

LAUDATIO

In honor of

Professor Dr. Dr. Sc. **Jean POESEN**

from the Catholic University of Leuven, Faculty of Sciences, Belgium,
on the occasion of the award of the title ***Honorary Professor*** by
the Alexandru Ioan Cuza University of Iași, Romania

09 May 2013

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Laudatio

In honour of

Professor **Jean POESEN**,

Catholic University of Leuven (KU Leuven), Belgium,

on the occasion of the award of the title ***Honorary Professor*** by the Alexandru Ioan Cuza University of Iași, Romania

Dear Professor Poesen,

Dear Members of the Senate,

Dear Guests,

We, members of the Editing Commission of Laudatio, are presenting through this document, in front of the Senate of the Alexandru Ioan Cuza University of Iași, Mr. Professor Jean Poesen, recognized all over the world as an outstanding authority in the field of Physical Geography (Geomorphology, Soil Science, and Soil and Water Conservation).

Professor Poesen was born in the Congo on 26 April 1954, and graduated in 1976 in Physical Geography (With Great Distinction) from the Catholic University of Leuven (KU Leuven), Belgium. In 1983, at this prestigious University, he earned the Degree of PhD for his thesis '*Rainfall erosion mechanism and soil erodibility.*' The thesis was appreciated with 'Maximum Distinction.' In 1984 the 'World Wildlife Fund Belgium' awarded the 'World Conservation Strategy' Prize for his thesis, and in 1985 the 'Dr J. Savat' Prize was added.

The Catholic University of Leuven appointed Professor Poesen as a Research Associate and Lecturer in 1984 in the Geography

Department. In 2000, he was honoured with the title of Professor, recognizing his research, teaching, and service to the University. Since May 2000, Professor Jean Poesen has been the Director of the Geography Division of the KU Leuven, and between 2002-2006 he was the President of the Doctoral Commission of the Faculty of Sciences, KU Leuven (which has *circa* 400 doctoral students).

On 16 February 2009, the University of **Wolverhampton, School of Applied Sciences, United Kingdom, awarded him the title of** Doctor of Science (D.Sc.) in ‘Soil Science and Geomorphology’ for his proven record of internationally recognized scholarship, based on 208 research papers published in the period 1977-2007. This ‘higher doctorate’ was awarded in recognition of his substantial and sustained contribution to scientific knowledge.

The activity of this world-class geographer, Professor Poesen, is especially complex and it is difficult to encompass its whole amplitude in this presentation. On the occasion of such a solemn moment, we are honoured to identify some milestones. Professor Poesen has developed a rich and constant educational activity, proving his pedagogical calling for training young people in the spirit of honest work and competitiveness. His educational activity consists mainly in teaching, lectures, practical exercises and seminars on:

- Hillslope geomorphology and soil conservation.
- Soil erosion and fluvial geomorphology.
- Geomorphology of arid and semi-arid areas.
- Geography of developing countries.
- Research seminars on how to initiate research projects.

Professor Poesen has been Guest Professor at the following universities: the Federal University of Technology (FUTO, Owerri,

Nigeria), Purdue University (West Lafayette, Indiana, USA), Bar-Ilan University (Tel-Aviv, Israel), the University of Barcelona (Barcelona, Spain), the University of Cuenca (Cuenca, Ecuador) and the University of Mekelle (Mekelle, Ethiopia). Also, Professor Poesen is Guest Research Professor for Co-supervising Post-doctoral Researchers, Ph.D. students and scientific research at the Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences, Beijing (August 2004-July 2008) and in May 2003 he was Guest Lecturer in soil erosion processes, and soil and water conservation for the UNESCO-IHE Institute for Water Education, Delft, The Netherlands.

Beside educational activity, Professor Poesen is deeply concerned with research activity and approaches major subjects of fundamental and practical interest. The palette of his scientific research is very consistent and embraces: geomorphology, soil erosion, sediment dynamics, soil degradation, reservoir sedimentation and sediment yield assessment at various scales, hillslope hydrology, desertification processes and mitigation techniques, soil erosion control, soil and water conservation (including the human dimension), impact of environmental change (land use and climate) on soil erosion processes under different ecological conditions, experimental geomorphological techniques: rainfall and runoff simulation, and the geography of developing countries.

