



## Latin-America and the Caribbean Webinar December 16, 2020 12:00 - 14:00 (America/São Paulo GMT -3:00)



Translation in three languages (Spanish, Portuguese and English) will be available

The 4 per 1000 Initiative – Soils for Food Security and Climate consists of federating all voluntary stakeholders of the public and private sectors under the framework of the Lima-Paris Action Plan.

Supported by solid scientific documentation, this initiative invites all partners to state or implement practical actions on soil carbon storage and the type of practices to achieve this.

The ambition of the initiative is to create and strengthen collaboration among its partners, and encourage stakeholders to transition towards a productive, highly resilient agriculture, based on the appropriate management of lands and soils, creating jobs and incomes, hence ensuring sustainable development.

The **objective of this webinar** is introducing the mission and objectives of the 4/1000 Initiative and strengthen its interaction with stakeholders. We encourage stakeholders and the general public, to raise questions about the Initiative, and express their interest in specific issues within the context of soil carbon sequestration in Latin America and the Caribbean. This first webinar will be followed by others, focusing on topics selected by the audience.

Information: [beata.madari@embrapa.br](mailto:beata.madari@embrapa.br)

### Programme

12:00	<b>Beata Madari</b> <b>Alejandro Fuentes</b> Members of the STC	Introduction
12:05	<b>Paul Luu</b> Executive Secretary of the Initiative	The 4 per 1000 Initiative, history, objectives, main activities, its members, partners, and structure
12:25	<b>Cornelia Rumpel</b> Chair of the STC	The objective and activities of the Scientific and Technical Committee (STC)
12:45	<b>Claire Chenu</b> Vice-Chair of the STC	The importance and role of soil organic carbon (or soil organic matter) in soil health and the mitigation of climate change
13:05	<b>Ieda Mendes</b> Researcher, Embrapa Cerrados	Soil bioanalysis technology: a practical tool for on-farm soil health assessments in tropical agroecosystems
13:25	<b>Jônadan Ma</b> President, Confederation of American Associations for Sustainable Agriculture and Brazilian Federation of No-Tillage and Irrigation	Development of No-Tillage System in Brazil, Argentina, Paraguay and Uruguay - the role of farmers and their organizations

Coordination: Beata Madari, Brazilian Agricultural Research Corporation (Embrapa), Brazil  
Alejandro Fuentes, International Organization of Vine and Wine, Chile

## Speakers



### Paul Luu

Paul LUU is an agronomist specialized in tropical agronomy, graduate from AgroParisTech, the Institute of tropical areas of Montpellier, the National High School of Agricultural Applied Sciences of Dijon, and the University of Montpellier (PhD in "population biology").

He began his career in the field, with six years in the heart or at the head of agronomic research projects in the Caribbean (St. Lucia), Indian Ocean (Sri Lanka) and the Pacific (Tonga), before joining the international Relationship Department of the French Ministry of agriculture.

During the following 7 years, he was in charge of multilateral relationship with FAO, the World Bank and the CGIAR, of bilateral relationship with the countries in Africa and the Mediterranean area, as well as the management of the French food aid (200 000 t of grain per year), as Head of Mission and then as Head of Department.

Then comes 9 years spent in developing the agriculture of French overseas departments and territories, 3 years as Technical Advisor "Agriculture, Fisheries and Forestry" of the Minister of Overseas, then 6 years as Director of ODEADOM (the Board in charge of agricultural development of overseas areas that pays European (CAP) and national subsidies to agriculture of those regions).

In 2011, Paul LUU was appointed Director of Agropolis International, the international association that represents the scientific community "Agronomy - Environment - Biodiversity - Water" of the Languedoc-Roussillon area (one of the largest in the world with over 10,000 scientists). He contributed in particular to the installation of the CGIAR Consortium in Montpellier, International organization dedicated to agricultural research for the benefit of the poorest people on the planet. He joined the organization in September 2013 as Liaison Officer with the French Authorities, then as Protocol Officer.

From September 2016, Paul is Executive Secretary of the "4 per 1000 Initiative: Soils for food security and climate", launched at COP 21 in Paris.

Paul LUU is married (two children) and is fond of environment and nature (flora and fauna) both terrestrial and marine.



### Cornelia Rumpel

Cornelia Rumpel is a soil biogeochemist working for the French National Research Center (CNRS) at the Institute of Ecology and Environment in Paris, France. Her work is concerned with the dynamics of organic matter at the molecular scale and the biogeochemical cycling of carbon, nitrogen, and phosphorus in natural and managed ecosystems. During her 25 years lasting carrier, she studied the origin and fate of terrestrial organic matter in several environments, ranging from soils and sediments in coal mining areas to organic matter in natural as well as managed ecosystems, including those affected by fire. Her work is dealing with temperate and tropical environments. She contributed to the change of several paradigms in her field. Since a few years she is interested in the development of innovative organic amendments and smart fertilizers. She supervised 17 PhD students to successful completion of their thesis and has published more than 180 papers in international peer reviewed journals. In 2016 and 2017 she was listed as a highly cited researchers in the field of agronomy. Cornelia is engaged in the international 4 per 1000 initiative as the chair of the scientific and technical committee.



