Short Biographies of Participants

SHARDUL AGRAWALA
Agrawala received his Ph.D. and Master of Public Affairs (MPA) degrees from the Woodrow Wilson School of Public and International Affairs at Princeton University. He has previously worked on climate assessments at the Intergovernmental Panel on Climate Change (IPCC), Harvard University, and at the International Institute of Applied Systems Analysis (IIASA) in Laxenburg, Austria. He has also consulted for the Fridtjof Nansen Institute, Norway and the US Environmental Protection Agency. Agrawala was elected to Sigma Xi in 2000 and is the recipient of a number of awards including the National Talent Scholarship of the Government of India, the Graduate School Fellowship and several research awards at Princeton University, and the NSF Global Environmental Assessment Fellowship at Harvard University.

TONY BARNSTON
Prior to arriving to the IRI at the end of June 2000, Barnston was an operational seasonal climate forecaster and developmental researcher in empirical prediction methodology at the Climate Prediction Center of NOAA for 17 years. He has authored atlases, reports and journal papers on weather and climate, the several best known of which were on statistical diagnosis on large-scale circulation patterns and on empirical climate prediction. He was Editor of the Experimental Long Lead Forecast Bulletin from 1992 to 1997. Barnston has received awards from the Department of Commerce and the American Meteorological Society. With his forecast staff, Barnston ensures the production of a range of IRI forecast products, from monthly forecasts of sea surface temperatures to quarterly net assessment and extreme event forecasts. His current goal is the improvement of the IRI's forecast operation, through maximizing the accuracy of the forecasts, streamlining and automating the forecast process, and facilitating the creation of new versions of the forecast tailored to specific user groups.

REID BASHER
Before joining the IRI in July 1999, Basher was responsible for a broad range of climate research and applications work in New Zealand’s National Institute of Water and Atmospheric Research, including the leadership of public and commercial climate services and the direction of the national cooperative climate network and national climate database. His qualifications include a Diploma of Business Administration in addition to his science degrees. He has a wide variety of experience in the climate field, spanning research, operational services, policy advice, capacity building projects, public information, commercial consultancy, and management. He has been a lead Author in impacts reports of the Intergovernmental Panel on Climate Change (IPCC), a Chair of the Working Group on Climate Data of the World Meteorological Organization (WMO). He has been an invited presenter to WMO expert meeting and training workshops in many countries and a consultant to the South Pacific Regional Environmental Programme (SPREP). Basher leads the IRI Application efforts. He is responsible for research in application methodologies, the development and implementation of strategies for the applications of climate predictions, and for collaboration and coordination with other applications specialists worldwide. He stresses the virtues of a strong orientation toward users/clients and their needs, a transdisciplinary approach to projects, and a focus on achieving enduring practical results.

MARK CANE
Mark Cane is the G. Unger Vetlesen Professor of Earth and Climate Sciences. He is also a member of the Columbia Earth Institute Academic Committee. He received a B.A. Harvard, 1965; M.A. 1966; Ph.D., Massachusetts Institute of Technology, 1976. Like so many other oceanographers, Mark Cane was born in Brooklyn, New York, in the days before the Dodgers left and precipitated the decline of American civilization. In 1992, Cane received the Sverdrup Gold Medal of the American Meteorological Society. Cane built the first dynamical prediction models of El Niño (with S.E. Zebiak). His research interests have included the building of numerical ocean models, equatorial dynamics, El Niño, prediction of
MICHAEL M. CROW
Michael M. Crow is currently Executive Vice Provost of the University and Professor of Science Policy at Columbia University in the City of New York. He oversees Columbia’s research enterprise, technology and innovation transfer operations, strategic initiative program, interdisciplinary program development and an assortment of special projects. Prior to moving to Columbia in 1991, Dr. Crow was Institute Professor of Technology Management and Director of the Institute for Physical Research and Technology at Iowa State University. He earned his Ph.D. in Public Policy from the Maxwell School at Syracuse University. He is the author of many articles and author or editor of several books relating to the analysis of research organizations, technology transfer, strategic R&D management, research universities, science and technology policy, and the practice and theory of public policy.