In this context, it is emphasized that Professor Jean Poesen has been involved in 113 research projects, mainly as promoter or co-promoter. Out of that total, the title of 31 projects will be listed at the end of this presentation. Many such projects have been undertaken abroad and resulted from the immense number of 204 study visits in

47 countries. These were: Austria (2 visits), Brazil (2 visits), Burkina Faso (1 visit), Canada (7 visits), China (5 visits), Croatia (1 visit), Denmark (2 visits), Ecuador (6 visits), Egypt (1 visit), Ethiopia (13 visits), Finland (1 visit), France (21 visits), The Gambia (1 visit), Germany (6 visits), Greece (8 visits), Haiti (1 visit), Hungary (5 visits), Iceland (1 visit), India (1 visit), Indonesia (1 visit), Iran (1 visit), Israel (6 visits), Italy (17 visits), Japan (1 visit), Lithuania (1 visit), Morocco (2 visits), Nigeria (1 visit), Niger (1 visit), Norway (2 visits), Portugal (4 visits), Poland (2 visits), Romania (3 visits), Senegal (1 visit), Slovakia (3 visits), South Africa (2 visits), Spain (24 visits), Sudan (1 visit), Switzerland (2 visits), Syria (1 visit), Tanzania (5 visits), Thailand (2 visits), Tunisia (1 visit), Turkey (3 visits), Uganda (7 visits), United Kingdom (13 visits), the USA (10 visits), and Vietnam (2 visits).

Professor Poesen attended numerous conferences, congresses and symposia as *Invited speaker, Keynote speaker, Plenary speaker, chair, organizer* and *initiator*. Thus, the status of **Co-Organizer** in 12 international conferences is emphasized, from which we remember:

- The Conference Session on Impacts of Environmental Change on Runoff, Water Quality and Sediment Regimes: Hillslope Erosion and Channel Stability in Changing Environments (HS4.2) at the European Geophysical Society XVIII General Assembly, Wiesbaden, 3-7 May 1993.
- NATO advanced research workshop '*Soil erosion models for global change*' University of Oxford, 11-14 September 1995.
- International Conference on Tillage Erosion and Tillage Translocation, Leuven, Belgium (April 1999).

- Third International Congress of the European Society for Soil and Water Conservation '*Man and Soil at the Third Millennium*' (Academic Secretary), Valencia (Spain), 27 March-2 April 2000.
- Fourth International Symposium on Gully Erosion, Public University of Navarre, Spain, 17-19 September 2007.
- Fifth International Symposium on Gully Erosion, Marie Curie Sklodowska University in Lublin (Poland), 19-24 April 2010.

In addition, Professor Poesen had the role of **Organizer, Chair** and **Co-Chair** at 11 international conferences, including:

- Chair of the International Symposium on '*Gully Erosion under Global Change*,' KU Leuven, Belgium, 16-19 April 2000 (135 participants).
- Co-Chair of Second International Symposium on Gully Erosion under Global Change, IGBP/GCTE, 22-25 May 2003, Chengdu (China).
- Co-Chair of the International Symposium on '*Land Use Change and Geomorphic, Soil and Water Processes in Tropical Mountain Areas*,' Quito-Cuenca (Ecuador), 16-21 December 2002.
- Co-Chair of Session S6 'Hillslope Processes' at the International Conference on Geomorphology of the IAG, Zaragoza, Spain, 7-11 September 2005.
- Co-Chair of Highland 2006 '*International Conference on Environmental Change, Geomorphic Processes, Land Degradation and Rehabilitation in Tropical and Subtropical Highlands*,' 19-25 September 2006, Mekelle University, Mekelle, Ethiopia.
- **Co-Chair of the Sixth International Symposium on Gully Erosion in a Changing World (6th ISGE)** 06-12 May 2013, the 'Al. I. Cuza' University of Iasi, Romania.

Based on his celebrity status, Professor Poesen became Joint Editor of the prestigious CATENA Journal, An Interdisciplinary

Journal of Soil Science-Hydrology-Geomorphology (1989-2007), Chief Editor for Catena Special Issues (1997-2007), and since 2007 he has been a member of the Editorial Board (as Review Editor). Professor Poesen is also a member of other editorial boards, including: Soil Technology (review editor: 1988-1995), Earth Surface Processes and Landforms, Wiley (2008-2013), Cuadernos de Investigación Geográfica, Spain (2011-) and Bulletin de la Société, Géographique de Liège, Université de Liège, Belgium.

