« 4 per 1000 Initiative: Soils for Food Security and Climate »

Document Consortium 5-4

5th Meeting of the Consortium

Wednesday 11 December 2019
15:30 to 18:30
Ministry of Agriculture, Fisheries and Food – Madrid (Spain)

Partial renewal of the STC at the end of its 8th meeting
(9 & 10 December 2019 – Madrid - Spain)

The declaration of intent to create a "4 per 1000" Initiative Consortium that establishes the governance of the Initiative contains the following articles that refer to the Scientific and Technical Committee.

These articles are:

Scientific and Technical Committee (hereinafter referred to the "STC")

37. The STC shall provide scientific and technical support to Consortium members.

38. Specifically, the STC shall be able to:

- *propose to Consortium members, on the basis of the orientations defined by the Consortium, a set of reference criteria for the evaluation of projects and actions founded on the principles and goals of the Initiative as defined in the Paris Declaration, as well as on the Sustainable Development Goals;*
- *formulate opinions and advice on projects, actions and programs at the request of the Secretariat;*
- *formulate proposals for the orientations of the international scientific research and cooperation program and for any horizontal issue submitted by the Secretariat;*
- *make contributions to the resource center in conjunction with the Secretariat and, when asked to do so by the Secretariat, validate the posting of documents on line.*

39. The Committee shall comprise no more than 14 scientists, all to be internationally acclaimed for their scientific or technical competence on topics relevant to the 4 per 1000 Initiative. STC members shall notably be competent in the following disciplines: soil sciences, the carbon and organic matter cycle, agronomics, livestock farming, forestry, economics, political sciences and sociology, with the following areas of application: adaptation to climate change, food security and sustainable development in its various economic, social and environmental aspects. The composition of the STC shall assign a significant role to expertise in the field. It shall be balanced between the world's various regions and shall ensure male female parity. STC members shall be appointed for a two-year term renewable no more than twice by decision of the Consortium in response to a proposal from the Secretariat, following consultation of the college of research and educational bodies.

40. The STC shall carry out its assigned tasks by means of physical and virtual meetings with support from the Secretariat. The members of the STC may appoint from among their number an STC chair and deputy chair. The STC chair and deputy chair may take part in Consortium and Forum meetings.

41. Statements of interests shall be made by the members of the Consortium and filed with the Secretariat. They shall be updated at least once yearly.

42. The STC may consult as and when necessary any expert or actor it considers relevant to its proceedings.

Consortium, Forum and STC bylaws

43. Bylaws may lay down the rules for the operation of the Consortium, the Forum and the STC. They shall be adopted by the members of the Consortium in response to a proposal from the Secretariat, after consultation of the relevant body.

At its first meeting in Marrakech on November 17th 2016, the Consortium proceeded to the nomination of the 14 members of the STC on the proposal of the Executive Secretariat following a selection process led by a Committee of international experts specially constituted for this effect, on the basis of an open call for applications.

The following experts were nominated intuitu personnae for a 2-year term.

- Dr. **AMIRASLANI Farshad** – Socio-eco natural resource management (Iran)
- Professor **CHENU Claire** – Soil scientist – soil organic matter (France)
- Dr. **GARCIA CARDENAS Magali** – Agroclimatology (Bolivia)
- Dr. **KAONGA Martin** – Agroforestry carbon biogeochemistry (Zambia)
- Dr. **KOUTIKA Lydie-Stella** – Soil scientist – soil organic matter (Rep of Congo)
- Dr. **LADHA Jagdish** – Soil fertility and plant nutrition (India)
- Dr. **MADARI Beata** – Soil scientist – C and N cycling (Brazil)
- Dr. **RUMPEL Cornelia** – Forester – terrestrial organic matter (Germany)
- Dr. **SHIRATO Yasuhito** – Agricultural and soil scientist (Japan)
- Professor **SMITH Pete** – Soils and global change (United Kingdom)
- Professor **SOUDI Brahim** – Agronomist – soil science (Morocco)
- Dr. **SOUSSANA Jean-François** – Plant physiologist (France)
- Dr. **WHITEHEAD David** – Crop physiologist – forestry (New Zealand)
- Dr. **WOLLENBERG Lini** – Natural resource management (USA)

During this first two-year term, the members of the Scientific and Technical Committee met 6 times (Marrakech November 2016, Rome March 2017, Montpellier June 2017, Bonn November 2017, Madrid June 2018, and Katowice December 2018).

The Scientific and Technical Committee was dynamic and produced the deliverables that were expected of it. The atmosphere is relaxed but extremely serious, not only during "physical" meetings, but also during "virtual" meetings in videoconference.

The team thus formed was fully operational, and with the exception of one case, it expressed its readiness to continue its work for an additional period of one year.

