LANGUAGES

Italian (mothertongue), Portuguese (fluent - written and spoken), English (fluent - written and spoken), Spanish (good - both written and spoken), Swedish (basic - spoken), French (basic - spoken)

SPECIALIZATION

My expertise: design and implementation of technological projects with focus on agriculture and clean technologies; policy analysis and policy planning related to climate change adaptation and mitigation; development and implementation of business plans especially related to food sector (farm and agroindustry); fund raising; project management in multidisciplinary teams; project development; financing methods; team management. Technical expertise: climate change adaptation strategies and technologies for small/medium farming; management and use of water resources; integrated agricultural production systems; reforestation with PES (Payment for Environmental Services); carbon credit market; adaptation and mitigation to climate change, renewable energy in general with focus on the market for biofuels; project development; project management of multidisciplinary teams

EDUCATION

07-08 Fellowship in Sustainability Science, Harvard Kennedy School, Harvard University, Cambridge, USA.

- 96-01 Ph.D. in Earth and Water Resources Engineering, Royal Institute of Technology, Stockholm, Sweden
- 94-96 M. Sc. in Environmental Eng. and Sustainable Infrastr., Royal Institute of Technology, Stockholm, Sweden
- 90-94 University degree (Laurea) in Environmental Engineering, Technical University of Turin, Turin, Italy

CURRENT AND PAST POSITIONS

10/08-pres. Onda Verde Consulting, Managing Director, Rio de Janeiro, Brazil

Since 2008, Onda Verde has been responsible for the Technical Coordination of the Adapta Sertao project (<u>www.adaptasertao.net</u>), a public-private partnership that is developing and implementing a climate smart agricultural production system for small and medium family farmers living in semi-arid Brazil. Onda Verde has been responsible to develop and implement business plans related to milk, meat and fruit production line; development of training materials in organic farming; implementation of 150 agro ecological projects; coordinating the training of 300 farmers and 30 technicians in organic production; responsible for implementation of all technical activities of the project; managing institutional partnerships; coordinating the technical effort aimed at developing the climate smart agricultural production system MAIS (Modulo Agroclimatico Inteligente e Sustentavel), having forest conservation and restoration in a silvipastorial setting and land and water resource conservation as key activities; coordination of the technical team (15 people). Responsible for fundraising and managing all technical aspects related to project implementation, approx. U.S. \$ 10 Million from several sources: Cariplo Foundation; UBA; Climate Fund / MMA; Itaú Social Foundation; CNPq; SEPLAN / BA; SEAGRI / BA; FNMA / MMA; CAR / Ba); IDB; SENAR . The project includes the following components:

- Technical coordinator: Negotiating the technical assistance support from the SENAR rural extension service to guarantee technical assistance to the 800 farmers engaged in the project and definition of the collaboration modality with the project (USD\$ 1 million)
- Technical coordinator: Developing and launching a local working capital fund to capitalize the local farmers cooperatives (USD\$ 120k)
- Technical coordinator: Negotiating the preferential credit lines aimed at strengthening the local agricultural value chain (USD\$ 3 million)
- Technical coordinator: Implementation of up to 800 climate smart agricultural systems. The IDB/Bahia Government joint project develops an innovative financing mechanism for the farmers' cooperatives directly linked to the Adapta Sertao network to implement a climate smart agricultural systems that can be funded through current financing mechanisms. (Total project: USD\$ 3 million).
- Technical coordinator: revision, development and implementation of business plans for the milk, meat, fruit and vegetable production in the Bacia do Jacuipe, Bahia, with an overall potential of generating USD\$ 3 million/year
- Technical Coordinator: research and development of a production model to improve the resilience of family farmers of semi arid Brazil to climate change. Project carried out together with Embrapa Semi Arid (CNPq; USD\$ 150,000)
- Technical Coordinator: implementation of 50 irrigation systems for organic production in semi arid Brazil, Jacuipe county, Bahia state (German government / UBA; USD \$ 1.1 M)
- Technical Coordinator: Implementation of 100 projects to increase the yield of family farmers living in semi arid Brazil, Jacuipe county, Bahia state (Climate Fund / MMA Brazil, USD \$ 1.2 M)
- Technical Coordinator: creation of 4 technology retailer within the Basin Jacuipe, Bahia (Climate Fund / MMA Brazil, USD \$ 200k)
- Needs identification and fundraising for "Adapta Sertão go to school" project (school yard in the town of Painted) (Fundação Itaú; USD \$ 70,000)
- Board of Director and Fund Manager: revolving fund "Adapta Sertao" in partnership with the bank SICOOB (fund value: U.S. \$ 120,000)
- Technical and Financial Consultant: fundraising, design and implementation of the business plan for animal feed units of 4 ton / day (U.S. \$ 500,000)
- Technical and Financial Consultant: fundraising, technical planning, development, fundraising, technical design and implementation of a fruit pulp processing units (50 tons / month) in the city of Pintadas, Bahia (CAR Financing / Bahia and FNMA / MA: USD \$ 600,000)