The remarkable results of the activity of Professor Poesen have been recognized by the award of prizes and nominations as follows:

- Wiley Award from the British Geomorphological Research Group for the best paper in 'Earth Surface Processes and Landforms' in 1994. (Bunte, K. and Poesen, J. 1994. Effects of rock fragment size and cover on overland flow hydraulics, local turbulence and sediment yield on an erodible soil surface. Earth Surface Processes and Landforms, Volume 19, p. 115-135). The award was given at the Annual BGRG Conference, on 15 September 1995, University of Cambridge, UK.

- Associate Member of the Royal Academy for Overseas Sciences, Class of Technical Sciences (Belgium) on 26 August 1997. Since April 9, 2007, he has been promoted to working member of the Royal Academy for Overseas Sciences, Class of Technical Sciences (Belgium).

- On 2 December 2000 Professor Poesen was appointed associated member of the Royal Academy of Belgium for Sciences and Arts, Class of Natural Sciences as a Member of the National Committee for Soil Science (2000-2004, 2004-2006) and Member of the National Committee for IGBP-Global Change.

- Based on publication output and citation scores, Jean Poesen was elected key researcher of the ICG (Centre for Geo-ecological Research), a network of five Dutch and Belgian universities, grouping 97 academic research staff for the period 1998-2003.

Professor Poesen's geographical work is tremendous. He authored or co-authored 697 scientific publications, out of which 370 SCI (Science Citation Index)-papers and papers in conference proceedings are listed by the Web of Knowledge. It should be noted that he has edited and published 30 books, special issues of scientific journals, excursion guides and manuals. In addition, we emphasize that Jean Poesen has already donated most of his articles to the Library of the Faculty of Geography and Geology at the 'Al. I. Cuza' University of Iași.

The very impressive scientific contribution of Professor Jean Poesen has proved he is a leading scientist throughout the world. In this context, it is extremely important that, since 2003, he has been listed by Thompson Research among the Essential Science Indicators, ranking in the top 1% of scientists in the world (based on the number of cited SCI publications in a 10 year period). Thus, for the period 1996-2007, J. Poesen ranked number 12 on the list of highly cited authors in Geosciences, based on a total of 1290 citations for 104 papers (*Science Watch, July-August 2007, Vol. 18, no 4*). On 5 February 2013, these publications received 9,155 citations (7,266 without self-citations) and the mean citation per publication is 24.74. **A very special mention has to be made of his high h-index of 49.**

Professor Jean Poesen is affiliated to multiple and prestigious professional associations, including: The World Association of Soil and Water Conservation, International Association of Geomorphologists,

Belgian Association of Geomorphologists (2005-2009: Vice-President, 2009-2013: President), International Geographical Union; IGBP-GCTE Soil Erosion Network, Scientific Steering Committee (1994-): GCTE (Global Change and Terrestrial Ecosystems); Réseau Erosion (Belgian Representative and National Correspondent), Soil and Water Conservation Society (USA), European Society for Soil Conservation (founding member, 4 November 1988), European Geophysical Society, British Geomorphological Research Group, and the Belgian Society of Soil Science.

We can also mention other particular merits of Professor Jean Poesen, especially:

- Supervising 46 PhD to completion and currently supervising 7 PhD students.

- Expert and/or consultant in numerous international bodies, including the United Nations

Environment Programme, Commission of the European Communities, IGBP-GCTE (International Geosphere Biosphere Program, Global Change and Terrestrial Ecosystems), the Environment Agency of Japan, UNESCO (Paris) on the UNESCO FRIEND-NILE research component, local authorities and communities in Belgium, and the Commission on Earth Sciences of the Fund for Scientific Research-Flanders (1997-2006).

Regarding his co-operation with the academic staff of the Alexandru Ioan Cuza University of Iași, we are pleased to report that, by the year 2010-2011, Jean Poesen became an Associate Professor of our University. On 25 May 2011, in the presence of Masters and PhD students, he talked on '**Challenges in Gully Erosion Research**' in Ferdinand Hall. Concomitantly, Professor Jean Poesen facilitated

receiving some Romanian geographers at KU Leuven and opened new bridges of scientific collaboration within the Erasmus-Socrates Programmes of the European Union. By 2010, he assured documentary stages and study visits in the framework of bilateral academic exchange programmes and lent support to Romanian colleagues to attend some international conferences.