The "Terms of Reference" of the STC elaborated by the STC and validated by the Consortium states that:

> *The nomination of new members is performed by the Consortium on proposal made by the Executive Secretariat and led by the Executive Secretariat.*
>
> *The members of the STC are appointed for 2 years as standard. Members can be re-appointed for a two years mandate with a maximum of 3 mandates by decision of the members of the Consortium.*
>
> *If a member of the STC should leave before completion of their term, the Executive Secretariat will set up a new nomination.*
>
> ***Membership renewal***
>
> *The renewal of the STC membership will be performed every two years by third of the STC. On a period of 6 years, the renewal of the STC will be complete.*

At the end of the first mandate, it was decided by the Consortium to:

- exceptionally extend by one year the duration of the first mandate of the members of the Scientific and Technical Committee, to three years (until the end of 2020);
- replace Professor Pete SMITH who wished to retire at the end of his two-year term of mandate with Dr. Beverley HENRY, an Australian national.
- organize the replacement of 3-4 volunteer members of the STC at the 5th Consortium meeting in December 2019 and entrust the newly created Bureau with the task of selecting and proposing appointments of new STC members to the Consortium.

In this context, the Executive Secretariat issued a call for applications on 15 July 2019 for a period of 2 months (closing date 15 September 2019) via the Initiative's website (https://www.4p1000.org/news), as well as with the partners of the college "Research and Teaching Institutions".

The Call and application form could be consulted and downloaded at the following address:

https://www.4p1000.org/sites/default/files/francais/4_per_1000_call_for_application_stc_renewal_v1_-_2019.pdf

The outgoing members of STC are as follows:

- Dr. **KAONGA Martin** – Agroforestry carbon biogeochemistry (Zambia)
- Dr. **GARCIA CARDENAS Magali** – Agroclimatology (Bolivia)
- Dr. **WHITEHEAD David** – Crop physiologist – forestry (New Zealand)
- Professor **SOUDI Brahim** – Agronomist – soil science (Morocco)

Consequently, in order to respect the current **geographical balance**, 3 new members will have to come possibly from the African continent (2) and the Latin American continent (1), the origin of the fourth member being less restricted, because at the end of 2018 an Australian (Dr. Beverley HENRY) took the place of a British (Prof. Pete SMITH). To maintain the **gender balance**, a maximum of 3 new members could be men.

In addition, the STC wished to amend the **description of the desired profiles for new members** as follows:

- Applicants must be internationally recognized as high-level scientific and technical experts in fields directly related to the societal challenges of the "4 per 1000" initiative.
- Preference will be given to candidates with related experience in economics and social sciences.
- Emphasis is placed on the interest of candidates with experience in policy and legal frameworks and/or interaction with practitioners, and the transformation of land use systems.

During its meeting on September 9th, 2019, The Bureau decided on the **following selection procedure** before proposing for validation of the list of new STC members to the Consortium in December 2019:

- Establishment of a complete list of applications received for which the file is admissible (completeness of the file);
- Elaboration of a general table containing all admissible applications, and mentioning all the information in summary form (civil status information, scientific competences, geographical competences, and elements constituting the file);

- Establishment of a short list of applications with the help of an ad hoc selection committee set up for the occasion upon proposal of names by the members of the Bureau;
- Discussion within the Bureau on the choice of 4 candidates to be proposed to the Consortium for nomination, upon proposal by the Ad hoc selection Committee.

According to the decision of the Bureau to **create an Ad hoc selection Committee**, each member of the Bureau communicated to the Executive Secretariat before September 30th, proposition of scientists' name for the constitution of this committee. The final composition depending on the availability of the proposed persons and the vote by the Bureau is the following:

- Dr. **Axel DON**, Scientist & Deputy Director of the Thuenen Institute
- Dr. **Robert ZOUGMORE**, Regional Program Leader ICRISAT - CCAFS
- Dr. **Abigail FALLOT**, Environmental & Development Economics - Cirad
- Dr. **Yacine BADIANE NDOUR**, Soil scientist – FAO (Dakar)

The Executive Secretariat contacted them all who accepted to be in the Ad Hoc Selection Committee and each of them provided a ranking of all received applications.

A synthesis of all ranking was discussed among the members of the Ad hoc Selection Committee, and a list of 4 candidates was transmitted to the Bureau for validation. An electronic consultation of the Bureau members led to the validation of the following list that is now proposed to the Consortium of Members for nomination of those 4 new members of the Scientific and Technical Committee. The CVs are in appendix of this document.

MINASNY	Budiman	Professor	Australia	Male
SALL	Saïdou Nourou	Professor	Senegal	Male
OLALEYE	Adesola Olutayo	Professor	Canada - Nigeria	Male
ABRAMOFF	Rose	Dr	USA	Female

It has to be noted that this list respects the gender balance issue, and partially the geographical balance issue, but no candidature from Latin America was received by the Executive Secretary.

