

## Seminar 4:

### Ecosystem based water management: From innovation to practice

#### Biographies



**Seminar Co-ordinator and Rapporteur**  
**Frances Dixon, UK, SIWI Young Scientific Programme Committee**

Frances is a water policy and communications professional with expertise in communicating complex, scientific information into meaningful and relevant formats for stakeholders, to ensure the latest research is understood and considered in the practical management of water resources. Frances has taken up a number of roles in Government and the not-for-profit sector, including the UK Government, where she gave water policy and communications advice to Ministers and the Royal Geographical Society, where she led a knowledge exchange programme to promote evidence-based policy making. She begins a new role as Communications Officer at GWP-Med based in Athens, next week.

#### Session 1



**Introduction to Seminar (session 1) from SIWI Scientific Programme Committee**  
**Dr. Phil Graham, Swedish Meteorological and Hydrological Institute (SMHI)**

Dr. Phil Graham currently works as an international projects manager and senior researcher at SMHI. He has previously worked in Vietnam as an international advisor on climate and water for the Belgian Development Agency (BTC) under the Vietnamese Ministry of Planning and Management. His experience of over 30 years spans from village water supply in rural Africa to advanced modelling tools.

A key focus of his recent work has been on assessing impacts of climate change on hydrological systems and water resources. He has contributed to the IPCC assessment reports and was a lead author and co-coordinator for the Assessment of Climate Change for the Baltic Sea.



**Co-convenor and Moderator for Session 1**  
**Dr. Themba Gumbo, Cap-Net UNDP**

Dr Bekithemba (Themba) Gumbo has 25 years working experience in the water sector spanning from being a practicing engineer, lecturer and researcher, network manager and in development finance. He is the Director of Cap-Net UNDP, an international network committed to capacity development in sustainable water management within the auspices of the UNDP Water and Ocean Governance Programme.

**Keynote speaker on SDG 6.6**

**Dr Chris Dickens, Principle Researcher and Head of Office, International Water Management Institute (IWMI)**



Dr. Dickens is an aquatic ecologist with 30 years' experience working in aquatic ecosystem health, water resource protection including environmental water requirements and resource quality objectives and water resource management and governance. Most recently he was lead author of the indicator method for the SDG Target 6.6 on water-related ecosystems. Besides this he has done work on environmental water requirements or E-flows for rivers including the Nile, Inner Niger Delta, rivers in Lesotho, Tanzania, Kenya and in his home country South Africa. He has designed both methods and monitoring programmes for river health management in various countries. He has also worked on various projects considering IWRM and INRM (integrated natural resources management) in Africa as a whole.

**Changing water management practice in Canterbury to address sustainability limits**

**Dr. Bryan Jenkins, Environment Institute of Australia and New Zealand, Australia**



Bryan is President of the Environment Institute of Australia and New Zealand. He recently retired as Professor, Strategic Water Management at the University of Canterbury.

He was Chief Executive, Environment Canterbury, responsible for introducing collaborative governance and developing the Canterbury Water Management Strategy.

Before that, he was Chief Executive of the Western Australian Department of Environmental Protection. Preceding that, he had 20 years' experience in environmental management consulting throughout Australia, South-East Asia, India and China.

He has a PhD in environmental planning (Stanford University), masters and first-class honours degrees in civil engineering (Adelaide University) and Master of Administration (Monash University).

**Floods for Food – Water Spreading Weirs turning the tide**

**Mr. Christian Dohse, GIZ Gesellschaft für Internationale Zusammenarbeit, Ethiopia**



After starting his professional carrier as forest assessor in Germany, Christian Dohse continued within development cooperation in Malawi for more than 17 years. Before joining GIZ in 2017 to implement a project in the lowland area of Afar, Ethiopia, he supported the private sector in Malawi. The focus was on setting up a private company exporting natural tree products while fostering smallholder suppliers and the protection of the environment. Under the current position, the integration of flash floods into ecosystem services and livelihood options for pastoral communities is one major area of intervention.

**Industry in action: case studies of ecosystem-based water management**  
**Christina Copeland, CDP**



Christina Copeland manages CDP's water security program in North America. Prior to joining the water security team, she led the organization's corporate climate change and water disclosure work for Materials companies and executed CDP's water membership program in the US and Canada. She was named to the GreenBiz 2016 "30 under 30" list and serves on the Board of Advisors for the Yale University Dwight Hall Socially Responsible Investment Fund. Before coming to CDP, Christina worked in Mumbai, India doing corporate sustainability consulting for Tata Consultancy Services.

**SESSION 2**

**Ecosystem management for water security: Challenges and opportunities for bridging innovation and practice**  
**Dr. Adrian L. Vogl, The Natural Capital Project, United States**



Adrian Vogl is Senior Scientist with The Natural Capital Project at Stanford University, where she leads the Securing Freshwater program. Adrian has coordinated interdisciplinary collaborative scientific teams and engaged with policymakers in the US, Latin America, the Himalayas, and Africa to advance the science and practice of ecosystem-based adaptation for water security. Her work is problem-driven, with an emphasis on developing standardized approaches and tailored tools to assess and map ecosystem services and their values, and connect these benefits to communities. Adrian holds a Ph.D. in Aquatic Resources from Texas State University-San Marcos, and a B.A. in Cultural Anthropology from the University of Arizona.

