



International Workshop  
**TOWARDS SCENARIOS FOR URBAN ADAPTATION PLANNING**  
Assessing seawater intrusion under climate and land cover changes in Dar es Salaam, Tanzania

Rome, 20-22 April, 2013

## BIOGRAPHICAL NOTES



This project is co-funded  
by the European Union



**ISPRA**

Istituto Superiore per la Protezione  
e la Ricerca Ambientale



DIPARTIMENTO DI INGEGNERIA  
CIVILE EDILE E AMBIENTALE



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## Fabio ATTORRE

Department of Environmental Biology

Sapienza University of Rome, Italy

PhD in Botany.

Prof. Fabio Attorre teaches GIS thematic mapping and Ecosystem Approach to Biodiversity Conservation at the Environmental Biology Department Sapienza University of Rome.

He is a plant ecologist specialized in Conservation in a Development context providing scientific support in several projects funded by the Italian Cooperation including Socotra (Yemen) and Galapagos (Ecuador) Archipelagos, Limpopo basin (Zimbabwe, Mozambique, South Africa) and protected areas of Albania. He has 13 years experience in protected area management, biodiversity (plant species and habitats) conservation and management, climate change effects of ecosystems, urban ecosystems planning. During his assignments, he authored some 80 scientific publications and supervised 18 post-graduated and 6 PhD students.

He is member of the IUCN ecosystem management commission and responsible for the UNCCD of the desertification issues in Southern Africa

### Publications:

- De Sillo R., Attorre F., De Sanctis M., Bruno F. 2012. Vegetation and landscape analysis of the Simbruini mountains (Central Apennines). *Plant Sociology*, 49 (1): 3-64.1. Senan A., Tomasetto F., Somashekar R.K., Farcomeni A., Attorre F. 2012. Determinants of plant species invasion in Socotra Island (Yemen). *Plant Ecology*, 213: 1381-1392.
- De Sanctis M., Adeeb A., Farcomeni A., Patriarca C., Saed A., Attorre F. 2012. Classification and distribution patterns of plant communities on Socotra Island, Yemen. *Applied Vegetation Science*, doi: 10.1111/j.1654-109X.2012.01212.x
- Vitale M., De Marco A., Screpanti A., Attorre F., Proietti C., 2012. Assessing ozone and nitrogen impact on net primary productivity with a Generalised non-Linear Model. *Environmental Pollution*, 172: 250–263.
- Attorre F., Francesconi F., De Sanctis M., Alfò M., Martella F., Valenti R., Vitale M. 2012. Classifying and mapping potential distribution of forest types using a finite mixture model. *Folia Geobotanica*, doi: 10.1007/s12224-012-9139-8
- Attorre F., Maggini A., Di Traglia M., De Sanctis M., Vitale M. 2012. A methodological approach for assessing the effects of disturbance factors on the conservation status of Mediterranean coastal dune systems. *Applied Vegetation Science*, doi: 10.1111/avsc.12002.
- Attorre F., De Sanctis M., Farcomeni A., Guillet A., Scepi E., Vitale M., Pella F., Fasola M. 2012. On the use of Spatial Ecological Modelling as a tool for improving the assessment of geographic range size of threatened species. *Journal for Nature Conservation*, doi: 10.1016/j.jnc.2012.10.001.
- Vitale M., Mancini M., Attorre F., Francesconi F., Valenti R., Matteucci G. 2012. Model-based assessment of ecological adaptations of three forest tree species growing in Italy and impact on carbon and water



balance at national scale under current and future climate scenarios. *iForest*, 5 (5): 235-246.

- Landucci L., Acosta A.T.R., Agrillo E., Attorre F., Biondi E., Cambria V.E., Chiarucci A., Del Vico E., De Sanctis M., Facioni L., Geri F., Gigante D., Guarino R., Landi S., Lucarini D., Panfili E., Pesaresi S., Prisco I., Rosati L., Spada F., Venanzoni R. 2012. VegItaly: the Italian collaborative project for a National Vegetation Database. *Plant Biosystems*, doi: 10.1080/11263504.2012.740093.

- Guillet A., Malatesta L., Falcetta M., Attorre F. 2012. Systemic Spatial Decision Support Systems: an integrated, computer-aided tool for biodiversity conservation. *Plant Biosystems*, doi: 10.1080/11263504.2012.740087.

- Stefano Martellos & Fabio Attorre. 2012. New trends in biodiversity informatics. *Plant Biosystems*, doi: 10.1080/11263504.2012.740092.

- Gigante D., Acosta A.T.R., Agrillo E., Attorre F., Cambria V.E., Casavecchia S., Chiarucci A., Del Vico E., De Sanctis M., Facioni L., Geri F., Guarino R., Landi S., Landucci F., Lucarini D., Panfili E., Pesaresi S., Prisco I., Rosati L., Spada F., Venanzoni R. 2013. VegItaly: Technical features, crucial issues and some solutions. *Plant Sociology* 49 (2): 71-79.

## Chiara CARANTI

**Sustainability Office – Environmental Sector**  
**Bologna Municipality, Italy**

Chiara Caranti has a Master Degree in the Faculty of Literature and Philosophy.

