Erika Styger

Ithaca, New York 14850, USA

eds8@cornell.edu; https://www.erikastyger.org; Tel: +1 (607) 279 - 9203

HIGHLIGHTS OF QUALIFICATIONS

- 32 years experience in tropical agronomy, crop and soil science, agroforestry, natural resources management, land degradation, participatory approaches in research and development. Focus on the System of Rice Intensification (SRI) since 2007. More than 11 years direct fieldwork with rural communities in humid, semi-arid, arid and highland ecozones of Africa.
- Designed, implemented and evaluated research and development programs at local, national and international levels in Africa, Asia and Latin America.
- · Strong analytical skills to understand complex farming system problems, and develop practical solutions
- Broad experience working in multi-cultural environments; excellent leadership, social and communication skills; and ability to build efficient working relationships with varied stakeholders and collaborators.
- Prior to joining Cornell University, worked with World Bank, FAO, UNDP, CGIAR Centres ICRAF (World Agroforestry Centre) and IITA (International Institute of Tropical Agriculture); Swiss Agency for Development and Cooperation, US consulting firms (Chemonics Inc., Development Alternatives Inc., Abt Associates Inc.), the MDG Center West and Central Africa (EARTH Institute, Columbia University), and with international NGOs Africare, Catholic Relief Services (CRS) and SRI Global Inc.
- PhD from Cornell University in Crop and Soil Sciences and MSc from Swiss Federal Institute of Technology (ETHZ), Zurich in Agronomy (*Diplomierter Ingenieur-Agronom*)

PROFESSIONAL EXPERIENCE

CORNELL UNIVERSITY - Professor of Practice

Director, Climate-Resilient Farming Systems

Jan 2017 – present; Department of Global Development, College of Agriculture and Life Sciences, **Ithaca, New York, USA;** https://www.climateresilientfarmingsystems.org/

Designed and lead the program. Responsible for program development, management, finances, fundraising, administration, planning, and reporting.

Mission: Improve tropical smallholder farming systems for greater productivity and resilience to climate change through ecological approaches.

Operational strategy

- Integrate agro-ecological and climate-smart approaches according to farmer needs, constraints and opportunities, including System of Rice Intensification (SRI), System of Crop Intensification (SCI), Sustainable Land and Water Management (SLWM), Agrobiodiversity Management and Agroforestry.
- Combine scientific knowledge with local knowledge, using participatory research approaches with farming communities to create innovative solutions that benefit and empower farmers.

Projects

Current projects

- Diversity and in-situ conservation of rice by the Saamaka people of Suriname (2018-2022), Cornell Atkinson Center for Sustainability, Cornell University. (PI)
- Regenerative rice farming with Black farming communities in Louisiana, Mississippi, Georgia, and South Carolina (since 2020), Jubilee Justice, LA. (Technical lead)

- Improving fonio (*Digitaria exilis*) productivity with SRI principles, Douentza, Mopti, Mali (2018-2022), collaboration with 3-A Sahel Mali, SRI Global Inc, Yolélé Foods Inc. and private party. On-farm experimentation of line-seeding and organic matter fertilization of the fonio crop. (PI)
- Approved: <u>RICOWAS Project: Scaling-up climate-resilient rice production in 13 countries of West Africa</u> (Benin, Burkina Faso, Côte d'Ivoire, The Gambia, Ghana, Guinea, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo). Sahara and Sahel Observatory (OSS), Tunisia and Adaptation Fund (Technical lead, February 2023-2027).

Previous projects

- Evaluation of nursery methods on plant development and grain yield of rice in the Hudson Valley, New York, SARE Farmer Grant (2019-2020), Northeast Sustainable Agriculture Research and Education (SARE), USA. (Technical lead)
- Improving and scaling up SRI in West Africa (http://sriwestafrica.org) (2014-2018) (Technical lead)
- Improved use and conservation of Africa rice (*Oryza glaberrima*) by West African smallholder farmers (2016-2017) (PI)
- <u>Use of 3D printing technology</u> to improve smallholder rice production equipment (2016-2018) (Atkinson Center Academic Venture Fund Grant) (Co-PI)

Teaching at Cornell University

- Co-taught: <u>Perspectives on International Agriculture and Rural Development</u>, DSCOC1100/IARD1100 Fall class 2019, with Dr S. Giroux and Dr R. Nelson; 48 students, 3 credit class. <u>Syllabus</u>
- Guest lectures: yearly repeated
 - Shifting cultivation and slash-and-burn agriculture and options for sustainable intensification; CSS
 IA 4030: Traditional Agriculture in Developing Countries
 - Landscape management and tropical agroforestry: an introduction, Lecture in PLSCS 4140/5140:
 Global Cropping Systems
 - System of Rice Intensification (SRI) Scaling-up climate resilient rice production, Lecture in AEM
 6600: Natural Resources and Economic Development

Teaching at SUNY Cortland

• Guest lecture: Diversity and In-situ Management of Rice by the Saamaka People of Suriname; SCI 304 Plants and People.

