A. Oude Lansink, M. van Ittersum and A. Wossink (2006) The Integration of Agronomic Principles in Production Function Estimation: Dichotomy of Growth Inputs and Facilitating Inputs, *American Journal of Agricultural Economics* 88(1): 203-214.
28. Weersink, A. and A. Wossink (2005) Lessons from Agri-Environmental Policies in Other Countries for Dealing with Salinity in Australia, *Australian Journal of Experimental Agriculture* 45(11): 1481-1493.
29. Zhengfei, G., A. Oude Lansink, A. Wossink and R. Huirne (2005) Damage Control Inputs: A Comparison of Conventional and Organic Farming Systems, *European Review of Agricultural Economics* 32(2): 167-189.
30. Van Wenum, J.H., G.A.A. Wossink and J.A. Renkema (2004) Location specific modelling for optimising wildlife management on crop farms, *Ecological Economics* 48: 395-407.
31. Pacini, C., A. Wossink, G. Giesen, R. Huirne (2004) Ecological-economic modeling to support multi-objective policy making: a farming systems approach implemented for Tuscany, *Agriculture, Ecosystems and Environment* 102:349-364.
32. Pacini, C., A. Wossink, G. Giesen, L. Omodei-Zorini, R. Huirne (2004) The EU's Agenda 2000 Reform and the sustainability of organic farming in Tuscany: ecological-economic modelling at field and farm level, *Agricultural Systems* 80(2): 171-197.
33. Wossink, A. and F. Wefering (2003) Hot Spots in Animal Agriculture, Emerging Federal Environmental Policies and the Potential for Efficiency and Innovation Offsets, *International Journal of Agricultural Resources, Governance and Ecology* 2 (3/4): 228-242. (Joint special issue with *International Journal of Technology Management*).
34. Wossink, G.A.A. and J.H. van Wenum (2003) Biodiversity conservation by farmers: analysis of actual and contingent participation, *European Review of Agricultural Economics* 30(4): 461-485.
35. De Koeijer, T.J., G.A.A. Wossink, A.B. Smit, S.R.M. Janssens, J.A. Renkema and P.C. Struik (2003) Assessment of the quality of farmers' environmental management and its effects on resource use efficiency: A Dutch case study, *Agricultural Systems* 78: 85-103.
36. De Koeijer, T.J., A.J. de Buck, G.A.A. Wossink, J. Oenema, J.A. Renkema and P.C. Struik (2003) Annual variation in weather: its implications for sustainability in the case of optimising nitrogen input in sugar beet, *European Journal of Agronomy* 19: 251-264.

37. Pacini, C., A. Wossink, G. Giesen, C. Vazzana, R. Huirne (2003) Evaluation of sustainability of organic, integrated and conventional farming systems: a farm and detailed spatial scale analysis, *Agriculture, Ecosystems & Environment* 95(1): 273-288.
38. De Koeijer, T.J., Wossink, G.A., Struik, P.C. and Renkema, J.A. (2002) Measuring Agricultural Sustainability in Terms of Efficiency, *Journal of Environmental Management* 66: 9-17.
39. Wossink, G.A.A. and D.L. Osmond (2002) Cost Analysis of Mandated Agricultural Best Management Practices to Control Nitrogen Losses in the Neuse River Basin, North Carolina, *Journal of Soil and Water Conservation* 57 (4): 213-220.
40. Wossink, G.A.A., A.G.J.M. Oude Lansink and P.C. Struik (2001) Non-separability and heterogeneity in integrated agronomic-economic analysis of non-point source pollution, *Ecological Economics* 38: 345-357.
41. De Buck, A.J., I. Van Rijn, N.G. Röling, and G.A.A. Wossink (2001) Farmers' reasons for changing or not changing to more sustainable practices: an exploratory study for arable farming in the Netherlands, *Journal of Agricultural Education and Extension* 7(3): 153-166.
42. Vukina, T. and A. Wossink (2000) Environmental Policies and Land Values: Evidence from the Dutch Nutrient Quota System, *Land Economics* 76(3): 413-429.
43. Wossink, G.A.A. and T.A. Feitshans (2000) Pesticide Policies in the European Union, *Drake Journal of Agricultural Law* 5(1): 223-249.
44. Smit, A.B., J.J. Stoorvogel and G.A.A. Wossink (2000) A methodology to support the decision to invest in spatially variable nitrogen fertilisation, *Netherlands Journal of Agricultural Science* 48(3-4): 273-290.
45. Wossink, G.A.A., J.H. van Wenum, C.R. Jurgens and G.R. de Snoo (1999) Co-ordinating economic, behavioural and spatial aspects of wildlife preservation in agriculture, *European Review of Agricultural Economics* 26(4): 443-460.
46. Buck, A.J. de, H.B. Schoorlemmer, G.A.A. Wossink and S.R.M. Janssens (1999) Risk of post-emergence weed control strategies in sugar beet: development and application of a bio-economic model, *Agricultural Systems* 59: 283-299.
47. De Koeijer, T.J., G.A.A. Wossink, M.K. van Ittersum, P.C. Struik, J.A. Renkema (1999) A conceptual model for analysing input-output coefficients in arable farming systems: from diagnosis towards design, *Agricultural Systems* 61: 33-44.
48. Wossink, G.A.A. and W.A.H. Rossing, (1998) On increasing returns and discrete choice: integrating production ecological principles in economic analysis of crop management, *Journal of Environmental Management* 54 (3): 233-247.
49. Wossink, G.A.A., A.J. de Buck, J.H. van Niejenhuis and H.C.M. Haverkamp (1997) Farmer Perceptions of Weed Control Techniques in Sugarbeet, *Agricultural Systems* 55(3): 409-423.
50. Swart, A.P.M. de, G.J.W. Muijs, G.A.A. Wossink and J.H. van Niejenhuis (1997) Size and continuity of field crop farms in the North East Polder, *Tijdschrift voor Sociaal wetenschappelijk onderzoek van de Landbouw (TSL)* 12: 5-27 (in Dutch).
51. Breembroek, J.A., B. Koole, K.J. Poppe, G.A. Wossink (1996) Environmental Farm Accounting: The Case of the Dutch Nutrients Accounting System, *Agricultural Systems* 51: 29-40.
52. Van der Meulen, H.A.B., G.A.A. Wossink, G.R. de Snoo (1996) Acceptance and implementation of unsprayed crop edges in farming practices: The case of Dutch arable farming, *Aspects of Applied Biology* 44: 227-232.
53. Van der Meulen, H.A.B., G.R. de Snoo, G.A.A. Wossink (1996) Farmers' Perception of Unsprayed Crop Edges in the Netherlands, *Journal of Environmental Management* 47: 241-255.
54. Wossink, G.A.A. (1996) Environmental economics of the farm firm, *Milieu* 11(3): 209-222 (in Dutch).
55. Frouws, J. & G.A.A. Wossink (1995) Agro-industrial chains: value added or fashion? *Tijdschrift voor Sociaal wetenschappelijk onderzoek van de Landbouw (TSL)* 9(4): 283-291 (in Dutch).
56. Verhoeven, J.T.W., G.A.A. Wossink and J.A.W.A. Reus (1994) An environmental yardstick in farm economic modelling of future pesticide use; the case of arable farming, *Netherlands Journal of Agricultural Science* 42(4): 331-341.
57. Wossink, Ada and Jan Renkema (1994) Analysis of future change in Dutch arable farming: a farm economics approach, *European Review of Agricultural Economics* 21(1): 95-112.

58. Wossink, G.A.A. (1993) Identification of representative farm types by cluster analysis, *Tijdschrift voor Sociaal wetenschappelijk onderzoek van de Landbouw (TSL)* 8(4): 347-362.
59. Wossink, G.A.A., T.J. de Koeijer and J.A. Renkema (1992) Incorporating the environment in economic modelling of farm management, *Sociologia Ruralis* 32(1) Special issue: The Ecological Crisis and the Regulation of Agriculture: 115-126.
60. Wossink, G.A.A., T.J. de Koeijer and J.A. Renkema (1992) Environmental economic policy assessment: a farm economic approach, *Agricultural Systems* 39: 421-438.
61. Wossink, G.A.A. (1989) The significance of a farm economic approach to analyze technical and institutional changes in agriculture, *Tijdschrift voor Sociaal wetenschappelijk onderzoek van de Landbouw (TSL)* 4(2): 101-123.
62. Harthoorn, R. and G.A.A. Wossink (1987) Backward and forward effects of Dutch agriculture, *European Review of Agricultural Economics* 14(3): 325-333.
63. Harthoorn, R. and G.A.A. Wossink (1985) The contribution of agricultural production in The Netherlands to trade balance and employment, *Economisch Statistische Berichten* 70(3518): 797-800 (in Dutch).

AUTHORED BOOKS

1. Wossink, G.A.A. (1993) Analysis of future agricultural change: a farm economics approach applied to Dutch arable farming, *Wageningen Economic Studies*, no. 27, Wageningen, The Netherlands: PUDOC, 220 pp.
2. Oskam, A.J., H. van Zeijts, G.J. Thijssen, G.A.A. Wossink and R. Vijftigschild (1992) Pesticide use and pesticide policy in the Netherlands: an economic analysis of regulatory levies in agriculture, *Wageningen Economic Studies* no. 26, Wageningen, The Netherlands NL: PUDOC, 155 pp.

EDITED BOOKS

1. Wossink, G.A.A., G.C. van Kooten and G.H. Peters (Eds.) (1998) Economics of Agro-Chemicals: An International Overview of Use Patterns, Technical and Institutional Determinants, Policies and Perspectives, Aldershot U.K.: Ashgate, 386 pp.

BOOK REVIEWS IN REFEREED JOURNALS

1. Wossink, A. (2007) Economics of Pesticide Reduction and Biological Control in Field Vegetables — A Cross Country Comparison by Walter Dirksmeyer, Book review in *European Review of Agricultural Economics* 34(4):
2. Wossink, G.A.A. (1989) Administrating for farmers: developments and research items by K.J. Poppe, Book review in *Tijdschrift voor Sociaal wetenschappelijk onderzoek van de Landbouw (TSL)* 4(2): 193-195 (in Dutch).
3. Wossink, G.A.A. (1987) Landwirte im Entscheidungsprozess by Henning von der Ohe, Book review in *European Review of Agricultural Economics* 14(1): 144-146.