DAVID DE WITT

LISA GODDARD
Goddard has been working for the IRI, first at Scripps, within the Climate Research Division since 1995. She has a Ph.D. in Atmospheric and Oceanic Sciences from Princeton University, where she did her thesis research on the physics and energetics of El Niño at GFDL with George Philander. Dr. Goddard is part of a team that studies climate dynamics and potential predictability, assesses climate prediction tools, advances strategies for research, development and implementation of climate forecasts, and produces quarterly Net Assessment forecasts for the IRI. She has developed the tools and analysis methods used for examining and comparing the data from the atmospheric general circulation models used for climate forecasting. Her research mainly focuses on climate dynamics and climate predictability with a continuing interest in El Niño.

JIM HANSEN
While serving on the faculty of the Agricultural and Biological Engineering Department of the University of Florida, Hansen worked with an interdisciplinary team of Florida Consortium investigators to design and implement an effective "end-to-end" program for applying ENSO-based climate prediction to crop production in the Southeast USA. The effort has resulted in a statewide agricultural extension program in Florida on use of climate information and prediction. Hansen holds a Ph.D. in Agricultural and Biological Engineering with a minor in Food and Resource Economics from the University of Florida (1995) and an M.S. in Agronomy and Soil Science from the University of Hawaii (1989). Effective use of seasonal climate forecast information for agricultural decision making depends on interactions between the global and regional climate system, the human actors within the agricultural system, and the biophysical production and resource systems that form the interface between climate and people. Agricultural systems, Hansen's primary area of expertise, focuses on understanding interactions within
complex systems at various scales and levels of hierarchy. Hansen's research at the IRI focuses on appropriate use of seasonal climate prediction to improve agricultural decision making, particularly in smallholder farming systems of the tropics. Current projects address application of climate forecasts to crop management in South Asia and food security early warning in West Africa, and methodology for linking dynamic forecasts to analysis of crop production decisions. His interests and experience include applications of agricultural systems methodology to decision applications of probabilistic forecast information, farm risk and sustainability analysis, and land use management; spatial scaling issues in agricultural systems analysis; weather data management and stochastic generation for cropping systems applications; and agronomy, cropping system ecology and soil management in tropical environments.

**UPMANU LALL**
Lall received his Ph.D. from the University of Texas in 1981. Prior to joining the IRI, he was a professor for the University of Utah and Utah State University. He has over 20 years of experience as a hydrologist. Lall's principal areas of expertise are statistical and numerical modeling of hydrologic climatic systems and water resource systems planning and management. Conference Proceedings/Abstracts/Presented Papers: Rajagopalan, B., Y. Kushnir, J. Miller, and U. Lall, 1999. Relationships between climate and named storm frequency in the Atlantic basin. NOAA Climate Diagnostics Workshop, Tucson, AZ, November 1999.

**ROBERTO LENTON**
Roberto Lenton is the Executive Director of the Secretariat for International Affairs and Development. In this position, Dr. Lenton is responsible for IRI's institutional development, with particular emphasis on IRI's goal of becoming a fully international institution with international programs, partnerships, funding and governance. Prior to joining the IRI, Dr. Lenton was Director of the Sustainable Energy and Environment Division (SEED) at the United Nations Development Programme in New York, a position he held from 1995 to end-2000. In that position, Dr. Lenton was responsible for setting UNDP policy in natural resources, energy and environment; developing and managing UNDP's global programs in these areas; and overseeing UNDP's special programs in drylands management and capacity building for sustainable development as well as its activities as implementing agency for the Global Environment Facility (GEF) and the Montreal Protocol. An internationally recognized authority on water resources management, Dr. Lenton was Director General of the International Water Management Institute (IWMI) from 1987 to 1994. During that time, Dr. Lenton helped the institute grow from a small, project-driven organization to a global international research center with field programs in Asia, Africa and Latin America. In 1990, the institute became a part of the network of research centers of the Consultative Group on International Agricultural Research (CGIAR), which is co-sponsored by FAO, UNDP and the World Bank. From 1977 to 1986, Dr. Lenton was engaged in international development assistance activities with the Ford Foundation-first in the Foundation's New Delhi office, where he was responsible for water management programs in India, Sri Lanka and Nepal, and later at its New York headquarters, where he was responsible for international programs in natural resources management. Dr. Lenton, who is a citizen of Argentina, received a Civil Engineering degree from the University of Buenos Aires and Masters and Ph.D. degrees in Water Resources Systems from the Massachusetts Institute of Technology (MIT). A member of MIT's Civil Engineering Faculty from 1974 to 1977, Dr. Lenton is a co-author of Applied Water Resources Systems, as well as the author or co-author of over 50 professional papers on scientific, technical and policy subjects.

