



**Africa's Water Opportunity: Science, Sustainability, and Solutions**  
**April 21 – 22, 2021**

**Register here:** [https://harvard.zoom.us/webinar/register/WN\\_rSO4tGIWQnyNm8aWMm9zxw](https://harvard.zoom.us/webinar/register/WN_rSO4tGIWQnyNm8aWMm9zxw)

The theme of *Climate Change, Agriculture, and Health in Africa* is a key research focus for the Harvard Center for African Studies. A changing climate will have adverse impact on crop yields and quality, resulting in reduced availability of food or food of poorer nutritional quality, and that a lack of nutritious food puts a population at greater risk for communicable and non-communicable diseases.

On April 21 – 22, 2021, the Harvard Center for African Studies will reconvene our *Climate Change, Agriculture, and Health in Africa* initiative around the theme of water for a two-day virtual conference on **Africa's Water Opportunity: Science, Sustainability, and Solutions**. Water has been a central and defining theme of Africa's development agenda for decades. Climate change across the African continent will result in altered rainfall patterns, with some areas becoming drier and others seeing increased levels of precipitation. Agricultural crop yields are greatly impacted by the availability of water or the occurrence of drought, as demonstrated by a growing body of research. And, water remains central to our livelihoods: for hydration and cooking, for healthcare, and for industry and manufacturing. Indeed, it was in recognition of water's essentiality to human life that in "July 2010, the [United Nations General Assembly](#) explicitly recognized the human right to water and sanitation and acknowledged that clean drinking water and sanitation are essential to the realization of all human rights."

As implied by the title of the conference, each panel and keynote will focus on science, sustainability, and solutions. What does the latest research reveal about each theme for discussion, and what novel or innovative research is taking place? How can national governments, local communities, and the private sector in Africa develop sustainable water solutions? And, what best practices should be held up as models for addressing the water question in Africa? To address Africa's water opportunity, panels will feature a diverse mix of faculty and researchers, private sector representatives, NGOs, and non-profits working on 21<sup>st</sup> century solutions to water. We will identify participants from across Africa (ensuring regional diversity including North Africa) as well as the international community.

Agenda for meetings:

**Wednesday, April 21**

**9:00AM Welcome and Introductions**

**Professor Wafaie Fawzi**, Harvard Center for African Studies Interim Oppenheimer Faculty Director, Richard Saltonstall Professor of Population Sciences, and Professor of Nutrition, Epidemiology, and Global Health, Harvard T.H. Chan School of Public Health

**Provost Alan Garber**, Harvard University

**9:15AM Panel: Water and Health**

*The panel will explore the connection between water and health, including sanitation and hygiene. Cholera remains endemic in most of Central and East Africa, with more cases than any other region in the world. Drinking contaminated water can spread diseases including diarrhea, dysentery, typhoid, and polio. The onset of the COVID-19 pandemic presented a new challenge as water scarce communities are encouraged to practice increased levels of hand washing. Waste water and sewage treatment are also pertinent to the discussion and an area where novel methods can reutilize waste water for commercial use. This panel will discuss novel and innovative approaches for accessing clean, potable water for communities and the related implications for health and healthcare systems.*

**Moderator: Professor John Macomber**, Senior Lecturer, Harvard Business School

**Panelists:**

- **Dr. Richard Cash**, Senior Lecturer on Global Health, Harvard T.H Chan School of Public Health
- **Dr. Guéladio Cissé**, Professor of Sanitary Engineering & Environmental Epidemiology, Swiss Tropical and Public Health Institute
- **Dr. Guy Hutton**, Senior Adviser, WASH Section, UNICEF
- **Dr. Cush Ngongo Luwesi**, Focal Regional Manager for the Volta and Niger, CGIAR Research Program on Water, Land and Ecosystems
- **Ms. Jennifer Sara**, Global Director, Water Global Practice, World Bank

**10:15AM Keynote Address: Annual Joseph S. Agyepong Distinguished Lecture on Public Health in Africa**

**"Water for health in Africa - A rights-based approach to development"**

**Keynote by: Dr. Martin Fregene**, Director of Agriculture and Agro-Industry, African Development Bank Group (AfDB)

**Moderated by Professor Robert Paarlberg**, Associate, Sustainability Science Program, Harvard Kennedy School

**11:15AM Panel: Water, Climate, and Agriculture**

*With a changing climate, some areas of Africa will have decreased levels of precipitation while others will be more susceptible to flooding. Temperature change in Africa is projected to be more extreme than anywhere else in the world. As droughts become more frequent and sustained, crop production will be threatened, resulting in diminished food security. Lakes that are shrinking due to climate change impact the food source and livelihoods of surrounding communities. These challenges present not only a threat to food security but also economic security. This panel will explore how a changing climate might impact agriculture, the solutions that government and farmers might adopt, as well as the implications of the Paris Agreement for Africa.*

**Moderator: Professor Rob Paarlberg**, Associate, Sustainability Science Program, Harvard Kennedy School

**Panelists:**

- **Professor Peter Huybers**, Professor of Health and Planetary Sciences, Harvard University
- **Dr. Paul Orengho**, Director of Programs, African Ministers' Council on Water
- **Dr. Claudia Ringler**, Deputy Division Director, Environment and Production Technology Division, International Food Policy Research Institute
- **Dr. Karen Villholth**, Principal Researcher and Coordinator, International Water Management Institute