BOOK CHAPTERS

1. Carole Engle and Ada Wossink (2008) Economics of Aquaculture Better Management Practices, Chapter 13 in: C. Tucker and J. Hargreaves (Eds) Environmental Best Management Practices for US Aquaculture, Ames-Iowa: Wiley-Blackwell.
2. Mueller, J.P., N. G. Creamer, M. Barbercheck, Raczkowski, Ch., M. Bell, C. Brownie, A. Collins, K. Fager, S. Hu, L. Jackson, S. Koenning, N. Kuminoff, M. Linker, F. Louws, S. Mellage, D. Monks, D. Orr, R. Walters, J. Seem, C. Tu, M. Waggoner, A. Wossink, and W. Zhang (2006) Long-Term, Large-Scale Systems Research Directed Toward Agricultural Sustainability, In: J. Raupp, C. Pekrun, M. Oltmanns and U. Köpke (eds) Long-Term Field Experiments in Organic Farming, The International Society for Organic Agricultural Research (ISOFAR) Series No. 1, Berlin: Verlag Dr. Köster.
3. Wossink, Ada (2004) The Dutch Nutrient Quota System: Past Experience and Lessons for the Future, In: T. Tietenberg and N. Johnstone (eds) Tradeable Permits: Policy Evaluation, Design and Reform, OECD, Paris.

4. Wossink, Ada and De Koeijer, Tanja (2003) Farmers' agrochemical use decision and the potential of efficiency and innovation offsets, In: F. den Hond, P. Groenewegen and N.M. van Straalen (eds) Pesticides: Problems, Improvements and Alternatives, Blackwell Science, Sustainable Pest Management Series, pp. 87-99.
5. De Koeijer, T.J., G.A.A. Wossink, A.B. Smit and S.R.M. Janssens (2002) Management strategies and indirect energy use efficiencies in arable farming, In: Van Ierland E. and A.G.J.M. Oude Lansink, Economics of Sustainable Energy in Agriculture. Kluwer Academic publishers.
6. Wossink, G.A.A., G.H. Peters and G.C. van Kooten (1998) Introduction to Agro-Chemicals Use, In: Wossink, G.A.A., G.C. van Kooten and G.H. Peters (Eds.), Economics of Agro-Chemicals: An International Overview of Use Patterns, Technical and Institutional Determinants, Policies and Perspectives, p. 1-18, Aldershot UK: Ashgate.
7. Koeijer, T.J. de, G.A.A. Wossink and F.J.H.M. Verhees (1998) Environmental and Economic Effects of Spatial Variability in Crop Farming: Nitrogen Fertilisation and Site-Specific Management, In: G.A.A. Wossink, G.C. van Kooten and G.H. Peters (Eds.) (1998), Economics of Agro-Chemicals: An International Overview of Use Patterns, Technical and Institutional Determinants, Policies and Perspectives, p. 167-179, Aldershot UK: Ashgate.
8. Wossink, G.A.A., A.J. de Buck and J.H. van Niejenhuis (1998) Farmers' Perceptions of Sustainable Production Techniques, In: G.A.A. Wossink, G.C. van Kooten and G.H. Peters (Eds.), Economics of Agro-Chemicals: An International Overview of Use Patterns, Technical and Institutional Determinants, Policies and Perspectives, p. 181-192, Aldershot UK: Ashgate.
9. Van Wenum, J.H., J.C. Buys and G.A.A. Wossink (1998) Nature quality indicators in agriculture, In: F. Brouwer and R. Crabtree (Eds.), Environmental Indicators and Agricultural Policy, p. 105-120, Wallingford UK: CAB International.
10. Wossink, G.A.A., C.R. Jurgens, J.H. van Wenum (1998) Optimal Allocation of Wildlife Conservation Areas within Agricultural Land, In: S. Dabbert, A. Dubgaard, L. Slangen and M. Whitby (Eds.) The Economics of Landscape and Wildlife Conservation, p. 205-215, Wallingford UK: CABI.
11. Meulen, H.A.B. van der, G.A.A. Wossink and J.H. van Niejenhuis (1995) Analysis of costs and perceptions of sustainable techniques in arable farming: the case of sugarbeet. In: M.F. Hofreither and S. Vogel (Eds.), The role of agricultural externalities in high-income countries, p. 143-160, Kiel Germany: Wissenschaftsverlag Vauk.
12. Wossink, G.A.A. (1994) Farm economic modelling of integrated plant production, In: P.C. Struik, W.J. Vredenberg, and J.A. Renkema, J.E. Parlevliet (Eds.) Plant Production on the threshold of a new century, p. 23-36, Dordrecht/Boston USA/London UK: Kluwer.
13. Niejenhuis, J.H. and G.A.A. Wossink (1994) Review and application of the farming styles concept: the case of Dutch arable farming, In: P.C. Struik, W.J. Vredenberg, J.A. Renkema, J.E. Parlevliet (Eds.) Plant production the threshold of a new century, p. 93-100, Dordrecht/Boston USA/London UK: Kluwer.

REFEREED PROFESSIONAL JOURNAL PAPERS

1. Wossink, Ada and Albert Vermuë (1998) Diversity as a new strategy for Dutch agriculture? *Economenblad*, Feb. 2, 1998, p. 9 (in Dutch).
2. Jacobs, M., G.A.A. Wossink and G.R. de Snoo (1998) Peripheral events: acceptance and compatibility of field margin management, *Landinrichting* 38(4): 27-30 (in Dutch).
3. Wossink, G.A.A. and A.J. Termorshuizen (1995) Crop protection: an environmental- economic view, *Gewasbescherming* 4: 129-134 (in Dutch).
4. Meulen. H.A.B. van der, G.R. de Snoo and G.A.A. Wossink (1995) Perspectives for field margin management, *Landinrichting* 35(5): 11-16 (in Dutch).
5. Wossink, G.A.A. (1995) A comparison of agri-chemical reduction policies in the Netherlands and the European Union, *American Agricultural Law Association Newsletter*, April 1995.
6. Wossink, G.A.A. (1994) The dynamics of farm management, SPIL 127/128: 6-10 (in Dutch).
7. De Koeijer, T.J., J.A. Renkema and G.A.A. Wossink (1991) Environmental considerations in farm economic perspective (3), *Landbouwkundig Tijdschrift* 103(5): 24-26 (in Dutch).
8. Renkema, J.A. and G.A.A. Wossink (1989) Environmental considerations in farm economic perspective (2), *Landbouwkundig Tijdschrift* 101(11): 4-8 (in Dutch).

9. Renkema, J.A., G.A.A. Wossink (1989) Environmental considerations in farm economic perspective (1), *Landbouwkundig Tijdschrift* 101(10): 10-12 (in Dutch).
10. Besseling, P., C. Custers, T. de Koeijer, M. Pebesma, A. Pronk and A. Wossink (1988) Extensification: a solution for surplus production in arable farming? *SPIL* 73/74: 44-49 (in Dutch).
11. Biesheuvel, P.M. and G.A.A. Wossink (1988) Investment decisions and fiscal consequences, *Landbouwkundig Tijdschrift* 100(9): 19-22 (in Dutch).
12. Renkema, J.A. and G.A.A. Wossink (1987) Technological development in agriculture, *SPIL* 61/62: 57-68 (in Dutch).
13. Giesen, G.W.J, J.A. Renkema and G.A.A. Wossink (1987) Support of management decisions by computer systems, *Landbouwkundig Tijdschrift* 99(9): 14-18 (in Dutch).
14. Wossink, G.A.A. (1985) The contribution of agriculture to Dutch export, *Landbouwkundig Tijdschrift* 7(9): 25-29 (in Dutch).

BLOGS

1. Wossink, A.(2016) Land under pressure: How to keep people fed without trashing the planet, Manchester Policy Blogs, July 13, 2016. See <http://www.policy.manchester.ac.uk/blogs/>

POPULAR JOURNAL ARTICLES

1. van der Meulen, Harold, Ada Wossink and Geert de Snoo, Nature conservation by crop farmers in Gelderland, *ZMO-krant* 19 May 1995, p.6. (in Dutch).
2. van der Meulen, Harold, Geert de Snoo and Ada Wossink, Field margin management for wildlife: wildlife conservation by farmers in Gelderland, *Aanwas*, May 26, 1995, p. 6. (in Dutch).
3. Koeijer, T.J. de and G.A.A. Wossink (1994) Spraying less pays well, *Boerderij, Akkerbouw Supplement*, March 22, 1994 (in Dutch).
4. The horror of 2000, MIMOSA model forecasts decreasing incomes, Interview of A. Wossink by Han Hammink, *Boerderij, Akkerbouw Supplement* 78– no. 20 (28 September 1993) (in Dutch).
5. Dijkhuizen, A.A. and G.A.A. Wossink, (1989) Economic accounting for management support on dairy and pig farms, *Dier-en-arts*, Dec 1989: 292-294 (in Dutch).
6. Wossink, G.A.A., The farmer as a manager: The relationship of information and management on farms, *Landbouwmechanisatie* 1988 (12), pp. 87-90 (in Dutch).
7. Wossink, G.A.A. and J.A. Renkema, The expected consequences of technological development for Dutch agriculture, *De Landeigenaar* 1987 (11), pp. 8-11 (in Dutch).
8. Wossink, G.A.A. (1986) The relevance of off-farm income, *PP-Magazine* 1986, pp. 66-68 (in Dutch).
9. Wossink, G.A.A. (1985) Does the Dutch farmer really has the highest income in the EU? *Boerderij* 70 (1985) no. 38, pp. 22-24 (in Dutch).

OFFICIAL RESEARCH REPORTS

1. Lindley, S., Ashton, J., Barker, A., Benton, J., Cavan, G., Christian, R., Cook, P., Dennis, M., French, D., Gilchrist, A., James, P., Macintyre, V., O'Neill, J., Phillipson, C., Tzoulas, K. & Wossink, A., (2020) Nature and Ageing Well in Towns and Cities: Why the Natural Environment Matters for Healthy Ageing, Report for Valuing Nature Network , 72 p.
2. Wossink, A., H. Mitasova and R. McLaughlin (2005) The Cost Effectiveness of Standard and Alternative Sediment and Turbidity Control Systems on Construction Sites in North Carolina, Raleigh, N.C., Water Resources Research Institute of the University of North Carolina.
3. Zering, K., A. Atkinson, J. Chvosta, M. Marra, B. Norwood, M. Renkow, A. Wossink and M. Wohlgenant (2005) Cost and Returns Analysis of Manure Management Systems Evaluated in 2004 under the North Carolina Attorney General Agreement with Smithfield Foods, Premium Standard Farms, and Front-Line Farmers, Dept Agricultural and Resource Economics, North Carolina State University. Series of 10 reports:
4. Summary report, 75 pgs; Appendices A-I, 59 pgs; Technology Report: Anaerobic Lagoon and Sprayfield, 31 pgs.; Technology Report: Barham Farm, 53 pgs.; Technology Report: Super Soils on-farm, 75 pgs.; Technology Report: High Solids Anaerobic Digester (HSAD), 21 pgs.; Technology Report: Belt Systems (Lake Wheeler and Van Kempen-Koger), 34 pgs.; Technology

Report: Ekokan, 51 pgs.;Technology Report: Recip, 51 pgs.;Technology Report: BEST (FAN+TFS and FILTRAMAT+TFS), 88 pgs.

