

Curriculum Vitae

I received a Doctoral degree in Sciences from University of São Paulo (Brazil/2014) and worked as Research Scholar at University of New Hampshire (USA/2013) and as Postdoc Fellow at The Woods Hole Research Center (USA/2014-2015). I'm currently Science Officer of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) and Project Coordinator at IMAFLORA, a socio-environmental Brazilian NGO (www.imaflora.org), with expertise on mitigation solutions for the agricultural sector, managing large GHG emissions and soil C stocks databases and providing analysis of feasibility for carbon markets and public policies. Among others, I'm a team member of the SEEG project (seeg.eco.br), a Roster of Experts of UNEP-Climate and Clean Air Coalition, a MIT Climate CoLab Impact Assessment Fellow, and member of the Brazilian Government Committee responsible for setting up a monitoring system for tracking progress of low carbon agriculture in Brazil.

Education**2014 - 2015**

Post-Doctoral Fellow at Wood Hole Research Center – USA

Subject: Modeling nitrogen dynamics in soils under agricultural and native vegetation in the Brazilian Amazon.

2010 - 2014

Ph.D. Sciences – Chemistry in the Agriculture and Environment

University of São Paulo – Center of Nuclear Energy in Agriculture – Lab. of Biogeochemistry - Brazil

Advisor: Dr. Carlos Cerri

Thesis: Methane and nitrous oxide emissions from the beef cattle feedlot manure management in Brazil: surveying, measuring and modeling.

2013 -2013

Research Scholar - University of New Hampshire - USA

Advisor: Dr. Changsheng Li

Project: Modeling greenhouse gas emissions from beef cattle feedlot manure management in Brazil using the Manure-DNDC model.

2006 - 2008

M.S. Sciences – Chemistry in the Agriculture and Environment

University of São Paulo – Center of Nuclear Energy in Agriculture – Lab. of Biogeochemistry - Brazil

Advisor: Dr. Marisa C Piccolo

Thesis: Carbon and nitrogen in soil aggregates under different land uses in the Brazilian Cerrado.

2001 - 2005

B.A. Environmental Chemistry

Londrina State University - Brazil

Key Professional Activities**2018 - present**

Project Coordinator - Climate and Agriculture Supply Chains - Institute for Forestry and Agricultural Management and Certification (IMAFLORA) – Brazil

www.imaflora.org

2015 - 2018

Analyst - Climate and Agriculture Supply Chains - Institute for Forestry and Agricultural

Management and Certification (IMAFLOA) – Brazil

www.imaflora.org

2017 – present

Brazilian Low Carbon Agriculture Monitoring Committee. Civil society member in the Brazilian Government Committee responsible for setting up a monitoring system for tracking progress of low carbon agriculture in Brazil.

Climate CoLab Impact Assessment Fellow – MIT Center for Collective Intelligence. The goal of Climate CoLab is to harness the collective intelligence of thousands of people from all around the world to address complex societal problems, starting with global climate change. <https://www.climatecolab.org/members/profile/2514223>

Roster of Experts – UNEP-Climate and Clean Air Coalition - is one of the services offered by the Manure Knowledge Kiosk – providing a network of experts to people and organisations in search for knowledge/expertise about integrated manure management.

www.manurekiosk.org;

http://www.livestockdialogue.org/fileadmin/templates/res_livestock/docs/kiosk/20150519_Roster_of_Experts.pdf

2013 - present

SEEG Project (Imaflora - Agricultural Sector Responsible) - Initiative providing independent civil society assessments of GHG emissions for Brazil, Peru and India. www.seeg.eco.br

Key Publications (Peer-Reviewed)

Chirinda, N., Loaiza, S., Arenas, L., Ruiz, V., Faverín, C., Alvarez, C., Savian, J.V., Belfon, R., Zuniga, K., Morales-Rincon, L.A., Trujillo, C., Arango, M., Rao, I., Arango, J., Peters, M., Barahona, R., **Costa Junior, C.**, Rosenstock, T.R., Richards, M., Martinez-Baron, D., Cardenas, L.. Adequate vegetative cover decreases nitrous oxide emissions from cattle urine deposited in grazed pastures under rainy season conditions. *Scientific Reports*, 2019, 9 (1) <https://www.nature.com/articles/s41598-018-37453-2>

Jankowski, K.J., Neill, C., Davidson, E., Macedo, M., **Costa Junior, C.**, Galford, G., Santos, L.M., Lefebvre, P., Cerri, C.E.P., O'Connell, C., Coe, M. Deep soils modify environmental consequences of increased nitrogen fertilizer use in intensifying Amazon agriculture. *Nature Scientific Reports*, v.8, 2018. <https://www.nature.com/articles/s41598-018-31175-1>

Azevedo, T.R., **Costa Junior, C.** Brandão Junior, A. et al. SEEG initiative estimates of Brazilian greenhouse gas emissions from 1970 to 2015. *Nature Scientific Data*. <https://www.nature.com/articles/sdata201845>

Grewer, U., Nash, J., Gurwick, N., Bockel, L., Galford, G., Richards, M., **Costa Junior, C.**, White, J., Pirolli, G., Wollenberg, E. Analyzing the greenhouse gas impact of smallholder development actions across a global food security program. *Environmental Research Letter*, 13 044003, 2017. <http://iopscience.iop.org/article/10.1088/1748-9326/aab0b0/pdf>

Brazilian Ministry of Science, Technology and Innovation (MCTI), Third National Communication of Brazil to the United Nations Framework Convention on Climate Change – Reference Report of the Agriculture Sector – Methane Emissions from Enteric Fermentation and Manure Management. Authors: Berndt, A., Lemes, A.P., Romero, L.A., Sakamoto, L.S., Lima, M.A., **Costa Junior, C.**, Villas Boas, D.F., Bettiol, G.M., Marques, M.F. 2015. Available at: <http://sirene.mcti.gov.br/publicacoes>

Nash J., **Costa C.**, Galford G., Wollenberg E. 2015. Methods for Identifying Low Emissions Development Options in Agriculture. CCAFS Working Paper no. 147. CGIAR Research Program

on Climate Change, Agriculture and Food Security (CAAFS). Copenhagen, Denmark. Available online at: www.ccafs.cgiar.org