She works on European projects dealing with Environment, Environmental Education and ICT solutions for urban planning.

She is currently working on climate change issues for urban adaptation plans.

## Arnaldo CECCHINI

**Department of Architecture Design Urban Planning (DADU)**  
**University of Sassari, Italy**

Born in M. S. Martin (France), on September 12th, 1950.

Currently Full Professor in Urban Planning at the Faculty of Architecture in Alghero, University of Sassari, and Dean of the Faculty.

After obtaining the Master Degree cum laude in Physics at the University of Bologna in 1972, he received a scholarship at the Course of Town Planning at the University of Architecture of Venezia



(IUAV) until 1978 and worked there until 2003.

Director of the Interuniversity Laboratory of Analysis and Models for Planning - LAMP (Laboratorio di Analisi e Modelli per la Pianificazione - [www.lampnet.org](http://www.lampnet.org)) which succeeded the STRATEMA laboratory.

Author of more than 150 articles and papers published in books and refereed journals; edited, authored or co-authored several books.

Designed several gaming simulations and pure simulations on land use and for educational purposes.

Expert in techniques of urban analysis and modelling such as catastrophe theory, simulation, gaming simulation, cellular automata, scenario techniques and information systems for public participation.

## **Francesco CIOFFI**

**Department of Civil, Structure and Environmental Engineering  
Sapienza University of Rome, Italy**

Francesco Cioffi has a Degree in Hydraulic Engineering and a PhD in Environmental engineering. To date, he is Associate professor in Hydraulics at the Department of Civil, Structure and Environmental Engineering, University of Rome 'La Sapienza', and Adjunct Professor at the Earth and Environmental Engineering Department of Columbia University New York.

Francesco Cioffi's areas of expertise are experimental hydraulics (laboratory and field velocity and turbulence measurements), hydraulic and water quality mathematical models, solid transport models, environmental hydraulics and hydrology. At present, he is working on rainfall pattern changes in Europe and Italy and their impact on water resource management. In this context he is developing, in collaboration with the Water Center Columbia, statistical downscaling models for future projections of precipitation, temperature and sea level under global warming scenarios. He has collaborated on over a dozen projects funded by Italian public institutions. These projects have concerned a number of research subjects including: control and management of erosion phenomena in coastal zones; inshore and off shore aquaculture plants; recovery and management of water quality of lagoons, rivers and lakes; control of tidal phenomena in the Venice lagoon; the management of solid transport in river and reservoirs. He won research prizes and international fellowships. Furthermore he is coauthor of more than seventy publications on experimental hydraulics, environmental hydraulics and hydrology.



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## **Luca CONGEDO**

**Department of Civil, Building and Environmental Engineering  
(DICEA) Sapienza University of Rome, Italy**

Luca Congedo has a Master's Degree in Environmental Engineering.

He has currently a research fellow at DICEA, Department of Civil, Building and Environmental Engineering.

Luca Congedo's major fields of specialization are remote sensing and image analysis. He has conducted: in 2010 for ISPRA - Institute for Environmental Protection and Research an internship about experiments with the use of GIS for the publication of environmental data; in 2008 for Telespazio S.p.A an internship about image processing and image analysis, experimenting application techniques and semi-automatic classification of hyperspectral images for the extraction of themes and agro-environmental indicators, structural and functional on agricultural crops; in 2006 for City of Aprilia a training about implementation of a GIS for the management of the observations of general plan of the City.

Luca Congedo has published a number of papers on GIS and Spatial Analysis, landscape metrics, Web-GIS and access to urban environmental quality data.

## **Maria Teresa COVIELLO**

**Department of Civil, Building and Environmental Engineering  
(DICEA) Sapienza University of Rome, Italy**

Maria Teresa Coviello is graduated in Environmental Engineering, with a sperimental thesis developed at Dept. Applied Geology – University of Karlsruhe – Germany.

She has a PHD in Environmental Engineering held at the Autorità dei Bacini Regionali della Regione Lazio (Regional Authority of the Basins of the Lazio Region) within the Department of Civil, Building and Environmental Engineering of Sapienza University of Rome (DICEA), with whom she has been collaborating since 2001 as a researcher and student assistant for lessons and thesis focused on Applied Hydrogeology. Furthermore, she gained experience of teaching and support in context of foreign cooperation projects, funded by international and national organizations (in Greece and Kosovo).

She has participated in specialized courses in the field of isotopic analysis and geostatistics at the CNR (National Research Council) of Pisa, and GIS and modeling of groundwater flow and transport, taught by ESRI-Italy, EMS-i (Environmental Modelling System, Incorporated)



Utah (United States) and U.S.G.S. and UWM (University of Wisconsin Milwaukee).

Her research activity, through the involvement in specific studies for public administrations, and national and international research projects, has focused on issues relating to quantitative and qualitative sustainability assessment of water resources, with particular attention on:

- the definition of new methods of analysis for the vulnerability of aquifers within the European COST 620;
- the analysis of salinization processes and seawater intrusion of coastal aquifers.