**12:15PM Day One Closing Remarks**

Agenda (cont.) – 2<sup>nd</sup> Day

**Thursday, April 22**

**9:00AM Welcome and Recognition of Earth Day 2021**

**Professor Rainer Sauerborn**, Senior Professor, Heidelberg University

**Dean Douglas Elmendorf**, Harvard Kennedy School

**9:15AM Panel: Water, Migration, and Human Rights**

*Access to water for drinking, agriculture, and fishing has driven human migration patterns for centuries. As changes to climate impact the availability of water or lead to more extreme weather events, migration for water-related reasons is anticipated to increase. With migration can come conflicts over land territory, water rights, and cross-national borders. It is important however that water as a cause of migration not be over simplified and offered as a single explanation for complex migratory patterns, or that water-driven migration be viewed as a net negative. This panel will explore the role of water as a cause of migration as well as the question of water as a human right.*

**Moderator: Professor Jacqueline Bhabha**, FXB Director of Research, Professor of the Practice of Health and Human Rights at the Harvard T.H. Chan School of Public Health, the Jeremiah Smith Jr. Lecturer in Law at Harvard Law School, and Adjunct Lecturer in Public Policy at the Harvard Kennedy School

**Panelists:**

- **Ms. Hind Aïssaoui Bennani**, Migration, Environment, and Climate Change Regional Specialist, International Organization for Migration
- **Professor Reshmaan N. Hussam**, Assistant Professor of Business Administration, Harvard Business School
- **Ms. Aimée-Noël Mbiyozo**, Senior Research Consultant, Institute for Security Studies, Africa
- **Dr. Kira Vinke**, Project Lead, East Africa Peru India Climate Capacities (EPICC), Potsdam Institute for Climate Impact Research (PIK)

**10:15AM "Africa's water opportunities: Policy actions for driving economic growth and strengthening resilience" Keynote Address by Dr. Apollos Nwafor**, Vice President, Policy and State Capability, Alliance for a Green Revolution in Africa (AGRA)

**11:15AM Panel: Africa's Water Opportunity**

*We will take a holistic look at water—linking the themes of health, agriculture, and migration—with an eye towards Africa's Water Opportunity. We will ask a multidisciplinary panel to synthesize a way forward with solutions-oriented recommendations about next steps and policy outcomes. We may explore these themes through innovations in water management, climate-smart food systems using circular agriculture and sustainable fishery, and the involvement of humanitarian organizations in applied research.*

**Moderator: Professor Ina Danquah**, Robert Bosch Junior Professor for Sustainable Nutrition in sub-Saharan Africa, Heidelberg University

**Panelists:**

- **Mr. Kitchenme Bawa**, Sanitation Project Manager, African Ministers' Council on Water
- **Ms. Silvia Gaya**, Senior Advisor on Water, UNICEF
- **Ms. Cécile Renaudin**, WatSan Working Group Leader, MSF International
- **Mr. Sylvain Usher**, Executive Director, African Water Association (AfWA)

**12:15PM Day Two Closing Remarks**

**Dr. Joseph S. Agyepong**, Founder and Executive Chairman, JOSPONG Group of Companies

**Professor Wafaie Fawzi**, Harvard Center for African Studies Interim Oppenheimer Faculty Director, Richard Saltonstall Professor of Population Sciences, and Professor of Nutrition, Epidemiology, and Global Health, Harvard T.H. Chan School of Public Health

## Biographies of Participants:

- **Dr. Joseph S. Agyepong**, Founder and Executive Chairman, JOSPONG Group of Companies



Dr. Joseph S. Agyepong's passion for public health encouraged him to endow this lecture series on public health in Africa. He hopes these lectures will educate new generations of global health leaders and contribute to finding lasting and sustainable solutions to improve the health and wellbeing of Africans. Dr. Joseph S. Agyepong, founder and Executive Chairman of the Josping Group of Companies, can best be described as a serial entrepreneur. His business empire is a conglomerate of 60 companies operating in 14 sectors of the economy including waste management, banking and finance, ICT and software development, printing and publishing, building and construction, manufacturing, ports services and logistics, hospitality, and multimedia, among others. Dr. Agyepong is a member of the Africa Advisory Board of the Center for African Studies of Harvard University, President of the Environmental Service Providers Association in Ghana, and a Council member of the Association of Ghana Industries (AGI).

- **Mr. Kitchenme Bawa**, Sanitation Project Manager, African Ministers' Council on Water



Mr. Bawa will talk about how we are working to improve sanitation and hygiene across the continent to preserve water quality. AMCOW will be launching soon the African Sanitation Policy Guidelines (ASPG). The ASPG will guide African countries' efforts to develop or improve their policies by making them inclusive of all core elements of the required sanitation and hygiene enabling environment. Kitchenme Bawa is a Nigerian national the Sanitation Project Manager at AMCOW. He holds an MSc in Global Management from the University of Salford in the UK. He also has a BSc in Geology and Mining from the University of Jos, Nigeria; a certificate on Governance in Urban Sanitation from the United Nations Institute of Training and Research (UNITAR) Geneva, Switzerland and a certificate in Advance Monitoring and Evaluation from the INTRAC Oxford, UK. Kitchenme has more than 14 years experience in international development working in Nigeria and across the continent at different levels. His experience includes participatory community engagement and service delivery with the most vulnerable groups and high-level stakeholder engagement

at national, sub regional and continental levels. This involved working on Water, Sanitation and Hygiene (WASH) governance with a focus on High-Level Policy Advocacy and influencing; multistakeholder engagement and coordination; and monitoring and reporting on High-Level regional decisions, and commitments on the WASH enabling environment.