5. Wossink, Ada and Bill Hunt (2003) The Economics of Structural Stormwater BMPs in North Carolina, Publication 344, Raleigh, N.C., Water Resources Research Institute of the University of North Carolina.
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12. Wossink, G.A.A., J.H. van Niejenhuis and H.C.M. Haverkamp (1993) Friesian arable farming, whereto? Studies on styles of farming no. 10.2, Report Departments of Farm Management and Sociology at the request of the Province of Flevoland, 37 pp. (in Dutch).
13. De Koeijer, T.J. and G.A.A. Wossink (1992) Environmental economic modelling for plant production, Report Wageningen University, Department of Farm Management at the request of the Province of Flevoland and the Ministry of Agriculture, 60 p. (in Dutch).
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2. Wossink, A., Biodiversity conservation in agricultural landscapes: farmer effects on biodiversity gains from agri-environmental schemes, 3rd European Congress of European Conservation Biology, Glasgow, August 28-Sept 1, 2012.
3. Theo van Kempen, Jeanne Koger, Preston Burnette, Deola Ali, Jerry Spivey, Ada Wossink, Alex Fassbender, and Paul Loeffler (2003) RE-Cycle: recipe for waste-free swine production, Abstract

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4. Wossink, A., Z. Denaux, B. Brown, and G. Bullen (2002) Economic Comparison of Cultural Practices in North Carolina Cotton, *Proceedings of the Beltwide Cotton Conferences*. Atlanta, GA, National Cotton Council of America.
 5. Brown, B., Z. Denaux, A. Wossink and G. Bullen (2002) Factors in Yield Variation among NC Cotton Fields for the 2000 Crop Year, *Proceedings of the Beltwide Cotton Conferences*. Atlanta, GA, National Cotton Council of America.
 6. Bullen, S.G., A.B. Brown, and A. Wossink (2002) North Carolina Cotton Production Practices, *Proceedings of the Beltwide Cotton Conferences* Atlanta, GA, National Cotton Council of America.
 7. Wossink, Ada and Frank Wefering (2000) Hot Spots in Animal Agriculture, Emerging Federal Environmental Policies and the Potential for Efficiency and Innovation Offsets, Abstract in volume of abstracts of contributed papers XXIV-th Conference of the Inter. Assoc. of Agric. Economist, Berlin, August 13-19, 2000.
 8. Wossink, G.A. and D.L. Osmond, Cost Analysis of Riparian Buffers: A Case Study from the Neuse River Basin, Abstract in 2000 Annual Meeting Abstractions, American Society of Agronomy, Minneapolis MI, November 5-9, 2000, pp. 377-378.
 9. Van Wenum, J., A. Oude Lansink, and A. Wossink (1999) Farm Heterogeneity in Wildlife Production, Abstract in *American Journal of Agricultural Economics* 81(5): 1283.
 10. De Koeijer, T.J. and G.A.A. Wossink (1999) Assessing the sustainability efficiency of arable farms, Abstract in the book of abstracts of the IX-th annual conference of the European Association of Environmental and Resource Economists (EAERE), Oslo, Norway, June 25-27, p. 27.
 11. Van Wenum, J.H. and G.A.A. Wossink (1998) A Dynamic Spatial Model for Optimal Wildlife Management on Crop Farms, Abstract in *American Journal of Agricultural Economics* 80(5): 1208.
 12. Vukina, T. and Wossink, G.A.A. (1998) Evolving environmental policies and asset values: nutrient trading schemes in the Netherlands, Abstract in the book of abstracts of the World Congress of Environmental and Resource Economists, Venice, Italy, June 25-27, 1998.
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 15. Thijssen, G., A. Wossink, J. de Wilt (Eds.) (1998) Editorial (Special issue of selected papers from the workshop "Towards a healthy animal agriculture: economic and societal aspects of animal health, animal welfare and food safety"), *Tijdschrift voor Sociaal wetenschappelijk onderzoek van de Landbouw* 13(3): 145-146 (in Dutch).
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 17. De Koeijer, T.J. and G.A.A. Wossink (1996) Farmer specific prototyping of sustainable production systems: a conceptual framework, Abstract in the Book of abstracts of the 4th European Society for Agronomy (ESA) Congress, 7-11 July 1996, Veldhoven-Wageningen, The Netherlands.
 18. De Buck, A.J. H.J. Schoorlemmer and G.A.A. Wossink (1996) Analysis of production risks in sustainable arable farming on crop and whole farm level, Abstract in proceedings volume congress European Network for Information Technology in Agriculture EUNITA (EU-Concerted Action AIR3-CT94-1654), January 1996, Wageningen, The Netherlands
 19. De Buck, A.J. H.B. Schoorlemmer and G.A.A. Wossink (1995) The analysis of risk in the conversion to sustainable arable farming: a Dutch case of weed control in sugar beet, Abstract 13th International Plant Protection Congress in *European Journal of Plant Pathology* 101(special issue): 154.

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2. Wossink, G.A.A. (1998) Socio-economic aspects of precision agriculture, In: C. Doorman (Ed.) Proceedings of the KLV Workshop: *Precisielandbouw*, June 18, 1998, pp. 59-63, Wageningen: Royal Society of Agricultural Engineers (KLV) (in Dutch).
3. Wossink, G.A.A. (1996) Future perspectives of Dutch arable farms: a scenario analysis of farming styles, Proceedings Third Polish-Dutch Conference: *Market orientation of Polish and Dutch Agriculture*, pp. 89-86 (in Polish) and pp. 249-256 (English), Wageningen June 11-12, 1996.
4. Wossink, G.A.A., C.R. Jurgens, J.H. van Wenum (1996) Spatial management of agricultural nature conservation: Prospects from land use planning and farm economics, Proceedings *Workshop on Landscape and Nature Conservation* (EU Concerted Action AIR3-CT93-1164), September 26-29, 1996, pp. 1-16, Stuttgart-Hohenheim, Germany.
5. Wossink, G.A.A. and C.R. Jurgens (1995) Strategic planning for sustainable land use: prospects from rural development and farm economic, In: F. Sotte and R. Zanolli (Eds.) *The Regional Dimension of Agricultural Economics and Politics*, pp. 729-740, Ancona Italy: European Association of Agricultural Economists & RAISA (Ricerca Avanzate per Innovationi nel Sistema Agricolo).
6. Van der Meulen, H.A.B., G.R. de Snoo and G.A.A. Wossink (1995) Acceptance and perspectives for unsprayed field margins in arable farming, In: G.R. de Snoo, T. Rotteveel and H. Heemsbergen (Eds.) *Akkerranden in Nederland* (Unsprayed field margins in the Netherlands], pp. 117-124, Wageningen, The Netherlands: Plant Protection Service (in Dutch).
7. Schoorlemmer, H.J., A.J. de Buck and G.A.A. Wossink (1994) Risk and risk perception in the conversion to sustainable production methods in arable farming, In: B.H. Jacobsen, D.E. Pedersen, J. Christensen and S. Rasmussen (Eds.) *Farmers' Decision making – A Descriptive approach*, Proceedings 38th EAAE seminar, October 3-5, 1994, pp. 191-202, Copenhagen: Inst. of Agricultural Economics and the Royal Veterinary and Agricultural University Denmark.
8. Renkema, J.A. and G.A.A. Wossink (1993) The changing field of farm management research, In: W.J.M. Heijman and J.A.C. van Ophem (Eds.), *De toekomst is verleden tijd*, p.149-159, Delft: EBURON/Wageningen: Wageningen Agricultural University (in Dutch).
9. Wossink, G.A.A. and J.H. van Niejenhuis (1993) Farming styles in Dutch arable farming: assessment and future perspectives, Proceedings 9th International Farm Management Congress, 11-17 July 1993, Contributed Papers Vol. I, Budapest: Hungarian Farm Management Association (FAMA).
10. Wossink, G.A.A. and G.F. Tamminga (1992) Scenario Assessment Integrating Environmental and Agricultural Developments for Model Studies at Farm and Sector levels, In: Loseby, M. (Ed.) *The Environment and the management of Agricultural Resources*, Proceedings of the 24 th Seminar of the European Association of Agricultural Economists, Viterbo, 24-26th January 1991.
11. Wossink, G.A.A., T.J. de Koeijer and J. Jarosch (1991) Integrating ecological aspects in farm economic modelling, Proceedings Congress Agriculture & Environment in Eastern Europe and the Netherlands, Wageningen September 5-6, 1990.
12. Renkema, A.J. and G.A.A. Wossink (1991) Future monitoring on behalf of agricultural policy assessment, In: A.J. Oskam, L.H.G. Slangen and H.J. Silvis (Eds.): *Landbouwpolitiek tussen diagnose en therapie*, pp. 239-250, Wageningen: Wageningen Agricultural University/Werkgroep Landbouwpolitiek (in Dutch).
13. Wossink, G.A.A. and T.J. de Koeijer (1991) Environmental economic policy assessment: a farm economic approach, In: W.H.J. Heijman and J.J. Krabbe (Eds.), Issues of environmental economic policy, *Wageningse Economische Studies* no. 24, pp. 131-146, Wageningen, The Netherlands: PUDOC.

14. Wossink, G.A.A. and G.F. Tamminga (1990) Scenarios of technological developments and agricultural and environmental policies, In: F.M. Brouwer and A.J. Reinhard (Eds.) *Landbouw, Milieu en Ruimte*, Book "LEI 50 years", Volume 1, pp. 174-179, Den Haag, The Netherlands: Agricultural Economics Institute (in Dutch).
15. Wossink, G.A.A. and J.A. Renkema (1987) Farm economic consequences and restrictions of set-aside, In: G. van Dijk, A.T.J. Nooij and H.J. Silvis (Eds.), *Wageningse Economische Studies* no. 8, *Areaalbeheersing in de landbouwpolitiek*, pp. 57-77, Wageningen, The Netherlands: PUDOC (in Dutch).

