

Jean-Pascal van Ypersele

Candidate to the position of IPCC Chair, nominated by Belgium (elections: Dubrovnik, Croatia, 5 to 8 October 2015)

Let's assess the science of climate change together, in the most balanced and policy-relevant manner, in the interest of all

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Academic qualifications

- Physicist specialized in climatology; PhD in 1986, Université catholique de Louvain (UCL, Belgium), following research carried out at the US National Center for Atmospheric Research (NCAR)
- Full Professor of climatology and environmental sciences at UCL, invited professor at three other universities
- Member of the Belgian Royal Academy; holder of numerous awards and distinctions

Professional experience

- Involved with the IPCC since 1995; Lead Author for the Third Assessment Report (2001); elected Vice-Chair of IPCC Working Group II (Impacts, Adaptation, and Vulnerability) in 2002; elected one of the three IPCC Vice-Chairs in 2008; Review Editor for AR4, SRREN, and AR5; co-author of the AR5 Synthesis Report; co-responsible for the preparation of a report to the IPCC Plenary on how to enhance the participation of scientists from developing countries in the IPCC; member of the Science Board of the IPCC Scholarship Programme (for scientists from developing countries)
- Co-chaired numerous successful contact groups during IPCC meetings, most recently to reach agreement on the Summaries for Policy Makers of the Fifth Assessment Report, both for the Working Group I section on the drivers of climate change and for all Working Group III figures and tables, and on the recent changes in the composition of the Bureau
- Vice-Chair member of the IPCC Communications Action Team. A seasoned science communicator, sought out by the media for interviews
- Participated in almost all UNFCCC Conferences of the Parties, as scientific advisor or observer
- Has published joint research with economists, social scientists, and ecologists in an interdisciplinary perspective (see list below)
- Has co-organized several international scientific conferences on desertification, climate change, and sustainable development

Vision for the future of the IPCC

(complete platform: <u>www.climate.be/vanyp</u>)

- Sustain and further develop what the IPCC does best: rigorous, independent, science-driven assessments of knowledge about all dimensions of the climate change issue
- Further **develop the inclusive characteristics of the IPCC**, so that the participation of developing country scientists is enhanced and that the perspectives of all regions of the world are reflected
- **Stimulate collaboration** and knowledge sharing across as many interfaces as possible, including within the IPCC and with other institutions
- Further develop the **communication** of the IPCC regarding scientific products and procedures, and ensure greater **transparency** and **accountability** of the assessment process
- Lead the IPCC in a dynamic way, serving its members full time and responding to the evolving need for information that is both policy relevant and policy neutral; contribute to the capacity development of the next generation of IPCC authors, including through the IPCC scholarship programme

Personal and contact information

| Place and year of birth: | Brussels (Belgium), 1957 |
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| Working languages: | French, English, Dutch, some Italian |
| Professional status: | Full professor, in sabbatical for 2014-2015; this status will continue until the end of his mandate if elected Chair |
| Address: | Université catholique de Louvain (UCL), Earth and Life Institute (ELI), Georges Lemaître Centre for Earth and Climate Research (TECLIM) Place Louis Pasteur 3, L4.03.08 B-1348 Louvain-la-Neuve Belgium |
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Short biography

Ever since he was a student, Jean-Pascal van Ypersele has had a strong interest both in the natural sciences and in societal issues, as well as a will to contribute to knowledge sharing and sustainable development. He is curious about other cultures, has extensively travelled, and is aware of development issues. He received his Ph. D. from the Belgian Université catholique de Louvain (1986, with highest honours), based on work done at the U.S. National Center for Atmospheric Research. After military service in the Belgian Navy, he continued his research on climate change and authored papers on subjects including the modelling of sea ice, paleoclimates, the climate of the 20th and 21st century, regional climate change in Europe, Greenland, and Africa, and the ethical issues associated with responsibility for climate stabilisation. He also published a <u>report</u> on the mainstreaming of climate change adaptation and mitigation policies in the Belgian development cooperation. He teaches climatology, climate modelling, mathematical geography and environmental sciences, and co-directs an interdisciplinary <u>Master</u> programme in Science and Management of the Environment. His involvement in the IPCC started before the Third Assessment Report, of which he was a lead author; he has served several times as a Review Editor and has participated in dozens of outreach events related to the work of the IPCC.

