

Inter-American Institute for Global Change Research



IAI Training Institute On Vulnerability Associated with Climate Variability and Climate Change in the Americas October 17 - 28, 2005, Asuncion, Paraguay

Coordinator: Dr. Luis Jose Mata

Senior Fellow
Center for Development Research [ZEF]
University of Bonn and
retired Professor from the
Universidad Central de Venezuela



Luis Jose Mata
Rüdigerstrasse 12, D-53179 Bonn, Germany
Center for Development Research (ZEF)
University of Bonn
Walter-Flex-Strasse 3, D-53113 Bonn Germany
Tel. 0-228-731793 (direct) or 0-228-731865 (sec)
Fax: 0-228-731889
E-mail: <u>L.mata@uni-bonn.de</u>
01.10.45 in Caracas, Venezuela Venezuelan
Martha Perdomo, 2 children: Luis J. born 04.12.74 and Gabriel 01.04.76
Senior Fellow at the Center for Development Research [ZEF], University of
Bonn, Germany
1997-2007
Professor of Fluid Dynamic and Environmental Science at the Universidad
Central de Venezuela (UCV).
1972-1997

	International Coordinator of the Summer Institute of the Inter American Institute for Global Research (IAI) on Vulnerability Associated with Climate Variability and Climate Change for America Central and The Caribbean held in Santo Domingo, Dominican Republic. 27 Oct—7Nov. 2003
	Director of the Fluid Dynamics and Environment Institute (IMF) of the
	Universidad Central de Venezuela (UCV) during two different period
	1990-1992
	1994-1997
	Visiting Scientist at the Center for Environmental System Research at the
	University of Kassel, Germany
	Summer 1997
	Member of the Main Faculty Board of the Universidad Central de Venezuela. 1996-1999
	Environmental Consultant at the Universidad Simón Bolívar and Universidad
	Metropolitana. Caracas, Venezuela.
	1994-1997
	Visiting Professor at the University of Virginia, Charlottesville, USA.
	Department of Environmental Science. Clark Hall
	Summer of 1995.
	Vice-Dean of the Engineering School of the UCV. 1992-1994
	Research Assistant at the Environmental and Engineering Research Center (ERC),
	Colorado State University
	1970-1972
	19/0-19/2
Research interests	
Research interests	Impacts of Global Climate Change on Natural and Human Systems.
	Climate Change and Vulnerability of Water Resources
	Impact of Climate Change in Tropical Forest
	Fluid Dynamics: Dispersion of Contaminants in the Atmosphere (Air Pollution)
	Generation of Regional Climate Scenarios for Vulnerability and Adaptation
	Studies.
	Et
	Extremes Event (Floods and Droughts) and Rapid non-linear Climate Change.
	Theory of Developments and Social Changes and its relation to Vulnerability
	Theory of Developments and Social Changes and its relation to Vulnerability
Education But the Control of the Con	Theory of Developments and Social Changes and its relation to Vulnerability Science
Pre-Graduate Studies	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970
Pre-Graduate Studies Other Studies (Summer	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water
Pre-Graduate Studies	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water Bodies.
Pre-Graduate Studies Other Studies (Summer	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water Bodies. Texas A& M, 1975—Modelling of Environmental Problems
Pre-Graduate Studies Other Studies (Summer Courses)	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water Bodies. Texas A& M, 1975—Modelling of Environmental Problems University of Minnesota, 1976—Experimental Fluid Dynamics.
Pre-Graduate Studies Other Studies (Summer	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water Bodies. Texas A& M, 1975—Modelling of Environmental Problems University of Minnesota, 1976—Experimental Fluid Dynamics. Master Program in Heat Transfer—Colorado State University.
Pre-Graduate Studies Other Studies (Summer Courses)	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water Bodies. Texas A& M, 1975—Modelling of Environmental Problems University of Minnesota, 1976—Experimental Fluid Dynamics. Master Program in Heat Transfer—Colorado State University. 1970-1972
Pre-Graduate Studies Other Studies (Summer Courses)	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water Bodies. Texas A& M, 1975—Modelling of Environmental Problems University of Minnesota, 1976—Experimental Fluid Dynamics. Master Program in Heat Transfer—Colorado State University. 1970-1972 Doctoral Program in Fluid Dynamics and Environmental Science—Colorado State
Pre-Graduate Studies Other Studies (Summer Courses)	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water Bodies. Texas A& M, 1975—Modelling of Environmental Problems University of Minnesota, 1976—Experimental Fluid Dynamics. Master Program in Heat Transfer—Colorado State University. 1970-1972 Doctoral Program in Fluid Dynamics and Environmental Science—Colorado State University.
Pre-Graduate Studies Other Studies (Summer Courses)	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water Bodies. Texas A& M, 1975—Modelling of Environmental Problems University of Minnesota, 1976—Experimental Fluid Dynamics. Master Program in Heat Transfer—Colorado State University. 1970-1972 Doctoral Program in Fluid Dynamics and Environmental Science—Colorado State
Pre-Graduate Studies Other Studies (Summer Courses) Post Graduate Studies	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water Bodies. Texas A& M, 1975—Modelling of Environmental Problems University of Minnesota, 1976—Experimental Fluid Dynamics. Master Program in Heat Transfer—Colorado State University. 1970-1972 Doctoral Program in Fluid Dynamics and Environmental Science—Colorado State University.
Pre-Graduate Studies Other Studies (Summer Courses)	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water Bodies. Texas A& M, 1975—Modelling of Environmental Problems University of Minnesota, 1976—Experimental Fluid Dynamics. Master Program in Heat Transfer—Colorado State University. 1970-1972 Doctoral Program in Fluid Dynamics and Environmental Science—Colorado State University. 1976-1980.
Pre-Graduate Studies Other Studies (Summer Courses) Post Graduate Studies	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water Bodies. Texas A& M, 1975—Modelling of Environmental Problems University of Minnesota, 1976—Experimental Fluid Dynamics. Master Program in Heat Transfer—Colorado State University. 1970-1972 Doctoral Program in Fluid Dynamics and Environmental Science—Colorado State University. 1976-1980. Coordinating Lead Author of IPCC Working Group II
Pre-Graduate Studies Other Studies (Summer Courses) Post Graduate Studies	Theory of Developments and Social Changes and its relation to Vulnerability Science Engineer, Facultad de Ingenieria, 1970 Massachusetts Institute of Technology, 1974—Modelling Heat Pollution in Water Bodies. Texas A& M, 1975—Modelling of Environmental Problems University of Minnesota, 1976—Experimental Fluid Dynamics. Master Program in Heat Transfer—Colorado State University. 1970-1972 Doctoral Program in Fluid Dynamics and Environmental Science—Colorado State University. 1976-1980.