**MICHAEL B. MCELROY**
Michael B. McElroy received his elementary and graduate education from Queen’s University in Belfast, Northern Ireland. After spending a postdoctoral year in the Chemistry Department at the University of Wisconsin, he was appointed staff scientist in 1963 at Kitt Peak National Observatory in Tucson, Arizona. In 1970, he was named Abbott Lawrence Rotch Professor of Atmospheric Sciences at Harvard University, and in 1975 was appointed Director of the Center for Earth and Planetary Physics. In 1986 he was named Chairman of the Department of Earth and Planetary Sciences, a position he held until July 2000. Since 1992 he has been Chairman of the University Committee on Environment at Harvard where he leads an interdisciplinary study on the implications of China’s rapid industrial development for the local, regional and global environment. In 1997, he was named the Gilbert Butler Professor of
Environmental Studies. McElroy’s research interests range from studies on the origin and evolution of the planets to, more recently, an emphasis on effects of human activity on the global environment of the Earth. He is the author of more than 200 technical papers contributing to our understanding of human induced changes in stratospheric ozone and to the potential for serious disruptions to global and regional climate due to anthropogenically related emissions of greenhouse gases. He is a Fellow of the American Academy of Arts and Sciences, the International Academy of Aeronautics, the American Geophysical Union and the American Association for the Advancement of Science. He was the recipient of the Macelwane Award of the American Geophysical Union in 1968, the NASA Public Service Medal in 1978 and the Eire Society Gold Medal in 1987. In 1989 he was awarded the George Ledlie Prize at Harvard University for the person who “since the last award of said prize, has by research, discovery, or otherwise made the most valuable contribution to science, or in any way for the benefit of mankind” and received the Research and Development Award from the National Energy Resources Organization. Queen’s University of Belfast honored him with award of an honorary degree of Doctor of Science in 1991.

ANTONIO DIVINO MOURA
Director of IRI since its inception, Dr. Moura holds a Ph.D. degree from the Massachusetts Institute of Technology (1974), receiving the Carl Gustav Rossby Award for the most outstanding Meteorology thesis of the year. Also holds an Electrical Engineer degree from UFMG, Brazil (1969). As Director of Meteorology (and Senior Researcher) at the Brazilian National Institute for Space Research (INPE, he played an important role in establishing a world class research and graduate program in Meteorology and Physical Oceanography (1970-96) and provided thesis advisory to several Ph.D. and M.S. candidates. In 1985, he was invited by the Brazilian Minister of Agriculture to take the post of Director General of the National Meteorological Service (INMET) to coordinate the modernization of forecasting methods, data collection and transmission. As a consequence, the Ministry of Science and Technology and the Ministry of Agriculture decided to invest over US$ 40 million to implement a new Center for Weather Prediction and Climate Studies (CPTEC/INPE), the first of its kind in South America, with supercomputer facilities and a well qualified team of scientists and engineers. His research on the causes of droughts over Northeastern Brazil - a region where over 30 million people suffer the effects of severe and recurrent droughts - has determined, in collaboration with colleagues, that the Atlantic Ocean plays as an important role as the El Niño phenomenon over that region. While working in both the academia (INPE) and in practical applications of forecasts (Weather Service) he realized the need for establishing new institutional arrangements to bridge the physical (climate) with social sciences and economic benefits. Dr. Moura was then invited to serve as the Chief Scientist of the NOAA's Office of Global Programs (1991-93), to work with a team of international scientists to put forward the proposal for the emerging IRI - an institute that simultaneously seeks for the production of the 'best' climate forecasts and their 'best' use for the benefit of societies, mainly in the Third World. Prior to and concurrent with that, Dr. Moura was the Chair of the Inter-governmental TOGA Board, an international (18 countries) resources board responsible for pushing forward the TOGA program and putting forward the building of the IRI concept. He was also co-Chair of the IPCC WGI during 1988-90. In 1996 he was granted a tenure position as Professor of Physics (Electricity and Magnetism) at University of Taubate, Brazil. Elected a Fellow of the Third World Academy of Sciences in 1998, he is now working with scientists and colleagues at Columbia University, and other research centers, to advance climate forecast skills and to foster the use of these forecasts in support of development and poverty reduction in many areas of the globe. As Director General and CEO, Dr. Moura is responsible for the development and expansion of the complex and growing research and application environment of the IRI, as well as the management of its institutional relationships with its sponsors and international partners around the world.