Other relevant projects:

- Adapta Mata Atlantic: fundraising USD\$ 1.1 million for the development of a "Payment for Environmental Services" in the municipality of Petropolis, focusing on the reforestation of 60 Hectares of land
- Technical Coordination: Planning and implementing of a milk processing units (5,000 liters / day) in the municipality of Pintadas, Bahia (in negotiation, USD \$ 1m)
- o Technical Consultant: Cooperbio cooperative, Rio Grande do Sul, financial assessment for the installation of 3 small ethanol plants
- o Technical Consultant: Planning for the development project of 1000 hectares of Jatropha oil production back to biodiesel, Janauba / MG
- o ELLA/Evidence and Lessons from Latin America. Systematization of Latin America's development experience. Contractor: DFID
- o Biofuel sustainability in Brazil. Data gathering for biofuel sustainability assessments. Contractor: USAID
- o Sustainabilie Biofuel Inventory. Constructing a database for monitoring the sustainability of Brazilian biofuels. Contractor: USAID
- 9/07 9/08 Research Fellow, Harvard Kennedy School, Harvard University, Cambridge, MA. Web: www.hks.harvard.edu/centers/cid
 - Research topic: "Biofuel and rural development". Analyzing the viability of the Brazilian biodiesel program and the feasibility of small scale ethanol distilleries as rural development policies

09/06-09/07 Founder and Managing Partner, CO2nnect. Web-address: www.co2nnect.com

o Capacity building on carbon markets and hedging strategies for SMEs for Italian industrial sector associations