She has experience in planning field surveys, in the application of geophysical techniques and chemical-isotopic ones, in the development of GIS applications within projects related to integrated management of water resources, in the definition of environmental monitoring, in the assessment for optimal strategies of intervention in contaminated areas.

She is actually involved in research activities in the Unit "Water resources and climate" at ISTAT (National Statistic Institute). Research activities are focused on the development of models for calculation and estimation of indicators for quantitative and qualitative assessment of water resources, of wastewater treatment and service levels of infrastructure and management related to the entire system integrated water.

She is a member of IAH (International Association of Hydrogeologists) and of ITAL-ICID (International Commission on Irrigation and Drainage).

She is author of several contributions at international conferences and publications in specialized journals on the hydrogeology and the environmental sector.

## **Giuseppe FALDI**

**Department of Astronautical, Electrical and Energetic Engineering (DIAEE) Sapienza University of Rome, Italy**

Giuseppe Faldi holds a Bachelor's and a Master's Degrees in Environmental Engineering and he is currently enrolled in the PhD program in Sustainable Development and International Cooperation at the Department of Astronautical, Electrical and Energetic Engineering (DIAEE), Sapienza University of Rome.

His major fields of specialization are water resource management, sustainability and climate change, impact and vulnerability assessment.

His PhD research focuses on exploring the use of vulnerability scenarios as a tool for designing community based strategies for adaptation to climate change in urban Sub-Saharan contexts, with Dar



es Salaam (Tanzania) as a case study.

For his Master's thesis he has conducted research on the evaluation of vulnerability to climate change of the coastal communities in Dar es Salaam as regards saltwater intrusion in the aquifer.

Besides, during an internship at "Comunità Montana del Casentino (Arezzo, Italy)" (Public Local Authorities in mountain territory management), Giuseppe Faldi has conducted research regarding the elaboration of project proposals for riverbank protection in Corsalone River (Bibbiena) with the use of bioengineering.

He is currently collaborating with the Department of Civil, Building and Environmental Engineering (DICEA), Sapienza University of Rome, in the project "Adapting to Climate Change in Coastal Dar es Salaam".

## **Laura FANTINI**

**Interuniversity Research Centre for Sustainable Development  
(CIRPS) Sapienza University of Rome, Italy**

Laura Fantini has a degree in law and a post graduate specialization in international cooperation and development.

Actually she is a PhD candidate at Sapienza University of Rome. Her field of research is "Evaluating Development Co-operation".

She has almost ten years of experience in designing, in managing and monitoring international cooperation projects on institutional-building and capacity-building with Public Administrations and Universities in Third Countries. Since 2004 she has been working in several department of Sapienza University of Rome, mainly in the Interuniversity Research Centre for Sustainable Development (Centro Interuniversitario di Ricerca Per lo Sviluppo sostenibile), where she was coordinator of the Research Unit "International University Cooperation". Among others she has experience in managing projects funded by Europeaid, the EC DG responsible for designing EU development policies, by Tempus, the EU Programme dealing with the modernization of higher education in countries surrounding the EU to foster Bologna process objectives, by the Research Framework Programme aiming at promoting the involvement of Universities within European Research Area and European Higher Education Area. Main geographical areas of work are European Union, Western Balkan Countries, Maghreb, Masrek, Bolivia and Tanzania.

In 2009 she worked in the Technical Local Unit of the Italian Ministry for Foreign Affairs in Bolivia designing a proposal for an impact evaluation of the NGOs Italian cooperation in Bolivia during the last ten years.

She has also a strong experience as a trainer in several post graduate courses on European Project Design within Universities,



Public Administrations and private consulting. In 2011 she was trainer in a winter school on strategic evaluation organized by Oxfam Italia.

She is member of the European Association of Development Research and Training Institutes (EADI), and in particular she is going to build up a Working Group on "Development Evaluation" in collaboration with CESPI (Centro Studi di Politica Internazionale).

She is actually project manager of the project "Adapting Climate Change in Coastal Dar es Salaam" funded by Europeaid.

## **Maria Dolores FIDELIBUS**

**Department of Civil Engineering, Environmental, Land, Building and Chemistry (DICATECh) Bari Polytechnic, Italy**

Maria Dolores Fidelibus has graduate in Chemistry in 1977. She is expert in Applied Hydrogeology.

The main research lines are hydrodynamic, geochemical and isotopic aspects of salinization processes of ground waters in coastal karstic and porous aquifers; characterization of mass transport in karst systems with reference to their structure and unsaturated zone features; karstic processes in evaporite; interaction at the land-ocean interface conditioning the pollutant transport to the sea; methodologies for the reconstruction of flow conceptual models concerning fresh and salt ground waters, through the study of water chemical composition and the integrated use of different types of environmental tracers; reconstruction of thermal field for the recognition of flow systems in anisotropic aquifers; characterization of contaminated sites.

She is member of the International Association of Hydrogeologists (IAH) since 1985.

Also, she is member of the Italian Chapter of International Association of Hydrogeologists (IAH) and member of the International Association of Hydrological Sciences. From 2012-2017 she is Associate Editor for Hydrological Sciences Journal.