### **Claire Chenu**

Claire Chenu is a soil scientist with a PhD in Applied Geology (1985). She is currently Professor of soil science at AgroParisTech, a French technical university in the field of biology, agronomy, food and environmental sciences after being a research scientist at INRA, the national French institute for agronomy research, for 20 years.

Her research deals with soil organic matter, which has a prominent role in ecosystem services provided by soils. She investigated the formation and properties of organo-mineral associations and the roles of organic matter in soil physical properties. She focuses presently on the processes explaining the persistence of organic matter in soils (accessibility and organo-mineral interactions) and on C dynamics and sequestration in agricultural soils as affected by cropping practices.

As a full professor she is in charge of or participates to engineers program and masters programs courses at AgroParisTech on basic soil science, biogeochemistry and functional ecology, soil organic matter. She is also involved in training courses for professionals and executives on soils.

Claire Chenu is involved in the science-policy-practice interface and in awareness raising activities on soils. She chairs the scientific committee of the GESSOL program, a multidisciplinary research program of the French ministry of Ecology devoted to soils. This program aims at providing scientific basis and appropriate tools to decision makers and environmental managers, in order to improve the consideration of multifunctionality of soils and reduce risks of degradation. She is vice-chair of the CSPNB (Conseil Scientifique du Patrimoine Naturel et de la Biodiversité), an advisory committee on biodiversity and natural heritage to the French Minister of Ecology. She is member of the steering committee of the National Research Program on Soils as a Resource in Switzerland, and of the scientific committee of the German Biodiversity Exploratories. She participated, as a lead author, to the IPBES (International Panel on Biodiversity and Ecosystem Services) “Europe and Central Asia” evaluation.

She is also co-Chief Editor of the journal “Soil Biology and Biochemistry”.

She has been nominated Special Ambassador for 2015, the International Year of Soils by the FAO.



### **Ieda de Carvalho Mendes**

Ieda Mendes holds a degree in Agronomy from University of Brasília (1987) and a Ph.D. in Soil Science from Oregon State University (1997). She is a researcher at Embrapa since 1989 and works at Embrapa Cerrados. Has experience in Agronomy with emphasis on Soil Biotechnology, acting on the following themes: biological nitrogen fixation, microbial ecology, soil microbiology and bioindicators of soil quality. She was member of the research team responsible for the release, in 1993, of the *Bradyrhizobium japonicum* strains SEMIA 5080 and SEMIA 5079 which are used until today in the Brazilian commercial soybean inoculant.

Since 1998 she began a pioneering work with bioindicators of soil quality in the Brazilian cerrados oxisols. In 2013 her research team published an interpretative framework for microbial indicators as a function of the relative cumulative yields (RCYs) of corn and soybean, and the SOC using linear regression models. The interpretative tables provided in this study established, for the first time, reference values for the soil microbial indicators based on crop yields for the clayey Oxisols of the Brazilian Cerrado.

In 2020, as a result of her team studies with bioindicators, the technology of soil bioanalysis was launched. It is based on the inclusion of two soil enzymes, arylsulfatase and -

glycosidase, in commercial routine soil analyses. Now, in relation to on-farm soil health assessments, Brazilian farmers know exactly what to evaluate, why to evaluate, how to evaluate, when to evaluate and mainly, how to interpret what has been evaluated. The soil bioanalysis technology also involves the calculation of Soil quality indices (SQI) integrating chemical and biological indicators.



### **Jônadan Ma**

Agronomist graduated at Escola Superior de Agricultura Luiz de Queiroz - University of São Paulo (1981), and has postgraduate degree in Executive MBA from Fundação Getúlio Vargas – Rio de Janeiro (2003).

He has been a rural entrepreneur and Executive Director of The Araunah Group - Ma Shou Tao since 1982, and held the positions of: President of the Brazilian Association of Breeders of Girolando; Vice-President of APDC - Association of No-Tillage in the Cerrado; Vice-President of FEBRAPDP - the Brazilian Federation of No-Tillage and Irrigation 2016-2017; Founder and President of CAT- Friends of the Earth Club (Clube dos Amigos da Terra) in Uberaba.

Currently, he serves as Vice-President of COTRIAL – Rural Farmers’ Cooperative of the Triangle and Alto Paranaíba; President of the Boa Fé Institute to Support the Fight against Cancer; President of FEBRAPDP - Brazilian Federation of No-Tillage and Irrigation; and President of CAAPAS - Confederation of the American Associations for Sustainable Agriculture.

Jônadan Ma is married and has three children and seven grandchildren.

Translation: Lumen Tradutores & Intérpretes