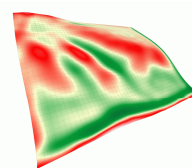


KRISTOF VAN OOST - CURRICULUM VITAE (MAY 2008)



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Research Interests

My research interests are in geomorphology and soil science with a particular focus on agricultural erosion and the role of sediment transport in carbon and nutrient cycling across landscapes. Much of my work involves numerical and mathematical modelling with an emphasis on geographical aspects and scale issues. My recent research seeks to develop new approaches that allow for an integrated study of geomorphology, hydrology and geochemistry in soil landscapes using environmental nucleides and carbon isotopes.

Education

- 2003 Ph.D. Geography, Katholieke Universiteit Leuven, Belgium.
Dissertation: 'Spatial modelling of soil redistribution processes in agricultural landscapes.'
- 1997 M.Sc. Physical Geography, Katholieke Universiteit Leuven, Belgium.

Job History

- 11/07 - FNRS Research Associate, Department of Geography, UCLouvain.
05/07 - 08/07 Visiting Scientist, Agroecology Lab UC Davis, US (with J Six)
09/06 - 10/07 Postdoc researcher, Fund for Scientific Research, Flanders.
05/06 - 08/06 Postdoc, Physical and Regional Geography Research Group, K.U.Leuven.
06/04 - 05/06 Marie Curie fellow, Department of Geography, University of Exeter, UK.
10/03 - 05/04 Postdoc, Physical and Regional Geography Research Group K.U.Leuven.
10/97 - 09/03 Doctoral fellow, Laboratory for Experimental Geomorphology, K.U.Leuven.

International Collaborations and Study Visits

- P. Hairsine, CSIRO Canberra, Australia
- G. Heckrath, DIAS Foulum, Denmark
- J Harden, USGS Menlo Park California, US
- O. Cerdan, BRGM Orléans, France
- J Six, UC Davis, US
- J Ritchie, G. McCarty, USDA ARS, US
- P Fiener, University of Cologne, US
- T Quine, University of Exeter, UK

Awards, Grants

- 2008 Gordon Warwick Award for excellence in geomorphological research, British Society for Geomorphology
- 2006 National Science Foundation (Belgium), Postdoctoral Fellowship (3 years)
- 2005 Editor's Choice in Science (publication Van Oost et al. 2005 in Global Biogeochemical Cycles), 2005.
- 2004 EU 6th framework, Marie Curie Individual Postdoctoral Fellowship (2 years)
- 1998 Jan Savat Award for best MSc. thesis in Geomorphology, K.U.Leuven.

Achievements

- invitations for workshops in the US (Workshop on Carbon sequestration, 2007, funded by Kansas State Geological Survey), Germany (LUCIFS workshop, 2001, funded by German Science Foundation), Sweden (HOLIVAR, 2005, funded by ESF), US (MYRES 2008, funded by NSF)
- 31 papers in international refereed journals with 300 citations on the Web of Science (SCI)
- reviewer for various SCI journals including Earth Surface Processes and Landforms, Ecological Applications, European Journal of Soil Science, Journal of Geophysical Research, Geomorphology, Soil & Tillage Research, Global Change Biology, Science.
- Session convener (Geomorphic controls on carbon cycling with K. Yoo, University of Delaware and T. Quine, University of Exeter) the American Geophysical Union Fall meeting 2006

Publications

Abstracts, full text links and reference lists are available on:

<http://www.researcherid.com/rid/B-6941-2008>

SCI Journals

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- Peeters, I. Van Oost, K. et al., (2008). The compatibility of erosion data at different temporal scales. **Earth and Planetary Science Letters**, 265(1-2): 138-152. [DOI](#)
- Van Oost, K., Quine, T.A. et al., 2007. The impact of agricultural soil erosion on the global carbon cycle. **Science**, 318(5850): 626-629. <http://www.geo.ucl.ac.be/Recherche/Geop.physique/Publications.html#Science> [DOI](#)
- Quine, T.A. and Van Oost, K., 2007. Quantifying carbon sequestration as a result of soil erosion and deposition: retrospective assessment using caesium-137 and carbon inventories. **Global Change Biology**, 13(12): 2610-2625. [DOI](#)
- Govers, G., Gimenez, R. and Van Oost, K., (2007). Rill erosion: Exploring the relationship between experiments, modelling and field observations. **Earth-Science Reviews**, 84(3-4): 87-102. [DOI](#)
- Govers, G, Van Oost, K., Poesen, J., (2006), Responses of a semi-arid landscape to human disturbance: A simulation study of the interaction between rock fragment cover, soil erosion and land use change. **Geoderma** 133 (1-2): 19-31. (SCI 2005: 1.77).