In conclusion, we appreciate that the entire activity of the gifted Belgian geographer Jean Poesen, which shows dedication, scientific profoundness, a great passion for the well-made thing, and unusual working power.

Consequently, awarding the title of *Honorary Professor* of our University to Mr Professor Jean Poesen represents a distinction; honouring a distinguished scientific personality and, at the same time, an ally of the Romanian academic community. In our honest opinion, his career brings together all the scientific and moral criteria to deserve, at least, the title of *Honorary Professor* of the Alexandru Ioan Cuza University of Iași, and we kindly request the Senate to solemnly award it.

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09 May 2013

Participation of Professor Dr. Dr. Sc. JEAN POESEN
in multiple scientific research projects

- Erosion and sedimentation mechanisms by water and wind (January 1993-December 1996). National Fund for Scientific Research Belgium, Co-Promoter.
- European Soil Erosion Model EUROSEM) (August 1991-August 1994). Commission of the European Communities (DG XII), 12 research institutes, Co-Promoter.
- The effect of stone cover removal by ancient farmers in the Negev Desert, on runoff and erosion in the light of new hydrologic research (January 1991-January 1994). Funded by the Seagram Centre for Soil and Water Sciences, Hebrew University, Rehovot, Israel, Co-Promoter.
- Effect of Mediterranean matorral plant species on soil erosion subprocesses (1991-1994). Commission of the European Communities (DG XII), two research institutes, Promoter.
- Sedimentation and sediment delivery in small catchments (January 1995-December 1999). Research Fund KU Leuven, Co-Promoter.
- Impact of rock fragment content on concentrated flow erosion rates (November 1995-November 1998). Instituto Nacional de Investigacion Agraria y Alimentaria, Madrid, Spain. Co-Promoter.
- Experimental research and field measurements on gully erosion under various ecological conditions (January 1997-December 1999). National Fund for Scientific Research Belgium, Promoter.
- Assessment of sediment yield using sediment deposition rates in flood retention ponds. (October 1996-October 2000). Fund for Scientific Research Flanders. Promoter. (Dr Gert Verstraeten).
- Study of ephemeral gully erosion rates in agricultural environments (October 1995-October 2001). KU Leuven. Promoter.

- Strengthening of soil and water conservation research at the Chinese Academy of Agricultural Sciences, Beijing, China (January 1999-2002). VLIR-ABOS. Co-Promoter.
- Fighting desertification in the Tigray Highlands, Ethiopia: lessons to be learned from successes and failures of soil erosion control measures (1 October 2001-30 September 2007) VLIR-EI, Mekelle University. Zala Daget Project, Promoter. (Dr Jan Nyssen, Belgian expert, Drs. Nigussie Haregeweyn, MU). €309,867.
- Study of historical gully development in the Meerdaal Forest, central Belgium (October 2000-September 2004). FWO-Flanders. Promoter.
- Land Quality Indicators for monitoring and evaluating sustainable land management in the Lake Victoria catchment area (1999-2005). DGIS Mixed Fellowship. Co-Promoter.
- Sediment delivery to watercourses from rural areas: assessment and evaluation of control measures (1 October 2000-30 September 2003). Ministerie van de Vlaamse Gemeenschap, AMINAL Water. €325,000. Co-Promoter, K. Gillijns.
- Spatial variation and controlling factors of sediment yield on the Iberian Peninsula (October 2001-September 2007). Promoter.
- The relevance of contemporary geomorphic process measurements for the reconstruction of long-term landscape evolution at larger spatial scales. OT, Onderzoeksfonds, KU Leuven. (October-2002-September 2006) (€350,000). Co-Promoter.
- Soil Conservation Management in Southeast Tanzania. VLIR-EI ZEIN2002PR253 (August 2002-July 2007) (€310,000). Promoters: J. Deckers, Co-Promoters J. Poesen and B. Muys.
- Response of Gully Initiation and Development to Land Use Change in the Upper Yangtse River Basin, SW China (2003-2005). National Science Foundation of China (€70,000). Co-Promoter with Dr Li Yong, Chinese Academy of Sciences, Beijing, China.