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1. Weisz, Randy and Ada Wossink (2004) The Wheat Enterprise Budget, Chapter in: *Small Grains Production Guide 2003-2004*, North Carolina Cooperative Extension Service, 6 pp.
2. Wossink, Ada and Tullaya Boonsaeng (2003) *Animal Waste Management Technologies: An Explorative Study of Farmers' Knowledge and Perceptions*, North Carolina State University Annual Swine Report 2003 (on CD).
3. Wossink, Ada and Tullaya Boonsaeng (2003), *Farmers' Knowledge and Perceptions of Animal Waste Management Technologies: An Explorative Study for North Carolina*, Series ARE Reports No. 29.
4. Wossink, Ada and Nick Kuminoff (2002) *Organic Agriculture in North-Carolina*, NC State Economist, Sept/Oct.
5. Hardy, D.H., D.L Osmond and A. Wossink (2002) *An overview of Nutrient Management with Economic Considerations*, SoilFacts AGW0439-55, North Carolina Cooperative Extension Service.
6. Weisz, Randy and Ada Wossink (2000) The Wheat Enterprise Budget, Chapter in: *Small Grains Production Guide 2000-2001*, North Carolina Cooperative Extension Service, 6 pp.
7. Harthoorn, and G.A.A. Wossink (1986) The significance of Dutch agricultural production for the balance of trade and employment opportunities, *De produktiestructuur van de Nederlandse volkshuishouding*, Part XIII, pp. 6-22, Statistics Netherlands, The Hague (in Dutch).
8. Wossink, G.A.A. (1986) Additional income sources of agricultural and horticultural firms, *Maandstatistiek van de Landbouw 1986* (3): 37-39, Statistics Netherlands, The Hague (in Dutch).
9. Wossink, G.A.A. (1985) An estimation of the economic size of activities not covered by the annual agricultural survey, *Maandstatistiek van de Landbouw 1985* (9): 36-38, Statistics Netherlands, The Hague (in Dutch).
10. Wossink, G.A.A. (1996) *Future Perspectives of Dutch arable farms: a scenario analysis of farming styles*, *The Journal of the University of Technology and Agriculture Bydgoszcz, Poland* No. 199 - Agriculture 40: 249-255.
11. Wossink, G.A.A. (1985) Comments on the comparison of agricultural incomes by the European Commission, *Maandstatistiek van de Landbouw 1985* (6): 30-37, Statistics Netherlands, The Hague (in Dutch).
12. Wossink, G.A.A. (1984) A new system for farm typology, *Maandstatistiek van de Landbouw 1984* (3): 43-47, Statistics Netherlands, The Hague (in Dutch).
13. Wossink, G.A.A. (1984) Some developments in the agricultural labor force, *Maandstatistiek van de Landbouw 1984* (11/12): 40-45, Statistics Netherlands, The Hague (in Dutch).

RESEARCH GRANTS AWARDED

At the University of Manchester

1. Principal Investigator, Project 'Buirbs-Valuing biodiversity in multi-functional urban development and environments', funding by NERC-ESRC as part of the Improve Understanding of the Economics of Biodiversity scheme. Total budget **£972,658**; 80% FEC; 7.5 % of time, Aug 2022-Feb 2025.

2. Co-PI, 'Green infrastructure and the Health and wellbeing Influences on an Ageing population (GHIA)', NERC-ESRC-AHRC as part of Valuing Nature Program, 5% of time, 5 % credit split, **£850,310** awarded funding. August 2016- July 2019 extended Jan 2020.
3. Co-PI, Roadmap for a Manchester Environmental Research Institute', Proposal for UMRI Funding, joint project with Lead PI: Polya (SEAES^a), Other Co-PIs: Taylor, Coe, Hughes (SEAES^a), Bardgett (FLS^b), Allott (SEED^c), Anderson, Bows-Larkin (MACE^a & Tyndall Centre), Harou (MACE^a), Rigby (Social Sciences^c), Ray (Research AD FMHS^d), French (Psychological Sciences^d), Agius (IPH^d), Yeates (Chemistry^a & Research AD FEPS^a), Talbot (Government^c), Wogelius, Morris (SEAES^a & Dalton Nuclear Institute), Azapagic (CEAS^a & CSEF), Grieve (EEE^a), Lindley (SEED^c) ^a FEPS; ^b FLS; ^c FH; ^d FMHS, **£43,133**. January-July 2016.
4. International advisor, INNOVATE "Innovative climate policy instruments to reduce Austrian consumption-based emissions", 7th call Austrian Climate Research Programme, March 2015-February 2018. **€7,588**.
5. Co-investigator and co-lead of the socio-economic research, EPSRC-ESRC Centre on 'Sustainable Use of Energy in Food Chains'. Taking a 'gate to plate' view, the Centre develops sustainable and innovative approaches, processes and technologies for reduced energy demand along the food supply chains, including production, distribution, retail and consumption. The Centre works in partnership with over 20 companies, including some of the UK's major food manufacturers and retailers. Consortium Brunel, Birmingham and Manchester Universities, about £7million total from UK EPSRC-ESRC, **£2,211,600** for Manchester (May 2013-April 2018).
6. Coordinator of the UK contribution and co-Investigator (12.5 % of time). EU-FP7 project (Coordinated by Radboud University, Nijmegen) "*BIOMOT: MOTivational strength of ecosystem services and alternative ways to express the value of BIOdiversity*". **£433,347.00** for Manchester contributions by Philosophy, Economics and Psychology (May 2011-April 2015).
7. Theme leader/co-investigator "*Sustainable Consumer Behaviour and Lifestyles* ", Sustainable Consumption Institute at University of Manchester (**50% of time Jan 2012-Dec 2014**) and 10 % of time Sept 2010-Dec 2011 (2.5 yrs from Sept 2010). Funded by Tesco **£755,711**.
8. Coordinator (with Noel Russell). EURASIA – European Academic Mobility Network with Asia (2009-2011). ERASMUS MUNDUS-External Cooperation Window Project. Includes 7 partner institutions in the EU (Lead Applicant BOKU, Vienna) and 11 partner institutions in Asia (Mongolia, Vietnam, Laos, Thailand, Indonesia and China).
9. With Dan Rigby, ESRC-RELU PhD Studentship "*Perceptions, risks and costs of food-borne pathogens: Salmonella and Campylobacter*" Granted Feb 2008; to start Sept 2009.
10. Co-Investigator, University of Warwick-HRI and Rothamsted Research. Vulnerability of UK Agriculture to Extreme Events (April 2007-March 2008). Funded by Defra **£10,572**.
11. Co-investigator. "*Reducing Escherichia Coli O157 risk in rural communities*". Project with London School of Hygiene & Tropical Medicine (LSHTM), and Aberdeen & Bangor Universities funded under ESRC/BBSRC/NERC. RELU Program. Oct 2007-Sept 2010, **£20,000**, plus a research associate for 12 months.

At North Carolina State University (1998-2007):

1. Co-Principal Investigator (with Harry Daniels, NCSU-Zoology and Tom Losordo, NCSU-Biol. & Agric. Engineering, NCSU) Effects of Different Water Conservation Practices on Effluent Reduction and Economics of Hybrid Striped Bass Production (April 2007- March 2009). Funded by NCSU Sea Grant Program, US\$73,000.
2. Principal Investigator. Sustainability indicators as management tools to guide farmers, scientists, policy makers and the general public (June 2005-May 2008). Funded by SAE, **US\$250,000**.
3. Co-operator. Partnership with the Public: An Alternative Foods Systems Model for Swine in North Carolina (July 2004-June 2007). Funded by the W.K. Kellogg Foundation, **US\$600,000**.
4. Co-Principal Investigator. Assessment of standard and alternative sediment and turbidity control systems for impacts on water quality (June 2004-May 2005). Funded by the Water Resources Research Institute of the University of North Carolina, **US\$50,000**.
5. Co-investigator. Full Economic Feasibility Assessment of the Smithfield Foods Agreements, Extended (Jan 2004-July 2005). Funded by the Smithfields Foods Inc. Agreement, **US\$167,122**.

6. Co-Principal Investigator. The Composting of Swine Mortality on a 5000 Sow Farrow-to-Wean Operation (July 2002-June 2004). Funded by the NC Pork Council US\$28,609.60
7. Co-investigator. Full Economic Feasibility Assessment of the Smithfield Foods Agreements (2002-2003). Funded by the Smithfields Foods Inc. Agreement, **US\$373,617**.
8. Co-operator. Developing an Alternative Food System Model and Implementation Plan for Swine in North Carolina (July 2002-September 2003). Funded by the W.K. Kellogg Foundation, **US\$100,000**.
9. Co-Principal Investigator. RECYCLE: An Integrated System to Substantially Eliminate the Environmental Impact of Swine Waste (2001-2002). Funded by the Smithfields Foods Inc. Agreement, **US\$574,976**.
10. Co-investigator. Fuel Grade Ethanol from Swine Waste (April 2000-April 2002). Funded by the Energy Division of the NC Department of Commerce. Total **US\$136,848** of which \$ 41,865 for the economic part of the project supervised by Dr. Wossink.
11. Co-investigator. Weed Management Decision Support System throughout the Southern Region (2000-2002). Funded by the Southern Region IPM Special Grants Program. Investigators from 10 southern states collaborated in the project. Total **US\$ 200,000**.
12. Co-Investigator. Whole-farm Analysis of Ultra-narrow Row Cotton (March 2000-March 2002), Funded by Cotton Inc., **\$34,400**.
13. Co-Investigator. Revitalizing Small and Mid-Sized Farms: Organic Research, Education and Extension (2000-2004). Project of Iowa, Ohio and North Carolina State University, the Organic Farming Research Foundation and Tufts University. Funded by USDA/IFAFA, \$1,800,000 of which **US\$147,793** for the economic part of the project supervised by Dr. Wossink.
14. Co-investigator. Strategies for Transition to Organic Systems: Ecological and Economic Indices (1999-2003). Funded by the USDA/National Research Initiative. Project with 9 other PI's from various NCSU departments, **US\$311,000**.
15. Co-Principal Investigator. Cost-Effectiveness Analysis of Structural Stormwater Best Management Practices (BMPs) in North Carolina (April 1999-April 2002), Funded by Water Resources Research Institute, **US\$36,000**.
16. Co-investigator. Cost and returns comparison of cotton-production with strip, no-till and conventional tillage (1999). Funded by the Cotton Quality Improvement Committee, **\$4,500**.

At Wageningen University (1986-1998):

1. Project co-ordinator. *Sustainable production techniques on arable farms: risk and risk perception (1994-98)*. Multidisciplinary project with the Agricultural Economics Research Institute, The Hague; Department of Extension Science, Wageningen University and the Research Station for Arable Farming & Field Production of Vegetables, Lelystad. Financed by the Dutch Ministry of Agriculture – Directorate Science and Technology. Total project **NLG 447 000 (US\$ 223,500)**.
2. Project co-ordinator. *What, how and where: economic analysis of wildlife conservation (1995-99)*. Interdisciplinary project in cooperation with the Centre for Environmental Science at Leiden University and the Centre for Agriculture and Environment, Utrecht. Financed by: Dutch Ministry of Agriculture and the Provinces of Groningen, Drenthe and Flevoland, **NLG 311 000 (US\$155,500)**.
3. Project leader. *Ecotax-plus for Dutch agriculture (1997)*. Assignment Dutch Ministry of Agriculture-Department Environment, Quality and Health, **NLG 166 700 (US\$ 88,350)**.
4. Project leader. *The LBL field margin experiment: evaluation of farmers' participation and acceptance (1996)*. Assignment Dutch Ministry of Agriculture-DLB, **NLG 76 375 (US\$ 38,187)**.
5. Project leader. *Acceptance and implementation of unsprayed crop edges in farming practices (1995)*. Project in cooperation with the Centre of Environmental Science, Leiden University. Financed by the Dutch Council for Science (NWO), **NLG 29 400 (US\$ 14,700)**.
6. Co-investigator. *Integration of environmental aspects in farm models (1990-1991)*. Financed by the Dutch Ministry of Agriculture – Directorate Science and Technology and the Province of Flevoland. **NLG 77 500 (US\$ 38,750)**.
7. Co-investigator. *The possibilities of a levy system to reduce pesticide use in Dutch agriculture (1991)*. Project in cooperation with the Departments of Agricultural Policy and Agricultural Law (Wageningen

University); and DHV Consultants, Amersfoort. Assignment Dutch Ministries of Agriculture and Environmental Affairs, **NLG 13 200 (US\$6,600)** for the farm-economic part of the project.