- o Project development, feasibility analysis and financial intermediation on a variety of biofuel projects:
 - General investment study for the acquisition of Diamante Distillery in the Diamantina municipality, Minas Gerais. Contractor: REG/CIR group, Italy
 - Feasibility study for the construction of 1 MW biomass central heating plant in the municipality of Mugello, Tuscany. Contractor: Mugello Municipality
 - Feasibility analysis to import of 30,000 tons/year wood pellet from Brazil to fuel the 15 Mw Olevano Lomellina biomass plant. Contractor: Maire Engineering-Tecnimont (ex FIAT Engineering)
 - Analysis of carbon credit generation from the recycling of sugar cane bagasse for pellet production in the state of Sao Paulo, Brazil.
 Contractor: Brazpellet Group
 - Feasibility analysis for large scale (10,000 hectares) investment in Jatropha oil production in Minas Gerais, Brazil. Contractor: EAS, Italy
 - Feasibility analysis for the construction of a pellet production plant in Ghana (independently financed project)
 00/07 Consists Building Coordinator DEDEU/Courth South North Dia do Janairo Destil June outhoutheast based on the second seco
- 06/04- 09/07 Capacity Building Coordinator, REDEH/SouthSouthNorth, Rio de Janeiro, Brazil. www.southsouthnorth.org; www.redeh.org.br
 Development of capacity building material to implement climate change adaptation and mitigation projects in 6 countries of Latin America, Africa and Asia
- o Implementing five drip irrigation projects in the municipality of Pintadas, semi arid region of Bahia, Brazil, as a climate change adaptation strategy 2/05-01/06 Climate Change and Renewable Energy Specialist, Ambiente Italia, Milan, Italy. Web-address: www.ambienteitalia.it
- Participation on several joint projects to review EU and Italian renewable energy and energy efficiency policies on behalf of Italian environmental NGOs
- o Writing of EU projects/4th Framework Program/Renewable Energy
- o Participating in the energy planning and energy resource assessment for the municipality of Bologna
- 6/04 01/05 Interim Head of Strategic Partnerships and External Relations, AzzeroCO2, Milan, Italy. Web-address: www.azzeroco2.it
- o Building partnerships with different private and public institutions on carbon offsets: Castorama; Ecomondo
- o Definition and closure of carbon offsets contracts
- 3/01–4/03 Environmental Specialist, ARUP, New York, USA. Web-address: <u>www.arup.com</u>
- Feasibility studies and sustainability analysis of green buildings and large scale infrastructures (water and energy)
- o Identification and evaluation of green building strategies (energy/water efficiency and sustainable materials) for LEED certification in buildings
- o Focal point for the Sustainable Project Appraisal Routine (SPeAR) in the NY office
- o Creating and managing a database of sustainable products and services for the NY Office
- 3/98-6/98 Environmental Consultant, SUWAR project, Managua, Nicaragua.
- o Creating groundwater vulnerability maps of the Managua aquifer for the National Environmental Protection Code;
- o Training engineers in a Geographic Information System (Idrisi, ArchView).
- 9/94-3/95 Hydrogeological Consultant (Internship), Mineconsult Consulting, Sweden.
- Overview study of the geological and hydrogeological features at the Ormen tunnel, Stockholm, Sweden.

ACADEMIC POSITIONS

9/07 – 9/08 Research Fellow, Harvard Kennedy School, Harvard University, Cambridge, MA. Web: www.hks.harvard.edu/centers/cid

- Research topic: "Biofuel and rural development". Analyzing the viability of the Brazilian biodiesel program and the feasibility of small scale ethanol distilleries as rural development policies
- 9/01 9/03 Adjunct Professor, Dept. of Civil Eng. and Eng. Mechanics, Columbia University, New York. Web: www.civil.columbia.edu
 - Teaching two MSc courses: "Wastewater treatment" and "Environmental Engineering".
- 2/01-2/02 Lecturer, Department of Architecture, University of Pennsylvania, Philadelphia.
- Teaching the course "Sustainability".
- 6/99-9/01 Research Associate, Dept. of Civil Eng. and Eng. Mechanics, *Columbia University*, New York. Web: <u>www.civil.columbia.edu</u>
 - Assessment study on dripping into the High Level Nuclear Radioactive Waste Repository of Yucca Mountain, Northern Nevada. Project sponsor: US NRC (US Nuclear Regulatory Commission)
 - Development of a mathematical model for groundwater flow in desert areas and unsaturated rocks.
- 6/98-2/99 Assistant Project Manager, Div. of Land and Water Res., Royal Inst. of Technology, Stockholm, Sweden. Web-address: www.kth.se
 - Organizing logistics for Master Course TRUE (Training for Underground Environment);
 - Developing of the teaching toolkit