- **Hind Aïssaoui Bennani, Migration, Environment, and Climate Change Regional Specialist, International Organization for Migration**



Hind Aïssaoui Bennani is based in Dakar, Senegal. She is a thematic specialist for IOM in West and Central Africa, where she is supporting the development of the intervention on Migration Environment and Climate Change. After a technical degree in aquaculture and a practical experience in agriculture, she worked for an agricultural trade union in France, supporting small farmers and youth in accessing water, land, media and courts. In this role, she also contributed to international campaigns on labor migrants' rights in agriculture. As an independent journalist, she then covered social issues in rural Morocco, among them labor migration. Specialized in local policy planning through sustainable energy, she then integrated IOM Morocco to coordinate the Migration, Development and Environment Unit. In Dakar since mid-2018, Hind Aïssaoui Bennani now mobilizes her experience to better take into account migrants and migration into climate and environmental discussions.

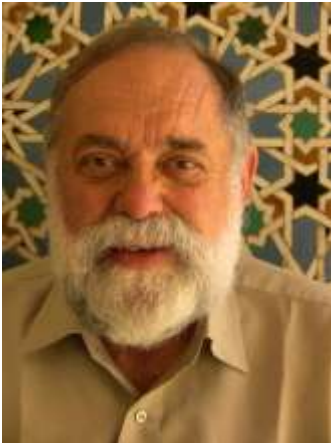
- **Professor Jacqueline Bhabha, FXB Director of Research, Professor of the Practice of Health and Human Rights at the Harvard T.H. Chan School of Public Health, the Jeremiah Smith Jr. Lecturer in Law at Harvard Law School, and Adjunct Lecturer in Public Policy at the Harvard Kennedy School**



Jacqueline Bhabha is FXB Director of Research, Professor of the Practice of Health and Human Rights at the Harvard School of Public Health, the Jeremiah Smith Jr. Lecturer in Law at Harvard Law School, and an Adjunct Lecturer in Public Policy at the Harvard Kennedy School. She received a first class honors degree and an M.Sc. from Oxford University, and a J.D. from the College of Law in London. From 1997 to 2001 Jacqueline Bhabha directed the Human Rights Program at the University of Chicago. Prior to 1997, she was a practicing human rights lawyer in London and at the European Court of Human Rights in Strasbourg. She has published extensively on issues of transnational child migration, refugee protection,

children's rights and citizenship. She is the editor of *Children Without A State* (2011), author of *Child Migration and Human Rights in a Global Age* (2014), and editor of *Human Rights and Adolescence* (2014). Jacqueline Bhabha serves on the board of the Scholars at Risk Network, the World Peace Foundation and the *Journal of Refugee Studies*. She is also a founder of the Alba Collective, an international women's NGO currently working with rural women and girls in developing countries to enhance financial security and youth rights.

- **Dr. Richard Cash, Senior Lecturer on Global Health, Harvard T.H Chan School of Public Health**



Dr. Richard Cash and his colleagues conducted the first clinical trials of Oral Rehydration Therapy (ORT) in adult and pediatric cholera and non-cholera diarrhea patients and patients at the Cholera Research Laboratory in Bangladesh (now the icddr,b). Through his work on diarrhea he has had a continuing interest in water and sanitation issues and their impact on infectious diseases and nutrition.

Scaling up health programs is another major interest. He's the senior editor of "From One to Many: Scaling Up Health Programs in Low-Income Countries" and a co-author of two other books documenting scaled up health program: "A Simple Solution: Teaching Millions to Treat Diarrhea at Home" and "Making Tuberculosis History: Community-Based Solutions for Millions".

He directed a program in research ethics focusing on training fellows from Asia and has conducted research ethics workshops in 12 countries. "Casebook on Ethical Issues in International Health Research", a WHO publication, was a product of this program. As a Visiting Professor at a number of public health institutions in Asia he's continued his interest in institution building. In 2006 he was the recipient of the Prince Mahidol Award for his work on ORT and in 2011 received the Fries Price for Improving Health.

Education

B.S., 1963, University of Wisconsin, Madison

M.D., 1966, New York University School of Medicine

M.P.H., 1973, Johns Hopkins University

- **Dr. Guéladio Cissé, Professor of Sanitary Engineering & Environmental Epidemiology, Swiss Tropical and Public Health Institute**





Dr Guéladio Cissé is professor and head of the Ecosystem Health Sciences Unit in the Department of Epidemiology and Public Health of the Swiss Tropical and Public Health Institute (Swiss TPH), an associated institute of the University of Basel, Switzerland. He holds a master's degree in environmental sciences, a doctorate in sanitary engineering and environmental epidemiology and a certificate of advanced studies in disaster risk reduction. Before joining Swiss TPH in 2009, he worked more than 20 years based in his originated West Africa region (successively Mauritania, Burkina Faso and Côte d'Ivoire) as successively head of a national service for hygiene and sanitation, professor, head of a sanitary engineering department in an international engineering school and coordinator of regional research programs in an international research center on global change, water, environmental sanitation, hygiene and health linkages. For more than 25 years, he is engaged in research, teaching and services related to challenges related to integrated water management, water quality, and wastewater recycling and reuse, climate change and health, particularly in African urban contexts. He is a member of the Intergovernmental Panel on Climate Change (IPCC) Working Group II on "Impacts, Adaptation and Vulnerability" for the sixth Assessment Report. He is particularly interested by climate change and health linkages, and specifically by challenges for system transitioning in water and sanitation to ensure better health and wellbeing under climate change. He is the author of several publications, directed works of several young African researchers and contributed in many international conferences and panels of experts on water, ecosystems, climate and health in African contexts.