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- Van Muysen, W., Van Oost, K., Govers, G., (2006). Real-life multiple pass tillage erosion experiments as validation of controlled experiments. **Soil & Tillage Research** (SCI 2004: 1.24). [doi](#)
- Van Oost, K., Govers, G., S. deAlba and T. A. Quine (2006), Tillage erosion: a review of controlling factors and implications for soil quality. **Progress in Physical Geography** (SCI 2004: 0.85). [doi](#)
- Van Oost, K., Govers, G., Heckrath, G., Quine, T.A., Oleson, J. and Merckx, R. (2005), Landscape-scale modeling of carbon cycling under the impact of soil redistribution. **Global Biogeochemical Cycles** 19 (4), GB4014, doi:10.1029/2005GB002471 (SCI 2005: 3.37). [doi](#)
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- Heckrath, G., Djurhuus, J., Quine, T.A., Van Oost, K., Govers, G. (2005), Implications of tillage erosion for soil quality and crop yield. **Journal of Environmental Quality** 34 (1): 312-324 (SCI 2004: 1.62). [R](#)
- Nearing, M., Cerdan, O., Nunes, J., Hernandez, M., Jetten, V., Baffaut, C., Renschler, C., Nichols, M., Van Oost, K. (2005), Modeling response of soil erosion and runoff to changes in precipitation and cover. **Catena** 61: 131-154 (SCI 2004: 0.93). [doi](#)
- Bakker M., Govers, G., Kosmas, C., Vanacker, V., Van Oost, K., Rounsevell, M., (2005), Soil erosion as a driver of land use change. **Agriculture, Ecosystems and Environment** 105 (3): 467-481. [doi](#)
- Van Oost, K., Van Muysen, W., Govers, G., Quine, T.A., Deckers, J., (2005), From water to tillage erosion dominated landscape evolution. **Geomorphology** 72: 193-203 (SCI 2004: 1.59). [doi](#)
- Van Oost, K., Govers, G., Quine, T.A., Heckrath, G. (2004), Comment on Managing Soil Carbon. **Science** 305 (5690): 1567 (SCI 2004: 31.85). [doi](#)
- Van Oost, K., Beuselinck, L., Hairsine, P.B., Govers G. (2004), Spatial evaluation of a multi-class sediment transport and deposition model. **Earth Surface Processes and Landforms** 29: 1027-1044 (SCI 2004: 1.39). [doi](#)
- Cerdan, O., Le Bissonnais, Y., Govers, G., Lecomte, V., Van Oost, K., Couturier, A., King, C., Dubreuil, N. (2004), Scale effect on runoff from experimental plots to catchments in agricultural areas in Normandy. **Journal of Hydrology** 299 (1-2): 4-14 (SCI 2004: 1.48).
- Van Oost, K., Govers, G., Van Muysen, W., (2003), A Process-Based Conversion Model For Caesium-137 Derived Erosion Rates On Agricultural Land: An Integrated Spatial Approach. **Earth Surface Processes and Landforms** 28(2): 187-207 (SCI 2004: 1.39). [DOI](#)
- Van Oost, K., Govers, G., Van Muysen, W., Heckrath, G., Quine, T.A., (2003), Simulation of the redistribution of soil by tillage on complex topographies. **European Journal of Soil Science** 54: 63-76 (SCI 2004: 1.27). [DOI](#)
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- Verstraeten, G., Poesen, J., Govers, G., Gillijns, K., Van Rompaey, A., Van Oost, K., (2003), Integrating science, policy and farmers to reduce soil loss and sediment delivery in Flanders (Belgium). **Environmental Science and Policy** 6: 95-103. [DOI](#)
- Verstraeten, G., Van Rompaey, A., Van Oost, K., Poesen, J., Govers, G. (2003), Evaluating the impact of a proposed integrated environmental watershed management on changes in sediment delivery to rivers. **Hydrobiologia** 494 (1-3): 153-158 (SCI 2004: 0.65).
- Van Muysen, W., Govers, G., Van Oost, K. (2002), Identification of important factors in the process of tillage erosion: the case of mouldboard tillage. **Soil & Tillage Research** 65: 77-93 (SCI 2004: 1.24). [DOI](#)