She is author of several articles and papers published in books and refereed journals, about hydrogeological issues like ground water salinization, human-induced hydrogeological changes and sinkholes in the karst coastal aquifers, pollution transport mechanisms.

## **Enrico FONTANARI**

**Department of Urban Planning, University IUAV of Venice**

Prof. Enrico Fontanari is an Urban and Regional Planner. He is currently Professor of Urban and Landscape Design.

Prof. Fontanari's major fields of specialization are Urban Design





and Town planning, LandscapTheory and Design, Urban Planning in Developing Countries.

He has conducted research on Heritage Preservation, Regional and Metropolitan Planning, Social Housing, Upgrading in informal settlements.

Prof. Fontanari has published "Master plan for the metropolitan area of San Salvador " (El Salvador-Central America), ed. Liguori, Italy; "Praia, a developing capital town"(Cabo Verde), ed. Liguori, Italy; "Beauce" on landscape and urban design, Edicom Ed.,Italy; "Terraced landscapes of the alps", results of an EU research project, Marsilio Ed. , Italy.

Besides, he has carried-out many consultancy for Town Planning and Urban Design in Italy and in many developing countries, focused in historic centers, slums upgrading, metropolitan planning.

He is a member of the Academic Council in Postgraduate programs in Argentina and Etsab Barcelona; Ph.D. tutor in the School of Doctorate of the University IUAV of Venice; Consultant of the World Bank, European Union, Pnud and Unesco.

## **Domenico GAUDIOSO**

**ISPRA - Italian Institute for Environmental Protection and Research**

Degree In Chemical Engineering.

Main Research: Methodologies For The Estimation Of Greenhouse Gas Emissions, Mitigation And Adaptation Strategies For The Energy Sector

Non-Academic Activities: Head, Atmosphere And Climate Unit, Ispra

Member Of The Technical Panel For The Preparation Of The Italian Strategy For Adaptation To Climate Change.

Around 50 Publications, Among Which: "Corinair Working Group On Emission Factors For Calculating 1990 Emissions From Road Traffic - Volume 1: Methodology And Emission Factors", December 1991.

"1996 Ipcc Revised Guidelines On Greenhouse Gas Inventories" (Chapter 6, Waste)

"Unece-Corinair Atmospheric Emission Inventory Guidebook" (Chapter 6, Solvent And Other Product Use), 1999

"2006 Ipcc Guidelines On Greenhouse Gas Inventories" (Volume 3, Industrial Processes And Product Use)

"Emep/Eea Air Pollutant Emission Inventory Guidebook" (Chapter 6, Solvent And Other Product Use), 2008

"Interactions Of White Certificates With Other Policy Instruments In Europe", With Rachel Child & Ole Langniss & Julita Klink, Energy Efficiency, Doi 10.1007/S12053-008-9025-7.



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## **Jonas GERVAS**

**Department of Environmental Laboratory Science and Technology Ardhi University, Tanzania**

Jonas Gervas is a graduate with BSc. in Environmental Engineering. Currently, he is the employee at Ardhi University as a Tutorial Assistant. While serving his current position, he is also pursuing master's studies in Environmental Technology Science and Management at Ardhi University.

He is still a junior staff to conduct researches; however he conducted one research on biogas production from locally available materials (banana stalk) when completing his graduate studies.

At the moment, he has not yet conducted publishable work but currently he is conducting a study on thermal treatment of effluent from secondary wastewater treatment systems. Furthermore, he is participating in climate change research.

Besides academic activities, he carried-out various consultancy services such design and construction supervision of biogas plant for one of the secondary schools in Tanzania (St. Peters), environmental impact assessment for sugar cane farms, designing of wastewater treatment system for one of the restaurant and pub and others.

He is a member of ARISA Club at Ardhi University.

## **Madhav GIRI**

**Turin Polytechnic, Italy**

Madhav Giri is currently at the second year of a PhD program at the Turin Polytechnic.

His main research filed is vulnerability and climate change adaptation planning in developing country, with a focus on Nepal.

## **Gabriel R. KASSENGA**

**Department of Environmental Laboratory Science and Management, Ardhi University, Tanzania**

Prof. Gabriel R. Kassenga is an Environmental Engineer. He is currently a Professor in Environmental Engineering at Ardhi University and recently has been appointed as Deputy Vice-Chancellor for the Academic Affairs.

Prof. Kassenga's major fields of specialization are Ecological Engineering, Water Supply and Wastewater Engineering, Renewable Energy Resources, Environmental Pollution, Solid Waste Management



and Environmental Impact Assessment.

He has conducted several research projects in the use of engineered wetlands for treatment of chlorinated organic compounds, resource recovery from municipal solid wastes and disaster risk management.

Prof. Kassenga has published a number of papers in local and international journals on various issues pertaining to ecological engineering, solid waste management, renewable energy and environmental management in general. Besides, he has carried-out many consultancy assignments in the same fields to the government, international agencies and private organisations.

He is a member of Steering Committee for the USAID Disaster Risk Reduction Training Programme for Southern Africa and National Technical Committee for Preparation of Environmental Standards.