- **Professor Ina Danquah**, Robert Bosch Junior Professor for Sustainable Nutrition in sub-Saharan Africa, Heidelberg University



Ina Danquah is a nutrition scientist who has specialized in epidemiology. For the past 10 years, her research focused on characterizing the dietary behavior of sub-Saharan African populations under transition, and establishing their diet-disease relationships. She is a principal investigator within the DFG-funded Research Unit "Climate Change and Health in sub-Saharan Africa". She has been a leading scientist for the work package "Nutrition" in the EU/FP7 project RODAM (Research on Obesity and Diabetes among African Migrants). She

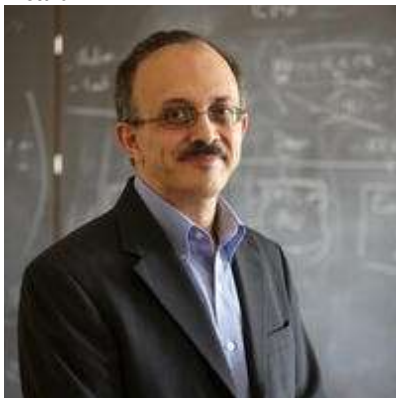
has received funding from notable sources such as the Robert Bosch Foundation and the German Diabetes Foundation (DDS). She has been awarded several prizes for her research including the Early-Career Award by the Leibniz Kolleg Potsdam. She is affiliated with multiple institutions including Kwame Nkrumah University. She has published more than 55 peer-reviewed articles and her work has been cited over 1450 times.

- **Dean Douglas Elmendorf, Harvard Kennedy School**



Douglas Elmendorf began his tenure as dean and professor at Harvard Kennedy School in January 2016. He had been a visiting fellow at the Brookings Institution after serving as the director of the Congressional Budget Office from January 2009 through March 2015. Prior to that he was a senior fellow at Brookings, the Edward M. Bernstein Scholar, and the director of the Hamilton Project. He was previously an assistant professor at Harvard University, a principal analyst at CBO, a senior economist at the White House's Council of Economic Advisers, a deputy assistant secretary for economic policy at the Treasury Department, and an assistant director of the Division of Research and Statistics at the Federal Reserve Board. His work has involved budget policy, health care, macroeconomics, social and income security to mention a few. He earned his PhD and AM in economics from Harvard University, and his AB from Princeton University.

- **Dr. Wafaie Fawzi, Oppenheimer Interim Faculty Director, Harvard Center for African Studies, and Richard Saltonstall Professor of Population Sciences, Professor of Nutrition, Epidemiology, and Global Health at the Harvard T.H. Chan School of Public Health**



Wafaie Fawzi is the Richard Saltonstall Professor of Population Sciences and Professor of Nutrition, Epidemiology, and Global Health at the Harvard TH Chan School of Public Health. He is currently serving as the Interim Oppenheimer Faculty Director of the Harvard Center for African Studies. The primary focus of his research is on the discovery and translation of interventions to enhance maternal and child health and development. Over the past 25 years, his group has led the design and implementation of more than 30 randomized controlled trials of maternal/neonatal and child/adolescent health, and infectious diseases, with emphasis on nutritional factors. They also undertake observational studies to understand the broader



epidemiology of global health challenges, with a focus on developing countries in Africa and Asia. In the past 15 years, they have expanded their work to study the scale up and translation of various interventions that have shown to be efficacious, and pursue this in partnerships that integrate multiple public health disciplines. Their findings are disseminated through more than 450 papers to date that Professor Fawzi has authored or co-authored.

- **Dr. Martin Fregene, Director of Agriculture and Agro-Industry, African Development Bank Group (AfDB)**



Dr. Martin Fregene is a plant geneticist and molecular breeder with over 25 years of research and development experience at two International Agricultural Research Centers (IARCs), a renowned Plant Science Center in the US (judged the sixth best plant science center in the US), at the Federal Ministry of Agriculture and Rural Development (FMARD) of Nigeria - as Chief Technical Adviser to the erstwhile Minister of Agriculture, and as Adviser to the Vice President of Agriculture, Human, and Social Development at the African Development Bank (AfDB), Dr Jennifer Blanke. He is currently Director of Agriculture and Agro-Industry (AHAI) at the African Development Bank working on implementation of a bold initiative of the Bank, the Feed Africa Strategy in collaboration with AHAI's sister department at the Bank, Agricultural Financing and Rural Development (AHFR). Specifically, he is leading the execution of the Technologies for African Agricultural Transformation (TAAT) to raise farm level crop, livestock, and aquaculture productivity across the continent. He is also leading the design and implementation of the Transformation of African Savannah Initiative (TASI), a science and technology –based initiative, that seeks to transform 16 million Ha of African Savannah across eight African countries into breadbaskets producing 50million MT of maize, 30million MT of soybean, and 10 million MT of livestock within 25 years via new private sector investments and climate-smart agriculture.

He began his career at the International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria, in 1991 as a pre-doctoral fellow in cassava breeding (1991-1993). While at IITA, he was a recipient of a Rockefeller Foundation post-doctoral fellowship on molecular genetic mapping (1993 – 1996) that took him to the International Center for Tropical Agriculture (CIAT, its Spanish acronym), Cali, Colombia; while at CIAT as a post-doc, he developed the first molecular genetic map of cassava. From 1996 until 1997 he was an associate scientist at CIAT working on tagging of genes controlling early yield, resistance to diseases and pests in cassava. In 1999, he was promoted senior scientist and cassava geneticist at CIAT and initiated the first cassava molecular breeding program to accelerate development of improved cassava varieties for various agro-ecologies of Africa, Asia, and Latin America.

He left CIAT in 2008 to join the Biocassava Plus project, an initiative funded by the Bill and Melinda Gates Foundation to enhance the nutritional status of cassava, as product development manager at the Donald Danforth Plant Science Center (DDPSC), St. Louis, Missouri. He was promoted Director of the Biocassava plus project in July 2010 and led a team that produced cassava events rich in pro-vitamin A and iron, also successfully renewing the grant, securing an additional US\$7million for a phase II, bringing the total grant to US\$21million. Dr. Fregene took a leave of absence from DDPSC to join the Honorable Minister of Agriculture as a Chief Technical Advisor and team leader of the cassava value-added chain, continuing on to the African Development Bank in 2015 as adviser on Feed Africa.