For Decision of the Consortium of members

It is proposed to the Consortium of Members to nominate the following scientists as members of the Scientific and Technical Committee from December 11th 2019, for a two year term:

- Prof. **MINASNY Budiman** from Australia, Professor in Soil-Landscape Modelling at the Sydney Institute of Agriculture (University of Sydney - Australia);
- Prof. **SALL Saïdou Nourou** from Senegal, Associate Professor Soil Biochemistry at the UFR Agronomic Sciences, Aquaculture et Food Technologies (UFR S2ATA) (University Gaston Berger Saint-Louis – Senegal)
- Prof. **OLALEYE Adesola Olutayo** from Canada and Nigeria, Professor Soil Science, Natural Resources & Environmental Management at the Faculty of Agriculture (University of Eswatini - Eswatini [Swaziland]).
- Dr. **ABRAMOFF Rose** from USA, Postdoc in soil sciences and carbon cycling at Pierre Simon Laplace Institute - Climate Sciences and Environment Laboratory (France)

After nomination, those new STC members will participate to the 9th meeting of the STC to be organized in June 2020.

Curriculum Vitae

Personal details

Name	:	Budiman Minasny
Title	:	Professor in Soil-Landscape Modelling
Address	:	School of Life & Environmental Sciences, Sydney Institute of Agriculture, The University of Sydney, 1 Central Avenue, Australian Technology Park, Eveleigh, NSW 2015
Telephone (Work)	:	(02) 8627 1131
E-mail	:	budiman.minasny@sydney.edu.au

ORCID: https://orcid.org/0000-0002-1182-2371

Academic qualifications

1989-1994	Bachelor of Agricultural Science Majoring in Soil Science. Universitas Sumatera Utara, Indonesia.
1995-1996	Master of Agriculture (Soil Science). Faculty of Agriculture, the University of Sydney
1997-2001	Doctor of Philosophy (Soil Science). Faculty of Agriculture, the University of Sydney.

Academic & Research Experience

Position held	Organisation	Period
ARC Future Fellow	The University of Sydney	2013-2016
ARC QEII Fellow	The University of Sydney	2008-2012
ARC Australian Postdoctoral Industry Fellowship	The University of Sydney	2005-2007
Sesqui Postdoctoral Fellow	The University of Sydney	2002-2004
Research Assistant	The University of Sydney	2001-2002

Honors & Awards

- Australian Society of Soil Science Publication Medal 2002.
- Best paper on Pedometrics in 2001 from the International Union of Soil Sciences.
- Best posters presentation at Supersoil, 3rd Australian New Zealand Soil Conference. Sydney 5-9 December 2004.
- The J.K. Taylor Gold Medal in Soil Science by the Australian Society of Soil Science for the most meritorious publication 2004-2008 .
- One of the most cited papers in Computers and Geosciences 2006-2010.
- The Peter Burrough Award for Best Idea in Digital Soil Mapping, 2012.
- Best review paper in Geoderma 2015, 2016 (Co-author).

Dissemination of research, scholarly work

My work has been reported in:

- **>160 international refereed journal articles,**
- **>50 book chapters.**
- **Co-editor of 3 books.**

Details at http://scholar.google.com.au/citations?hl=en&user=iYEaUWgAAAAJ

I have an **h index of 46** (Scopus,) and **h index 59** (Google Scholar). (July 2019)

Publication World Recognition

- According to SciVal, for the period of 2012-2017, I am **ranked #4 in the world** as the most active authors in Soil Science
- 10 of my papers have been identified as **Highly Cited Paper** by Web of Science which means that the papers have received enough citations to place it in the top 1% of Environmental Science.

My highly cited papers cover topics of managing and mapping soil carbon, modelling soil processes, methodology for digital soil mapping, and soil contamination assessment. My paper *Soil carbon 4 per mille* (Minasny et al., 2017) has been cited more than 186 times since its publication (July 2019). This paper was listed as Hot Paper by Clarivate Analytics, being top 0.1% of papers in the academic field of Agricultural Sciences.

Research

My particular research and contribution to the discipline of soil science has been on discovering the causes and controls of soil distribution over space and time. This knowledge is crucial for soil security which is central to managing climate change, food, water, energy security and maintaining biodiversity.

I have an interest in soil carbon, and my research tried to understand why it varies so much in the landscape and how to model it. The importance of these research fields has been recognised by successful continual funding from the Australian Research Council since 2003.

Research leadership

Office bearer of Professional Society

- Chair of the Working Group on Universal Soil Classification of the International Union of Soil Sciences 2018-2022.
- Chair-Elect of the Pedometrics Commission of the International Union of Soil Sciences 2014-2018.
- Vice Chair of the Pedometrics Commission of the International Union of Soil Sciences 2006-2010.

Editorial board member of international scholarly journals

- Member of the Editorial Board of *PLOS One* 2017-2019.
- Member of the Editorial Board of *PeerJ* since 2013.
- Member of the Editorial board of *Geoderma* since 2007.
- Member of the Editorial board of *Geoderma Regional* since 2016.
- Associate Editor of *Vadose Zone Journal* since 2018.

Keynote & Invited speakers in international conferences in 2019:

- Pedometrics 2019 Conference, 2-6 June 2019, University of Guelph, Canada
- Food security and climate change: 4 per 1000 initiative new tangible global challenges for the soil. 17 - 20 June 2019, Poitiers, France
- International Seminar and Congress of Indonesian Soil Science Society (ISCO-ISS 2019) Bandung, West Java Indonesia. 5-7 August 2019
- SOM, 7th International Symposium on Soil Organic Matter, Adelaide, 6 – 11 October 2019.
- 14th International Conference of the East and Southeast Asia Federation of Soil Science Societies (ESAFS), National Taiwan University, Taipei, Taiwan. BTW, 3-8 November 2019.