- Towards integrated catchment management in tropical mountain areas: the problem of sediment management (Rio Paute, Ecuador). VLIR-EI ZEIN 2003pr280 (July 2003-May 2007) (€316,736). Promoter: G. Govers, Co-Promoters: J. Poesen, J. Deckers, R. Bouwen and B. Muys, Expert: B. De Bièvre).
- Land degradation and rehabilitation at the scale of Giba Catchment, Tigray, Ethiopia. University of Mekelle, VLIR-IUS (Phase 1: 1 August 2003-30 July 2008; €338,597, Phase 2: 1 August 2008-30 July 2013). Overall budget in Phase 1 = €4.3 million and in Phase 2 = €3.0 million. J. Poesen is project team leader of the Land Team with *circa* 20 team members (Flanders-Ethiopia).
- Impact of root properties on resistance of Mediterranean topsoils to water erosion (1 February 2004-30 April 2007). 'Conditions for Restoration and Mitigation of Desertified Areas using Vegetation (acronym: RECONDES, €950,000), EU, 6th Framework Programme, Specific Targeted Research or Innovation Project (STREP), GOCE-CT2003-505361, €196,000.
- Environmental change and geomorphic response in the Meerdaal Forest, Belgium. December 2004-November 2005. Postdoctoral Fellowship KU Leuven PDM/04/145 Tom Vanwallegem (€71,440). Promoter.
- The environmental and socio-economic contribution of palm geotextiles to sustainable development and soil conservation. (BORASSUS) (1 July 2005-28 February 2009). European Commission, FP6 on Research, Technological Development and Demonstration. PhD Fellowship (Toon Smets). (Co-ordinator Professor M.A. Fullen, The University of Wolverhampton, UK). Co-Promoter: J. Poesen (€235,680).
- Desertification mitigation and remediation of land – a global approach for local solutions, DESIRE. 1 February 2007-31 January 2012. Integrated Project of European Commission Contract No 037046 (FP6, sub-priority 1.1.6.3. Global Change and Ecosystems). J. Poesen was Co-Promoter (€225,000).
- Modelling of spatial and temporal variations in soil erosion resistance during concentrated flow. KU Leuven Research Fund,

Postdoctoral Fellowship, Anke Knapen (1 October 2007-30 September 2008). J. Poesen was Promoter.

- Assessment of the effects of soil and water conservation measures on runoff, soil loss and sediment yield at various temporal and spatial scales, 15 September 2008-14 September 2012. PhD research funded by the DESIRE Project, Desertification mitigation and remediation of land – a global approach for local solutions, DESIRE. Integrated Project of European Commission Contract No 037046 (FP6, sub-priority 1.1.6.3. Global Change and Ecosystems) (€225,000). Drs. Willem Maetens; J. Poesen was Promoter.
- Evaluation of the effects of plant roots on rill and gully erosion: application to cover crops. 1 December 2008-30 November 2009. Post-Doctoral Fellowship (PDM)-BOF)) (Dr Sarah De Baets) from Research Fund KU Leuven (€73,000). Promoter: Jean Poesen.
- Erosion processes and sediment production in Mediterranean environments: evolution of gullies and piping under global change. 1 January 2009-31 December 2010 (2 years). Post-Doctoral Fellowship funded by the Spanish Ministry of Education and Science. Promoter J. Poesen; Post-Doctoral Researcher Dr Estela Nadal Romero (Instituto Pirenaico de Ecología, Zaragoza, Spain), (*circa* €100,000).
- Water and sediment budgets of Lake Tana for optimisation of land management and water allocation. WASETANA Project. VLIR-EI Project (VLIR-UOS ZEIN2010PR374-39048) (5 years: 1 October 2010-30 September 2015). Bahar Dar University, Promoters: Jan Nyssen, Niko Verhoest, Valentijn Pauwels, Jean Poesen and Seppe Deckers (€330,000).
- Evaluation of the effects of biological geotextiles on soil erosion, 1 April 2010-31 March 2011. Postdoctoral Fellowship (PDM)-BOF) (Dr Toon Smets) from Research Fund KU Leuven (€73,000). Promoter: Jean Poesen.
- Integrated geographical research for sustainable land management in the closed basins along the Rift Valley in northern Ethiopia. 2013-2018 (5 years), VLIR-TEAM Project, €299,998. Mekelle University, Department of Geography and Environmental Studies,

(Dr Amanuel Zenebe, Mekelle, Ethiopia). Promoters: Jan Nyssen, Veerle Van Eetvelde (University of Ghent), Jean Poesen, Seppe Deckers and Nina Käyhö (University of Turku, Finland).