3. SUPERVISION OF Ph.D. STUDENTS

AT THE UNIVERSITY OF MANCHESTER:

1. Zhidong (Joshua) Zhu (2023-): TBC
2. Yue He (2022-): Topic: "The relationship between Google search data on health trends, actual health data in the UK (prescription, hospital admission), and satellite-based particulate matter emissions data".
3. Yue (Joyce) Yu (2021-): "Energy Investment in the Post Oil Era – Managing Financial and Climate Risks".
4. Giorgio Maarraoui (2020-): "Essays on Climate Change, Adaptation, and Economic Outcomes in Sub-Saharan Africa"
5. Veronica Vienne: (2018-2022): "Moving towards sustainable development: environmental valuation and policies in Chile".
6. Lotanna Emediegwu, (2017-2021): "Essays on Climate Change and Food Security in Sub-Saharan Africa".
7. Jubril Animashaun (2015-2019): "Three Essays on Natural resource exploration and negative social externalities".
8. Faten Saliba (2014-2019): "Policy evaluation for rural development and environmental regulations using econometrics".
9. Ibrahim Tujadeen (2012-2017): Essays on Energy Efficiency and Fuel Subsidies Reform in Oil producing Countries".
10. Natina Yaduma (2009-2013): "Essays on the Econometric Analysis of Economic Development and the Effects on Health, Environmental Damage and Natural Resource Depletion".
11. Caroline Millman (2008-2012): "Risk perceptions and risks: Campylobacter and Salmonella". .
12. Seda Erdem: "Food safety, Perception and Preferences: Empirical Studies on Risks, Responsibility, Trust and Consumer Choices ", Completion Feb 2011.

AT NORTH CAROLINA STATE UNIVERSITY (CO-CHAIR 2005-2007, PHD WAS FINISHED 2009):

Levente Timar: "Managing aquatic invasive species: A dynamic principal-agent model" (completion August 2008).

AT WAGENINGEN UNIVERSITY (CO-CHAIR):

1. Guan Zhengfei (completed Dec 2005), "Economic Analysis of Agricultural Production: New Primal Perspectives".
2. Cesare Pacino (completed in June 2003): "Environmental Accounting and Agricultural Policies in Tuscany".
3. Jaap van Wenum (completed in Jan 2002): "Economic Analysis of Wildlife Management in Crop Farming".
4. Tanja de Koeijer (completed in Jan 2002): "Integrating agronomic and farm economic approaches to efficiency on the road to a sustainable agriculture".
5. Abco de Buck (completed in Jan 2001): "The Role of Production Risks in the Conversion to more Sustainable Arable Farming".

PHD COMMITTEES (COMMITTEE MEMBER):

1. Jon Eisen-Hecht (completed in May 2005), Duke University, Nicholas School of the Environment, "A Hierarchical Bayes Approach to Modeling Landowner Decision-making: A Study of the Wetland Restoration Program".
2. Clifford Mensah (completed in May 2005), NC State Economics, "The Market Impact of the Simultaneous Adoption of Complementary Agricultural Technologies".

3. Jongh-wha Lee (completed Nov 4, 2005), NC State Economics, "Spatial Econometric Analysis of a Watershed Utilizing Geographic Information Systems: Water Quality Effects of Point and Non-Point Source Pollutions in the Neuse River Basin".

4. ACADEMIC SERVICE

RC UK

- Member Peer Review College AHRC (2022-present)
- Member Peer Review College ESRC (2010-present)
- Member Peer Review College EPSRC (2016-present)
- Review Panel Member, NERC-DFID-ESRC program on *Ecosystems and Poverty Alleviation* (flagship initiative of the Living with Environmental Change Partnership), 2008.

ACADEMIC REVIEW PANELS

- Nomination Panel, Nobel Prize in Economics, 2014-present
- Panel member Netherlands National Science Foundation (NWO), 2022-23 for two calls.
- Panel Member Finnish Science Foundation 2020-21.
- International Jury Member for the Austrian Science Fund (FWF) for the *Young Independent Researcher Groups* (YIRG) program 2018, 2020 and 2021.
- Panel Member during 2018 for the French *Agence National de la Recherche*, call/program cannot be revealed
- Independent Evaluator, Netherlands National Science Foundation (NWO) for VENI and VICI applications.
- Independent Evaluator, Research Foundation – Flanders, Belgium (FWO) for various grant applications.
- Independent Expert for the EU acting as reviewer for the monitoring of the implementation of the Seventh Framework program (FP7) (2011-2015).
- External evaluator of Research grant proposal for Qatar National Research Fund, 3rd Round (2010), 4th round (2011), 6th round (2013).
- Panel Member for the 2013 applications, Research Council of Norway program Environment 2015.
- Panel Member, Research Council of Norway program *Environment 2015 – Crosscutting Issues*, 2008.
- Invited Expert EU workshop *Economics of the Global Loss of Biological Diversity*, March 2008, Brussels, Belgium.
- Review Panel Member, US National Academy of Sciences, 2006 for Report on *Status of Pollinators in North America*.
- Review Panel Member, National Institutes of Health, 2000. Advised on research into the allocation of the Master Settlement Agreement funds, i.e., the funds negotiated between 46 states and the major tobacco companies (200 billion US\$ through 2025). At stake was the interplay between political and economic forces in tobacco-dependent states and public health priorities.
- Reviewer for USDA-CREES, Small Business Innovative Research Program, 2000- 2007.
- International Management Institute (RVB), Maastricht, Netherlands, Consulting on environmental policy, 1993.

SERVICE FOR OTHER UNIVERSITIES

- International Scientific Advisor SURE H2020 project (SURE: "Sustainable Resilient EU Farming Systems", June 2017- May 2021).
- Scientific Advisory Board Leibniz Institute of Agricultural Development in Transition Countries (IAMO), 2013-2021.
- London School of Economics, External Examiner MSc Environment and Development, 2009-2012.
- External International Evaluator of new Professorship of *Economics of Baltic Sea Protection* (Endowed Chair funded by City of Helsinki, Dept Economics, University of Helsinki), 2010.

- External International Evaluator Research Grant Application, K.U. Leuven, Belgium, 2008 and 2010.
- RVB, Univ. of Maastricht, Netherlands, Consulting on environmental policy, 1993.

EDITORIAL SERVICE

1. Co-editor *European Review of Agricultural Economics* (Sept 2014-Aug 2020).
2. Member Editorial Board *European Review of Agricultural Economics* (2011-Aug 2014)
3. Member Editorial Board of *Applied Economic Perspectives & Policy* (formerly *Review of Agricultural Economics*, April 2004-June 2013).
4. Associate Editor of *Agricultural Systems*, Aug 2005- Aug 2012.
5. Reviewer for: *Journal of Environmental Economics and Management*; *American Journal of Agricultural Economics*; *Environmental and Resource Economics*; *Ecological Economics*; *European Review of Agricultural Economics*; *Agricultural and Resource Economics Review*; *Journal of Environmental Management*; *Journal of Soil and Water Conservation*; *Agricultural Systems*; *Waste Management*; *Canadian Journal of Agricultural Economics*; *Environmental Management*; *Agricultural Economics*; *Journal of Agricultural & Applied Economics*; *Landscape & Urban Planning*; *Waste Management* (recipient of a 2005 Outstanding Reviewer Award for this journal (Elsevier)); *Agriculture and Human Values*; *Mammal Review*; *Biological Conservation*; *Ecological Modelling*; *Soil & Water*; *Energy Policy*.
6. Reviewer of numerous book chapters and conference contributions.
7. Assoc. Editor, Belgian/Dutch Journal for Social-Economic Research of Agriculture (TSL), 1991-98

5. INVITED RESEARCH PRESENTATIONS AND CONFERENCE ACTIVITY

RECENT INVITED, FUNDED SPEAKER

1. Wossink, A. (2021) Opening plenary paper “Loving the challenge: navigating interdisciplinary research as an economist”, Annual meeting UK Agricultural Economics Association, March 29, 2021.
2. Wossink, A. (2018) Closing Plenary paper “Ecosystem Services and Human Health & Wellbeing: Integrating Human Values with Biophysical Processes”, Annual Conference of the German Association of Health Economists, Essen, 17-19 May 2018
3. Wossink, A. “The economics of sustainable agricultural practices”, Opening Plenary paper *Biocontrol* conference, 21 Sept 2016, Perpignan, France.
4. Wossink, A. (with A. Mulatu) “Environmental Policy, Industry Location and Vertical Specialization: Evidence for Industrialized Agriculture in Europe”, presented at the Australian Conference of Economists (ACE) and Econometric Society Australasian Meeting (ESAM) hosted by the University of Tasmania, Hobart, July 1-4, 2014.

CONFERENCE ORGANISATION

- Co-chair scientific programme committee and chair Local Organising Committee, [2019 Conference of the European Association of Environmental Economics \(EAERE\)](#)
- CoPrincipal local organiser of the symposium on "Economics of Agro-chemicals" on behalf of the *International Association of Agricultural Economists* on April 24-28, 1996 in Wageningen, The Netherlands

RESEARCH PRESENTATIONS & CONFERENCE ACTIVITY

1. Wossink, A. and Jibonayaran Raychaudhuri “Ecolabels and the Economic Recession”, contributed paper 22nd Annual Conference of the European Association of Environmental and Resource Economists in Zurich, June 22 - 25, 2016.