Project reviewer

In the last 5 years I have been requested to be a Project Reviewer by:

- National Science Foundation (NSF)
- The French National Research Agency
- The Royal Society, UK.

Reviewer for UNICEF (2015) and FAO (2018) publications on Soil Carbon.

Saïdou Nourou SALL
UFR Sciences Agronomiques, Aquaculture et Technologie Alimentaire (UFR S2ATA)
Université Gaston Berger Saint-Louis
Route de Ngallele. BP 243 Saint-Louis
Tel: +221 33 961 31 77 (Office)
Tel: + 221 77 562 07 02 (Mob. phone)
e-mail: saidou-nourou.sall@ugb.edu.sn

Associate Professor

Soil Biochemistry

Senegalese
52 years
Married
3 children
Driving License B

KNOWLEDGE AND COMPETENCIES

Biogeochemistry Soil Organic Matter Soil fertility and Carbon Sequestration Soil Ecology Project Management	Analyze and synthesize. Strong ability to translate a search request to technical choices.	Adaptation and intellectual flexibility in multi-disciplinary team, quality of listening, organizational culture

EDUCATION AND TRAINING

Management Institute (Senegal)	Project Management	M.Sc.	2006
University of Paris XII (France)	Biochemistry	Ph.D.	2004
University of Dakar (Senegal)	Biochemistry	M.S	1997
University of Fès (Morocco)	Chemistry	B.S.	1992

WORK EXPERIENCE

From 2000 to 2009

- **Institut de Recherche pour le Développement** (french Research Institute for Development). UMR Ecologie Fonctionnelle and Biogéochimie des Sols et Agroécosystèmes, SupAgro-CIRAD-INRA-IRD, Laboratory of Soil Microbial Ecology, Dakar, Senegal

Research focused on Soil Bio-functioning: Organic Matter, Tropical Soil Fertility and Greenhouse Gas Fluxes. Dynamics, functions and inventory management. Head of the Organic Matter laboratory (2004-2009).

From 2010 to now

- **UGB University Saint-Louis.** Associated Professor. I am teaching the course of Biochemistry (Bachelor in Agronomy, Aquaculture and Food Technology), the course of Sustainable Agriculture (Bachelor in Agronomy), Sustainable Soil Management (Master of Agronomy and Crop Productions), Agroecology (Master 2 in Rural Development and cooperation), and contribute to the course of Soil Fertility and Fertilisation (Bachelor in Agronomy, Aquaculture and Food Technology).

Present position

- Head of the department of Agronomy and Crop Productions, Faculty of Agronomy, Aquaculture and Food Sciences, University of Gaston Berger
- Director of laboratory LABAM (Laboratoire des Sciences Biologiques, Agronomiques et de Modélisation des Systèmes Complexes). The lanoratory deals with several topics such as crop and animal productions, aquaculture and food science with almost 30 researchers.

Scientific Skills, Research Experiences

- **Research for Development:** researches focused on soil bio-functioning, nutrient flow, soil fertility and C sequestration. My research is target toward the impact of land use management and climate change context, with a special attention given to the management of organic input (litter, crop residues, urban waste recycling...), on soil bio - functioning in relation to the capacity of soils to sequester carbon. The objective is to promote land use management that are favourable to plant productivity, to the reductions of soil vulnerability, and to maintain the diversity of soil biota after several environmental stresses.
- **Research-action:** researches focused on Food Security and Climate Change Adaptation in Smallholder Agricultural Systems. The objective is build a participatory dynamic between all actors of agricultural development (farmers, climate and agricultural scientists, extensions, local collectivises, institution deciders...) to better access and use agro-climatic and market information and to define the best adaptation options to climate change.

• **As a coordinator of projects**: (last 5 years)
ACSA (Sécurité Alimentaire et Adaptation au Changement Climatique dans les Systèmes Agricoles des Petits Producteurs du Delta du Fleuve) 2018-2020. Financement 132.865 US$ (Open Society Initiative for West Africa, OSIWA).
PERMIS (Intensification des Processus Ecologiques dans les Systèmes à Base- Riz en Condition de Maîtrise de l'Irrigation dans la Vallée du Fleuve Sénégal. Financement Fond d'Impulsion de la Recherche Scientifique et Technique du MESR (2015-2018): 19 millions FCFA.
HAAGRIM (Harmonisation et Amélioration des Programmes de Master et de Doctorat en Agrobusiness par la Mobilité entre l'Afrique de l'Ouest, de l'Est et du Centre pour un Développement Socio-économique Durable. Funded by European Union (2012-2017). 2 millions €.
• **As a partner of projects:** Develop and evaluate methods of field with and without participatory farmers and laboratory experimentation, applying knowledge of scientific theory.
Participation in several research projects with different partners that including the most important: PeriPeriU/USAID (2013-2017); HED/USAID (2011-2015); *SASACID/SIDA (2013-2016)*.