In the News:

 36 News Articles published about my work between 4/2018 and 08/2022: https://www.climateresilientfarmingsystems.org/in-the-news

CORNELL UNIVERSITY - Director, SRI International Network and Resources Center (SRI-Rice)

August 2010-December 2016; International Programs (IP-CALS), College of Agriculture and Life Sciences, **Ithaca, New York, USA;** http://sririce.org

Set up and led SRI-Rice; Responsible for program development, management, finances, fundraising, administration, planning, and reporting

Mission: To advance and share knowledge about the System of Rice Intensification, to improve the technical implementation of the SRI methodology, and to support networking among interested organizations agencies, and individuals around the globe.

Accomplishments:

Made knowledge about SRI widely available

Worlds' most comprehensive collection of SRI knowledge, available at http://sririce.org

• Personal outreach: traveled to 29 countries in 46 visits: provided technical assistance and trainings, undertook field visits; co-organized, co-facilitated and presented in meetings and conferences

Asia: Cambodia, China, India, Malaysia, Thailand, Vietnam

W Africa: Benin, Burkina Faso, Cameroon, Cote d'Ivoire, the Gambia, Ghana, Liberia, Mali, Senegal,

Sierra Leone, Togo

E and S Africa: Kenya, Tanzania, Zambia

Latin America: Costa Rica, Dominican Republic, Haiti, Mexico
Other: Australia, France, England, Germany, Switzerland

- More than 50 presentations at international and national meetings and conferences (see selection below)
- Co-organized and co-facilitated 15 international meetings and conferences (see below)
- Teaching at Cornell University: 17 guest lectures to seven different classes, co-led class IARD 7830: Farmer-Centered Research and Extension in 2013

Generated and advanced knowledge and scientific understanding on SRI methodology

- Established SRI Research Database: open-source access to all scientific publications on SRI since 1993 (> 1700 entries, 4/2020):
 - https://www.zotero.org/groups/344232/system of rice intensification sri research network
- Wrote 13 analytical and academic articles on SRI
- Research: Reducing Inorganic Arsenic Levels in Rice by Appropriate Water Management, Co-Principal Investigator with Prof L Derry, B Ahner and J Duxbury; funded by Atkinson Center for a Sustainable Future, Cornell University, 2014/2015
- Research: Farmer implementation of SRI in West Africa (SRI West Africa scaling up project); Principal Investigator; funded by World Bank (2014-2016), Book

Improved technical implementation of SRI in farmers' fields and research trials

- Developed training approach and materials for SRI: Wrote Technical Training Manual, developed data collection methodology and guidelines for conducting farmer trials, data visualization and mapping.
- Led 13 trainings for more than 500 people from 16 countries (13 countries in W Africa, Tanzania, Zambia, Haiti): 2-4 day practical and theoretical training of trainers, each of whom in turn trained more farmers and technicians, e.g. in W Africa > 30,000 farmers and 1032 technicians trained (2014-2016)

Created and promoted two large-scale regional SRI initiatives

Formed alliances with donors and regional organizations to organize initiatives to meet needs for SRI interventions across an entire region (rather than limited to individual countries), as follows:

i) West Africa Initiative

• Improving Scaling-up SRI in West Africa (SRI WAAPP), 2014-2016 (http://sriwestafrica.org). Principal Investigator for Cornell University and strategic and technical partner to project financed by World Bank under the West Africa Agricultural Productivity Program (WAAPP), managed by the West and Central African Council for Agricultural Research and Development (CORAF/WECARD). Initiated this project in 2012 and built coalition of project implementers and donors. Cornell was subcontractor to project regional coordination unit managed by the National Center of Specialization in Rice (CNS-Riz), at the Government of Mali Institut d'Économie Rurale (IER). Project objective was to increase rice productivity and competitiveness throughout the 13-country Economic Community of West African States (ECOWAS): Benin, Burkina Faso, Côte d'Ivoire, The Gambia, Ghana, Guinea, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. Key results as of June 2016:

- o 50,048 farmers (33% women) using SRI on 13,944 hectares at 1088 sites
- o > 30,000 farmers and 1032 technicians trained
- Number of local Institutions working with SRI increased from 49 (2014) to 215 (2016)
- Yield increases with SRI compared to conventional rice production by 56% averaging 6.6 t/ha for irrigated rice and by 85% averaging 4.71 t/ha for rainfed lowland rice.
- Added value of increased rice production: 10 million USD/rice season.
- Peace Corps (PC) West Africa Food Security Initiative: initiated and led two regional trainings for PC volunteers, counterparts and staff from Benin, The Gambia, Guinea, Senegal and Togo in 2012 and 2013; contributed to PC training material development on SRI.

ii) Latin America and the Caribbean Initiative

- Co-organized second Latin America and Caribbean SRI workshop with Inter-American Institute for Cooperation on Agriculture (IICA) and the National Federation of Rice Growers of Colombia (FEDEARROZ), in Ibague, Tolima, Colombia in 2017: <u>Summary report</u>
- Co-organized first Latin America and Caribbean SRI workshop with Better U Foundation and EARTH University: 27 SRI practitioners from 10 countries: Bolivia, Colombia, Costa Rica, Cuba, the Dominican Republic, Nicaragua, Mexico, Panama, Trinidad and Tobago, and the USA; at EARTH University Limon, Costa Rica, November 2011. Conference Website
- Advised Inter-American Institute for Cooperation (IICA) in Spanish training material development, Dominican Republic (DR) field program, and project development for DR and Colombia.
- Advised projects and trained staff and farmers in Haiti
 - o **2010** for various non-profit organizations in three regions (undertook first introduction of SRI to Haiti),
 - o 2013 for iF Foundation in northern region, and
 - o **2016** for USAID-funded project *Change Lavi Plante* in St Marc/Artibonite.
- **Co-organized first national SRI workshop in Haiti** with Better U Foundation and USAID-funded WINNER project in March 2011.

INDEPENDENT CONSULTANT - Sustainable Land Management, Food Security, System of Rice Intensification.

March 2007- April 2010 Bamako, Mali

SRI Specialist: Technical lead for introduction of the System of Rice Intensification (SRI) in four regions of Mali: Gao, Timbuktu, Mopti and Sikasso. USAID-funded project IICEM (*Initiative Intégrée de la Croissance Economique au Mali*); **Abt Associates Inc**. Bethesda, MD, USA. 2009/2010 agricultural season; Report.

<u>SRI Specialist:</u> Technical lead for *Scaling-up SRI in Goundam and Dire, Timbuktu, Mali*; Technical lead of first trials on System of Wheat Intensification, <u>Report</u>; **Africare**, Washington, DC. 2009/2010 agricultural season; <u>Report</u>.

<u>Land Management Specialist:</u> Technical member for project document development for Global Environment Facility (GEF)-funded part of World Bank USD 160 million *Fostering Agricultural Productivity Project (PAPAM)*, **The World Bank**, Bamako, Mali. Nov 2009-April 2010.

SRI Specialist: Technical lead for *Community-based assessment of SRI in 12 villages with 60 Farmers in 12 Villages in Goundam and Dire, Timbuktu, Mali*; First farmer test of System of Wheat Intensification (SWI); **Africare**, Washington, DC. 2008/2009 agricultural season. Final Report in *English* and *French*.

<u>Natural Resource Management Specialist</u> for the elaboration of a preliminary *Country Strategic Investment Framework in Sustainable Land Management for Mali*, **FAO**, Rome. May/June 2008.

<u>Sole evaluator</u> of Final Project Evaluation of *Douentza Circle in Crisis:* an emergency relief project to improve short and long-term food security of households affected by locust invasion and drought of 2004 in northern Mali. Main project activities: Seed Fairs, Farmers Field Schools, Savings and Internal Lending Communities, funded by The Bill and Melinda Gates Foundation; **Catholic Relief Services,** Baltimore, MD, USA. March/April 2008. Report

<u>Land Management Specialist</u> for the finalization of the Project Document *Madagascar Irrigation Improvement and Watershed Management*, GEF OP15 and SIP, **The World Bank**, Antananarivo, Madagascar. January-May 2008.