Further information on activities relevant to the mandate of IPCC Chair

- Trained in chairing meetings and in non-violent communication; team builder; works well and respectfully with people of different opinions, and builds consensus where possible
- Participated in the Rio and Rio+20 Earth Summits (1992 and 2012), and almost all UNFCCC Conferences
 of the Parties, as scientific advisor; Co-Chair of several contact groups under the UNFCCC (2001-2007; he
 declined invitations to continue after being elected IPCC Vice-Chair), such as those leading to the
 adoption of the "New Delhi programme of international work on Article 6" (education, training,
 awareness, participation and public access to information, international cooperation in these matters) in
 2002, and to a COP decision on how to take into account the 4th IPCC report in climate negotiations
 (COP13, 2007)
- Member of numerous national and international advisory committees for governments, the European Commission, private companies (Electrabel, GDF/Suez, Climact, BNP/Paribas) and public institutions (Météo-France, the French "Energy and Posterity" professorship, Belgian Ministries, the Dutch climate research programme)
- Organiser of many large-scale national and international scientific meetings, from the International Course on Climate and Desertification in 1983 (see special issue of Climatic Change) to the Stephen Schneider Symposium: Climate Change: from Science to Policy (2011) or the Interdisciplinary Symposium on Sustainable Development (2013, 2015)
- Chair of the "Energy and climate" Working Group of the Belgian Federal Council for Sustainable Development (since 1998, see <u>http://www.frdo-cfdd.be/en</u>)

Main awards and honours

- Energy and Environment Award from the International Polar Foundation (2006)
- Francqui Chair at the Université libre de Bruxelles (2008) and K.U. Leuven H.U. Brussel (2011)
- Member of the Royal Academy of Belgium (2009)
- Honorary Member of the Club of Rome (EU Chapter) (2010)
- Commandeur du Mérite wallon (2011), Grand Officier de l'Ordre de la Couronne (Belgium, 2014)

Main relevant publications

• Selected books (author, co-author, or editor)

IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team (M. R. Allen, V. R. Barros, J. Broome, W. Cramer, R. Christ, J. A. Church (...) Jean-Pascal van Ypersele), R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp. http://www.ipcc.ch/report/ar5/syr

van Ypersele J.P. et M. Hudon (sous la direction de), 2013: Actes du 1er Congrès interdisciplinaire du développement durable. Quelle transition pour nos sociétés?, 31/01 et 01/02/2013 (6 volumes), Service Public de Wallonie, Namur. http://old.congrestransitiondurable.org/congres/articles/

van Ypersele J.P., 2008: Climate change and the Belgian development cooperation policy: challenges and opportunities. FPS Foreign Affairs, Foreign Trade and Development Cooperation and Université catholique de Louvain, June 2008, Brussels, 67 pp. http://diplomatie.belgium.be/en/binaries/report_climat_change_tcm312-67482.pdf

Le Treut H., J.P. van Ypersele, S. Hallegatte et J.C. Hourcade (ed.), 2004. Science du changement climatique – Acquis et controverses. Claire Weill (éditrice). Institut du Développement Durable et des

Relations Internationales (IDDRI), Paris, 105 pp.

http://www.iddri.org/Publications/Ouvrages-en-partenariat/livre-climat_web.pdf

Selected journal articles

- Van Weverberg K., E. Goudenhoofdt, U. Blahak, E. Brisson, M. Demuzere, P. Marbaix, J.P. van Ypersele, 2014. Comparison of one-moment and two-moment bulk microphysics for high-resolution climate simulations of intense precipitation: Atmos. Research, Vol. 147-148, p. 145-161
- Bréchet, T., J. Eyckmans, F. Gerard, P. Marbaix, H. Tulkens, J.P. van Ypersele, 2010. The impact of the unilateral EU commitment on the stability of international climate agreements: Climate Policy, Vol. 10 (2), p. 148-166
- Smith, J., S. Schneider, M. Oppenheimer, G. Yohe, W. Hare, M. Mastrandrea, A. Patwardhan, I. Burton, J. Corfee-Morlot, C. Magadza, H-M. Fuessel, A. Pittock, A. Rahman, A. Suarez, J.P. van Ypersele, 2009. Assessing dangerous climate change through an update of the Intergovernmental Panel on Climate Change (IPCC) "reasons for concern": Proc. Natl. Acad. Sci. USA., Vol. 106 (11), p. 4133-4137
- D'Haeseleer W., D. Gusbin, D. Devogelaer, P. Klees, J.P. van Ypersele, 2009. *PRIMES scenario analysis towards 2030 for Belgium*: European Review of Energy Markets, Energy Policy Studies, Vol. 3 (1), p. 191-260
- Vanvyve, E., N. Hall, C. Messager, S. Leroux, J.P. van Ypersele, 2008. Internal variability in a regional climate model over West Africa: Clim. Dyn., Vol. 30 (2-3), p. 191-202
- Fettweis, X., J.P. van Ypersele, H. Gallee, F. Lefebre, W. Lefebvre, 2007. The 1979-2005 Greenland ice sheet melt extent from passive microwave data using an improved version of the melt retrieval XPGR algorithm: Geophys. Res. Lett., Vol. 34 (5), 5 p.
- van Ypersele, J.P., 2006. L'injustice fondamentale des changements climatiques: Alternatives Sud, Vol. 13 (2), p. 7-20. (also available in Spanish and Italian, see http://www.cetri.be/spip.php?article3566&lang=fr)