2. Banerjee, P., A. Wossink, R. Pal, "Going green to be seen: The case of a voluntary mechanism for biodiversity protection of farmland", contributed paper 22nd Annual Conference of the European Association of Environmental and Resource Economists in Zurich, June 22 - 25, 2016.
3. Wossink, A. "Ecolabels and the Economic Recession", Wegener Center für Klima und Globalen Wandel, University of Graz, Austria Feb 29, 2016.
4. A. Wossink (with Ruijs and Kortelainen) "Opportunity cost estimation of ecosystem services", Paper presented at EAERE congress 2015, Helsinki Finland.
5. Banerjee, P. and A. Wossink, "Social rewards and the design of voluntary incentive mechanism for biodiversity protection on farmland", special session Royal Economic Society Conference, Manchester, April 2015.
6. Wossink, A. and P. Banerjee, "Social Preferences and Incentives in the Provision of Public Goods from Farmland", Special organized session, EAAE2014 congress, Ljubljana Slovenia, August 2014.
7. Wossink, A. & A. Mulatu, "Environmental Policy, Industry Location and Vertical Specialization", Environmental & Resource Economics Workshop, March 2014. Manchester U.K.
8. Panzone, L. and Wossink, A. "How to measure more sustainable household food consumption using supermarket data", AAEA & CAES Joint Annual Meeting, Aug 1-4 2013, Washington DC.
9. Wossink, A. "Biodiversity conservation in agricultural landscapes: Farmer effects on biodiversity gains from agri-environment schemes", AAB congress, Brigg Lincolnshire, April 2013
10. Wossink, A. "Q-methodology and BIOMOT", Biomot Workshop, Manchester, February 20, 2013
11. Wossink, A., "How economics can inform policy: evaluation of voluntary agri-environmental schemes", Invited seminar at the Food and Environment Research Agency (FERA), Sand-Hutton, Jan 16, 2013.
12. Wossink, A., "Biodiversity conservation in agricultural landscapes: farmer effects on biodiversity gains from agri-environmental schemes", Invited presentation 3rd European Congress of European Conservation Biologists, Glasgow, August 28-Sept 1, 2012.
13. Ruijs, A., M. Kortelainen, A. Wossink, "Trade-offs between ecosystem services: integrating ecology and economics for deriving opportunity costs of ecosystem services", Special Session on "New approaches for the analysis of trade-offs between ecosystem services and biodiversity", 19th Annual Conference of the European Association of Environmental and Resource Economists June 27-30, 2012, Prague, Czech Republic.
14. Wossink, G.A. and J. Sauer, "Non-separability and the opportunity costs of ecosystem Services associated with Agricultural land", 19th Annual Conference of the European Association of Environmental and Resource Economists June 27-30, 2012, Prague, Czech Republic.
15. Wossink, A (with J. Sauer), "Marketed Outputs and Non-Marketed Ecosystem Services, The Evaluation of Marginal Costs", Seminar University of Ghent, Belgium, Jan 7, 2011; Seminar University of Reading, Nov 26, 2010; Cluster Economics Seminar, Wageningen University, Nov 18, 2010.
16. Wossink, A. (with J. Sauer), "Marketed Outputs and Non-Marketed Ecosystem Services", Paper 4th World Congress of Environmental & Resource Economist, Montréal Canada, June 28-July 2, 2010.
17. Sauer J. and Wossink, A. "Marketed Outputs and non-marketed ecosystem services", AEA Conference, Edinburgh March 31- April 1, 2010.
18. Seda Erdem, Dan Rigby and Ada Wossink, Perceptions of Relative Responsibility for Food, 2010 AAEA, CAES, & WAEA Joint Annual Meeting in Denver, USA, July 25-27, 2010.
19. Gordon, R., G. Edwards-Jones, J. Roberts, A. Wossink, C. Hunter, D. Chadwick, I. Ogden, D. Jones, N. Strachan, D. Rigby, J. Farrington, P. Teunis, R. Kosmider, P. Williams, P. Cross, K. Killham "Reducing Escheria Coli 157 Risk in Rural Communities", EPA/SAC biennial conference on Land management in a Changing Environment, Edinburgh, March 26/27, 2008.
20. Wossink, Ada (2008) "The Economics of Alternative Agriculture", Invited plenary paper, Annual Meeting AES, Cirencester, 1-2 April, 2008
21. Wossink, Ada and Nick Kuminoff, "Valuing the Option to Convert to Organic Farming", Workshop at the Kent Business School, Wye Campus, Oct 31, 2007.

22. Wossink, Ada and Scott M. Swinton "Valuation with supply tools: Willingness-to-accept-payment for ecosystem services from agriculture", Paper presented at the 15th EAERE meeting, Tessaloniki, Greece, Jun 27-30, 2007.
23. Olha Sydorovych and Ada Wossink "Quantification of Agricultural Sustainability: Combining Direct Attribute Ranking with Conjoint Choice Modeling" Poster paper Annual meeting of the American Agricultural Economics Association (AAEA) Meeting in Portland, Oregon, July 29-August 1, 2007.
24. Ada Wossink, "Environmental Economics", Environment Department, University of York, U.K., February 23, 2006.
25. Ada Wossink and Nick Kuminoff, "Valuing the option to switch to organic farming: an application to U.S. corn and soybeans", Dept. Economics, University of Birmingham, U.K., Jan 27, 2006. N; Idem, Dept of Economics, University of Warwick, U.K, January 24, 2006; Idem, Department of Social Sciences, Wageningen University, Netherlands, Dec 6, 2005.
26. Ada Wossink, Estimating farmers' willingness to accept payment for ecosystems services, NSF-Workshop on Valuation of Ecosystem Services from Agriculture, October 27-28, 2005, Brook Lodge, Kalamazoo, Michigan.
27. Ada Wossink and Nick Kuminoff, Valuing the option to switch to organic farming: an application to U.S. corn and soybeans, Meeting of the European Association of Agricultural Economist (EAAE), Copenhagen, August 23-27, 2005
28. Nick Kuminoff and Ada Wossink, Valuing the Option to Convert from Conventional to Organic Farming, Invited paper AAEA annual meeting, July 24-27, 2005, Providence, RI.
29. Zulal Denaux and Ada Wossink, Environmental and Cost Efficiency of Pesticide Use in Transgenic and Conventional Cotton Production, Southern Economic Association Meeting, November 21-23, 2004, New Orleans, LA.
30. Jaap van Wenum, Ada Wossink and Alfons Oude Lansink, "Biodiversity Conservation in Agricultural Landscapes: the Impact of Arable Field Management and Farm-specific Conditions on Floral Species", Selected paper 2004 annual meeting Society for Conservation Biology, July 29-August 2, 2004, Columbia University, New York.
31. Weersink, Alfons and Ada Wossink, "Lessons from Agri-Environmental Policies in Other Countries for Dealing with Salinity in Australia", Invited paper, Salinity Solutions, Working with Science and Society Conference, 2-5 August 2004, Bendigo, Victoria, Australia.
32. Koger, J., Th. Van Kempen and G. Wossink (2003) "Belt manure removal and gasification system to thermally convert dry manure to a combustible gas stream for liquid fuel recovery", North Carolina Animal Waste Management Workshop, N.C. Research Triangle Park, October 16, 2003.
33. Ada Wossink, "Hot Spots in Animal Agriculture, Emerging Federal Environmental Policies and the Potential for Efficiency and Innovation Offsets", Seminar Mansholt Graduate School, June 25, 2003, Wageningen University, Netherlands.
34. Ada Wossink, "Hot Spots in Animal Agriculture, Emerging Federal Environmental Policies and the Potential for Efficiency and Innovation Offsets", NCSU Agricultural Economics Workshop, Tuesday, February 25, 2003.
35. Ada Wossink, "The Dutch Nutrient Quota System: Past Experience and Lessons for the Future", Invited paper for the OECD workshop on "The Ex-Post Evaluation of Tradable Permit Regimes", January 21-22, 2003, Paris.
36. Ada Wossink and Zulal Sogutlu Denaux, "Environmental Efficiency, Separability and Abatement Costs of Nonpoint-source Pollution", presented at the AAEA annual meeting, July 28-31, 2002, Long Beach CA.
37. Jaap van Wenum, Ada Wossink and Jan Renkema, "Location-specific modeling for optimizing wildlife conservation in crop farming", presented at the AAEA annual meeting, July 28-31, 2002, Long Beach CA.
38. Wenum, Jaap van, and Ada Wossink, "Wildlife conservation by farmers: analysis of actual and contingent participation", presented at the AAEA annual meeting, August 5-8, 2001, Chicago IL.
39. Wossink, Ada, "The Failure of Marketable Permits Systems and the Uncertainty of Environmental policy: A Switching Regime Model Applied to the Dutch Phosphate Quota Program, AAEA annual meeting, July 30-August 2, 2000, Tampa FL.

40. Pacini, C., Wossink, A, Omodei-Zorini, L. and Vazzana, C. "Environmental accounting in Agriculture: A Theoretical Overview with special reference to Tuscany", Presented at the AAEA annual meeting, July 30-August 2, 2000, Tampa, FL.
41. Wossink, Ada, "Farmers' Agrochemical Use Decisions and the Potential for Efficiency and Innovation Offsets", Invited Paper Workshop on Strategies and Policies for Pesticide Use, Free University, Amsterdam, June 23-25, 2000.
42. Wossink, Ada, "The Failure of Marketable Permits Systems and the Uncertainty of Environmental policy: A Switching Regime Model Applied to the Dutch Phosphate Quota Program", Invited seminar Mansholt Institute, Wageningen University, June 14, 2000.
43. Wossink, Ada, "The measurement of agricultural sustainability from an efficiency perspective", NCSU Environmental and Natural Resource Economics Workshop, Tuesday, February 1, 2000.
44. Van Wenum, J.H., G.A.A. Wossink and J.A. Renkema, "A farm-economic analysis of wildlife management in Dutch crop farming", Presented at the congress of the International Farm Management Association (IFMA), Durban South Africa, July 18-24, 1999.
45. Vukina, Tom and Wossink, Ada, "Environmental Policies and Land Values, Evidence from the Dutch Quota System", Environmental & Natural Resource Economics Workshop NCSU, September 29, 1998.
46. Wossink, Ada, Jaap van Wenum, Clifford Jurgens and Geert de Snoo, "What, How and Where of Nature Conservation and Agriculture: Coordinating Ecological-Economic, Behavioral and Spatial Aspects of Nature Conservation and Restoration in Agriculture", Invited Seminar Michigan State University, January 9, 1997.
47. Wossink, G.A.A. "Environmental-Economics of the Farm Firm", Invited seminar, Centre of Environmental Science, Leiden University, June 1996.
48. Wossink, G.A.A., "Combining Economics and Plant Protection Models", Invited Workshop March 6, 1995, Agricultural University of Guelph, Canada.
49. Wossink, G.A.A., "A Comparison of Agro-Chemical Reduction Policies in the Netherlands and the European Union", Invited Seminar March 7, 1995, Agricultural University of Guelph, Canada.
50. Wossink, G.A.A., "A Comparison of Agro-Chemical Reduction Policies in the Netherlands and the European Union", Invited Seminar December 13, 1994, NC State University.
51. Wossink, G.A.A., "Innovation at the farm level: an integration of the economic and the diffusion concept" (in Dutch), Presented at the annual meeting of Dutch economist (Ecozoekdag), June 11, 1993, KUB Tilburg, The Netherlands.
52. Wossink, G.A.A. and T.J. De Koeijer, "Integration of environmental aspects in economic modelling of field crop farms" (in Dutch), Presented at the annual meeting of Dutch economist (Ecozoekdag), June 3, 1992, Erasmus University, The Netherlands.
53. Wossink, G.A.A., "The Dutch pesticide reduction plan and its implications for arable farming", Invited Seminar University College of London U.K., September 20, 1991.