## **Fredrick LIGATE**

**Department of Environmental Science and Technology  
Ardhi University, Tanzania**

Mr. Ligate is an Environmental Engineer and Researcher with specialty in Water and Wastewater Engineering as well as Liquid and Solid Waste Management.

He holds a master degree in Environmental Technology and Management and currently employed as a Tutorial Assistant at Ardhi University in the School of Environmental Science and Technology (SEST).

He has done several researches on anaerobic digestion of wastewater and fecal sludge as well as biogas production.

Mr. Ligate has carried out other non academic activities including Preliminary design of Landfills, Adaptation to climate change, Design of Integrated Solid Waste Management System (ISWM) for Ikwiriri and Kibiti (Coast region).

## **Silvia MACCHI**

**Department of Civil, Building and Environmental Engineering  
(DICEA) Sapienza University of Rome, Italy**

Prof. Silvia Macchi was educated in Architecture and Urban Planning at the Sapienza University of Rome and she is Associate Professor of Spatial Planning and Urban Policies at the same school, in the Environmental Engineering Master Program.

Member of the Department of Civil, Building and Environment



Engineering since 1991, she joins the Interuniversity Research Center for Sustainable Development (CIRPS) in 2005 where she coordinated the Sustainable Development and International Cooperation PhD Program and the Project Design for Development Cooperation Master Program.

Professor Macchi's major fields of specialization are participatory planning for sustainable development and gender analysis of spatial policies. She addresses the issue of sustainable development as an epistemological challenge for urban studies and planning theory, by focusing her research on the relationship between science and politics in urban environmental policy-making. In addition, her familiarity with feminist thought leads her to adopt a gendered approach to spatial analysis and development strategies, that informs a series of action researches she conducted in Italy and in the Middle East.

Prof. Macchi has published numerous articles in academic journals and books, as well as several reports for Italian and international institutions.

She is member of INURA (International Network for Urban Research and Action) and she has been referee for Planning Theory and the International Journal of Urban and Regional Research.

## **Stephen E. MBULIGWE**

**Department of Environmental Laboratory Science and Technology Ardhi University, Tanzania**

Steve has academic training and professional experience in public health engineering, environmental engineering, environmental management, and disaster management.

He currently lectures in the School of Environmental Science and Technology at Ardhi University in Tanzania. Steve's main fields of specialization reflect on his training and professional experience in public health and environmental protection – related disciplines.

He has personally conducted and supervised many research projects on various aspects of environmental management.

Apart from research reports, Steve has authored and co-authored more than fifty book chapters, journal articles, and conference papers on issues related to the environment. Steve serves on the editorial board of 'Resources, Conservation and Recycling' journal and serves on a panel of experts for a dam development project as an environmental and dam safety expert.

He is a member of the American Society of Civil Engineers (ASCE) and a member of the Association of Public Health and Environmental Engineers of Tanzania (APHEET).

Steve is both a licensed environmental engineer and a registered environmental expert in Tanzania.



## **Ibrahimu Chikira MJEMAH**

**Sokoine University of Agriculture, Tanzania**

Ibrahimu Chikira Mjemah is currently Lecturer and Head at the Sokoine University of Agriculture where he teaches Environmental Pollution courses.

He graduated from University College of Lands and Architectural Studies (UCLAS) now called Ardhi University (ARU) in February 2000 with a Bachelor of Sciences degree with Honours in Environmental Engineering.

In 2002 he received a Master of Sciences degree in Environmental Engineering from Royal Institute of Technology, KTH, Sweden. He then received a PhD in Geology with specialization in hydrogeology from University of Ghent, Belgium in 2007. He is a member of the Engineers Registration Board (ERB) and Member of International Association of Hydrogeologists (IAH). His research interests are in the fields of hydrogeology, groundwater security in coastal aquifers and semi-arid areas, hydrogeochemistry and wastewater treatment technology, enhancing Climate Change Mitigation and Adaptation Measures in Water Resources and its Livelihood implication

He has a number of publications on international journals and conference proceedings.

## **Alessandro MONTI**

**Sapienza University of Rome, Italy**

Alessandro Monti has a degree in “Resources, Territory and Environmental Engineering” and a post graduate specialization in “Environmental Engineering for Sustainable Development”.

His major fields of specialization are water resource management, sustainability and climate change, impact and vulnerability assessment.

For his Master’s thesis he has conducted research on the Agro-Pontino plain that is a relevant example of reclamation area. In this study he proposes a first step of the analysis about the actual and future precipitation features on that area; daily rainfall occurrence and amount at 32 stations over the region are examined for the summers and the winters (1916-2004) using a Hidden Markov Model (HMM). Moreover the Non-homogeneous Hidden Markov Model (NHMM) performance is explored with the goal to make future projections of the downscaled precipitation by using the GCM's simulations under different global warming scenarios.

He presented two posters at “Giornate dell’Idrologia SII 2012: sostenibilità nell’uso della risorsa idrica e nella difesa dalle alluvioni” and at “European Geosciences Union General Assembly 2013 (EGU)”.



