

Curriculum vitae

ROCKSTRÖM, JOHAN

Professor in Water Systems and Global Sustainability, Stockholm University

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Summary career positions and current leadership roles

CURRENT POSITION

2007- Director, Stockholm Resilience Centre at Stockholm University, Sweden

PREVIOUS POSITIONS

2004-2012 Executive Director, Stockholm Environment Institute, SEI

2000-2004 Senior lecturer and regional research coordinator (WaterNet, Southern Africa) Unesco-IHE, Delft NL.

1998-2000 Regional Advisor, Land and water management in East Africa for SIDA's Regional Land Management Unit (RELMA)

KEY CURRENT LEADERSHIP POSITIONS

Chair Earth League (www.earthleague.org)

Chair CGIAR wide research program on Water, Land and Ecosystems (WLE) (<http://wle.cgiar.org/>)

Chair EAT Initiative on Health, Food and Sustainability (<http://eatforum.org/>)

Chair Arctic Resilience Report of the Arctic Council (<http://www.arctic-council.org/arr/>)

Member Leadership Council of the Sustainable Development Solutions Network (SDSN) (<http://unsdsn.org/>)

Ten Years track-record

SHORT RESUMÉ

Johan Rockström is an internationally leading scientist on resilience, global sustainability and sustainable development. He is the Director of the Stockholm Resilience Centre at Stockholm University, and the former Executive Director of the Stockholm Environment Institute. He has 20 years' experience in interdisciplinary research on global water resources, ecosystem services, agricultural development, social-ecological resilience and Earth system research, with over 150 research publications (>100 peer-reviewed scientific articles and >10 books). He serves as advisor to international organizations, governments and the European Union, and is a frequent keynote speaker for international business, policy and academia. He led the transition team designing Future Earth (the integration of the Global Environment Change programs under ICSU), served on the Swedish Prime Minister's Futures Commission 2012-2013 and the science committee on the environment for the Swedish government 2012-2014. In 2012 and 2013 he was voted Sweden's most influential person on environmental issues, and was in 2009 voted Swede of the year. He currently serves on the Swedish Prime Minister's global innovation council, has recently been appointed commissioner on the newly established Global Commission on Health, Pollution and Development, and is a member of the leadership council and co-chair of the Sustainable Development Solutions Network (SDSN) global theme on pathways to attain the Sustainable Development Goals within Earth system boundaries. He has given two TED Global Talks and is a highly demanded advisor to the World Economic Forum (WEF), the World Business Council for Sustainable Development (WBCSD) and the B-team.

SUMMARY RESEARCH ACHIEVEMENTS

- Scientific leader of the planetary boundaries research (first published in September 2009 with a 5 year update in Science in January 2015), leading scientist on global green/blue water resource research, and recognised international scientist on resilience and development
- Advanced the planetary boundaries research network together with Professors John Schellnhuber (PIK), Will Steffen (ANU), Katherine Richardson (Copenhagen University) and Maarten Hajer (PBL), on integrated whole Earth modelling and global sustainability research
- Scientific advancement of social-ecological resilience research, integrating resilience thinking in global sustainability science (together with Professor Carl Folke and others)
- International science leader for the advancement of water resilience science (lead author, new monograph in Cambridge University Press, released in 2014)
- Internationally leading the establishment of green and blue water thinking in global hydrological research (together with Professor Malin Falkenmark)
- Advance the first global analyses of green and blue water resource to feed humanity under climate change (together with colleagues at PIK using the LPJ global dynamic vegetation model)
- Spear-heading research on sustainable intensification of agricultural systems in water scarcity prone tropical regions, creating the concept of 'triple green revolution', integrating innovations in water, soil and nutrient management (through the Dutch Wotro grant amongst others)

SUMMARY SCIENTIFIC LEADERSHIP

- Founding director of the Stockholm Resilience Centre at Stockholm University (2007-), today an internationally leading research centre with a focus on resilience and global sustainability science.
- Executive Director of the international Stockholm Environment Institute (2004-2012)
- Member of the Global Leadership Council of the Sustainable Development Solutions Network, a science network in support of the UN process for Sustainable Development Goals (2012 onwards)
- Co-chair of the Transition Team for Future Earth, chair of the ICSU visioning process on Earth System Research for Global Sustainability (2013-2014)
- Chair of the Arctic Resilience Assessment (2012 onwards, now, from 2015 onwards co-chaired with the USA)
- Chair of the cross-CGIAR research program on Water, Land and Ecosystems (WLE) (international research program of the Consultative Group of International Agricultural Research organisations) (2010 onwards)
- Chair of the international EAT Initiative on Health, Food and Sustainability, an international platform for science, policy and business on pathways towards sustainable and healthy food systems in the world (2013 onwards)
- Chair of the Earth League, an international network of leading Earth system science institutions (www.earthleague.org) (2014 onwards)

