

PERSONAL INFORMATION

Alejandra Sarmiento Soler



I am a biologist with an MSc in forest science and forest ecology and a PhD in Agricultural Science. My research focuses on the functioning of coffee agroforestry systems along altitude and management gradients and explores climate change adaptation opportunities in rural areas. I am interested in the role agroforestry systems have on social, economic and environmental dimensions. I believe that a full understanding on the complexity of such agro - ecosystems can help improve productivity and rural livelihoods while maintaining or enhancing key ecosystem services.

CONTACT INFORMATION

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Nationality: Spanish and Colombian

Date of birth: 16.08.1987

PROFESSIONAL EXPERIENCE

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- | | |
|-------------------------|---|
| 01.09.2019 – Currently | Post-Doc Researcher
Tropical Plant Production and Agricultural Systems Modelling
Georg-August-Universität Göttingen |
| 01.01.2015 – 14.02.2019 | PhD Student in the project: “Trade-offs and Synergies in Climate Change Adaptation and Mitigation in Coffee and Cocoa Systems”
Tropical Plant Production and Agricultural Systems Modelling
Georg-August-Universität Göttingen <ul style="list-style-type: none"> • Water balance of coffee agroforestry systems • Coffee productivity at an altitude and management gradient • Climate change adaptation strategies for rural areas • Project proposals writing |
| 01.04.2014 – 31.12.2014 | Research assistant at the German Federation for the Curation of Biological Data (GFBIO)
Centre of Biodiversity and Sustainable Land Use
Georg-August-Universität Göttingen <ul style="list-style-type: none"> • Market surveys • Outreach • Development of training materials: e-modules, factsheets • Workshops organization • Data management and data analysis • Scientific text production |
| 01.01.2013 – 01.01.2014 | Student assistant in the PhD project: “Scales of bacteria interactions on Plant Leaf Surfaces”
Department of Ecosystem Modelling
Georg-August-Universität Göttingen <ul style="list-style-type: none"> • Microscopic photographs processing using ImageJ64 • Preparation of datasets and data quality assurance |
| 01.11.2011 – 30.03.2012 | Student assistant at the Faculty of Forest Science and Forest Ecology |

Georg-August-Universität Göttingen

- Support to international students

01.10.2011 – 31.12.2011 **Student assistant in the PhD project: “Modelling the influence of social and economic factors on the adoption of agricultural innovations and land use change in culturally diverse Southern Ecuador”**

Department of Agricultural Economy and Rural Development

Georg-August-Universität Göttingen

- Digitalization of interviews
- Data coding and data quality assurance

EDUCATION

01.01.2015 – 14.02.2019 **PhD at Georg-August-Universität Göttingen**

01.10.2011 – 31.03.2014 **MSc Forest Science and Forest Ecology (Tropical and International Forestry)**

Georg-August-Universität Göttingen

- Biometrical Research Methods
- Biotechnology and Forest Genetics
- Ecopedology of the Tropics and Subtropics
- Forest Utilization and Wood Processing
- International Forest Policy and Economics
- Monitoring Forest Resources
- Project Planning and Evaluation
- Tropical Forest Ecology and Silviculture

15.04.2013 – 15.08.2013 **Visiting researcher for an MSc thesis in the Siberut Conservation Program, Indonesia: “Comparing the productivity of cacao agroforestry systems in Siberut”**

Deutsches Primaten Zentrum (DPZ), Bogor Agricultural University (IPB) and Georg-August-Universität Göttingen

01.11.2012 – 12.12.2012 **Project leader and Forest Inventory coordinator in Student Project: “Sustainable Forest Management Plan of Lowland Dipterocarp Forest and Exotic Plantations in Barangay Puntana, Southern Leyte, Philippines”**

German Academic Exchange Service DAAD, Georg-August-Universität Göttingen and The Visayas State University.