Dr. Fregene has a B.Sc. degree in Chemistry from the University of Ibadan, Nigeria. He bagged a M.Sc. degree in Organic chemistry at the same University, graduating at the top of his class. His Ph.D. degree in plant genetics and breeding was conducted at the John Innes Center, Norwich UK, the International Institute for Tropical Agriculture (IITA), Ibadan, and the International Center for Tropical Agriculture (CIAT, its Spanish acronym), Cali, Colombia, and awarded by the University of Ibadan, Nigeria. Dr. Fregene has also been recipient of several travel award: including a grant of the Japanese Society for the promotion of Science (JSPS) in 2001 to spend a total of 6 months at the Iwate Biotechnology Research Institute (IBRC), Kitakami, Japan; a CIAT award to spend 3 months with Dr Rod Wing at the Clemson University Genome Institute (CUGI), a grant of the International Program for Science of the University of Uppsala to spend 3 months at the Swedish Agricultural University, Uppsala, Sweden, amongst others. He also won best publication award twice while at CIAT. He has been recipient of over US\$25M in research grants over the course of his 25-year career and has published over 70 scientific papers in refereed journals and book chapters.

- **Silvia Gaya, Senior Advisor on Water, UNICEF**



Silvia Gaya, UNICEF's Senior Advisor on Water, Sanitation and Hygiene (WASH), is an engineer with an advanced degree in Politics and International Relations. Silvia has more than 18 years of experience working for children in development programs and emergency contexts. She has been assigned to seven different countries including high profile emergencies such as Eastern Chad (Darfur conflict) and Haiti (right after the earthquake). Previously, Silvia worked for 10 years with the private sector in developed countries, mainly Europe and worked for several years with civil society in Catalunya, as a volunteer in youth programs. Silvia has been privileged to serve UNICEF for more than 17 years, managing large and highly demanding programs, and getting at-scale results even in very complex environments such as fragile countries with political instability or under sanctions, high profile emergencies and difficult environments where effective programming requires

different perspectives in order to address key issues such as social norms to assure sustainable change. Silvia's current role on the UNICEF WASH team in the New York headquarters as Senior Advisor on Water, Sanitation and Hygiene is to contribute to the global agenda for children, particularly focusing on addressing gender and equity challenges and to provide opportunities for those most vulnerable, women and children that are lagging behind in access to basic social services such as water, sanitation and hygiene. Silvia is fluent in four languages, English, Spanish, French and Catalan.

- **Provost Alan Garber, Harvard University**



Provost Garber serves as Harvard University's chief academic officer. He is also the Mallinckrodt Professor of Health Care Policy at Harvard Medical School, a Professor of Economics in the Harvard Faculty of Arts and Sciences, Professor of Public Policy in the Harvard Kennedy School of Government, and Professor in the Department of Health Policy and Management in the Harvard T.H. Chan School of Public Health. An economist and physician, he studies methods for improving health care productivity and health care financing. As Provost, Dr. Garber oversees academic activities throughout the university, with direct responsibility for inter-school initiatives, faculty development, research policy, international affairs, and advances in learning. The Harvard Art Museums, the Harvard Library, Harvard University Health Services, HarvardX, the American Repertory Theater, and the Arnold Arboretum are among the organizations reporting to the Provost. Dr. Garber is an Elected Member of the Association of American Physicians, the National Academy of Medicine, and the American Academy of Arts and Sciences. He is also an Elected Fellow of the American Association for the Advancement of Science, the American College of Physicians and the Royal College of Physicians. A summa cum laude graduate of Harvard College, Dr. Garber received a PhD in Economics from Harvard and an MD with research honors from Stanford.

- **Professor Reshmaan N. Hussam, Assistant Professor of Business Administration, Harvard Business School**



Reshmaan Hussam is an assistant professor of business administration in the Business, Government and International Economy Unit, teaching the Business, Government and International Economy course to MBA students. Her research explores questions at the intersection of development, behavioral, and health economics. Considering the puzzle of the ubiquitously low adoption of many low cost, high return goods, behaviors, and technologies in the developing world, she explores the role of learning and habit formation in sustained behavioral change. She also examines how to utilize community information to optimally allocate capital to microentrepreneurs as well as how digitization of financial services impacts financial inclusion in resource-poor settings. Her most recent work engages refugee populations including the Rohingya of Myanmar, estimating the costs of forced idleness on psychosocial wellbeing and documenting refugee preferences for repatriation, integration, and resettlement.

- **Dr. Guy Hutton, Senior Adviser, WASH Section, UNICEF**



Guy Hutton is a development economist with a PhD in economics from London University. He currently works as Senior Adviser at the United Nations Children's Fund (UNICEF), covering water, sanitation and hygiene (WASH). He has previously held positions at the London School of Hygiene and Tropical Medicine, the University of Basel, and the World Bank where he was Senior Water and Sanitation Economist from 2007-2016. He has led country implementation projects, international research studies and global advocacy initiatives in the fields of water, sanitation, health, air pollution and climate change. His research interests are systems analysis and strengthening, affordability of basic services to poor and vulnerable populations, service costing and financing, cost-benefit analysis, and making better use of knowledge.