CAROLYN MUTTER
Mutter received her Ph.D. from Columbia University in 1991. Prior to taking on a science coordination role with the IRI in 1997, Mutter was an associate research scientist at Lamont-Doherty Earth Observatory. She undertook more than ten ocean research cruises, including ocean drilling research, as participant and co-principal investigator. She has served as Adjunct Professor (Oceanography) in the Department of Earth and Environmental Sciences at Barnard College, and as a member of the US Science Advisory Committee. Since 1997, she has participated in IRI science program development, coordination, infrastructural support, and management. Mutter commenced her present role as assistant director for
science management in early 2001. As assistant director for science management, Mutter oversees science program activities for the IRI, including planning, program development, day to day fiscal and operational oversight, and communications for the IRI. She also represents the Director General in university, government, national and/or international meetings and organizations, and assists in program integration, fiscal and PR initiatives, and infrastructural development.

**JOHN C. MUTTER** Associate Vice Provost, Columbia Earth Institute, Executive Deputy Director, Lamont-Doherty Earth Observatory, Professor of Earth and Environmental Sciences. Professor Mutter was born in Melbourne, Australia and is a permanent resident of USA. He received a B.Sc. in Physics and Pure Mathematics from the University of Melbourne (Australia), an M.Sc. in geophysics from the University of Sydney (Australia), and a Ph.D. in Marine Geophysics from Columbia University (New York). Professor Mutter’s basic research interests include marine seismology and tectonics, the study of physical mechanisms and processes associated with seafloor spreading, continental extension and the development of passive continental margins. More recently his interest include complex system dynamics and the predictability of earth systems. From 1970-1978, Professor Mutter served as a Geophysicist with the Bureau of Mineral Resources, Canberra, ACT, Australia. From 1978 on, he has been at Columbia University and Lamont-Doherty Earth Observatory, serving in increasingly responsible research, teaching and administrative positions. In research, he moved from Research Associate in 1982 to Senior Research Scientist in 1989; in teaching, he went from Columbia University Faculty Fellow in 1982 to Professor of Earth and Environmental Sciences in 1991; and administratively, he became Associate Director for Geophysics and Geology in January 1993, Director of Research in January 1994, he was Interim Director of the Observatory in March 1994 until September 1996 when he became Deputy Director of the Observatory and its Director of Research until May 1999, at which time he was again appointed Interim Director through November 2000 when he was appointed Executive Deputy Director. He also now serves as Associate Vice Provost of the Columbia Earth Institute. He was recently appointed by Governor Pataki to the New York State Greenhouse Task and Climate Change Task Force. Professor Mutter has authorized or co-authored more than 70 articles in scientific journals and many popular articles. His fieldwork includes over 30 cruises aboard Lamont’s research vessels and others in all parts of the world’s oceans.

**LEO OSTWALD**
Leo Ostwald has held systems engineering/administration positions for various organizations, including Bank of America, Naval Atlantic Meteorology and Oceanography Center, and Computer Sciences Corporation. He holds Master's degrees in Physical Oceanography and Engineering Acoustics from the Naval Postgraduate School. Leo administers and ensures maximum ongoing system performance and availability for the IRI's full-time operational activities. He has lead responsibility for IRI systems, including high performance computing platforms, mass storage facilities, UNIX/LINUX workstations, PC's, remote site communications and scientific visualization.