01.09.2005 – 30.06.2010 **Degree in Science, Biology, Environmental and Ecological Systems**

Salamanca University (Spain)

PUBLICATIONS

Sarmiento-Soler, Alejandra, Philippe Vaast, Munir P. Hoffmann, Laurence Jassogne, Piet van Asten, Sophie Graefe and Reimund P. Rötter 2020. Effect of cropping system, shade cover and altitudinal gradient on coffee yield components at Mt. Elgon, Uganda. *Agriculture, Ecosystems & Environment* 295. doi: 10.1016/j.agee.2020.106887

Sarmiento-Soler, A., Vaast, P., Hoffmann, M.P., Rötter, R.P., Jassogne, L., van Asten, P.J.A., Graefe, S., 2019. Water use of *Coffea arabica* in open versus shaded systems under smallholder’s farm conditions in Eastern Uganda. *Agric. For. Meteorol.* 266–267, 231–242. <https://doi.org/10.1016/j.agrformet.2018.12.006>

Hoffmann, M.P., Odhiambo, J.J.O., Koch, M., Ayisi, K.K., Zhao, G., **Soler, A.S.**, Rötter, R.P., 2018. Exploring adaptations of groundnut cropping to prevailing climate variability and extremes in Limpopo Province, South Africa. *Field Crops Res.* 219, 1–13. <https://doi.org/10.1016/j.fcr.2018.01.019>

Rahn, E., Liebig, T., Ghazoul, J., van Asten, P., Läderach, P., Vaast, P., **Sarmiento, A.**, Garcia, C., Jassogne, L., 2018. Opportunities for sustainable intensification of coffee agro-ecosystems along an altitudinal gradient on Mt. Elgon, Uganda. *Agric. Ecosyst. Environ.* 263, 31–40. <https://doi.org/10.1016/j.agee.2018.04.019>

TRAINING

08.10.2018 – 19.10.2018	Course in: “Training of trainers” SLE Training for international Development Cooperation, Humboldt University Berlin Germany
20.11.2017 – 24.11.2017	Course in “The art of Science: Scientific Illustration” Transmitting Science, Sabadell Spain
17.06.2015 – 19.06.2015	Workshop in “Monitoring tree reactions to environment: tools and their application in forest ecology and urban forestry” Annas Koku Skola, Riga Latvia
04.08.2014 – 15.08.2014	Course in “Disaster Risk Management” SLE Training for international Development Cooperation, Humboldt University Berlin Germany
15.02.2014 – 27.02.2014	Course in: “Agent-based modelling for spatial processes in geography with NetLogo” Angers University France
16.09.2013 – 27.09.2013	Course in: “Increasing Resilience to Climate Change through Sustainable Resource Management” SLE Training for international Development Cooperation, Humboldt University Berlin Germany

OTHER SKILLS

Languages

Mother tongue (s)

Other language (s)

Spanish				
Listening	Reading	Speaking	Writing	
2011 TOEFL (97 points)				
Master degree carried out in English				
English	C2	C2	C2	C2
George-August-Universität Göttingen, language courses				
German	C1	B2	C1	B2
Vuxen Utbildung, Västerås Sweden				
Swedish	B1	B1	A2	A2
“Centro Educativo y Cultural Español Reyes Católicos”, Bogota Colombia				
French	A1	A1	A1	A1
Field work in Indonesia (15.04.2013 – 15.08.2013)				
Bahasa Indonesia	A1	A1	A1	A1

Computer- skills

- Excellent command of Microsoft Office
- Excellent command of R
- Excellent command of EndNote
- Solid command of GIS tools (QGIS)
- Solid command of STATISTICA
- Solid command of ImageJ64
- Solid command of Zotero
- Solid command of NetLogo
- Solid command of APSIM

Personal Skills

- Leadership (initiatives & motivational) and teamwork
- Ability to work well in an international and multidisciplinary environment
- Excellent presentation skills
- Solid scientific writing skills
- Lots of field work experienced
- Knowledge about quantitative and qualitative research methods
- Excellent organization and management skills

REFERENCES

Dr. Fernando Silla

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Faculty of Biology, University of Salamanca (Spain)

Dr. Jens Nieschulze

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Forschungsreferent für Datenmanagement
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Rötter

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