SUMMARY SCIENTIFIC CONTRIBUTION TRANSITIONS TO SUSTAINABILITY

- Organiser of several high-level events bridging science with policy and business (e.g., hosting of the 3rd Nobel Laureate Symposium on Global Sustainability in 2011; co-organiser with the Potsdam Institute for Climate Impact Research (PIK) of all Nobel Symposia (2007 in Potsdam; 2009 in London, and 2014 in Hong Kong); Hosted Nobel laureate high level dialogues at the UN Rio+20 Earth Summit in 2012; Co-organised several high-level dialogues with the World Economic Forum (at the Davos annual meeting)

- Initiated the Earth Statement (www.Earthstatement.org) as chair of the Earth League, a science based statement in support of global leadership at the COP21 Climate Summit in Paris 2015 (now being supported by world leaders from religion to celebrities and business)
- Initiated a series of high-level contributions and inputs to the Open Working Group (OWG) process of the UN to develop the Sustainable Development Goals (SDGs); e.g., talk at the UN General Assembly/OWG session; coordinated input from EAT and SDSN to the SDG process
- Lead initiator of the World in 2050 initiative, together with SDSN and IIASA, a global knowledge platform to explore pathways to achieve the SDGs within planetary boundaries. This new (launched 2015) scientific platform for back-casting scenarios will form a broad and independent knowledge platform linking science to the SDG implementation process globally
- Initiator and leader of international initiatives on change processes and knowledge support to policy and business (e.g., leadership of global scenarios for Ban Ki-Moon's High Level Panel on Global Sustainability for the 2012 UN Earth Summit;; establishing the first Arctic Resilience Assessment within the Arctic Council, 2012; scientific input to the World Business Council for Sustainability's Action 2020 program, 2013)
- Advisor to several international policy and development processes on science and sustainable development (e.g., CCICED in China, IPCC/UNFCCC, GEO5/UNEP, GEA, IPBES).
- Scientific advisor to the European Union (e.g, the EREP platform on Resource Efficiency) and the Swedish Government.
- Experienced international speaker on science and science-policy dialogues in the fields of global change and sustainability (speaker at TED Global (Oxford 2010, Edinburgh 2013), over 200 invited keynote addresses and lectures in 2010-2015).

Chronological order of key achievements (past 10 years)

EDUCATION

1997 PhD Natural Resources Management, Dept of Systems Ecology, Stockholm Univ., Sweden

1995 Licentiate of Philosophy, (Ph Lic) Stockholm University

1993 Diplôme d'Agronomie Approfondie, Grande Ecole Institut National Agronomique, Paris-Grignon

1992 Master in Agricultural Sciences, University of Agricultural Sciences, Uppsala, Sweden

ACADEMIC TITLES

Professor in Water Systems and Global Sustainability, Stockholm University (2012 onwards)

Professor in Natural Resources Management (Stockholm University) (adjunct professorship 2008)

Visiting Professor Beijing Normal University, Beijing, China (2009 onwards)

Associate Professor in Integrated Water Resource Management (Seconded from Unesco-IHE to University of Zimbabwe) (2002)

FELLOWSHIPS AND AWARDS

2015 Zoological Society of London's Award for Conservation Innovation

2014 Humanitas Professor of Sustainability Science at Cambridge University

2014 Woods Hole Research Center's Lawrence S. Huntington Environmental Prize (November)

2013 Marsh Award for Climate Change Research, British Ecological Society.

2013 Agronomist of the Year, Agronomist Assoc. (Swedish Association of Professional Scientists).

2012-2013 Ranked as Sweden's Most Influential Person on the Environment in 2012 & 2013 by *MiljöAktuellt*

2009 Awarded Swedish Person of the Year, by the journal *Fokus*, for bridging science and society.
2007 Georg and Greta Borgström Prize of the Royal Swedish Academy of Forestry and Agriculture for scientific contributions on water and development.
2006 Carl Mannerfelt Prize for Conservation and Development presented by his Majesty the King of Sweden (for WWF, Kungliga Ingenjörsvetenskapsakademien and Svenskt Näringsliv).