<u>Constraints Analysis for the *Timbuktu Food Security Initiatives*: Multi Year Activity Proposal (MYAP) submitted to USAID/FFP; **Africare**, Washington, DC. December 2007.</u>

<u>Technical Advisor for SRI (System of Rice Intensification) Farmer Trials</u>: **Africare**, Goundam, Timbuktu, Mali: agricultural season 2007/2008.

<u>Concept Note Development</u>: Achieving Millennium Development Goal 1 through Agriculture in 166 Food Insecure Communes of Mali; Millennium Development Goal Alliance, Bamako, Mali. October/Nov 2007.

<u>Forestry and Agroforestry Analysis</u> for MCC/MCA Alatona Irrigation Project, Mali: Conservation and management of existing wood resources; identification of wood product needs and design of agroforestry systems associated with a large-scale rice growing irrigation scheme; **Development Alternatives, Inc.** Washington, DC. May-June, 2007.

<u>Presentation of Study Options pour une Elaboration d'un Programme de Gestion Durables des Terres au Mali</u> at Sustainable Land Management Workshop, April 19, 2007 in Bamako, Mali organized by **TerrAfrica**, and the **World Bank**; **TCIW-FAO**, Rome. April, 2007.

<u>Co-designing, writing and co-editing</u>: *Sustainable Land Management Sourcebook*: Agriculture and Rural Development Department; **The World Bank**, Washington DC. Nov 2006 – June 2007.

THE WORLD BANK - Technical Consultant

February 2004 – February 2007, at Agriculture and Rural Development Department (ARD), Africa Region (AFTS1), and the East Asia Rural Development and Natural Resources Sector Department (EASRD); Washington, DC

a. Operations

Land Management Specialist in the World Bank project preparation team: <u>technical responsibility</u> for establishing the <u>project concept</u>, <u>design of project preparation studies and submission of full project proposal</u> of the GEF (Global Environment Facility) financed component that is fully integrated into the IDA project.

- 1) Zambezi Valley Market-led Smallholder Development Project, Mozambique; GEF Operational Program of Sustainable Land Management (OP15) and Strategic Priority of Adaptation to Climate Change (SPA); WB Project ID: P093165; GEFSEC Project ID: P098040; IDA US\$20 million, GEF US\$ 6.2 million.
- 2) Irrigation Improvement and Watershed Management Project, Madagascar; GEF Operational Program of Sustainable Land Management (OP15); WB Project ID: P-074086; GEFSEC Project ID: 88887, IDA US\$ 30.0 million, GEF US\$ 6.0 million.

Natural Resources Management Specialist for BioCarbon Fund with Environment Department, Carbon Finance (ENVCF)

<u>Technical specialist</u> for Madagascar BioCarbon Fund Project under Preparation: *Andasibe-Mantadia Biodiversity Corridor Restoration and Conservation Carbon Project;* Advised on conceptual carbon improvement opportunities, carbon baseline methodology and participatory approaches for project implementation.

b. Analytical Work

Agricultural Specialist at the *Agriculture and Rural Development Department (ARD)*

<u>Co-author and co-editor</u> of <u>Sustainable Land Management Sourcebook</u>. 2008, Agriculture and Rural Development, The World Bank, Washington DC. 178 p.

<u>Co-author</u> of <u>Sustainable Land Management</u>, Challenges, Opportunities and Trade-Offs, 2006, Agriculture and Rural Development, The World Bank, 87 p.

<u>Presentation and Issue Note: Participatory and socially sustainable land use and management</u> at the Distance Learning Course: <u>Sustainable Land Use and Land Management in South and East Asia</u>; November 16-19, 2004; organized by the World Bank Institute (WBI) and the German Technical Cooperation (GTZ). Connected to Distance Learning Centers in Bangkok (Thailand), Colombo (Sri Lanka), Dili (Timor Leste), and Hanoi (Vietnam). Issue notes in English, Vietnamese and Indonesian.

Watershed Management Specialist with Rural Development and Natural Resources Sector Department, East Asia (EASRD)

Keynote speaker:

<u>Watershed Management Operations: Approaches and Emerging Lessons</u> at the *World Bank Water Days*, March 6, 2006, Washington, DC.

<u>The Bank's Experience with Watershed Management</u> at the Workshop and Learning Module: Watershed Management: Lessons from Experience and Innovations in Design and Practice; February 24-25, 2005 at the World Bank, Washington, DC.