PROFESSIONAL COLLABORATIONS

2008	Advisor, SEQUESCO, San Francisco, California. Web: www.sequesco.com. Strategic and technical advisor for the development of
	second generation biofuel technologies (CO ₂ sequestration for the production of biofuel feedstock)
2007	Member of Planning Committee, ICSU 75th Anniversary Conference, Intern. Council for Science (ICSU), Paris. Web: <u>www.icsu.org</u> .
	 Member of the ICSU 75th Anniversary Conference Planning Committee
2003	Chairman, Strategic Program, LEAD International, London. Web-address: www.lead.org
	Chairing the strategic program at the Hythe meeting, September 2003
2003	Renewable Energy Advisor, Green Power International, London. Web-address: www.greenpowerconferences.com
	 Advising on the general start-up strategy
2003	Chairman, Working Group on Education and Awareness Raising, Full Party Meeting, Foreign and Commonwealth Office, London.
	REEEP is a Type II partnership initiative launched at the WSSD in Johannesburg, September 2002. Web-address: www.reeep.org.
	 Chairing the full-party meeting working group on Education and Awareness Raising
1999-2002	Technical Reviewer, Water Resources Research.
	 Review of papers related to water resources and engineering

AWARDS

2013 – Celso Furtado Prize, Ministry of National Integration, Brazil for the contribution of "bringing practical and theoretical insights on the development of the semiarid region of Brazil"

2007/08- Giorgio Ruffolo Fellow in Sustainability Science, Center for Int. Develop., Kennedy School of Governm., Harvard University, USA.
 2002 Fellow, Kinship Conservation Institute, Public Economy Research Center, *Montana State University*, Bozeman, Montana.
 1999/01 Fellow, Leadership for Environment and Development (LEAD), London, UK.

SHORT COURSES

02/05	Emissions trading directive and requirements (short course), ERM and Kyoto Club, Milan, Italy		
02/05	Project financing for energy projects (short course), LRA, Milan, Italy		
04/04	Decentralized renewable energy systems (1 month course), Politecninco di Milano, Milan, Italy		
6/03	Installation of PV systems (short course), Farmingdale State University, New York, USA.		
4/02-8/02	Member, Global Environmental Mechanism (GEM), Commission on Globalization, Yale University, CT, USA.		
7/00	International negotiation (short course), Ginevra, Switzerland.		
10/99	Team management and co-ordination (short course), Bonn, Germany.		

SKILLS

Languages: Italian (fluent); Portuguese (fluent); Swedish (fair); Spanish (fair); French (basic)

Countries: worked in USA, Brazil, Italy, Sweden, Nicaragua.

Analytical: command of statistical tools; general cash flow analysis; cost-benefit analysis.

Technical skills: capacity to understand the technical aspects of energy and water systems; CO₂ markets; energy markets

Computer skills: Microsoft Office; graphic design applications; statistical softwares

Publication: published several reports, journal and magazine articles on energy, water and sustainable development Hobbies: surfing, water sports in general, meditation, books, travel

REFERENCES

Upon requests

PUBLICATIONS

JOURNAL PAPERS

Obermaier, M; Cesano, D.; Corral, T.; Maroun, M.R.; Lèbre La Rovere, E.; Barata, M.; Wachsmann, U. and K. Pfliegner: Dryland adaptation in Northeast Brazil: lessons from a community-based pilot project. FACTS REPORT

Burney, J., Cesano, D., Russell, J., Levre La Rovere E., Corral, T., Segala Coelho, N., Santos, L., 2014: Climate change adaptation strategies for smallholder farmers in the Brazilian Sertão. Climatic Change, September 2014, Volume 126, Issue 1-2, pp 45-59,

Cesano D., Burney J., Russell J.M., La Rovere E.L., Obermeier M., Corral T., da Silva L.S., Segala Coelho N. and C.G. Neves, 2012: Mudanças climaticas no semiarido da Bahia e estratégias de adptaçao da coalizao Adapta Sertao para a agricultura familiar. Inclusao Social, Brasilia, V.6 N. 1, pp.88-104

Cesano D., La Rovere E., Obermeier M., Corral T., Santos da Silva L. and N, Segala Coelho, 2011: As experiências da coalizão Adapta Sertão na disseminação de tecnologias e estratégias de adaptação a mudança climática para o agricultor familiar do semi árido Brasileiro (*The experience of th Adapta Sertão coalition in disseminating climate chnag adaptation tecnologies and stratgies for small farmers in semi arid Brazil*). Revista Brasileira de Geografia Física, ISSN 1984-225, Volume 4, No. 6, pp 1315-1335, yr 2012.