- **Professor Peter Huybers, Professor of Health and Planetary Sciences, Harvard University**



Peter Huybers is currently a professor whose research interests lie in developing a better understanding of the climate system and its implications for society. He received a B.S. in physics in 1996 from the United States Military Academy at West Point, and a Ph.D. in climate chemistry and physics from the Massachusetts Institute of Technology in 2004. He was a NOAA Postdoctoral Fellow in Climate and Global Change in the Geology and Geophysics Department at Woods Hole Oceanographic Institution from 2004-2006. Huybers has published in notable journals including the Journal of Physical Oceanography. He is the recipient of multiple awards, including a MacArthur Foundation Fellowship in 2009, a Packard Fellowship for Science and Engineering in 2009, a Harvard University Center for the Environment Fellowship in 2005, the MIT Carl-Gustaf Rossby Prize in 2004, and a National Defense Science and Engineering Graduate Fellowship in 2001.

- **Dr. Cush Ngonzo Luwesi, Focal Regional Manager for the Volta and Niger, CGIAR Research Program on Water, Land, and Ecosystems**

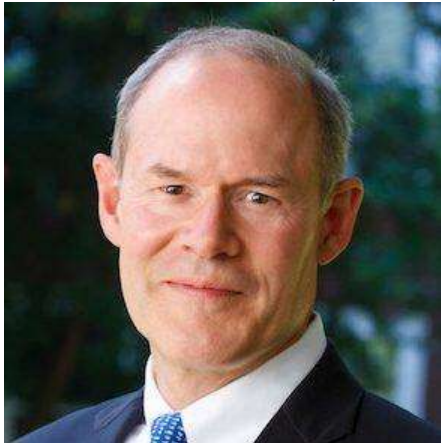


Cush Ngonzo Luwesi is an associate professor of Integrated Watershed Management (IWM), specialized in Environmental (Water and Climate Change) Economics at the University of Kwango (DRC). He holds PhD and Masters' degrees of Kenyatta University (Nairobi, Kenya) as well as several postgraduate diplomas and certificates from German universities (Humboldt-Zu-Berlin, Heidelberg, Potsdam and Siegen) as well as the World Bank's IPDET program at Carleton University (Ottawa, Canada). He has published over 80 publications in international journals and books. He also got several recognitions from international organizations in close to 60 countries and the United-Nations. In 2011, he got the «Adaptation H2O Award» from IDRC (Ottawa, Canada) for developing novel approaches on the evaluation of the economic impacts of climate change on water during his PhD tenure. He was awarded the Vice Chancellor's Best Scholar Award of the year 2014 at Kenyatta University. The same year, he was invited by the Institute for Advanced Sustainability Studies



(IASS)- Potsdam and Harvard University to the first global conference on Geoengineering (Berlin, Germany, 2014). In 2015, he was nominated among the 8 best African scholars to become a member of the Scientific Advisory Committee (SAC) of the Climate Research for Development (CR4D) program of the United Nations Economic Commission for Africa (UNECA). In 2016, he was invited among the 10 best African scholars by 10 leading American universities in the “Food, Energy and Water Nexus” field to the Next Einstein Forum (NEF) (these included Harvard, MIT, Duke, Johns Hopkins, Rutgers, Washington, Yale, Utah, South Carolina and Connecticut). In 2017, he was the African Guest Researcher at the Nordic Africa Institute (NAI) at Uppsala University (Uppsala, Sweden), as part of the editorial board of a research book on “Innovative Water Finance in Africa”. Since September 2016, he works as Secretary General - Academic (up to June 2019) and Director General at the Health College of Kenge (ISTM-MRP-Kenge) (starting from June 2019) (Kenge, DRC). He is a reviewer and editor of several journals including Agriculture Journal (California, US), Health-Environment Sustainability Journal (Basel, Switzerland), Elsevier, Applied Geography, to name but a few.

- **Professor John Macomber, Senior Lecturer, Harvard Business School**



John Macomber is a Senior Lecturer in the Finance unit at Harvard Business School. His professional background includes leadership of real estate, construction, and information technology businesses and he teaches Finance, Real Estate, Urbanization and Entrepreneurship. His most recent book is "Healthy Buildings: How Indoor Spaces Drive Performance and Productivity" (Harvard University Press, 2020). He is also the Faculty Chair of the HBS Africa Research Center and is engaged in the Business and Environment Initiative and Social Enterprise Initiatives at HBS. He is a member of the Executive Committee of the Harvard University Center for African Studies. Mr. Macomber is the former Chairman and CEO of the George B H Macomber Company, a large regional general contractor. He remains a principal in several real estate partnerships. He serves or has served on the boards of Young Presidents Organization International (YPO), Boston Private Bank, Mount Auburn Hospital, and the WGBH Educational Foundation.



- **Aimée-Noël Mbiyozo, Senior Research Consultant, Institute for Security Studies, Africa**



Aimée-Noël Mbiyozo is a senior research consultant with the Institute for Security Studies, Africa in the migration program. Over the past decade, she has conducted research on the intersection of migration with other prevailing issues such as climate change, gender, asylum law, human smuggling, violent extremism and citizenship. She has authored multiple policy-oriented and research reports. Her work has focused on high-risk and fragile environments in Africa as well as across west, central and south Asia. Aimée-Noël ensures her contributions are grounded in real-life perspectives from migrants themselves. Her overarching intent is to use her thorough understanding of migration and refugee policies to give a voice to those who aren't heard and to affect changes to policy and practice that are grounded in actual migrant experiences. She has lived in South Africa for 14 years and her greatest hope is to see refugee and migrant protections upheld and expanded to reflect evolving global realities.

- **Dr. Apollos Nwafor, Vice President, Policy and State Capability, Alliance for a Green Revolution in Africa (AGRA)**



Dr. Apollos is a Nigerian citizen who holds a PHD in Public Policy and Administration (Law and Policy) from Walden University-USA, a Masters in Public Policy and Management from (SOAS) University of London-UK and a Bachelor of Science (B.Sc. Ed) Political Science from the University of Nigeria.