<u>Co-author: Watershed Management Approaches, Policies and Operations: Lessons for Scaling Up, 2008,</u> Water Sector Board Discussion Paper No 11. The World Bank; Washington DC.

CHEMONICS INC. LANDSCAPE DEVELOPMENT INTERVENTIONS (LDI) – Technical Advisor

1999-2001 during Ph.D. research: Technical Advisor to LDI Program and CIIFAD (Cornell International Institute for Food, Agriculture and Development).

Moramanga, Madagascar

<u>Advised LDI leaders</u>, <u>program managers</u>, <u>field technicians and farmers</u> regarding land degradation issues to reduce deforestation of primary forests through agricultural intensification, initiated knowledge sharing through field visits, meetings and presentations.

<u>Organized farmers</u> for active field research participation from experimental design and management to evaluation of the research activities.

SWISS AGENCY FOR DEVELOPMENT AND COOPERATION – Ethnobotany Study Leader

1995-1996, at the National Tree Seed Center (Silo National des Graines Forestières, SNGF) **Antananarivo, Madagascar**

<u>Technical responsibility and team leader</u> for an ethno-botanical study on indigenous fruit trees in Madagascar: Identified, characterized and prioritized indigenous fruit trees used by the local population.

<u>Established research methodology</u> framework and an operational strategy for indigenous tree domestication

<u>Collaborated</u> with three regional Conservation and Development Projects (i) CARE, Masoala, (ii) VITA/APAM, Andasibe, (iii) PPNR (National Park Project), Ranomafana, and with the national institutions ANGAP and FOFIFA.

SWISS AGENCY FOR DEVELOPMENT AND COOPERATION – Director SAF-CO

1994-1995, at agriculture development project SAF-CO (Sauvegarde et Aménagement des Forêts de la Côte Ouest), Morondava, Madagascar

<u>Co-led</u> with national counterpart a staff of 21 people: 3 agricultural experts (MS-level), 4 office staff, 4 field technicians and 10 farmer extension agents. Responsible for project finances, administration, planning, and reporting.

Responsible for the design, implementation and evaluation of agricultural and agroforestry research with goal to reduce deforestation pressure on the dryland forests of Western Madagascar: Introduced and tested new food and cash crop varieties with farmers; developed soil conservation techniques and new crop associations, introduced cover crops and agroforestry species and techniques, developed on-farm seed multiplication systems.

<u>Initiated and coordinated a collaborative network</u> between farmers' associations, the governmental agricultural research institution (FOFIFA), NGOs, the regional FAO project, the local extension service, and local churches, based on farmers' needs and ideas.

WORLD AGROFORESTRY CENTRE (ICRAF) – Associate Scientist

1990-1993 at Agroforestry Research Project ICRAF/ISAR (*Institut des Sciences Agronomiques du Rwanda*), **Butare, Rwanda**

<u>Core-team member</u> of the ICRAF/ISAR project, composed of two international experts and national agroforestry program leader. The project was integrated into the national agricultural research institution ISAR.

<u>Researched in agroforestry technology development</u>: Diagnosed constraints and potentials for sustainable farming system production, designed and implemented new agroforestry technologies for the highlands of Rwanda. On-station and on-farm research on agroforestry species screening, hedgerow technologies for livestock-fodder production, soil fertility improvement, and erosion control.

<u>Engaged in capacity and institution building and strengthening:</u> Provided technical support to the extended agroforestry team of ISAR scientists. Collaborated in multi-disciplinary research activities across programs. Assured on-going training of field technicians. Hosted and supervised university students at BS and MS levels.

<u>Advised NGOs</u> on planning, realization and evaluation of their agroforestry activities, and assisted in national coordination of agroforestry research and extension activities.

<u>Participated in annual research evaluation and planning workshops</u> for the national agricultural research at ISAR, for the Agroforestry Research Network for Eastern and Central Africa (AFRENA-ECA) and for the worldwide research activities of ICRAF.