COMMISSIONS OF TRUST (A few selected examples)

Member of the newly established Global Innovation Council by the Prime Minister of Sweden (2015 onwards)
Member of the newly established Global Commission on Health, Pollution and Development (2015 August)
Swedish PI for the process of establishing the global secretariat for Future Earth (starting 1st January 2015) (in collaboration with USA, Canada, France, and Japan)
Member of scientific committee for the July 2015 Climate Science conference organized by the French government as preparation for UNFCCC COP 21, December 2015
Member of international climate advisory group to the Lima President of UNFCCC COP 20, December 2014
Member of Advisory Board for the Center for Sustainability Science at Academia Sinica, Taiwan (2013-)
Panel Member of the ERC CoG SH3 2013
Chair of EAT Advisory Board (2013-) (an international science/policy/practice platform, www.eatforum.org)
Horizon Scanning, Cambridge University (led by Prof Bill Sutherland), 2013 and 2014
Member of the Leadership Council of the UN Sustainable Development Solutions Network (SDSN) 2012 onwards
Chair of the Earth League (2014-) (www.earthleague.org)
Co-chair of the Transition Team for Future Earth (with Professor Diana Liverman) (2011-2013)
Member of the Swedish Government's Futures Commission (Framtidskommissionen, 2012-2013)
Member of the Swedish Government's Innovation council, chaired by the Swedish Prime Minister (Innovationsrådet 2015-)
Member of the Swedish Government's Scientific council for Sustainable Development (2015-)
Member of the World Economic Forum's Global Agenda Council on Measuring Sustainability (2012-2014)
Contributing expert of the Ban Ki-moon High Level Panel on Global Sustainability (2011-2012)
Chair CGIAR-wide Water, Land, Ecosystems program (2012-)
Editorial board of Environmental Research Letters and Ecology & Society. External reviewer for several scientific journals, e.g., Global Environmental Change, Nature Climate Change, Nature, and Science.

ORGANISATION OF SCIENTIFIC MEETINGS (5 selected examples)

2015 Member, Scientific Committee, Our Common Future under Climate Change ó Climate Science Congress, Paris, July 2015
2014 Member, Scientific committee, 4th Nobel Laureates Symposium on Global Sustainability, Hong Kong
2014 Chair, EAT Stockholm Food Forum, Stockholm
2013 Co-organizer, Medellín Dialogue on Integrating social-ecological resilience into the SDG process, with the Swedish and Colombian governments, the CBD, and von Humboldt Institute, Colombia
2012 Member, Scientific Committee and conference declaration co-writer, Planet under Pressure, London
2011 Chair and lead organizer, 3rd Nobel Laureate Symposium on Global Sustainability, Stockholm

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

Completed PhDs and their current positions

1999-2004 Jennie Barron, Dept of Systems Ecology, Stockholm Univ. (SU); Senior researcher SEI

1998-2003 Patrick Fox, Dept of Systems Ecology, SU; Swedish Red Cross

2002-2007 Melesse Temesgen, Unesco-IHE; Senior scientist Addis-Abeba University

2001-2008 Stephen Ngigi, Unesco-IHE; Univ. of Nairobi, Kenya

2003-2008 Hodson Makurira, Unesco-IHE; Senior scientist University of Zimbabwe, Zimbabwe

2012-2014 Yihun Tadele, Stockholm Resilience Centre, SU, Post-Doc Texas A&M

Ongoing PhD student:

2012- Linus Dagerskog, SEI and SRC, SU Sweden,

Ongoing Supervision of Post Doc researchers:

Kaushal Garg, ICRISAT (water and resilience in tropical river basins)

Timos Karpouzoglou, SRC (EU Whater FP 7 program)

Issa Ouedraogo, SRC (EU Whater FP 7 program)

Jonathan Donges, SRC and PIK (planetary boundaries and earth system modelling)

TEACHING ACTIVITIES

2002 MSc Module on environmental water management (Unesco-IHE, Delft, the Netherlands)

2003-2004 Led regional MSc on integrated water resource management, WaterNet in Southern Africa

2007 onwards, lecturing on Stockholm Resilience Centre's Master program on resilience and sustainable development, as well as guest lecturing at MSc level on several programs at Stockholm University and other universities in Sweden and beyond

2014 Main instructor, MOOC *Planetary Boundaries and Human Opportunities*, SRC-SU and SDSN.edu

INSTITUTIONAL RESPONSIBILITIES

2013 Member, Stockholm University faculty committees for heads of dept/faculty sections (biology)

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2013- Member of the Royal Swedish Academy of Sciences (KVA), Sweden

2007 Member of the Royal Swedish Academy of Forestry and Agriculture (KSLA), Sweden

2007- Member of the Resilience Alliance, (International organisation)