Cesano D., 2008: Are biofuels a feasible option to reduce poverty in a changing climate? Learning from the Brazilian experience. Trocaire Development Review, 2008, pp. 1-12.

Cesano D., 2006: Cooperating for the climate (Cooperare per il clima). *Qualenergia*, Year IV, Number 4., September-October 2006, pp 40-42. In Italian.

Montalbetti C., Altese E., Bianchi D., Cesano D., and E. Menichetti, 2006: The eco-efficient recycling (Il riciclo eco-effciente). *Qualenergia*, Year IV, Number 2., March-April 2006, pp 35-43. In Italian.

Bagtozoglou C.A and **D. Cesano**, 2006: Dripping into unsaturated rock underground excavations – literature review and geologic and hydrogeologic setting description. *Environmental Geology*, DOI 10.1007/s00254-006-0422-y, Sprinter-Verlag.

Bagtozoglou C.A and **D. Cesano**, 2006: Dripping into unsaturated rock underground excavations – Model testing at the Yucca Mountain exploratory studies facility. *Environmental Geology*, DOI 10.1007/s00254-006-0423-x, Sprinter-Verlag.

Cesano D., Bagtzoglou A.C. and B. Olofsson, 2003: Quantifying fracture rock hydraulic heterogeneity and groundwater inflow prediction in underground excavations: Part 1. The heterogeneity index. *Tunneling and Underground Space Technology*, Vol 18, pp. 19-34.

Bagtzoglou A.C., **Cesano D**., Dematteis A., Perello P. and B. Olofsson, 2003: Quantifying fracture rock hydraulic heterogeneity and groundwater inflow prediction in underground excavations: Part 2. Predicting inflows at the Pont-Ventoux Tunnel. *Tunneling and Underground Space Technology* (in print).

Bagtzoglou A.C. and **D. Cesano**, 2002: Simulating dripping into the Yucca Mountain repository from a rough multi-segmented fracture set – Model development and validation. *Water Resources Research* (in review).

Cesano D., B. Olofsson and A. Bagtzoglou, 2000: Parameters regulating groundwater inflows into hard rock tunnels - a statistical study of the Bolmen tunnel in southern Sweden. *Tunneling and Underground Space Technology*, Volume 15, No. 2, pp. 153-165.

Cesano D. and J-E Gustafsson, 2000: Impact of economic Globalization on water resources - a source of technical, social and environmental challenges for the next decade. *Water Policy*, Elsevier, Vol. 2, pp. 213-227.

PAPERS IN CONFERENCE PROCEEDING VOLUMES

Obermaier, M., Maroun, M. R., Kligerman, D. C., La Rovere, E. L., **Cesano, D.**, Corral, T., Wachsmann, U., Schaller, M., Hain, B., 2009: Adaptation to Climate Change in Brazil: The Pintadas Pilot Project and Multiplication of Best Practice Examples Through Dissemination and Communication

Networks In: RIO 9 World Climate & Energy Event, 2009, Rio de Janeiro. Book of Proceedings. Rio de Janeiro: Rio Solar Ltd., 2009. p.185 - 190.

Cesano D. and T. Corral, 2006: Engaging woman in participatory communications for the succesfull dissemination of renewable energy systems in Northeaster Brazil. WREC IX (World Renewable Energy Conference IX), Florence, August 2006. In print

Cesano D. and T. Corral, 2006: Participatory processes for the dissemination of renewable energy systems. World Congress on Communications for Development, Rome, October 26-27. In print.

Cesano D., 2005: Renewable energy networks and partnerships: accellerating the transitino towards a more sustainable world. *World Renewable Energy Congress 2005* (WREC 2005). Editors M.S. Imbavi and C.P. Mitchell, Elsevier 2005.