## **Elifuraha G.B. MTALO**

**Faculty of Science and Built Environment  
Bagamoyo University, Tanzania**

Dr. Elifuraha G.B. Mtalo is Dean of the Faculty of Science and Built Environment at the Bagamoyo University, Tanzania.

He has a Master's Degree in Civil Engineering and a Master's Degree in Geomatics Engineering. He has also a Ph.D. in Geomatics.

He is a highly qualified scientist and professional expert in the fields of spatial information sciences, and knowledge based systems including Land Surveying, GIS, Remote Sensing, Database Management, Expert Systems, Spatial Decision Support Systems, Land Information Systems and Web Based Technologies. His scientific research and publications cover the themes of systems programming, geomatics, geoinformatics applications, fuzzy systems and artificial Intelligence.

He is member of several professional societies:

- Fellow Institution of Surveyors of Tanzania (IST)
- Fully Registered Surveyor, National Council of Professional Surveyors (NCPS)
- Member of the American Society of Photogrammetry and Remote Sensing (ASPRS)
- Chairman Steering Committee on National Spatial Data Infrastructure (NSDI)
- Former Ardhi University Correspondent for the International Federation of Geodesy (FIG)

He has published several papers on international journals and books in the field of Geomatics and Geoinformatics.

## **Michele MUNAFO'**

**Environmental Monitoring and Pressures Database Sector,  
SINAnet, Italian Institute for Environmental Protection and  
Research (ISPRA)**

Michele Munafò is an Environmental Engineer and has a PhD in Urban Planning.

He is currently a temporary Professor in Regional and Urban Planning at the Engineering Faculty, University of Rome Sapienza, member of the committee of the Sustainable Development and International

Cooperation PhD in the Interuniversity Research Center for Sustainable Development (CIRPS), and technologist Researcher in ISPRA (Italian Institute for Environmental Protection and Research).



Michele Munafò major fields of specialization are Environmental and Urban Planning, Environmental Indicators and Assessment, Spatial Data Infrastructures.

He is the head of Environmental Monitoring and Pressures Database Sector, SINAnet Service, in ISPRA; the National Reference Centre on Environmental Information Systems of EIONet – European Environment Information and Observation Network (European Environment Agency); thematic coordinator of SINAnet database for the Italian Environmental Data Yearbook; member of the committee of the Annual Report on Urban Environmental Quality.

Michele Munafò has edited or published more than 70 scientific papers and technical reports.

## **Liana RICCI**

**Department of Civil, Building and Environmental Engineering  
(DICEA) Sapienza University of Rome, Italy**

Liana Ricci is an Environmental Engineer and has a PhD in Urban Planning. She is currently research fellow at DICEA, Dept. of Civil, Building and Environmental Engineering, Sapienza University of Rome.

Her major fields of specialization are urban and environmental planning in peri-urban areas of sub-Saharan African cities, adaptive capacity assessment and climate change adaptation mainstreaming into urban policy and plans.

Liana Ricci has conducted research in Methodology development for data collection and analysis on spontaneous practices for adaptation to climate change in urban areas of the Least Developed Countries, Local Agenda 21, and Planning and Environmental Management peri-urban areas of Dar es Salaam.

Her work have been presented at several national and international conference and workshops (INURA 2009 and 2010; AESOP 2011; International Conference on Sustainability Science 2010; European Ph.D. Network on International Climate Policy 2010; Ph.D. Workshop on Sustainable Development Columbia University 2011, Urban Impact of Climate Change in Africa (UICCA) conference, Turin 2011)



## **Roberto RIDOLFI**

### **Head of the Delegation of the European Union to Uganda**

#### **Tertiary Education:** MSc, MBA, PhD

- 1979-1985 Master in Civil Engineering at University of Roma (laurea 110/110 cum laudae and thesis publication).
- 1988-1991 PhD (three years access via competition= dottorato di ricerca) in Architecture Technology (universities of Rome, Florence, Bologna and Venice).
- 1996-1998 Master of Business Administration MBA Open University Business school UK (AMBA).

#### **European Commission** (Joined in 1994):

- 2011- To date: Head of Delegation of the European Union Delegation to Uganda
- 2007 Nov-2010 Head of Unit Europe Aid F3 "Central management of thematic budget lines under DCI and Facility for rapid response to soaring food prices in developing countries" , Management of the next 5 sectors: ENRTP (Environment and sustainable management of natural resources); Investing in People; Food Security; Food Facility and Migration & Asylum.
- 2005-2007 Head of Delegation of the European Commission for the Pacific in Suva, responsible of all relations of the European Commission with 15 countries and territories and the Pacific Forum (regional political entity). Manager and Authorising officer responsible for 45 staff of which 18 officials and other EU agents.
- 2004-2005 Head of the Inter-service group ACP-EU Water facility, managing a successfully a team designing negotiating disseminating and implementing the innovative 76 countries wide Water facility to co-finance projects and programmes to achieve Water related Millennium Development goals. Reporting directly to the Director General of EuropeAid.
- 2001-2004 in Brussels at DG Regional policy of the Commission principal coordinator in charge of horizontal matters and co-ordination of 10 enlargement countries. Sectors handled were : Public Procurement, financial engineering and in particular Public Private Partnership, devolution and decentralisation of Delegations and National Authorities.
- 2000-2001 with the European Agency for Reconstruction in KOSOVO as Head of the Monitoring Unit in charge also of co-ordinating investments and projects in Energy and Transport.
- 1999-2000 Macro-Economic issues, EU-RSA Trade agreement and Health, Education, Trade and Industry Micro-credit in Namibia as Head of Section, Economic Counsellor of the European Commission Delegation.
- 1994-1999 with the European Commission as Infrastructure and development Advisor, Head of Section in Malawi in charge of infrastructure, transport, health, civil society rule of law.





