Leopoldina
Nationale Akademie
der Wissenschaften

Curriculum Vitae Professor Dr Johan Rockström

Image: M. Axelsson/Azote

Name: **Johan Rockström**
Born: **31 December 1965**

Research Priorities: Earth's Resilience in the Anthropocene, planetary boundaries, tipping points in the terrestrial system, transformation of the food system, global water resources, sustainability

Johan Rockström researches questions of global sustainability. He became known for his concept of planetary boundaries, which became a standard assumption in sustainability sciences. His research activities cover a plethora of topics reaching from the earth's system to global sustainability in the Anthropocene.

Academic and Professional Career

since 2018	Director, Potsdam Institute für Climate Impact Research (PIK), Potsdam, Germany
since 2018	Professor, Institute for Environmental Science and Geography, University Potsdam, Potsdam, Germany
since 2018	Professor of Water Systems and Global, Stockholm University, Stockholm, Sweden
since 2018	Chief Scientist, Conservation International (CI)
2007 - 2018	Founding Director, Stockholm Resilience Centre (SRC), Stockholm University, Stockholm, Sweden
2004 - 2012	Executive Director, Stockholm Environment Institute (SEI), Stockholm, Sweden
2000 - 2004	Senior Lecturer and Regional Research Coordinator "WaterNet" (Southern Africa), Institute for Hydrological Education (IHE), Delft Institute for Water Education, Delft, Netherlands
1998 - 2000	Regional Council for Land and Water Management, Regional Land Management Unit (RELMA), Swedish International Development Cooperation Agency (SIDA)

1997	PhD, Institute for Systems Biology, Stockholm University, Stockholm, Sweden
1995	Licenciate of Philosophy (Ph Lic), Stockholm University, Stockholm, Sweden
1993	Diplôme d'Agronomie Approfondie, Institut National Agronomique Paris-Grignon, France
1992	Master of Science in Agricultural Science, Swedish University of Agricultural Sciences (SLU), Uppsala, Sweden

Functions in Scientific Societies and Committees

since 2019	Member, Mission Board for adaptation to climate change including societal transformation, European Commission
since 2019	Co-Chair, Earth Commission, Future Earth, Stockholm, Sweden
since 2018	Co-Chair, Advisory Comittee, Future Earth, Stockholm, Sweden
	Chair, EAT Initiative on Health, Food and Sustainability, Oslo, Norway
	Chair, Steering Committee, CGIAR's Research Program on Water, Land, and Ecosystems, Consultative Group on International Agricultural Research (CGIAR)
	Member, Global Report Reference Committee, International Panel of Experts on Sustainable Food Systems (IPES)
	Chair, Advisory Board, SRC, Stockholm, Sweden
	Member, Reference Committee, Food and Land Use Coalition (FOLU), London, UK
	Member, Scientific Advisory Board, Competence Center for Sustainable Finance (CCSF), University of Zurich (UZH), Zurich, Switzerland
	Director, Food System Economics Commission (FSEC), Oslo, Norway
	Advisory Council, Global Resilience Partnership (GRP)
	Chair, Advisory Council, EAT Foundation, Oslo, Norway
	Member, Curatorium, EAT Foundation, Oslo, Norway
	Member, Board, Research Expedition Vessel (REV) Ocean, Lysaker, Norway
	Chair, Jury of the Food Planet Prize, Curt Bergfors Foundation, Sweden
	Trustee, Cool Earth, Cornwall, UK
	Editor in Chief, Ecology and Society
	Advisor, Commission on Sustainable Behavioral Change, KR Foundation, Copenhagen, Denmark
	Member, Board, KR Foundation, Copenhagen, Denmark

Chair, Earth League

Member, Leadership Council, Sustainable Development Solutions Network (SDSN), United Nations (UN)

Member, Scientific Advisory Board, State of the Environment Report, UN Environment Programme (UNEP)

Member, Board, Global Challenges Foundation

Member, Advisory Board, Mercedes-Benz Group, Stuttgart, Germany

Member, Council of Experts, Global Commons Initiative

Project Coordination and Membership in Collaborative Research Projects

2020	Advanced Grant “Earth Resilience in the Anthropocene “, European Research Council (ERC)

Honours and Awarded Memberships

2024	Tyler Prize for Environmental Achievement, University of Southern California, Los Angeles, USA
2023	Position, TIME100-List, Time Magazine
since 2020	Member, German National Academy of Sciences Leopoldina, Germany
2020	Prince Albert II. of Monaco Climate Change Award, Fondation Prince Albert II de Monaco, Monaco
2017	Laureate, Hillary Institute of International Leadership, Christchurch, New Zealand
2016	Chevalier de la Légion d’Honneur, L’ordre national de la Légion d’honneur, France
2015	Deutscher Umweltpreis, Deutsche Bundesstiftung Umwelt, Germany
2015	International Cosmos Prize, Expo ’90 Foundation, Osaka, Japan
2015	Award for Conservation Innovation, Zoological Society of London, London, UK
2014	Humanitas Professor of Sustainability Science, University of Cambridge, Cambridge, UK
2014	Lawrence S. Huntington Environmental Prize, Woods Hole Research Center, Falmouth, USA
2013	Marsh Award for Climate Change Research, British Ecological Society, UK
2013	Agronomist of the Year, Swedish Association of Professional Scientists, Sweden
2012, 2013	Sweden’s Most Influential Person on the Environment, MiljöAktuellt

2009 Swede of the Year, FOKUS Magazine

Member, Royal Swedish Academy of Sciences, Sweden

Honorary Doctorate, Ghent University, Gent, Belgium and University of Amsterdam, Amsterdam, Netherlands

Research Priorities

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Johan Rockström's work has a significant influence in the research on sustainability. His major research contributions are concerned with the limits of earth's system under the influence of the growing population and its pressures on the systems that enable human life. The research on the concept of "planetary boundaries" was developed under his direction. He also collected data on the state of earth across the globe. Based on this research, he identified nine processes which sumarize the stability of earth and ensure its sustainability. Under the aspect of anthropogenic changes to the environment, the concept defines for humanity a stable space of action within the physical and biochemical limits of the planet as well as other aspects. An agreeable socio-ecological development is only possible within these limits. The concept is continuously refined.

Johan Rockströms other research questions are more abstract: "What room of action will there be for future humans on earth" and "Which sustainable transformations can lead them there?" Therefore, his research priorities manifest in a multitude of thematically different activities concerning earth's system and sustainability in the Anthropocene. Amongst them is the project "Earth Resilience in the Anthropocene", which is supposed to survey the biophysical and social adjustments necessary for the long-term stability of earth's system. Here, goals for the earth system which are based in science are supposed to be identified by an international scientific committee and applied in cooperation with numerous economic and political actors in order to further the framework to better understand the limits of earth's capacity. The project "The World in 2050", on the other hand, is about the search for sustainable paths in the transformational scenarios, which are necessary to attain the UN-goals for sustainable development within earth's limits. The global and science-based platform on the transformation of the food system, called "EAT" will determine the groundwork for a healthy and sustainable diet, which meets the UN-targets for a sustainable development as well as the guidelines of the Paris Convention in the long term.

The project "Green Water to attain SDGs in Africa" conjoinedly models biosphere and hydrologic budget to survey the influence of climate change on the supply of water as well as management strategies. The "Alliance for Global Common Goods" wants to empower citizens, cities, and

businesses to take part in the governance and preservation of global common goods.

Moreover, Johan Rockström is council to for example the European Commission, state governments and international organisations in questions of sustainable development.