1989 Collaborated with free-lance journalist Al Imfeld, Zurich, Switzerland; published articles in Swiss and German newspapers and magazines on African development issues

ADDITIONAL SHORT-TERM ENGAGEMENTS

- April 2020 until now: External Evaluation Panel Member in the field of agronomy, World Coffee Research (https://worldcoffeeresearch.org), Portland, Oregon.
- **February-July 2020**: Study on <u>technical guidelines for food and fodder bank management in Niger</u>, **FAO**, **Rome and the World Bank**, **Washington DC**. (in French language)
- September 2018-September 2019: Impact study lead: <u>Adoption and Adaptation of the System of Rice</u>
 <u>Intensification (SRI) in the Northern Corridor of Haiti;</u> AVANSE Project, Cap-Haitian, Haiti, **DAI Global LLC, USAID, Haiti**.
- July 2019- September 2019: <u>Le Système de Riziculture Intensive (SRI)</u>, <u>Manuel Technique SRI pour Haïti</u>; AVANSE Project, Cap-Haïtien, **DAI Global LLC, USAID**, **Haïti**.
- **July 2016:** <u>SRI Development Planning and Implementation in the St. Marc Commune, Haiti</u>. Chanje Lavi Plante Project, Feed The Future, **Chemonics International/USAID; Port-au-Prince, Haiti**.
- July 2014: Rice production diagnostic for Chinsali (Chinsali District, Northern Province) and Mfuwe (Mwambe District, Eastern Province), Zambia. COMACO, Lusaka, Zambia and David. R. Atkinson Center for Sustainable Development; Cornell University, Ithaca, New York, 51 p. http://sri.cals.cornell.edu/countries/zambia/ZambiaStygerRiceDiagnostic2014.pdf
- June 2010: Introducing the System of Rice Intensification to Haiti, Training programs with farmers in three regions of Haiti, Better U Foundation, Los Angeles, USA
- April 2006: Diagnostic and Design GEF Project Proposal Control of Sand Dune Invasion of the Oasis Microbasins in the Departments of Gouré and Mainé-Soroa (PLECO), Niger, GEF OP15 (Sustainable Land Management Operational Program); UNDP- GEF, Niamey, Niger.
- July 2006: Mid-term project evaluation of Agriculture Intensification Module for Madagascar Eco-Regional Initiatives to Promote Alternatives to Slash and Burn (ERI Program), Fianarantsoa and Toamasina, Madagascar for DAI (Development Alternatives, Inc) and IRM (Innovative Resources Management), Washington, DC.
- November 2000: <u>Edited Annual Research Report</u> 1999/2000 of LDI (Landscape Development Intervention Program) and CIIFAD (Cornell International Institute for Food, Agriculture and Development) in Madagascar for Chemonics International, Washington DC.
- January 1998: <u>Technical back stopping</u> of the rainforest tree nursery in Masoala, Madagascar to be sourced for the <u>Masoala Rainforest Hall of the Zurich Zoo</u>, Zurich, Switzerland (January 1998)

Teaching and Lectures from 1997 to 2003 Cornell University, Ithaca, NY

- Teaching assistantships:
 - <u>Tropical Cropping Systems</u>, Cornell Fall Semester Course CSS 314 in 2002 <u>Sustainable Agriculture</u>, Cornell Fall Semester Course CSS 190 in 1997 and 1998 Plant/Microbe Interactions, Cornell Fall Semester Course CSS 666 in 2001
- Co-lead a working group in the Cornell Fall Semester Course: <u>Problem Solving in the Tropics</u>, INTAG/NTRES 694 in 2001
- Gave 9 lectures in various classes and five public seminars between 1997 to 2003, at Cornell University, Ithaca, NY

1987 Agricultural Training Center, Mvuma, Zimbabwe

Practical teaching of improved small-scale farming techniques to young farmers. Staff member of Agricultural Training Center (ATC), Mvuma, Zimbabwe, June-October, 1987.

EDUCATION

2004 Ph.D. in Crop and Soil Sciences from Cornell University, Ithaca, New York, USA

<u>Dissertation:</u> Fire-less alternatives to slash-and-burn agriculture (tavy) in the rainforest region of Madagascar. 326 p.

- Conducted historical land degradation analysis, identified farmer's land use strategies.
- Identified indigenous knowledge on upland soils and fallows, leading to the creation of a fallow classification framework
- Biophysical characterization of fallows (carbon and nutrient stocks, soils, fallow growth)
- Field tested alternative agricultural techniques to slash-and-burn including slash-and-mulch with/without the application of locally available guano-phosphate for food and cash crops.