III. TEACHING

1. CURRENT/RECENT TEACHING

Undergraduate level

- ECON 32111, Climate Change Economics 2015-16-present
- ECON30111/ 30111 *Applied Environmental Economics & Policy Analysis* (newly developed module), 2007/9 – 2010/11.

MSc level

- ECON 60781/60782 *Economic of Environmental Policy* (revised module), 2008/9- 2011/12, 2014/15-present.

PhD level

- Course convenor new module: ECON 80072 *Advanced Methods for Environmental Valuation and Decision Making*, (2010/11-present).

2. OTHER TEACHING

While at Wageningen University (1986-1998) taught the following courses:

Undergraduate level	<i>Introduction to Farm Management for Science Majors</i> (lectures and labs, taught 1987/88-1990/91, classes of about 40 students). <i>Farm Accounting and Management</i> (lectures and labs, taught 1987/88-1995/96, classes of 80 to 190 students). <i>Advanced Farm Management</i> (co-developed this course, team teaching in 1996/97 and 1997/98, classes of 30-50 students).
Graduate level (M.Sc. program)	<i>Environmental Economics of the Farm Firm</i> (developed the course and taught lectures and computer labs, 1993/94-1997/98; team teaching 1998/99 and 1999/2000, classes of 10-20 students). <i>Capita Selecta Farm Management</i> (team teaching, taught 1988/99-1997/98, 10 -15 students)
Post graduate level	<i>Multidisciplinary Social Sciences Course</i> (team teaching Spring 1998, class of 8 students)

3. CONTINUING EDUCATION, EXTRA-MURAL TEACHING AND MENTORING

Post-docs	<ol style="list-style-type: none">1. Niko Howai (University of Manchester, May 2023-Feb 2025): <i>'Biurbs-Valuing biodiversity in multi-functional urban development and environments'</i>, NERC-ESRC as part of the Improve Understanding of the Economics of Biodiversity scheme.2. Richard Christian (University of Manchester, Nov 2016-August 2019): <i>Green infrastructure and the Health and wellbeing Influences on an Ageing population (GHIA)</i> NERC-ESRC-AHRC.3. Shivani Taneja (University of Manchester, July 2015-August 2017), Project: EPSRC-ESRC Centre on <i>'Sustainable Use of Energy in Food Chains'</i>4. Paul Knights (at University of Manchester Nov 2012- Oct 2014). Project: <i>BIOMOT</i>.5. Luca Panzone (at University of Manchester Dec 2010- Dec 2012). Project: <i>Sustainable Consumer Behaviour and Lifestyles</i>.6. Olga Sydorovych (at NCSU Jan 2006-Dec 2007). Project: <i>Sustainability indicators as management tools</i>.
Research – assistants (since 2000)	<ol style="list-style-type: none">1. Nicolai V. Kuminoff (Aug 2002-Jan 2005). Project: <i>Revitalizing Small and Mid-Sized Farms: Organic Research, Education and Extension</i>2. Zulal Denaux (March 2000-March 2002). Project: <i>Whole-farm Analysis of Ultra-narrow Row Cotton</i>.3. John Fleming (Summer 2002). Project: <i>Whole-farm Analysis of Ultra-narrow Row Cotton</i>.4. Tullaya Boonsaeng (2001-2002) Project: <i>RECYCLE An Integrated System to Substantially Eliminate the Environmental Impact of Swine Waste</i>.
Mentoring of visiting scientists	<ul style="list-style-type: none">• Stefan Nabernegg, Oct 2017-Feb 2018, Visiting PhD Student University of Graz, Austria, Subject: "The effectiveness and distributional incidence of greenhouse gas mitigation policies: A

macroeconomic evaluation of technological, regulative and behavioural instruments”.

- Liangyu Li, Oct 2012- Sept 2013, Visiting PhD student Faculty of Humanities and Social Sciences, Dalian University of Technology, Liaoning, China. Subject: “Spatial econometric analysis of regional energy efficiency convergence in China”. Irene S. Egyir, 2000-2001, Visiting scientist from the University of Ghana, Subject: “Economics of Adoption of Insect Pest Management Technologies of Stored Cereals in Ghana”.
- Encarna Estaban, Summer 2008, Visiting PhD student CITA Research Centre (DGA-Aragon) Zaragoza, Spain. Subject: "Salinity Pollution Control in Irrigated Agriculture".
- Dr. M. Chandrasekaran, Oct 2001- Jan 2002, Visiting FAO-fellow from Tamil Nadu University, India. Subject: "Sustainable agriculture and soil quality".
- Dr. M. Chandrasekaran, Oct 2001- Jan 2002, Visiting FAO-fellow from Tamil Nadu University, India. Subject: "Sustainable agriculture and soil quality".

Invited lectures Decision Making in Crop Protection, International Course on IPM at IAC Wageningen, taught 1995-1999 (lectures and practicals for 30 students from Africa, Asia and South and Central America).

4. OTHER TEACHING RESPONSIBILITIES

MSc supervision at Manchester:

- Xueqing Wang: “Pollution Damage and Sustainable Economic Growth -- Model and Evidence from China” (2023).
- Chenjun Xing: “Effectiveness of carbon trading scheme in EU, and its side effects on other air pollutants such as SO₂ and PM_{2.5} based on the DID model” (2023).
- Zequn Liu: “Sustainability disclosure and firms’ performance: Evidence from food and beverage companies in the UK” (2023).
- Joel Delaney, “An analysis of the determinants of country participation in projects under the Kyoyo protocol’s Clean Development Mechanism, 2000-2020” (2022).
- Tushara Maturi, “Carbon taxes, emissions, and economic welfare: Singapore as a case study” (2022).
- Xuechun Gong, “Biodiversity and life satisfaction” (2022).
- Stefan Schuller, “Decentralisation and Environmental Outcomes: An Analysis of the Environmental Consequences of the Internal Transformation of the State” (2021).
- Max Levine, “The effects of electric vehicle incentives in Washington State “ (2021).
- Giorgio Maarroui, “Willingness to pay for clean air: Evidence from the UK” (2021).
- Yueshai Guo, “The impact of trade openness on Economic Growth: Based on a panel data set of 58 countries” (2021).
- Yue (Joyce) Yu, “Managing the environmental costs of grain production: the empirical analysis of the EKC for N-fertilizer” (2020).
- Yufei Xiangli, “The relationship between financial development, economic growth and CO₂ emissions: A comparative analysis for developing and developed countries” (2020).
- Chen Chen, “Analysis of the threshold effect of industrial structure and energy efficiency” (2020).
- Alan Lefevre, “On the causal dynamics between emissions, nuclear energy, renewable energy, and economic growth, evidence from the OECD” (2019).
- Eleni Mataragka, “A case study of the climate effects on Greek agriculture” (2018).
- Mabel Rojas, “Economic valuation of recreational activities of Coral Reefs in the Colombian Caribbean: The Tayrona National Natural Park Travel Cost Method” (2018).

- Haodong Xue, "Global low carbon transition and China's response: The promotion of electric vehicles" (2018).
- Junda Li, "Economic aspects of low carbon technology in China" (2018).
- Tian Gao, "Economics of CO2 Reduction Technology in China's Electricity Sector" (2018) .
- Veronica Vienne, "Air Pollution and happiness in South America" (2016).
- Koryo Suzuki, "Total economic value of agricultural land degradation by the green revolution in Punjab in India" (2015).
- Carlon Walkes: "Another Look at Price Determination of Tradable Permits in the EU" (2011).
- Nguyen Thanh Trang: "Consumers' Willingness To Pay: The Case of Plastics Recycling in Vietnam" (2010).
- Natina Yaduma "An empirical economic analysis of Gas Flaring in the Niger Delta Region of Nigeria" (2009).
- Aneka De Silva "Agricultural Growth Linkages in Sri Lanka" (2009).
- Zoirjon Sharipov "Primary-export-led Growth and Terms of Trade: International Comparison" (2008)
- Leonard Akwamy "Water Footprint and Trade-offs of Biofuels: The Case for Malawi in Sub-Saharan Africa" (2008).
- While at Wageningen University (1986-1998), had examination responsibilities for the courses listed under B.2. In addition, while at Wageningen University, supervised a total of 51 M.Sc. thesis projects and served as the Departmental MSc. coordinator from 1991-1996 (except Oct. 1994-March 1995). In this capacity advised all entering MSc students until they choose their topic and supervisor(s). Also advised 3-4 undergraduate students each year regarding their (compulsory) 3-months practical training projects.

5. WORKSHOPS COORDINATION

- In 2007 initiated the workshop series Environmental & Resource Economics at the University of Manchester and served as the convener for the first 4 years.
- To stimulate interdisciplinary discussion at Wageningen University, I started and coordinated the Workshop "Environmental Economics of Plant Production" for faculty and PhD. students from economics and other departments as well as external participants. Participants presented papers or research proposals during two-hour meetings, organized on a 5-6 weekly schedule during the academic year. A total of 28 meetings were held between March 2, 1994, and May 12, 1998 while I coordinated the workshops. This workshop series was distinctly interdisciplinary with participants from both the natural and social sciences.