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- Kosmas, C., Gerontidis, S., Mariathanou, M., Dethsis, B., Zafiriou, Th., Van Muysen, W., Govers, G., Quine, T., Van Oost, K. (2001), The effects of tillage displaced soil on soil properties and wheat biomass. **Soil and Tillage Research** 58: 31-44 (SCI 2004: 1.24). [DOI](#)
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- Van Rompaey, A., Govers, G., Van Oost, K., Verstraeten, G. (2001), Modelling the effect of land use changes on the regional soil erosion risk. Proceedings of the ESSC-meeting In: K. Helming (Ed.), 'Multidisciplinary approaches for soil conservation strategies', Müncheberg, Germany, May 2001, ZALF-Berichte nr. 47: 179-184
- Govers, G., Van Rompaey, A., Verstraeten, G., Van Oost, K., Takken, I., Beuselinck, L., Poesen, J. (2001), Erosion by water: processes, modelling and control. Keynote lecture In: Ascough II, J.C., Flanagan, D.C. (Eds.) Soil erosion research for the 21st century. ASAE publ. 701P0007, Am. Soc. Agr. Engngs., St. Joseph, Michigan, USA.
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- Steege, A., Govers, G., Beuselinck, L., Van Oost, K., Quine, T., Rombaut, A. (2000), The use of phosphorous as a tracer element in erosion/sedimentation studies In Stone, M. (ed.), The role of Erosion and Sediment Transport in Nutrient and Contaminant Transfer, IAHS Pub. 263 (Proc. Of a symposium held at Waterloo, Ontario, Canada, July, 2000). 263: 59-66.
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- Van Muysen, W., Govers, G., Van Oost, K. (2000), Controlling factors in the process of Tillage Erosion: the effect of tillage depth, tillage speed and soil condition on tillage erosivity. In: 'Tillage at the Threshold of the 21st Century: Looking Ahead'. Proceedings of the ISTRO (International Soil Tillage Research Organization) Conference 15th Conference, Forth Worth, Texas, USA, 2-7 July 2000. CD-ROM

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- Verstraeten, G., Van Rompaey, A., Poesen, J., Govers, G., Van Oost, K. (2003), Modelling sediment sources, sediment delivery and the impact of management measures on the sediment dynamics of large river basins Keynote lecture at the SEDNET workshop on 'Sources and transfers of sediments and contaminants in river basins', 26-28 May 2003, Hamburg, Germany
- Van Rompaey, A., Vanacker, V., Van Esch, L., Van Oost, K., Govers, G. (2002), Changes in landscape connectivity and their impact on river regimes and sediment yield Paper presented at the International Symposium "Land Use Change and Geomorphoc, Soil and Water Processes in Tropical Mountain Environments", December 15-22, 2002, Quito-Cuenca, Ecuador.
- Verstraeten, G., Poesen, J., Van Rompaey, A., Van Oost, K., Govers, G., Gillijns, K. (2002), Implementation of best management practices in Flanders and their impact on soil loss and sediment delivery COST 623 'Soil Erosion and Global Change' meeting: Socio-economic factors and soil erosion, 8 March 2002, Brussels, Belgium.
- Ruyschaert, G., Poesen, J., Biesmans, M., Van Oost, K., Verstraeten, G., Govers, G. (2002), Topography-induced variability of soil losses due to sugar beet harvesting. Meeting on "Spezielle prozesse de Bodenabtrags und ihre Erfassung in Experiment und Modell" organized by Deutschen Bodenkundlichen Gesellschaft, 8 March 2002, Bonn, Germany.
- Van Oost, K., Govers, G., Heckrath, G., Oleson, J. (2002), SPEROS: Modelling vertical and horizontal transfers of soil material in agricultural landscapes. Application: Simulating long term C dynamics.

- Joint meeting of the British Society of Soil Science: Soil Variability on Agricultural land - Evolution, Characterisation & Importance. March 26, 2002, University of Reading, UK.
- Verstraeten, G., Van Rompaey, A., Van Oost, K., Poesen, J., Govers, G. (2002), Evaluating the impact of a proposed integrated environmental watershed management on changes in sediment delivery to rivers 9th International symposium on the interactions between sediments and water, International Association for Sediment Water Science, 6 May, Banff, Canada.
- Vanwallegem, T., Van Den Eeckhaut, M., Poesen, J., Van Oost, K., Deckers, J., Govers, G. (2002), Characteristics & location of old gullies under forest cover in Central Belgium GEGC II, 2nd International Symposium on Gully Erosion under Global Change, 22-25 May, Chengdu, China.
- Cerdan, O., Le Bissonnais, Y., Govers, G., Van Oost, K., King, C., Lecomte, V., Dubreuil, N., Couturier, A. (2002), Upscaling and connectivity effects on runoff on arable land. International Symposium on Soil Erosion Patterns: Evolution, Spatio-Temporal Dynamics and Connectivity. 10th - 12th October 2002, Müncheberg, Germany.
- Govers, G., Steegen, A., Van Rompaey, A., Van Oost, K., Takken, I., Nachtergaele, J., Poesen, J. (2001), Export of particulate P by erosion 'Diffuse Phosphorus Losses at the Catchment Scale', COST 832 Working Group 3 Meeting 26-28. October 2000, The Freshwater Centre, Silkeborg, Denmark
- Van Rompaey, A., Verstraeten, G., Van Oost, K., Govers, G., Poesen, J. (2000), Modeling mean annual sediment yield using a distributed approach. COST 623 'Soil erosion and global change' meeting: Linking hillslope erosion to sediment transport and storage in river and floodplain systems. September 8-10, 2000. Almeria, Spain.
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