**ALEX PFAFF**

**JENNIFER PHILLIPS**
Prior to joining the IRI in January of 2000, Phillips spent several years conducting research on the interaction of climate variability and agriculture at NASA/Goddard Institute for Space Studies. She obtained her Ph.D. in Environmental Biophysics and plant/water relations in the Department of Soil,
Crop and Atmospheric Sciences at Cornell University in 1994, and is a former Fulbright scholar and NATO research fellow. Research Interests: Phillips' primary research interests are in addressing the gap between the production of climate information and its potential uses in rural settings, particularly in farm management. Her focus is on Africa, and she is particularly interested in the issue of communicating climate information, and how uncertainty inherent in forecasts influences decision making. Current projects include managing the USAID-funded effort in East Africa "Regional Climate Prediction and Applications in the Greater Horn of Africa" (1999-2001); Co-Principal Investigator on the NOAA Office of Global Programs Human Dimensions project "Improving Climate Forecast Communications for Farm Management in Uganda" (2000-2003) and the project "Assessing Current and Potential Use of Seasonal Climate Forecasts for Communal Farm Management in Zimbabwe" (1997-2001); and organizing a workshop for the Media to improve reporting on climate and climate forecasting which will be held in Jinja, Uganda in August. A recent achievement was successfully organizing and holding a meeting on Communication of Climate Forecast Information, held at the IRI in early June, and attended by researchers and practitioners from the US and Africa.

STEVE RAYNER
Rayner is a Professor of Environment and Public Affairs in the School of International and Public Affairs at Columbia University, where he also holds joint appointments in the Department of Sociology and the IRI. Before coming to Columbia, Rayner held the rank of Chief Scientist at the Pacific Northwest National Laboratory. He received his Ph.D. in Anthropology from University College London in 1979. Published Papers and Books: Human Choice and Climate Change, Volume 1-4 (with Elizabeth L. Malone, eds.). Making Markets: An Interdisciplinary Perspective on Economic Exchange (with Robin Cantor and Stuart Henry). Measuring Culture: A Paradigm for the Analysis of Social Organization. Rules, Decisions, and Inequality (with James Flanagan).

CHET ROPELEWSKI
Before joining the IRI, Ropelewski served as a research meteorologist with the Climate Prediction Center, National Weather Service. As Chief of the Center's Analysis Branch from 1990 to 1997 he directed research and operational climate monitoring for over a dozen senior level climate research scientists. His primary research interests include studies of the El Niño/Southern Oscillation and its influence on rainfall and temperature, the analysis and display of climate information, the influence of the land surface on atmospheric processes and the detection of global climate change. He is the author of over 50 scientific papers in the refereed literature and scores of reports on climate, climate variability and climate change issues. He has been a contributor to national and international reports including the Inter-governmental Panel on Climate Change (IPCC). He currently Chairs the American Meteorological Society's Climate Variations Committee. He was the 1990 co-recipient of the World Meteorological Organization's 1990 Norbert Gerbier Mumm Award for work describing rainfall patterns associated with the El Niño/Southern Oscillation. Role at the IRI: Ropelewski leads the IRI effort to develop methods and data sets to improve monitoring of the climate system, to disseminate climate information for the IRI, and to implement the IRI Climate Information System (IRICIS).

ED SARACHIK
Ed Sarachik is Professor of Atmospheric Sciences, Adjunct Professor of Oceanography and Adjunct Professor of Applied Mathematics at the University of Washington, Seattle. His areas of research are: coupled atmosphere-ocean interactions, tropical meteorology and oceanography, thermohaline circulations in the ocean, and the applications of climate information. He is a Fellow of the American Meteorological Society, the American Geophysical Union, and the American Association for the Advancement of Science. He co-Chairs the International Science and Technology Committee of the IRI.

ALISSA SCHMELTZ
For the past four years, Schmeltz has been working on institutional development issues related to the IRI. As Special Advisor, she supports the Executive Director in developing international programs, partnerships, funding, and governance for the IRI. From 1998-2001, Alissa served as a policy analyst in the Office of the Executive Vice Provost at Columbia University where she also worked on institutional development issues related to the IRI. Prior to this, from 1996-1998 she was a researcher at the NOAA
Office of Global Programs where she was first exposed to the IRI. From 1995-1996, Alissa worked for the President's Council on Sustainable Development. In this capacity she was involved in writing a national report that was submitted to the President. Schmeltz received a Bachelor of Science in Environmental Policy and Behavioral Science from the University of Michigan School of Natural Resources and the Environment and received a Master of International Affairs from the Columbia University School of International Affairs and Development. Role at the IRI: Schmeltz provides assistance to the Executive Director of the Secretariat for International Affairs and Development.