**How much groundwater can we pump and protect environmental services?**  
**Dr. Tom Gleeson, University of Victoria, Canada**



Tom Gleeson leads the Groundwater Science and Sustainability Research Group at University of Victoria, Canada. He is a hydrogeologist interested in groundwater sustainability, regional- to continental-scale groundwater systems, groundwater-surface water interactions and fluid flow around geologic structures. He addresses these varied research interests by integrating disciplines that are not often combined: field methods, numerical modelling, environmental chemistry, structural geology, GIS and policy studies.

**Moving ecosystems from "stakeholder" to "foundation" of water resource management**

**Dr. Derek Vollmer, Conservation International, United States**



Derek Vollmer is Senior Director for Freshwater Science at Conservation International, and the Director of the Freshwater Health Index program. Prior to joining Conservation International, he lived in Singapore, working as a Doctoral Researcher within the Future Cities Laboratory at the Singapore-ETH Centre for Global Environmental Sustainability, specializing in ecosystem service assessments and spatial planning in river basins. He holds a B.A. in Government and International Studies from the University of Notre Dame (USA), a M.S. in Environmental Science and Policy from Johns Hopkins University (USA), and a Ph.D. in Spatial Planning from ETH Zurich (Switzerland).



**Development of a curated global compendium of hydro-ecological data**  
**Dr. Simon Linke, Sustainable Water Future Project, Griffith University, Australia**

Simon Linke is a Senior Research Fellow of the Australian Rivers Institute, Griffith University and a member of the IUCN WCPA Freshwater Task Force. Simon is recognized as one of the world leaders in the field of freshwater conservation planning. Together with a friendly band of researchers and practitioners from Australia, the USA, New Zealand and South Africa, he is one of the founders of the discipline of conservation planning in river systems. Together with his friend and colleague Eren Turak, Simon was commissioned to edit the first ever special issue freshwater conservation planning for the journal ‘Freshwater Biology’.



**Enabling smart collaboration for the sustainable use of water**  
**Mr. Pavel Aquino, Aqulytics, Peru**

Pavel is a professional with 13+ years of experience, leading projects in areas related to mining & environmental management. Currently, he leads regional coordination on project for the Canadian government to improve the environmental management of mining activities. He has worked in the UNDP, Ministry of Energy and Mines, and the National Water Authority as head of environmental impact studies; Mr. Aquino is the author of more than 4 publications and has been a UNEP Fellow and a Research Fellow at the Carnegie Institution for Science at Stanford University. He is an environmental and natural resource engineer with a master’s degree in hydraulic engineering.



**System-wide tools for managing water and ecosystems**  
**Ms. Marisa Escobar, Stockholm Environment Institute, US Center Davis, California, United States**

Marisa Escobar is a Senior Scientist in the U.S. Center, based in the Davis office. Her work focuses on creating linkages between physical processes and socio-ecological systems. She uses her expertise on water, including water quality, the physics of water, and the movement of water through watersheds, to produce information on the implications of decisions about water on the overall ecosystem. Her geographic focus is California (where she resides) and Latin America (where she is from). Exploring the linkages between water and the socio-ecological system in Latin America has resulted on the investigation of the energy-water-food nexus.



**Upscaling agricultural water management indigenous knowledge practices through agro-ecological zones**  
**Mr. Ruhiza Boroto, Food and Agriculture Organization of the United Nations, Italy**

Ruhiza Jean Boroto is Team Leader of the Global Framework on Water Scarcity in Agriculture (WASAG) at FAO. He is a water resources engineer with close to 30 years experience. His past duties include Director of Project Planning in the Department of Water Affairs and Forestry, South Africa; Regional Water Expert for GWP SA and consultant for several years, working with development agencies in various areas of water resources management. He later joined FAO as Senior Water Officer for Africa prior to moving to the HQ, combining his duties at WASAG with those of Senior Land.





**Water Funds Toolbox: field tested capacity building tools for addressing water security problems**  
**Cory Zyla, The Nature Conservancy, Canada**

Cory Zyla leads TNC’s Water Funds Knowledge Management program, which seeks to equip local actors around the world with the how-to knowledge and tools required to scope, design, create, and operate water funds. As a dynamic leader, Cory has led watershed planning processes, authored books and technical guides related to watershed management, and provided guidance on a range of environmental issues. Cory holds a Master’s of Science in Water Resources Management from McGill University.

**Session 3**



**Key Collaborating Partner, Moderator (Session 3) and SIWI Scientific Programme Committee**  
**Kari Vigerstol, The Nature Conservancy**

Kari Vigerstol is the Director of Water Security Science and Innovation for The Nature Conservancy’s Global Water Program, strategically strengthening and advancing the science behind the Conservancy’s source water protection and water scarcity strategies. For over 16 years Kari has brought her technical skills and partnership building experience to dozens of watersheds in the U.S. and around the world towards protecting water sources and improving water use and management. She led the team behind [Beyond the Source: the environmental, economic, and community benefits of source water protection](#). Kari holds a B.S. and an M.S. in Civil and Environmental Engineering from Rice University and the University of Washington.