#### **Academic Work:**

- 1985-1994 Regular academic activity with the University «La Sapienza» of Rome in research and teaching activities on Territorial Engineering, Regional Policy, Development sciences, (14 publications altogether).
- 1987 Sponsored research in Boston (MIT, Harvard) and other USA universities (CNR) surveying the evaluation techniques of the built environment using artificial intelligence and expert systems.
- 2001-2005 is Associate Lecturer at the Postgraduate Course for Development Management with the Open University UK "Capacities for managing development" course code TU 870.

#### **Private Sector:**

- 1983-1985 Short term experiences in the construction and project management industry in Brasil and Italy.
- 1988-1990 Coordinator of monitoring and quality control of large infrastructure projects within the office of the Prime Minister in Italy (transport and environment development projects) Engineering co. Bonifica Spa.
- 1990-1991 Experience in Software houses in Italy as Executive Director for Research and Marketing.
- 1992-1994 Strategy advisor for investments and expert in financial engineering for industrial companies in Italy. Executive Director of construction company, Assistant to the President, La Mostra d'Oltremare in Naples

#### **Professional Memberships:**

- Member of Ordine degli Ingegneri in Italy (since 1986)
- Member of Association of Masters Business Administration AMBA (since 1998).
- Member of high level panel of experts for the committee of food Security at the UN

## **Matteo ROSSI**

**Department of Civil, Building and Enviromental Engineering  
(DICEA) Sapienza University of Rome, Italy**

Dr. Matteo Rossi has a PhD in environmental engineering with a specialization in quantitative hydrogeology and environmental geology.

He is currently a postdoctoral researcher at DICEA - Sapienza where he gives lessons of applied hydrogeology, applied geology and hydrogeological risk.

His major fields of specialization are hydrogeological field campaigns, numerical and analytical hydrogeological modeling, GIS applications in applied geology and hydrogeology, hydrogeological balances referenced to agricultural sector and well test interpretation.



He has participated to the following main researches:

- PAFAGE Project for the Niger environmental resources management granted by Italian Ministry of Foreign Affairs (1 yr);
- Hydrogeological quantitative studies of Southern Latium carbonate and coastal aquifers preliminary for the Latium Regional Water Safeguard Plan granted by Latium Regional Watershed Authority (Italy) (3 yrs);
- Groundwater Withdrawals Regional Geographic Information Database architecture, granted by Latium Regional Administration (1 yr);
- Crop evapotranspiration temporal and spatial distribution on Latium coastal aquifers by integrated use of Landsat7 ETM+ images and GIS granted by Latium Regional Watershed Authority (Italy) (1 yr);
- Project for the rehabilitation of the Rjim Maatoug artificial date palm oases in the Tunisian artesian basin, granted by Italian-Tunisian bilateral cooperation funds (1 yr);
- Preliminary studies of the arsenic natural distribution on Central Italy volcanic aquifers, granted by Latium Regional Administration (1 yr).

Besides, he has carried-out some international cooperation project in environmental and water sanitation sectors in many countries like Niger, Mexico, Kosovo, Tunisia, Tchad.

He has published several papers in international journals and conferences, in the hydrogeological field.

He is a member of IAH (International Association of Hydrogeologist).

## **Edward RUHINDA**

**Department of Environmental Engineering  
Ardhi University, Tanzania**

Edward Ruhinda is a graduate with BSc. in Environmental Engineering. Currently, he is the employee at Ardhi University as a Tutorial Assistant. While serving his current position, he is also pursuing master's studies in Environmental Technology Science and Management at Ardhi University.

He is still a junior staff to conduct researches; however he conducted one research on Effects of Detergents on Algal productivity when completing his graduate studies.

At the moment, he has not yet conducted publishable work but currently he is conducting a study on Applicability of Sand filtration on wastewater polishing. Furthermore, he is participating in climate change research.

Besides academic activities, he carried-out various consultancy services such design of water supply scheme for Tanga city, Muheza and Lushoto districts, Design of Kidete dam, and environmental



impact assessment for development of real estate for National Housing Corporation in Morogoro town.

He is a member of ARISA Club at Ardhi University.

## **Giuseppe SAPPÀ**

**Department of Civil, Building and Environmental Engineering  
(DICEA) Sapienza University of Rome, Italy**

Prof. Giuseppe Sappà is a Civil Engineer.