1989 Master of Science in Agronomy, Swiss Federal Institute of Technology (ETHZ), Zurich, Switzerland

<u>Master Thesis</u>: Population dynamics of two stem borer species Sesamia calamistis Hmps. and Eldana saccharina Walker in sole and mixed infestations on maize and their influence on maize yield. 87 p. Institute of Crop Science, Field of Entomology, ETH, **Zurich, Switzerland** and **Biological Control Program, IITA, Cotonou, Benin.**

AWARDS AND RECOGNITION

- Knowledge Matter Fellowship, 2017/2018 awarded by Provost's Office of Faculty Development and Diversity, Cornell University, Ithaca, New York
- Olam Prize for Innovation in Food Security, March 16, 2015; awarded to SRI-Rice by Olam International
- Atkinson Center Faculty Fellow, since 2014
- Spot Award from Africa Region, the World Bank on March 30, 2006
 "For outstanding innovation in project design, a best practice results framework, and expedited project
 processing on the Mozambique Market-Let Smallholder Development Project"; First World Bank Africa
 project that included GEF Adaptation to Climate Change Window (SPA), and first World Bank project that
 combines GEF Land Degradation Focal Area with Adaptation to Climate Change.
- Graduate Student Award of the Northeast Branch of the American Society of Agronomy and Soil Science Society of America, July 2003: one student is selected each year to receive this award. Report
- Richard Bradfield Research Award in 2001, Cornell University
 This award supports research intended to enhance the well-being of small farmers and their families in third world countries

BOARD MEMBERSHIPS

1996-2003 Roger Haus Foundation, Uster, Switzerland

Foundation mission: Provide relief for the poorest of the poor in Switzerland and in the developing world who have no access to other support systems; Yearly distribution of US\$120,000 with a range from US\$5000 to US\$ 20,000 per award.

2001 MacDonald/Musgrave Awards Committee, Cornell University, Ithaca

MEMBERSHIP OF PROFESSIONAL SOCIETIES

American Society of Agronomy Crop Science Society of America Soil Science Society of America

JOURNAL PEER REVIEWER

Agriculture, Ecosystems and Environment, Elsevier Agricultural Systems, Elsevier

LANGUAGES

German: native

French, English: fluent reading, writing, speaking Spanish, Italian, Portuguese, Malagasy: beginner level

COUNTRIES visited, worked, and lived in (57)

Asia: <u>Cambodia, China, India</u>, Indonesia, Malaysia, Singapore, Thailand, <u>Vietnam</u>
W and C Africa: <u>Benin, Burkina Faso</u>, Cameroon, <u>Cote d'Ivoire</u>, <u>The Gambia, Ghana, Liberia</u>, <u>Mali</u>,

Niger, Nigeria, Senegal, Sierra Leone, Togo

E and S Africa: <u>Burundi, Kenya, **Madagascar**</u>, Malawi, <u>Mozambique</u>, **Rwanda**,

Tanzania, Zambia, Zimbabwe

Latin America: Colombia, Costa Rica, Dominican Republic, Haiti, Mexico, Suriname

Others: Armenia, Australia, Canada, Europe (A, Be, CH, D, Dan, Sp, F, Fin, GB, Hu, It, Lux, NL, No, Pol, Por,

Sw), **USA**

PUBLICATIONS

Academic Articles

Gu W, Styger E and DH Warner, 2020.

Assessment of Additive Manufacturing for Increasing Sustainability and Productivity of Smallholder Agriculture. 3D Printing and Additive Manufacturing. 7:6, 1-11.

Adhikari et al. 2018.

System of Crop Intensification for more productive, resource-conserving, climate-resilient and sustainable agriculture: Experience with diverse crops in varying agroecologies. *International Journal of Agricultural Sustainability;* Volume 16 (1): 1-28.

Abraham B, Araya H, Berthe T, Edwards S, Gujia B, Khadka RB, Koma YS, Sen D, Sharif A, Styger E, Uphoff N, Verma A, 2014.

The system of crop intensification: reports from the field on improving agricultural production, food security and resilience to climate change for multiple crops. *Agriculture and Food Security* **3**:4, 1-12.

Styger E, Ag Attaher M, Guindo H, Ibrahim H, Diaty M, Abba I, Traore M, 2011.

Application of system of rice intensification practices in the arid environment of the Timbuktu region of Mali. Paddy and Water Environment 9:137-144.

Styger E, Aboubacrine G, Ag Attaher M, Uphoff N, 2011.

The system of rice intensification as a sustainable agricultural innovation: introducing, adapting and scaling up a system a rice intensification practices in the Timbuktu region of Mali. *International Journal of Agricultural Sustainability* **9**(1): 67-75.

Styger E, Fernandes ECM, Rakotondramasy HM and Rajaobelinirina E, 2009.