PARTICIPATION IN NETWORKS AND INTERNATIONAL INITIATIVES

• Member of CaSA network (Carbone des Sols pour une Agriculture durable en Afrique, or Soil Carbon and Sustainable Agriculture in Africa).
Signed the declaration of the network« Soil carbon for a sustainable agriculture in view of climate changes in Africa » The Future we want), United Nations Conference on Sustainable Development « RIO +20 », 20 - 22 June 2012 in Rio de Janeiro in Brazil: http://www.uncsd2012.org/rio20/index.html.
Signed the declaration of intention in support of the Initiative "4 per 1000" and participated in the launch on 1st. December 2015 at COP21 (Paris).
• Participation in the workshop « L'agriculture en Afrique Sub-Saharienne face au changement climatique: sols et innovations » (18 au 20 juin Hotel Savana) (CIRAD, IRD, ISRA, EIT-Climate KIC). A manuscript was written and currently submitted to journals. Title of paper: How to expand agricultural innovations to foster soil carbon sequestration? Inputs from participatory multi-stakeholder workshops in France and Senegal to address the 4 per 1000 Initiative.
(authors : Demenois J, Arnoult MH, Assouma MH, Blanfort V, Chenu C, Eglin T, Fallot A, Chapuis-Lardy L, Laurent JB, Lutfalla S, Masse D, Médoc JM, Napoli A, Ndour YB, Nougier M, Poussin JC, Roupsard O, Sall SN, Tall L, Torquebiau E, Touzard JM, Verger C)
• Member of the National Committee for Climate Change, Sub Committee of Carbon (COMNAC, Senegal)
• Member of ANAFE network (African Network for Agriculture, Agroforestry and Natural Resources Education, RAFT Sahel)
• Member of the Scientific Committee of the LMI IESOL, Ecological Intensification of Soils Cultivated in West Africa, consortium of different research institute and universities (IRD, ISRA, UCAD, UO).
• Auditor or Higher studies on Sustainable Development Objectives at Aix-Marseille University France.

COMMUNATION RELATED TO 4 PER 1000

• Razafimbelo T. M., Bernoux M., Badiane Ndour N.Y., Barthès B., Masse D., Sabir M., Aholoukpe H., Amadji G., Balarabe O.,, Hien E., Koné A.0, Abgassi A., **Sall SN.**, Andriamananjara A., Razakamanarivo H., Blanchart E.3, , Albrecht A., Guibert H., Brossard M., 2017. Assessing the potential of soil carbon sequestration in African soils. GLOBAL SYMPOSIUM ON SOIL ORGANIC CARBON, Rome, Italy, 21-23 March 2017.Communication orale.

• Razafimbelo T. M., Bernoux M., **Sall SN.**, Aholoukpe H., Amadji G., Balarabe O., Hien E., Koné A., Taisso M., Gallali T., Badiane N., Andriamananjara A. Razakamanarivo H.1, Blanchart E., Barthès B., Rakotovao N.,Masse D., Albrecht A., Abgassi A., Guibert H., Brossard M., 2016. Les pratiques agricoles durables en Afrique. COP22 Side-Event « Initiative 4 pour mille en Afrique: Contraintes et opportunités pour la mise en place des pratiques agricoles durables en Afrique Subsaharienne. Quelle complémentarité avec l'Initiative AAA (triple A) ? », Green Zone, 8 novembre 2016, Marrackech, Maroc.

• Razafimbelo T. M.,Bernoux M., **Sall SN.** , Aholoukpe H., Amadji G., Balarabe O., Hien E., Koné A., Taisso M., Gallali T., Badiane N. 0, Andriamananjara A., Razakamanarivo H., Rafolisy T., Chevallier T., Becquer T., Blanchart E., Bernard L., Bernard B., Rakotovao N., Ravonjiarison N., Agbossou E., Masse D., Albrecht A., Abgassi A., Konare H.., Guibert H., Brossard M., 2016..Sustainable agriculture practices impacts on soil organic carbon : a few example from Sub Saharan Africa. Ecological sustainability Engineering Change, 29 august-1st September, Montpellier, France. Oral Communication (Keynote speaker).

• Razafimbelo T. M.,Bernoux M., Badiane N., Amadji G., Balarabe O., Hien E., Konare H., Koné A., Taisso M., Gallali T., Razakamanarivo H., Rafolisy T., Andriamananjara A., Randriamanantsoa L., Rabenarivo M., Rasoarimalala O., Rabeharisoa L., Razafimahatratra H., Becquer T., Blanchart E., Bernard L., Rakotovao N., Ramaroson V., Ravonjiarison N., Aholoukpe H., Agbossou E., Yemadje L., Ganglo J., Gouro A., Assouma M., Bilgo A.0, Belem M.0, Ali M., Ko Awono M., M'biandoun M., Wirnkar Lendzemo V., Mouhaman A., Olina Assala J., Ettien J., Kassin K., Dibi K., Tondoh J., , Diouf A., **Sall SN.**, Sall A., Masse D., Garraud S., Bastard G., Balde M., Ba A., Lardy L., Komi A., Wele A., Abgassi A., Vayssiere, H. Guibert, B. Barthes, J. Chotte, A. Albrecht, M. Brossard, T. Chevallier, L. Cournac J., Blavet D., Clermont-Dauphin C., Deleporte P., Grinand C., Salgado P., Manlay R., Sabir. The "Soil Carbon Network for Sustainable agriculture in Africa" (CaSA). COP21 Side-Event « Gestion durable des terres et séquestration du carbone en Afrique Subsaharienne », Pavillon France, 1er décembre 2016, Le Bourget, Paris, France. Oral conference.