Cesano D. and F. Cousins, 2002: Methods and case studies for environmentally responsible materials selection. *Envirodesign6 Conference*, Seattle, April 2002, Paper 9G, Vol 1.

Cesano D., Bagtzoglou A. and B. Olofsson, 2000: Quantifying the heterogeneity of fracture systems – an index for fracture flow network representations at different scales. *Groundwater – Past achievements and future challenges*, International Association of Hydrogeologists Congress, November 26 – December 1 2000, Cape Town, South Africa, pp. 115-120.

Cesano D. and B. Olofsson, 1997: Impact of tunneling on groundwater levels. Groundwater in the urban environment, XXVII International Associations of Hydrogeologists conference, Nottingham 22-27 Sept 1997, Chilton et al (ed), Vol. 1, pp. 219-224.

ARTICLES IN MAGAZINES

Cesano D., 2008: Biocombustibili e sostenibilità: l'esperienza dell'etanolo in Brasile. Nuova Energia. Vol. 3-2008 (Part 2)

Cesano D., 2008: Biocombustibili e sostenibilità: l'esperienza dell'etanolo in Brasile. Nuova Energia. Vol. 2-2008, pg 86 (Part 1)

Cesano D., 2003: Journey towards equality. TRACE, special South Africa issue, Volume 41, pp. 52-53.

PUBLISHED ABSTRACTS

Cesano D. and A.C: Bagtzoglou, 2001: Dripping from multi-segmented fracture sets into unsaturated rock underground excavations. 2001 *American Geophysical Union* Spring Meeting, Boston, 29th -31st May 2001. Printed abstract.

Cesano D. and A. Bagtzoglou, 2000: How heterogeneous can a fracture network be? *American Geophysical Union*, Annual Meeting, Washington DC, May 30-June 3 2000. Printed abstract.

TECHNICAL REPORTS (Published)

Cesano D., Bianchi D. and R. Pasinetti, 2005: Il mercato dei certifcati verdi in Italia (The market of the green certificates in Italy). Report commissioned by the GRTN (Italian Management for the Electric Network). In print.

Altese E., Bianchi D., **Cesano D.**, Menichetti E., 2005: Il riciclo eco-efficiente: potenzialità ambientali ed energetiche dell'economia del riciclo (The eco-efficiency of recycling: environmental and energy potentials in a recycling economy). Report commission by the Italian Authority for Energy and Gas, Report Al-C02-0061RPS04-04. In Italian.

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Cesano D., 1998: *Guía en la creacion de mapas por la planificación de la protección de recursos hídricos con el SIG* (A guide to draw maps in a groundwater resource protection framework by the use of GIS). Div. of Land and Water Resources, SUWaR-project. In Spanish.

THESES

Cesano D., 2001: Water leakage into underground construction in fractured rocks - Geological and hydrogeological information as a basis for prediction. Doctoral Thesis, Division of Land and Water Resources, Department of Civil and Environmental Engineering, Royal Institute of Technology, Stockholm, Sweden, TRITA-AMI PHD 1039, ISSN 1400-1284, ISRN KTH/AMI/PHD 1039-SE.

Cesano D., 1999: Prediction of groundwater flows into underground constructions in hard rocks. Licentiate Thesis, Division of Land and Water Resources, Royal Institute of Technology, TRITA-AMI LIC 2036.

Cesano D., 1998: *Sviluppo di una metodologia per lo studio delle condizioni idrogeologiche di ammassi roccioso-fratturati* (Development of a methodology for the study of the hydro-geological conditions in fractured media). Thesis, Dipartimento di Georisorse e Territorio, Politecnico di Torino. In Italian.

Cesano D., 1995: Hydro-geological impact when tunneling in urban areas - evaluation of the drawdown in the Stockholm area due to the construction of the Ormen tunnel. M.S. Thesis, TR serie 1995:5, Div. of Land and Water Resources, Royal Institute of Technology, Stockholm. Encaminhadas na base das necessidades