- Fettweis, X., H. Gallee, F. Lefebre, J.P. van Ypersele, 2006. *The 1988-2003 Greenland ice sheet melt extent using passive microwave satellite data and a regional climate model*: Clim. Dyn., Vol. 27 (5), p. 531-541
- Bertrand, C., J.P. van Ypersele, A. Berger, 2002. Are natural climate forcings able to counteract the projected anthropogenic global warming?: Clim. Change, Vol. 55 (4), p. 413-427
- Obersteiner, M., C. Azar, P. Kauppi, K. Mollersten, J. Moreira, S. Nilsson, P. Read, K. Riahi, B. Schlamadinger, Y. Yamagata, J. Yan, J.P. van Ypersele, 2001. *Managing climate risk*: Science, Vol. 294 (5543), p. 786-787
- Grégoire, J-F., J.P. van Ypersele, F. Bartiaux, 2000. Nous empruntons la Terre aux enfants d'aujourd'hui et de demain: Lumen Vitae, Vol. 55 (1), p. 67-80
- Bertrand, C., J.P. van Ypersele, 1999. Potential role of solar variability as an agent for climate change: Clim. Change, Vol. 43 (2), p. 387-411
- Bertrand, C., J.P. van Ypersele, A. Berger, 1999. Volcanic and solar impacts on climate since 1700: Clim. Dyn., Vol. 15 (5), p. 355-367
- Gallée, H., J.P. van Ypersele, T. Fichefet, I. Marsiat, C. Tricot, A. Berger, 1992. Simulation of the Last Glacial Cycle By a Coupled, Sectorially Averaged Climate-ice Sheet Model. 2. Response To Insolation and CO₂ Variations: J. Geophys. Res.-Atmos., Vol. 97 (D14), p. 15713-15740
- Gallée, H., J.P. van Ypersele, T. Fichefet, C. Tricot, A. Berger, 1991. Simulation of the Last Glacial Cycle By a Coupled, Sectorially Averaged Climate-ice Sheet Model. 1. The Climate Model: J. Geophys. Res.-Atmos., Vol. 96 (D7), p. 13139-13161
- van Ypersele, J.P., M. Verstraete, 1986. *Climate and Desertification Editorial*, in van Ypersele J.P. & M. Verstraete (eds), Climate and Desertification Special Issue: Climatic Change, Vol. 9 (1-2), p. 1-4

• Selected book chapters

- van Ypersele, J.P., 2008. The fundamental injustice of climate change, in Social Developments in the European Union 2007, edited by Degryse C. & P. Pochet, ETUI and Observatoire Social Européen, Brussels
- Bartiaux, F., J.P. van Ypersele, 2006. The Relationships Between Population and Environment, in Demography: Analysis and Synthesis. A Treatise in Population Studies, edited by Caselli G., J. Vallin & G. Wunsch, Academic Press, p. 383-396
- Parkash, C., H. Tulkens, J.P. van Ypersele, S. Willems, 2002. The Kyoto Protocol: an economic and game-theoretic interpretation, in Economic Theory for the Environment. Essays in Honour of Karl-Göran Mäler., edited by Kriström B., P. Dasgupta and K-G. Löfgren, Edward Elgar, p. 98-117
- Bartiaux, F., J.P. van Ypersele, J.P., N. Robins, 1998. Climate change: weighing up consumption and population, in Exploding the Population Myth: Consumption Versus Population, which is the Climate Bomb?, edited by Atiq Rahman A., N. Robins and A. Roncerel, Dhaka press, p. 83-90

Let's assess the science of climate change together! Your comments and suggestions are welcome

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