IV. KNOWLEDGE TRANSFER

EXTERNAL PRESENTATIONS AND WORKSHOPS CONDUCTED WITH PRIMARY AUDIENCE NOT ACADEMIC BUT POLICY-MAKERS

1. Wossink, A. (2023) 'Valuing biodiversity in multi-functional urban development and environments' part of the webinar 'Universities, sustainability and the climate emergence' organized by Universities UK, <https://www.universitiesuk.ac.uk/latest/events>, 26 January, 2023.
2. Wossink, A. (2013) Assessing trade-offs between biodiversity, food production and carbon sequestration, FIRE Seminar "Exploring the Water-Food-Energy Nexus", Sept 9, 2013, Manchester Museum.
3. Wossink, A. (2012), "Sustainable Consumer Behaviours and Lifestyles", Meeting of the Manchester Food Futures Expert Panel (informing Manchester City Council), March 25, 2012.
4. Olha Sydorovych and Ada Wossink (2006) "Sustainability indicators as a management tool to guide farmers, scientists, policy makers and the general public", 2006 National SARE Meeting "A

- Midwest Homecoming: Sharing a New Tradition of Sustainability", Aug. 15-17, 2006, Oconomowoc, Wis.
5. Wossink, Ada, "Farm Policy Developments and Emerging Research Issues: An International Perspective", APRN Workshop on Farm Level Policy. University of Alberta, Edmonton, Canada, January 31- February 1, 2005.
 6. Wossink, Ada, "A Framework for Environmental-Economic Comparison", Workshop on Economic Indicators for Organic and Sustainable Systems, December 9, 2003, NCSU, Organized by NCSU-Centre for Environmental Farming Systems (CEFS).
 7. Osmond, D., Lord, B. Pleasants, B., Jennings, G., Regans, M., Woodward, M., Wossink, A. and Hardy, D., "Reducing Agriculturally Derived Nitrogen at a River Basin Scale: The Neuse Crop Management Project", USDA-CSREES National Water Quality Coordinators Conference, January 12-15, 2003, Tucson, Arizona.
 8. Id., Poster Presentation at the 2002 Annual Meeting of the Soybeans, Corn and Small Grains Association of NC, New Bern, NC.
 9. Id., Poster presentation at the 2002 EPA Agricultural Sector Contacts Meeting, Atlanta, GA.
 10. Wossink, Ada and Nick Kuminoff, "Economics of Transition to Organic Agriculture", Poster 54th Annual Crop Protection School, December 12, 2002, McKimmon Conference & Training Center, Raleigh NC.
 11. Id., Poster National SARE day, Oct 24, 2002.
 12. William F. Hunt and Grada A. Wossink, "Cost Effectiveness Analysis of Structural Storm Water Best Management Practices in North Carolina", Water Resources Research Seminar Series, Water Resources Institute, Raleigh March 26, 2002.
 13. "The CEFS Research Team" (Barbercheck, Brownie, Bell, Creamer, Hu, King, Koenning, Linker, Louws, Marra, Monks, Mueller, Raczkowski, Waggoner and Wossink) "Organic Agriculture Research at the Center for Environmental Farming Systems", Carolina Farm Stewardship Association 16th Annual Sustainable Agriculture Conference, Rock Hill, SC, Nov. 2-4, 2001 (Poster presentation).
 14. Hardy, D.H., D. Osmond, W.G. Lord, R.H. Pleasants, G.A. Wossink, and M. Linker, "Neuse Crop Management Project: Educational Efforts in Implementation of Water Quality BMPs", Annual Meeting of the Society of Agronomy, Crop Science Society of America and the Soil Science Society of America.
 15. Wossink, Ada, "Environmental Management in Animal Agriculture", Invited presentation at the A.D. Leman Conference, Minneapolis MI, September 17-18, 2001.
 16. Poore, M.H., J.T. Green, D. L. Osmond, N.N. Rannells and G.A.A. Wossink, "A review of the Impact of Grazing Cattle on Riparian Areas in Humid Regions", Invited presentation at the Southern Association of Agricultural Scientists Conference on January 29, 2001 in Ft Worth, TX.
 17. Poore, M.H., J.T. Green, D.L. Osmond, N.N. Rannells and G.A.A. Wossink, "A review of the Impact of Grazing Cattle on Riparian Areas in Humid Regions", Invited presentation at the Carolina Cattlemen's Conference at Hickory, NC on February 16, 2001.
 18. Wossink, Ada and Deanna Osmond, "Farm Economics of Riparian Buffers", NC Riparian Buffer Conference, May 22, 2000, McKimmon Center Raleigh.
 19. Wossink, Grada A., "Pesticide Policies in the European Union", Presented at the Twentieth Annual Symposium of the American Agricultural Law Association, October 1999, New Orleans, LA.
 20. Wossink, Ada and Geoff Benson, "Agriculture and the Environment: Experiences from Northern Europe", Southern Extension Public Affairs Committee. Session "Emerging Environmental and Natural Resource Issues in the South", June 1999, Clearwater Florida.
 21. Wossink, G.A.A., "Farm Management and the Environment", Presented at the Master Farm Management Seminar, Raleigh, NC, January 27, 1999.
 22. Wossink, G.A.A., "Socio-economic aspects of precision farming", Invited presentation, Annual symposium KLV (Dutch Association of Agricultural Engineers), Wageningen, June 18, 1998 (in Dutch).
 23. Wossink, G.A.A., "Risks and risks perception in the conversion to sustainable farming systems", Paper presented at the meeting of Dutch Extension Specialists, May 22, 1995 (in Dutch).

24. Wossink, G.A.A., "Economic modeling for sustainable field crop farming: The MIMOSA system", Paper presented at the meeting of Dutch Extension Specialists, April 20, 1994 (in Dutch).
25. Wossink, G.A.A., "Analysis of future agricultural change", Paper presented at the Ministry of Agriculture, September 30, 1994, The Hague (in Dutch).
26. Wossink, G.A.A., "The Farm economics of Integrated Farming Systems", paper presented at Studium Generale Wageningen University, February 7, 1989 (in Dutch)
27. Renkema, J.A. and G.A.A. Wossink, "Farm management between market forces and environmental policies", Paper presented at the Dutch Rabobank, De Bilt, April 25, 1989 (in Dutch).
28. Renkema, J.A. and G.A.A. Wossink, "Environmental considerations in a farm economic perspective", Paper presented at the Dutch Field Crop and Vegetable congress, Wageningen, May 17, 1989 (in Dutch).
29. Renkema, J.A. and G.A.A. Wossink, "Innovative management in glasshouse horticulture", Paper presented to the Organization of Glasshouse Vegetable Growers "Westland", De Lier, April 15, 1988 (in Dutch).

EXTERNAL WORKSHOPS AND CONGRESSES ORGANISED

1. As member of the Neuse Educational Team, co-organiser of the workshop "The Neuse River Basin: Five Years of Progress", November 19-20, 2003, New Bern Carolina.
2. Organiser and moderator "Environmental Management in Animal Agriculture", State Extension Conference October 15-18, 1999, McKimmon Center, Raleigh NC.
3. Co-organizer of the NRLO-TSL workshop entitled "Towards healthy livestock production: economic and societal aspects of animal health, animal welfare and food safety", NRLO-TSL June 1998, Ede, The Netherlands.
4. Organiser and moderator of the workshop on "Direct and indirect taxation of energy in agriculture", Organized on behalf of the Dutch Ministry of Agriculture and Aktie Strohalm, Wageningen, March 30, 1998.
5. Co-organiser of the workshop on "Diversity as a strategy: new perspectives for Dutch agriculture" on behalf of the Dutch Association of Agricultural Economists, November 1997, Wageningen, The Netherlands.
6. Organiser and moderator of the workshop on "Risk and risk perception in the conversion to sustainable production methods", organized in the context of a project financed by the Dutch Ministry of Agriculture, Wageningen, June 7, 1997.
7. Principal local organizer of the symposium on "Economics of Agro-chemicals" on behalf of the *International Association of Agricultural Economists* on April 24-28, 1996 in Wageningen, The Netherlands.

PUBLICATIONS TO SUPPORT EXECUTIVE EDUCATION AND CONTINUING PROFESSIONAL DEVELOPMENT

1. Osmond, D.L., D.M. Butler, N.R. Ranells, M.H. Poore, A. Wossink, and J.T. Green (2007) *Grazing Practices: A Review of the Literature*, NC Agricultural Research Service, NCSU, Technical Bulletin 325-W.
2. Wossink, Ada and Bill Hunt (2003) *Evaluation of Cost and Benefits of Structural Stormwater Best Management Practices in North Carolina*, Fact sheet AG-642.
3. David H. Hardy, Deanna Osmond and Ada Wossink (2002) *The Economics of Fertilizer Management*, Soil Facts, AG-439-45, North Carolina State University, Raleigh, NC.
4. Wossink, Ada and Deanna Osmond (2001) *Cost and Benefits of Best Management Practices to Control Nitrogen in the Middle and Upper Coastal Plain*, Factsheet North Carolina Cooperative Extension Service, AG-621, 4 pp.
5. Wossink, Ada and Deanna Osmond (2001) *Cost and Benefits of Best Management Practices to Control Nitrogen in the Lower Coastal Plain*, Factsheet Cooperative Extension Service, AG-620, 2 pp.,

6. Wossink, Ada and Deanna Osmond (2001) Cost and Benefits of Best Management Practices to Control Nitrogen in the Piedmont, Factsheet North Carolina Cooperative Extension Service, AG-618, 4 pp.
7. Wossink, Ada (2000) The Economics of BMPs to Control Nitrogen in the Neuse River Basin, NCSU CALS Publ. AGW-2, 38 pp.

PUBLIC POLICY ADVICE/SERVICE

- 2004/2005: Invited by Canadian colleagues (Guelph University, the University of Alberta and the University of Victoria) to help with determining the directions of a network on Farm Level Policy. Invited paper: Wossink, Ada, "Farm Policy Developments and Emerging Research Issues: An International Perspective", APRN Workshop on Farm Level Policy. University of Alberta, Edmonton, Canada, January 31- February 1, 2005.
- 2005: Consulted on the details and experiences with systems of tradable permits for animal agriculture and their potential implication for Korea (Mr Song Joo-Ho, KREI Institute) (in Korean with English summary).
- January 2003: Consultant to the OECD on the ex-post evaluation of tradable permit regimes. This contribution was later published as The Dutch Nutrient Quota System: Past Experience and Lessons for the Future, In: T. Tietenberg and N. Johnstone (eds) Tradeable Permits: Policy Evaluation, Design and Reform, OECD, Paris.

V. ADMINISTRATION

ON CAMPUS

- University Research Ethics Committee, UoMan, June 2015- Sept 2018.
- School of Social Sciences, UoMan, Professorial Salary Review Panel (2012, 2014, 2018)
- Lead of the Environmental & Resource Economics Research Area Group, UoMan, Jan 2007- August 2013.
- Workshop Organiser Env. and Resource Economics, UoMan, Jan 2008- July 2010.
- Promotions Committee School of Social Sciences, UoMan, Sept 2008- Aug 2011.
- Member, NCSU-CALS Diversity Management Team, 2002.
- Member of search committees/interview panels at Wageningen University and at the University of Manchester (many and various)
- Member of the Leadership team, Department of Farm Management, Wageningen University, 1987-1990 and 1997-98.
- Member University Board, Wageningen University, 1992-94, Vice-chair of this Board, Jan-Oct 1994.

SERVICE ON EXTERNAL BODIES

- Country representative (UK) for the European Assoc. of Environmental and Resource Economists (EAERE), 2020-present.
- NCSU representative for the multi-state coordinating committee/exchange group SERA-IEF 30 (2005-2006).
- Country representative (The Netherlands) of the International Assoc. of Agricultural Economists (IAAE), 1995-1998.
- Treasurer/Secretary, Dutch Association of Agricultural Economists, 1995-1998.