**Moderator (Session 3)**  
**Aparna Sridhar, The Nature Conservancy**

Aparna Sridhar is a Policy Advisor for Water at the Nature Conservancy where she leads policy engagements and partnerships in support of the Conservancy’s Global Water Security strategies. In her eight years at the Conservancy, Aparna has supported cultivating engagements with works with government agencies, civil society organizations, multilateral institutions to promote policies and approach aimed at strengthening the conservation of nature. Aparna holds a MSc. in Environment and Development from the London School of Economics and Political Science and BSc. in Environmental Science and Policy from the University of Maryland.



**Keynote speech: Water Governance**  
**Håkan Tropp, Organisation for Economic Co-operation and Development (OECD)**

Håkan is head of the OECD Water Governance Programme. He has over 15 years’ experience in water governance and institutional change, water policy reform, integrated water resources management, water economics, transboundary water and water integrity.

He has worked in South Asia, Europe and Africa providing policy advice, research and capacity development within the UN, policy think tanks, research institutions and donor agencies. Since 2004, Tropp led the water governance department, including the Water Governance Facility, of the Stockholm International Water Institute.

**Keynote speech: Implementation in drinking water utilities, from policy to practice**

Iván Lucich Larrauri, SUNASS



An economist from the National University of San Marcos (UNMSM) and with a Master in Environmental Economics and Natural Resources from the Universidad de Concepción, Chile. He studied in tariff regulation and economy of biodiversity.

He has served as Manager of Policies and Regulations and Manager of Tariff Regulation of SUNASS. He is Member of the Academic Council of the Economics and Environmental Management career at the Antonio Ruiz de Montoya University. He also works as a teacher and researcher in environmental economics and regulation of public services and water resources.

He is currently Chairman of the Board of Directors of the National Superintendence of Sanitation Services (SUNASS), member of the Association of Potable Water and Sanitation Regulatory Entities of the Americas (ADERASA) and of the Presidency in the Peruvian Forum for Water GWP – Peru.

**Drivers for ecosystem-based flood management: insights from three deltas**

**Dr. Martijn van Staveren, Wageningen University & Research, Wageningen University, Netherlands**



After completing his PhD project on the restoration of controlled flooding in polders and coastal zones in the Netherlands, Bangladesh and Vietnam, Martijn van Staveren works as a postdoc researcher at the Environmental Policy Group, Wageningen University. He has a background in civil engineering and developed an interest in ecosystem-based flood management and policy analysis. In his current project he studies the co-production of knowledge at the knowledge-policy interface of flood risk management. Martijn is member of IUCN's working group on Ecosystems and Disaster Risk Reduction and was a visiting researcher at the Stockholm Environmental Institute in 2015.

**Policies to scale up ecosystem-based water management**

**Ms. Hannah Leckie, Organisation for Economic Cooperation and Development, New Zealand**



Hannah Leckie is a Policy Analyst in the Water Team of the OECD Environment Directorate. She leads the OECD's work on water quality and was the author of the OECD report "Diffuse Pollution, Degraded Water: Emerging Policy Solutions". She is particularly interested in water quality and the cost of inaction, the water-food-energy-environment nexus, and innovative solutions utilising the value of nature. Hannah holds a Master of Science in Water Science, Policy and Management from the University of Oxford, UK, and a Bachelor's Degree with Honours in Soil Science from Lincoln University, New Zealand.



**Decision Structure in Brazilian water management a 2030 Agenda perspective  
Dr. Daniela Nogueira, University of Brasilia, Brazil**

Daniela is a Research Principal specialising in water resources management with a focus on gender equality and inclusion. Daniela has worked for over 15 years' in government and the not-for-profit sector. With an academic background in Political Science, Sociology and Environmental Management, Daniela has expertise in governance and policy analysis, and has applied this in Brazilian development context. She has worked for and with a number of development organizations including the UN. Her experience and expertise spans a number of areas: sustainable development, information for decision-making, poverty reduction, gender, social development, integrity and SDG reporting.



**Water and Sanitation Consultant**

**Jon Lane OBE, UK / Malawi - SIWI Scientific Programme Committee – Seminar Conclusions**

Jon Lane is a British civil engineer by profession who has worked since the late 1980s in water and sanitation for poor people in developing countries, with a particular interest in sanitation and hygiene promotion. From 1994 to 1999 he was Chief Executive of WaterAid, which was the recipient of the Stockholm Water Prize in 1995. From 2007 to 2012 he was Executive Director of the Water Supply and Sanitation Collaborative Council, during which time WSSCC created the Global Sanitation Fund.

Since 2014 he has served as an Independent Director of the Toilet Board Coalition. He has chaired or served on various committees including the Sanitation and the Water for All Steering Committee, the Global Water Partnership Steering Committee, and the World Bank Water and Sanitation Program Advisory Committee.