	2003-2006
	Lead Author Millennium Ecosystem Assessment
	Natural Hazard Chapter: Floods and Fire Condition and Trend, 2004
	Member of the Review Team for "Climate Changes the Water Rules: How water
	managers can cope with today's climate variability and tomorrow's climate change" Published by the Dialogue on Water and Climate in 2003.
	Member of the Task Group of Climate Scenarios for Impact Studies (TGCIA)
	Intergovernmental Panel on Climate Change [IPCC] 1997-2003
	IPCC Coordinator Lead Author of the Latin American Chapter (WGII) 1998-2001
	IPCC Lead Author of Chapter 14—Advancing our Understanding of Climate Change (WGI)
	IPCC Review Editor of Chapter 13—Climate Scenario Development (WGI) 1998-2001
	Member of the Steering Committee of the IPCC Workshop on Changes in Severe Weather due to Climate Change. 2001-2002
	Venezuelan Case-Study to Address Climate Change, Caracas, Venezuela U.S. Country Studies Program [USCSP] 1994-1996
	Venezuelan Petroleum Oil Company [PDVSA]
	Review of environmental risk assessment documents, oil spill modelling,
	hydraulics and environmental problems of the Maracaibo lake, impact of climate change from oil industry activities 1993-1997
	Member of the International Scientific Advisory Committee First International Conference on Ecosystem and Sustainable Development [ECOSUD 97] October 14-16, 1997 First International Conference on Measurements and Modelling in Environmental
	Pollution [MMEP 97] April 22-24, 1997
Latest Publications	
	Seoane R.S., J. B. Valdes and L.J. Mata, 2005: Climate Variability and Change in Patagonian Rivers, Regional Hydrological Impacts of Climatic Change—Impacts Assessment and Decision Making (proceedings of Symposium S6 held during the Seventh IAHS Scientific Assembly at Foz do Iguaçu; Brazil, April 2005, IAHS Publication 295, 2005
	Mata, L.J., and Nick van de Giesen, 2005: Persistence in Precipitation Time
	Series From the ECHAM4 General Circulation Model for Historical and Future
	Time Slices, accepted for publication in a Special Issue of Climatic Change.
	Mata, L.J., and J. Budhooram, 2005: Complementarity between Mitigation and
	Adaptation: The Water Sector, accepted for publication in Global Mitigation and
	Adaptation Strategies Journal Mata, L.J., and R. Wassmann, 2005: Impacts of Global Climate Change on
	Coastal Ecosystems and Agriculture of the Developing World. in preparation
	Mata, L.J., 2004: Climate Change and Vulnerability of Water Resources. ZEF
	Background Paper. Mata, L.J., 2003: Advancing our understanding of Climate Change and Water
	related problems: An Overview. Proceeding of the World Climate Change
	Conference (WCCC 2003) Moscow, Russia.
	Kundzewicz Z.W and L.J.Mata., 2003: A concept Paper on Water and Climate Change (www.ipcc.ch)
	Change (<u>www.ipcc.cn</u>)