PARTICIPATION IN CONFERENCES WHERE "4 PER 1000" WAS PROMOTED AND DISCUSSED

• Workshop on Climate Change Adaptation in Africa. 19-21 September 2018, University of Ibadan. Nigeria. Organised by IFAD (International Fund for Agricultural Development), Rome.

• Agriculture en Afrique Sub-Saharienne face au changement climatique : sols et innovations. 18 au 20 juin 2018, hôtel Savana. Dakar. Organisé par l'IRD et le CIRAD, France.

• The 4th Global Science Conference on Climate Smart Agriculture, 28-30 November 2017, "Catalysing Local Innovations and Action to Accelerate Scaling up of CSA". Johannesburg, South Africa. Organisé par le NEPAD.

• Auditeur du Cycle des Hautes Etudes de l'Université Aix-Marseille (Objectifs du Développement Durable). 8-13 Juillet 2016. Marseille, France

• Participation in the launch of the 4 per 1000 initiative (1st. December 2015 at COP21, Paris). Participation to the side-Event « Gestion durable des terres et séquestration du carbone en Afrique Subsaharienne », Pavillon France, 1er décembre 2016, Le Bourget, Paris, France.

REVIEWER OF SEVERAL JOURNALS

Applied Soil Ecology (Elsevier), Biology Fertility of Soils (Springer), European Journal of Soil Biology (Elsevier), Arid Land research and Management (Taylor & Francis), Journal of Environmental Management (Elsevier), Pedosphere (Elsevier), Journal of plant Nutrition and Soil Science (Taylor & Francis), Proceedings of the National Academy of Sciences (National Academy of Science)

PUBLICATIONS: total of 39 papers published

(within 5 last years)

1. GNACADJA C., BERTHOULY-SALAZAR C., **SALL SN.**, ZEKRAOUI L., SABOT F., PEGALEPO E., MANNEH B., VIEIRA-DALODE G., MOREIRA J., SOUMANOU M. M., AZOKPOTA P. ET SIÉ M. (2018). Caractérisation phénotypique et génétique du riz africain (Oryza glaberrima steud) Int. J. Adv. Res. 6(2), 1389-1398.
2. **SALL SN**, MASSE D, DIALLO NH, SOW TMB, HIEN E, GUISSE A, (2016). Effects of residue quality and soil mineral N on microbial activities and soil aggregation in a tropical sandy soil in Senegal. Eur. J. of Soil Biol. 75: 62-69.
3. **SALL S.N.**, HIEN E., GUISSE A. (2016). Effets d'application sur le long terme de fertilisants organiques et minéraux sur l'agrégation et les activités microbiennes d'un sol tropical sableux au Burkina Faso. Journal of Applied Biosciences 107: 10371-10380.
4. SEYE B., AMINOU A., **SALL S.N.**, NDIAYE A.A. (2016). Déterminants de l'adoption des variétés améliorées de semences certifiées de riz au Benin. J. Rech. Sci. Univ. Lomé (Togo), 2016, Série B, 18(4) : 93-106
5. **SALL SN**, MASSE D, DIALLO NH, SOW TMB, HIEN E, GUISSE A, (2016). Effects of residue quality and soil mineral N on microbial activities and soil aggregation in a tropical sandy soil in Senegal. Eur. J. of Soil Biol. 75: 62-69.
6. SOUMARE A., **SALL S. N.**, SANON A., CISSOKO M., HAFIDI M., NDOYE I., DUPONNOIS R. (2016). Changes in soil pH, polyphenol content and microbial community mediated by Eucalyptus camaldulensis. Applied Ecology and Environmental Research 14(3): 1-19
7. FALL D, BAKHOUM N, **SALL SN**, ZOUBEIROU AM, SYLLA SN, DIOUF D, (2016) Rhizobial Inoculation Increases Soil Microbial Functioning and Gum Arabic Production of 13-Year-Old Senegalia senegal(L.) Britton, Trees in the North Part of Senegal. Front. PlantSci.7:1355.
8. DIALLO-DIAGNE NH, ASSIGBETSE K, **SALL SN**, MASSE D, BONZI M, NDOYE I, CHOTTE JL, (2016). Response of Soil Microbial Properties to Long-Term Application of Organic and Inorganic Amendments in a Tropical Soil (Saria, Burkina Faso). Open Journal of Soil Science, 6, 21-33.
9. DIALLO M.D., GUISSE A., **SALL S.N.**, DICK R.P., ASSIGBETSE K.B., DIENG A.L., CHOTTE J.L. (2015). Influence of tropical leaf litter on nitrogen mineralization and community structure of ammonia-oxidizing bacteria. Biotechnol. Agron. Soc. Environ. 19 :173-183
10. N'DIÉNOR, M., AUBRY, C., **SALL, S.** (2014). Déchet urbain-agriculture-environnement (duae): using waste as a resource for agriculture. Acta Hortic. 1021, 263-270 DOI: 10.17660/ActaHortic.2014.1021.22