ANJI SETH
Dr. Seth received her PhD in Atmospheric Sciences from the University of Michigan through a Graduate Fellowship in the Advanced Study Program at the National Center for Atmospheric Research (NCAR). While a visiting scientist at NCAR she was an adjunct professor at the University of Colorado, Boulder, and also a research fellow at the University of Arizona, Tucson. Her research has examined the role of land surface processes on climate simulations and the predictability of seasonal rainfall using regional climate models. Dr. Seth has been an Associate Research Scientist at the IRI since June of 1999. Research Interests: Anji's research focus is on regional processes in climate and climate variability, particularly on seasonal time scales. She is also a developer of the IRI Climate Information System

ADAM SOBEL
Adam Sobel was born and raised in New York City. He attended Wesleyan University in Middletown, CT, where he double-majored in Physics and Music. After graduating in 1989 he worked for a while as a sound engineer making TV and Radio commercials in New York, and then moved to Berkeley, CA where he worked for a year as Research Assistant in an experimental Nuclear Physics group at Lawrence Berkeley Laboratory. He then attended graduate school at MIT, where he obtained his PhD in Meteorology in 1998, with a thesis on stratospheric dynamics and transport under the supervision of Professor Alan Plumb, FRS. He then spent two years as a Postdoctoral Scientist at the University of Washington, Seattle, where he worked with Professor Chris Bretherton and others on a range of problems in tropical atmospheric dynamics and tracer transport in geophysical fluids. Since January 2000 he has been an Assistant Professor at Columbia University, jointly appointed between the departments of Applied Physics and Applied Mathematics (SEAS) and Earth and Environmental Sciences. His recent work is focused on an original mathematical theory for the large-scale tropical atmospheric circulation known as the "Weak Temperature Gradient (WTG) Approximation".

NEIL WARD
Ward joined the IRI in April of 2000 from the University of Oklahoma, where he was principal investigator for a range of climate research topics. Ward also has extensive experience in operational forecast products and systems from his previous tenure with centres in Europe. Research Interests: Ward focuses on the important link between forecast products and user applications. In this role, he works in the field with collaborators to better understand requirements, and also with the forecast research and production team at the IRI, to ensure the feedback users provide becomes incorporated, whenever possible, into improved forecast developments.

ELKE WEBER
Elke Weber is Professor of Management and Psychology at Columbia University (phone: 212-854-4427; email: euw2@columbia.edu). She got her Ph.D. (in Behavior and Decision Analysis) from Harvard University in 1984, has been teaching in both the United States (University of Chicago, University of Illinois, Ohio State University) and Europe (Otto Beisheim Graduate School of Corporate Management), and spent a year at the Center for Advanced Studies in the Behavioral Sciences at Stanford. She is an expert on behavioral models of judgment and decision-making under risk and uncertainty. Recently she has been investigating psychologically appropriate ways to measure and model individual and cultural differences in risk taking, specifically in risky financial situations and environmental decision-making and policy. Weber is president of the Society for Mathematical Psychology, past president of the Society for Judgment and Decision Making, coeditor of the journal Risk Decision & Policy and associate editor of the journal Organizational Behavior and Human Decision Processes. She serves on the editorial boards of three other journals and on an advisory committee of the National Academy of Sciences on Human
Dimensions in Global Change. At Columbia, she founded and codirects the Center for the Decision Sciences, which fosters and facilitates cross-disciplinary research and graduate training in the basic and applied decision sciences.

STEVE ZEBIAK
Zebiak has worked in the area of ocean-atmosphere interaction and climate variability since completing his Ph.D. in 1984. He and Dr. Mark Cane were the authors of the first dynamical model used to predict El Niño successfully. He has served on numerous advisory committees, including those for the US TOGA Program, the Atlantic Climate Change Program, the Pan American Climate Studies Program. He is a member of the AMS Committee on Climate Variations, the Committee on Global and Climate Change Research, and is an associate editor of the Journal of Climate. Research Interests: Zebiak coordinates IRI coupled model efforts, data assimilation/forecast system development, predictability, and climate dynamics research for seasonal-to-interannual time scales. He also helps to foster active collaboration between IRI and other national and international centers engaged in climate modeling and prediction.

Recording Secretary: GEORGIANA AYBAR
Georgia Aybar came from years of work in international affairs, finance, law and church relations to the IRI as the first hire to its new director Antonio Divino Moura now Director General. She has worked since IRIs inception as the only support person on many projects that facilitated its growth to what it is today. She now works special projects and continues to support the IRI Directorate which consists of the Director General and 3 core staff, and the new Secretariat for International Affairs and Development.