	Seoane R.S., J. B. Valdes and L.J. Mata: Detection of Climate Change in
	Streamflow of Patagonian Basins, WMO/TD-No.1172, Sep, 2003, pp 214-217.
	Mata, L.J., M. Rusticucci, S. Solman; J.B. Valdes, 2003: Extreme events and
	observed regional (South America) trends: A preliminary review, Proceedings of
	the International Symposium on Climate Change (ISCC 2003), Beijing, China.
	Mata, L.J., 2002: Models projections and types of extremes needs for impacts
	studies. In: IPCC Workshop Report on Changes in Extreme Weather and Climate
	Events, Beijing, China, page 58
	van de Giesen, N and L.J. Mata, 2002: Comparison of the Hurst exponent of
	historical and GCMs rainfall time series, Hydrology Days 2002, Fort Collins
	Colorado, page 32.
	Colorado, page 32.
D I OCI 4	
Books & Chapters in books	
	Vulnerability and Adaptation to Climate Change, Smith J, Huq S, Lenhart S,
	Mata L. J, Nemesova I, Toure S [eds]. Kluwer Academic Publishers. 366 pages.
	Moore III, B., W.L.Gates, L.J.Mata, and A. Undernal, 2001: Advancing our
	Understanding. In: Climate Change 2001: The Scientific Basis. [Houghton, J.T, et
	al, (eds)]. Cambridge University Press, pages 769-785.
	Mata, L.J., M. Campos, E.Basso, R. Compagnucci, P. Fearnside, G. Magrin, J.
	Marengo, A, R. Moreno, A. Suarez, S. Solman, A. Villamizar, L. Viller, 2001:
	Latin America. In: Climate Change 2001: Impacts, Adaptation, and Vulnerability.
	[McCarthy et al, (eds)]. Cambridge University Press, pages 693-734.
	van de Giesen, N., L.J. Mata, P. Doell, A. Hoekstra, M. Pfeffer and J. Ramirez,
	2000: Modelling Water Availability: Scaling Issues. In: Understanding the Earth
	System. [E. Ehlers and T. Krafft (eds)]. Springer Verlag, pages 245-253.
	Cohen, S. and L.J. Mata, 2000: Assessment of Development, Equity and
	Sustainability (DSE) in IPCC-TAR, WG2, Regional Chapters. In. Proceedings of
	the IPCC Regional Meeting on DSE, eds, R. Pitch et al., Havana, Cuba.
	Canziani, O., Sandra Diaz, L.J. Mata, Max Campos, 1998, The Regional Impacts
	of Climate Change: An Assessment of Vulnerability, eds., Watson R., M.
	Zinyowera and R. Moss., Chapter on Latin America., Cambridge University Press,
	pages 186-230.
	Perdomo, M., Olivo, M., Bonduki Y., L. J. Mata, 1996, Vulnerability and
	Adaptation Assessments for Venezuela, Chapter 17 in Vulnerability and
	Adaptation Assessments for Venezuela, Chapter 17 in Vulnerability and Adaptation to Climate Change, editors: Smith J, Huq S, Lenhart S, L. J. Mata .,
	Nemesova I, Toure S. Kluwer Academic Publishers, pages 347-366.
	Mata, L. J, 1996, A Study of Climate Change Impacts on the Forest of Venezuela.
	in Adapting to Climate Change: Assessment and Issues, <i>editors:</i> Smith J, Bhatti N,
	Menzulin G, Benioff R, Budyko M, Campos M, Jallow B, Rijsberman F. Springer-
	Verlag, pages 347-358.
Latest Posters an oral	
presentations	
presentations	Poster: Impacts, uncertainties and non-linearities of extremes events (heavy
	precipitation and floods) in a changing climate: "International Symposium of
	Climate Change", Beijing, China. 30 March - 3April 2003.
	Oral Presentation: Extreme events and observed regional (South America) trends:
	A preliminary review: "International Symposium of Climate Change", Beijing,
	China. 30 March- 3 April 2003.
	Oral Presentation: Model projections and types of extremes needs for impacts

	studies "IPCC Workshop on Changes in Extreme Weather and Climate Events", Beijing, China. 11-13 June 2002. Oral Presentation: What model projections (types of extremes and where) are needed for impacts studies. "CAS-TWAS Forum-Second International Symposium on Problems Related to Climate Modelling and Prediction", Shanghai, China. 22-25 September 2002.
	Poster: Comparison of the Hurst Exponent of historical and GCMs rainfall time series: "Hydrologic Days 2002, Fort Collins, Colorado, USA. 1-4 April 2002.
	Poster: Climate Extremes: Observations and Impacts on Human and Natural Systems of South America to Climate Change: "IGBP Global Science Conference Open Science Conference", Amsterdam, The Nederland. 10-13 July, 2001.
Language	Spanish and English
Gender	Male
Bonn, April 7 th ,2005	