Adesola Olaleye

CONTACT

Crop Science Dept, Faculty of Agriculture, University of Swaziland
University of Swaziland

E-mail: olaleye@uniswa.sz
Website: https://www.linkedin.com/in/ola-olaleye-phd-652625a/ ORCID # https://orcid.org/0000-0001-7948-2273
Phone: +268-7668-6819

QUALIFICATIONS /EDUCATION

- B.Sc. (Hons), Agriculture
- M.Sc. Agronomy
- PhD Agriculture (Soil Science option)

CORE COMPETENCIES

- Carbon and nutrient cycling,
- Wetland ecology,
- Climate change & Policy Framework,
- Wetland rehabilitation and restoration, wetland and stream restoration,
- Isotope studies using $^{13}C/^{14}C$, ^{15}N for wetland studies: degradation and rehabilitation.
- Examining how land use and landscape pattern influence connectivity in watersheds and subsequent nutrient delivery, using ^{137} Cs techniques and land use history
- Scientific editing & reviewing of manuscripts, working paper etc

WORK EXPERIENCE

The University of Swaziland, Swaziland, Southern Africa — 2017 — Present

Professor, Soil Science/Natural Resources & Environmental Management

- Training/teaching undergraduate and postgraduates in Agriculture and Soil-Agronomy & Mentoring post-doctoral students
- Wetlands management & climate change
- Writing research proposals and other technical writings on Soil-Agriculture and Sugarcane management

MIST-INNOVATE, Toronto, ON, Canada — 2013 — 2017

Professor/Director of Research and Development

- Lead the preparation of high-quality analytical work used to support the policy dialogue and/or inform the design of investment lending operations;
- Coordinated graduate students to develop an app - a low-cost innobator (i.e. incubator) for poor and rural communities in Africa (i.e. Swaziland and Lesotho).

The National University of Lesotho, Roma, Southern Africa — 2007 — 2012

Professor, Soil Science/Natural Resources & Environmental Management

- Advised/Teach undergraduate/graduate students on soil science, management and conservation;
- Conducted research in wetlands and organic carbon management
- Create and deliver effective presentations to convey technical information to a variety of audiences.

The Food & Agriculture — 2006 — 2007

Organisation, Sub-Regional Office, Accra, Ghana

Senior Agricultural Scientist in Land & Water Management

- Conducted Environmental Impact Assessment on Wetlands Ecology & Management within the SSA and collected data using random samplings
-

The International Water Management Institute, Accra, Ghana **2005 — 2006**

Senior Wetland Soil Scientist

- Conducted land evaluation, Environmental Impacts of land use on these wetlands
- Evaluate soil physico-chemical & hydrochemical properties within wetlands
-

Olabisi Onabanjo University, Ogun State, Nigeria **1998 — 2005**

Assistant Professor, Soil Science/Environmental Science

- Conduct research in crop production, yield, and management of crops and agricultural plants or trees, shrubs, and nursery stock, their growth in soils
- Conducted Fundamental/Applied Research on Land Management (Soil Water & vegetation)
- Taught/supervised student (post-graduate Diploma, Undergraduate & Postgraduate)

COUNTRY EXPERIENCE

Southern African Region (Lesotho, Swaziland (eSwatini), Southern Africa)
East Africa (Ethiopia, Kenya, Uganda,Ethiopia, Rwanda)
West Africa (Cote d ' Ivoire, Nigeria, Niger, Ghana, Gambia, Burkina Faso, Rep. of Benin, Senegal, Togo)
Americas (Canada & USA)
Asia (Malaysia, Thailand, China, Sri Lanka)

MEMBERSHIP OF PROFESSIONAL BODIES

1. Professional Agrologist, Manitoba, Canada,
2. Professional Agrologist, Ontario, Canada
3. Member, Soil Science Society of Canada
4. Member, Soil Society of America
5. Member, Asian Council of Editors
6. Member, International Institute of Business Analyst, Canada
7. Member, Canadian Standard Organization
8. Member, Soil Science Society of Nigeria
9. Member, International Soil/Tillage Research Organizations
10. Member, International Society of Tropical Root Crops

Followed 11 pages of publications, book chapters, etc…

Rose Abramoff

website: https://rabramoff.github.io/
github: rabramoff
twitter: ultracricket

Appointments held

2018- Postdoctoral Researcher, LSCE, Supervisor: Philippe Ciais
2015-2018 Postdoctoral Researcher, LBNL, Supervisors: Margaret Torn, William J. Riley
2009-2015 Graduate Teaching Fellow, Boston University, Supervisor: Adrien Finzi