He is currently Associate Professor in Engineering Geology and Applied Hydrogeology.

Prof. Giuseppe Sappà major fields of specialization are Vulnerability and Risk assessment of aquifers, Isotopic and Geochemical characterization of groundwater, Seawater intrusion, Groundwater exploitation in Mediterranean and arid areas.

He has driven the following major research projects granted by Latium Region Government: Sustainable groundwater exploitation plan in South Latium Region (Italy), Water resource plan for civil consumption in Latium Region. In 2007-2008 he was the Italian member of the Italian-Tunisian Hydraulic Commission, set up by Italian and Tunisian Governments, in the framework of their bilateral cooperation, to evaluate if driving on the Project of rehabilitation and creation of date palms in Rejim Matoug, in South Tunisia.

Prof. Giuseppe Sappà has published about 70 papers, among national and international scientific journals and congress proceedings. The most important for the ACC-DAR project are the followings:

- L. Tulipano, M.D. Fidelibus, G. Sappà, M.T. Coviello - Evolution of seawater intrusion in coastal aquifers of Pontina Plain (Italy) - Proceedings of 21st Seawater Intrusion - Naples (Florida) - 2009.
- R. Casa, M. Rossi, G. Sappà, A. Trotta - Assessing CropWater Demand by Remote Sensing and GIS for the Pontina Plain, Central Italy - Water Resources Management - 09/2008.

Besides, he has taken part to the Tunisian and Italian Technical Commission for developing of Groundwater exploitation project in Rjim Maatoug, North Western Sahara Aquifer System.

- G. Sappà, M. Rossi - Local effects of groundwater overexploitation of the Complexe Terminal in NWSAS - Proceedings of IAHR Symposium of Valencia (Spain) - 2010.

He is a member of the International Association of Hydrogeologists and of the International Association of Engineering Geology.



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## **Maurizio TIEPOLO**

**Inter-University Department of Environmental Science and Policy Project Planning (DIST) Turin Polytechnic, Italy**

Since 2002, associate professor of urban and regional planning at the Turin Polytechnic.

Since 1990 he has developed researches in Congo, Ecuador, Macedonia, Mozambique, Niger, Senegal and Viet-Nam.

Since 2004 he is working in West Africa for assessing climate change induced risks, adaptation planning in rural and urban areas, renewable natural resources assessment, struggle against desertification, urban land use planning, informal settlements upgrading, regional planning, monitoring and evaluation of local development plans and of the environment.

He has developed research projects with United Nations-Habitat, Italian National Research Council and the Italian Ministry of University and Research (MIUR) funds. Also, he has been RU responsible within the PRIN 2007 and national coordinator within the PRIN 2009.

All these activities have been transferred into vocational training programs he coordinated or directed as “Habitat and ville” Course for Italian Ministry of Foreign Affairs (100 beneficiaries) [coordinator]; “Planning for urban and periurban agriculture”, for Agrhymet Regional Center/CILLS (18 beneficiaries) [Director]; “Plans and Projects” international Master, for Politecnico di Torino (70 beneficiaries) [director since 2009].

He has headed the Third World City Center from 2009 to 2012 and tutored several international students for the Alta Scuola Politecnica and for the PhD School of the Politecnico di Torino since 2007.

He is co-director of the collection “The Third World City” for L'Harmattan Italy, Turin (14 books published so far) and author of 10 books, 53 articles in journals, books, and working papers.

## **Antonio TROTTA**

**Department of Civil, Building and Environmental Engineering (DICEA) Sapienza University of Rome, Italy**

Antonio Trotta has a Master Degree in Environmental Engineering. He has been a research fellow at DICEA, Dept. of Civil, Building and Environmental Engineering, Sapienza University of Rome. From 2005 to 2012 he has been member of the technical board of the Job Safety Course in the Engineering Faculty of Sapienza, University of Rome.

His professional area is applied hydrogeology using GIS techniques to study evolution of Active Groundwater Recharge,



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hydrogeochemical and hydrogeological investigations in aquifers, environmental modeling and risk assessment of contaminated sites.

Now Antonio Trotta is free lance consulting engineer on these topics and works.

## **Stefania VITALE**

**Department of Civil, Building and Environmental Engineering  
(DICEA) Sapienza University of Rome, Italy**

Stefania Vitale has a Master Degree in Environmental Engineering, and a PhD in Environmental, Chemical and Safety Engineering. She has been for two years a research fellow at DICEA, Dept. of Civil, Building and Environmental Engineering, Sapienza University of Rome. From 2002 to 2007 she has been member of the technical board of the Job Safety Course in the Engineering Faculty of Sapienza, University of Rome.

Her primary research and professional area is applied hydrogeology, vulnerability assessment of aquifers and environmental geochemistry. Recently, her work is focused on soil and groundwater background values assessment, applying statistical techniques based on geochemical principles.

She is a member of IAH, International Association of Hydrogeologists, and published a number of international papers on hydrogeological budget, vulnerability assessment and groundwater and soil background assessment.

Now Stefania Vitale is free lance consulting engineer on these topics and works.