He has extensive experience across Africa ensuring the development and implementation of Pan-African strategies including leading and managing programs covering education, extractives, public health, agriculture, water and sanitation, electoral reforms, public finance reforms, capacity strengthening for governments and civil society as well as managing multi-country grants, providing strategic policy support and advice to governments and civil society.

With an in depth understanding and passion for agriculture and agricultural development, he has worked with the African Union, implementing agricultural programs with small holder farmers and sustainable development. Apollos has a firm grasp of the necessity of building relationships at strategic and political levels, forming partnerships with key senior

government leaders, commissioners for rural agriculture and technical experts. Additionally, he served as WaterAid's liaison and Adviser to the President of Liberia as Africa's Goodwill Ambassador for WASH in Africa.

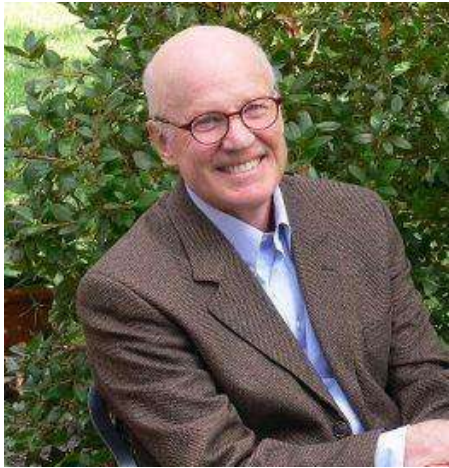
Dr. Apollos worked with Oxfam International as its Pan Africa Director where he led the development of the first Oxfam International Pan Africa Strategy, served as the representative to the African Union and other multilateral institutions in Africa as well as led Oxfam's diplomatic engagement at the continental level. As a highly skilled and passionate international development professional, Apollos believes that development must be inclusive and requires strategic partnerships on the basis of equality and mutual accountability that delivers sustainable results.

- **Dr. Paul Orengoh, Director of Programs, African Ministers' Council on Water**



Dr. Paul Orengoh, a Kenyan, is the Director of Programs at African Ministers' Council on Water, a concept to execution driver with extensive experience in developing, managing, and implementing complex projects and programs on water resources and ecosystems management, watershed planning and management, climate change and adaptation across countries in Africa and the Middle East. He is based in Abuja, Nigeria where he plays a critical role in setting and executing Africa's water and sanitation sector agenda as the technical figurehead within the African Union framework which recognizes AMCOW as the continent's premier water and sanitation body under the Specialized Technical Committee on Agriculture, Rural Development, Water and Environment. Dr. Orengoh is a PhD holder in Environmental Sciences from the University of East London, in addition to other professional and academic certifications in water economics, natural resources management, international development and strategic communications. Dr. Orengoh is also a certified Water Rights Expert with the African Court on Human and Peoples' Rights, otherwise called the African Court of Justice, and has in the recent past been called upon to provide expert opinions in specific water access related litigations. He has authored a number of publications, chapters in books, and also contributed to papers during development of peer-reviewed journals on a range of subjects, including, including water security, conservation education, hydro-diplomacy, water rights, among others.

- **Professor Rob Paarlberg, Associate, Sustainability Science Program, Harvard Kennedy School**



From 1976 until 2015, Robert Paarlberg was a Professor of Political Science at Wellesley College. He is the author of six university press books, including *Food Politics: What Everyone Needs to Know* (Oxford, 2013) and *The United States of Excess: Gluttony and the Dark Side of American Exceptionalism* (Oxford, 2015). He has been a member of the Board of Agriculture and Natural Resources at the National Research Council of the National Academies, and was a member of the Board of Directors at Winrock International. He has been a frequent consultant of the International Food Policy Research Institute, the United States Agency for International Development (USAID), the Chicago Council on Global Affairs, the Aspen Institute, and the Bill & Melinda Gates Foundation. He holds a PhD in International Relations from Harvard University, and received his B.A. from Carleton College.

- **Ms. Cécile Renaudin, WatSan Working Group Leader, MSF International**



Cécile Renaudin holds a degree in Environmental Engineering. She has collected MSF field experience, in, among others, Chad, DRC, Sierra Leone, Liberia on various Water Hygiene and Sanitation related outbreak management, such as cholera or hepatitis E. After working from HQ and other INGOs, she's currently MSF WatSan Working Group Leader.

- **Dr. Claudia Ringler, Deputy Director of Environment and Production Technology Division, International Food Policy Research Institute**



Claudia Ringler is Deputy Division Director at the International Food Policy Research Institute (IFPRI). A thought leader on water for food, she manages IFPRI's Natural Resource Theme, co-leads the Institute's water research program and is a co-manager of Resilience and Competing Uses flagship of the CGIAR Research Program on Water, Land and Ecosystems (WLE). Claudia also chairs the Food, Energy, Environment and Water Network (FE2W), is associated with the Sustainable Water Futures Program of Future Earth and advises several organizations focusing on improving water and food security. Claudia has lived in Southeast Asia for several years, and has also been working in East Asia, South Asia, Central Asia, Latin America and the Middle East; more recently she has focused most of her time and research on improving rural livelihoods in Sub-Saharan Africa. She has more than 200 publications in the areas of global water and food security, irrigation, gender-water and gender-climate change linkages, on the synergies of climate change adaptation and mitigation and on the role of energy in transforming agricultural systems. Claudia has a PhD in agricultural economics from University of Bonn and an MA in International Development Economics from Yale University.