Teaching & Mentorship

2013-2014 Pomona College undergraduate thesis advisor: Johanna Recalde
2012,2013 Harvard Forest REU Program Mentor: Samuel Knapp, Arline Gould, Johanna Recalde
2011-2015 Undergraduate Research Intern Mentor: Amanda Alon, Aubree Woods
2011-2012 NSF GK-12 GLACIER Teaching Fellow: Curley K-8 School
2010-2015 BU Teaching Fellow: Biology I, Biology II, Ecology

Selected Invited Presentations

2019 **Abramoff RZ**, Georgiou K, Guenet B, Huang Y, Zhang H, Feng W, Jagadamma S, Kaiser K, Kothawala D, Mayes M, Camino-Serrano M, Ciais P, Maximum capacity of mineral-sorbed organic matter. *Soil process seminar, LUKE, Helsinki*
2018 **Abramoff RZ**, Torn MS, Georgiou K, Tang J, Riley WJ, A tale of four models, or Spatial gradients can hide the temperature sensitivity of soil organic matter to warming. *Enviro-Lunch Seminar, UC Merced*
2017 **Abramoff RZ**, Georgiou K, Tang J, Torn MS, Riley WJ, Mineral surface properties and mean annual temperature control soil carbon stock. *Department of Geography, UZH Zurich*
2017 **Abramoff RZ**, Harden J, Georgiou K (presenting author), Tang J, Torn MS, Riley WJ, Managing for C sequestration: a modeling framework for decision-making. *European Geophysical Union Annual Meeting, Vienna, Austria*

Selected grants, honors & awards

2018 Marie Curie Individual Fellowship
2018 MOPGA Laureate
2017 LBNL EESA Early Career Development Grant
2015 BU Biogeoscience Symposium Outstanding Oral Presentation Award
2014 AAUW Dissertation Fellowship
2013 AGU Outstanding Student Paper Award
2012,2014 AGU Student Travel Grant Award
2011-2012 NSF Graduate STEM in K-12 Education Fellowship
2010 NSF East Asia and Pacific Summer Institutes Fellowship
2009-2011 Amherst College Fellowship for Graduate Study
2009 BU Dean's Fellowship
2007 Howard Hughes Medical Institute Independent Research Fellowship

Scientific publications

2019 **Abramoff RZ**, Torn MS, Georgiou K, Tang J, Riley WJ, Soil organic matter temperature sensitivity cannot be directly inferred from spatial gradients. *Global Biogeochemical Cycles* 33:6, 761-776, DOI:10.1029/2018GB006001

2018 Contributing author to: 2nd State of the Carbon Cycle Report. Chapter 12: Soils

2018 Sulman BN, Moore JAM, **Abramoff RZ**, Averill C, Kivlin S, Georgiou K, Sridhar B, Hartman M, Wang G, Wieder WR, Bradford MA, Luo Y, Mayes MA, Morrison E, Riley WJ, Salazar A, Schimel JP, Tang J, Classen AT, Multiple models and experiments underscore large uncertainty in soil carbon dynamics. *Biogeochemistry* 141:2, 109-123, DOI:10.1007/s10533-018-0509-z

2018 Savage K, Davidson EA, **Abramoff RZ**, Finzi AC, Giasson M-A, Partitioning Soil Respiration: Quantifying the Artifacts of the Trenching Method. *Biogeochemistry* 1-11. DOI:10.1007/s10533-018-0472-8

2018 **Abramoff RZ**, Xu X, Hartmann M, O'Brien S, Feng W, Davidson EA, Finzi AC, Moorhead D, Schimel J, Torn MS, Mayes M (2018), The Millennial model: in search of measurable pools and exchanges in soil carbon cycling for the new century. *Biogeochemistry* 1-21, DOI:10.1007/s10533-017-0409-7

2017 Georgiou K, **Abramoff RZ**, Harte J, Riley WJ, Torn MS (2017), Microbial community-level regulation explains soil carbon responses to long-term litter manipulations. *Nature Communications* 1223, 1-10, DOI: 10.1038/s41467-017-01116-z

2017 **Abramoff RZ**, Davidson EA, Finzi AC (2017), A parsimonious modular approach to building a mechanistic belowground carbon and nitrogen model. *JGR Biogeosciences* 122, DOI:10.1002/2017JG003796

2016 **Abramoff RZ**, Finzi AC (2016), Seasonality and partitioning of root allocation to rhizosphere soils in a midlatitude forest. *Ecosphere* 7.11, e01547, DOI:10.1002/ecs2.1547

2015 Finzi AC, **Abramoff RZ**, Darby BA, Spiller KS, Brzostek ER, Phillips RP (2015), Rhizosphere processes are quantitatively important components of terrestrial carbon and nutrient cycles. *Global Change Biology* 21.5, 2082-2094, DOI: 10.1111/gcb.12816

2015 **Abramoff RZ**, Finzi AC (2015), Are above-and below-ground phenology in sync? *New Phytologist* 205.3, 1054-1061, DOI: 10.1111/nph.13111