- **Ms. Jennifer Sara, Global Director, Water Global Practice, World Bank**



Jennifer Sara is the Global Director for the World Bank Group's Water Global Practice. Prior to taking on this position, Ms. Sara served for four years as Director, overseeing operational delivery in the Water Global Practice at the World Bank. She has over 30 years of experience working on global water issues, including overseas assignments for the World Bank as Sector Manager for Sustainable Development based in Hanoi, Vietnam (2010 – 2014); Sector Leader in Brazil (2006 – 2010); and Water and Sanitation Specialist in Bolivia (1990 – 1995).

Ms. Sara leads the Practice's senior management team, which drives policy direction, oversees a portfolio of \$30 billion in water-related investments, conducts analytical work, and manages multi-donor trust funds and global partnerships. Under her leadership, the Water

Global Practice supports an integrated approach to water security with a focus on sustaining water resources, delivering services and building resilience. The Water Global Practice team works across sectors to solve global water challenges and provides tailored operational support and policy advice to countries in response to specific needs and arising challenges.

Ms. Sara holds an MSc in Environmental Management from the University of London, Wye College, and a BSc in Environmental Engineering from Brown University. She is Governor of the World Water Council and serves on the International Council of the American Water Works Association as well as the International Advisory Committee of the World Wildlife Fund's Healthy Rivers for All Initiative.

- **Professor Rainer Sauerborn, Senior Professor, Heidelberg University**



Dr. Rainer Sauerborn has been Head of the Institute of Global Health at the Heidelberg University Hospital from 1997 until 2016. He is also a guest professor for "Global Health and Climate Change" at Umeå University in Sweden. He trained as a physician in Bonn, Heidelberg and London. He has done research at the Harvard School of Public Health and at Tufts University in Boston. In the early 1980s Rainer Sauerborn spent three years as a "District Medical Officer" in Nouna (Burkina Faso). Since then, numerous research projects have linked him to the country. He is also a member of the Intergovernmental Panel on Climate Change (IPCC).

- **Mr. Sylvain Usher, Executive Director, African Water Association (AfWA)**



Sylvain Usher is an Electrical Engineer (University of Quebec, Canada). In 1999 he joined the Saudi National Water Company and entered the African Water Association (AfWA) as Deputy Secretary General. Since then he has developed his international career as a water specialist, organizing capacity-building programs for African water utilities. Since 2004 Mr.



Usher has been the Executive Director of the African Water Association. He has carried out several studies for institutions such as the EU, the African Development Bank and the World Bank, and leads workshops and sessions during international conferences. He has facilitated dialogue with the African Development Bank on scaling up water and sanitation services, with the participation of experts and water utility CEOs. He carried out a World Bank study on Africa's rapid urban development, and the challenges faced by water and sanitation utilities. He is a member of several international water institutions and co-author of the African Water Association book "L'Afrique et L'Eau" (2014) on water and sanitation issues in the African continent.

- **Dr. Karen Villholth, Principal Researcher, International Water Management Institute**



Karen G. Villholth has 25+ years' experience in water research and management. She is a Principal Researcher with IWMI (International Water Management Institute) - Southern Africa, where she leads the groundwater portfolio. She coordinates the Groundwater Solutions Initiative for Policy and Practice (GRIPP), a global partnership of 30 international organizations supporting sustainable development, use and management of groundwater. Her areas of work include research, policy advice, and capacity development on the following key aspects: transboundary aquifers, groundwater irrigation and food security, groundwater resources assessment/modelling, climate change and adaptation, natural/green infrastructure, and groundwater management and governance. She engages with stakeholders at local to global level in co-developing tools, capacity, technical solutions, and policies to a more sustainable use of groundwater for livelihoods, health, food security, and environmental integrity. Karen holds a PhD and MSc from Technical University of Denmark and a MSc from University of Washington, USA. She worked for DHI-Water and Environment and Geological Survey of Denmark and Greenland. She is editor of eight books and special issues and author of more than 70 peer-reviewed international journal articles.

- **Dr. Kira Vinke, Project Lead, East Africa Peru India Climate Capacities (EPICC), Potsdam Institute for Climate Impact Research (PIK)**





Dr. Kira Vinke works at the Potsdam Institute for Climate Impact Research as the project lead of EPICC (East Africa Peru India Climate Capacities), an interdisciplinary project on the co-production of knowledge about regional climate and hydrological systems and their interactions with agricultural livelihoods, human migration and security. Dr. Vinke is the co-chair of the Advisory Board to the Federal German Government on Civilian Crisis Prevention and Peacebuilding.

Until June 2018 Ms. Vinke was a research analyst to the director of PIK, Prof. Hans Joachim Schellnhuber. In this capacity she worked from 2014-2016 as an analyst for the German Advisory Council on Global Change to the Federal Government (WBGU). In 2014 she was a consultant for the German Development Cooperation (GIZ) on the nexus between climate change and migration into vulnerable cities in Southern Bangladesh. 2016 and 2017 Ms. Vinke worked as an external consultant for the Asian Development Bank developing the flagship report "A Region at Risk - The Human Dimensions of Climate Change in Asia and the Pacific."

Ms. Vinke completed her doctoral dissertation (summa cum laude) at Humboldt-Universität zu Berlin on the subject of climate change and migration. Her studies were funded by the Studienstiftung des deutschen Volkes and she completed part of her field research on a voyage with the Okeanos Foundation to outer island communities in the Republic of the Marshall Islands. For her dissertation she received the "Potsdamer Nachwuchswissenschaftler-Preis", a prize for young scientists by the city of Potsdam. Ms. Vinke speaks English, German, Spanish, Portuguese and on a good day some Japanese and French.