Degrading uplands in the rainforest region of Madagascar: Fallow biomass, nutrient stocks, and soil nutrient availability. *Agroforestry Systems*, 77:107-122.

Styger E, Rakotondramasy HM, Pfeffer MJ, Fernandes ECM and Bates DM, 2007.

Influence of slash-and-burn farming practices on fallow succession and land degradation in the rainforest region of Madagascar. *Agriculture, Ecosystems and Environment* **119**: 257-269.

Styger E, Raktoarimanana JEM, Rabevohitra R and Fernandes ECM, 1999.

Indigenous fruit trees of Madagascar: potential components of agroforestry systems to improve human nutrition and restore biological diversity. *Agroforestry Systems* **46** (3): 289-310.

Niang A, Styger E, Gahamanyi A, Hoekstra D and Coe R, 1998.

Fodder- quality improvement through contour planting of legume-shrub/grass mixtures in croplands of Rwanda highlands. *Agroforestry Systems* **39** (3): 263-274.

Niang A, Ugiziwe J, Styger E and Gahamanyi A, 1996.

Forage potential of eight woody species: intake and growth rates of local young goats in the highland region of Rwanda. *Agroforestry Systems* **34** (2): 171-178.

Niang A, Styger E, Gahamanyi A and Ugeziwe J, 1995.

Comparative growth of 15 exotic species and provenances in high-elevation acid soils of Rwanda. In: Evans, D.O. and Scott, L.T. (eds.). Nitrogen Fixing Trees for Acid Soils. *Nitrogen Fixing Tree Research Report (Special Issue)*. Winrock International and NFTA, Morrilton, Arkansas, USA, pp. 207-215.

Niang A, Styger E, Gahamanyi A and Ugeziwe G, 1994.

Mimosa scabrella: a tree for the highlands. Agroforestry Today 6 (2): 8.

Niang A, Styger E et Gahamanyi A, 1992.

Suivi et évaluation en milieu réel des espèces ligneuses diverses sélectionnées en station. In: Socioeconomic and On Farm Research Workshop at ICRAF, Nairobi 7-11/9/1992. Proceedings, ICRAF, Nairobi, p. 1-22.

Book Chapters

Styger E, 2015. The System of Rice Intensification and Its International Community of Practice. In: Bollier D, Helfrich and the Heinrich Böll Foundation (eds); Patterns of Commoning; The Commons Strategies Group in cooperation with Off the Common Books, Amherst, MA, USA: 108-113.

Translated into German:

Styger E, 2015. **Erfolge auf dem Feld. Wenn Reisbauern sich zusammentun**. In: Helfrich S, Bollier D and Heinrich-Böll-Stiftung (eds); **Die Welt der Commons; Muster gemeinsames Handelns**. Transcript, Verlag für Kommunikation, Kultur und Soziale Praxis; Bielefeld, Germany: p. 114-118.

Styger E and Fernandes ECM, 2006. **Contributions of Managed Fallows to Soil Fertility Recovery**. In: Uphoff N et al. (eds); Biological Approaches to Sustainable Soil Systems. CRC Press, Boca Raton, FL, USA, p. 425-437.

Books/Monographs

Styger E and Traoré G, 2018. **50,000 Farmers in 13 Countries: Results from Scaling up the System of Rice Intensification in West Africa**; Achievements and Regional Perspectives for SRI; SRI-WAAPP Project Summary Report, 2014-2016; West Africa Agriculture Productivity Program (WAAPP). The West and Central Africa Council for Agricultural Research and Development (CORAF/WECARD), Dakar, Senegal. 120p. Download

Styger E and Jenkins D, 2014. **Technical Manual for SRI in West Africa; Improving the System of Rice Intensification in West Africa.** SRI International Network and Resources Center, International Programs, College of Agriculture and Life Sciences, Cornell University, Ithaca, New York, 56 p. (Version 1: February 2014, Version 2: August 2014). In English and French. <u>Download</u>

Abraham B, Araya H, Berthe T, Edwards S, Gujia B, Khadka RB, Koma YS, Sen D, Sharif A, Styger E, Uphoff N, Verma A, 2014. **The System of Crop Intensification: Agroecological Innovations for Improving Agricultural Production, Food Security, and Resilience to Climate Change**. SRI International Network and Resources Center (SRI-Rice), Cornell University, Ithaca, New York, 69 p. <u>Download</u>

The World Bank, 2008. **Sustainable Land Management Sourcebook;** The World Bank, Washington DC. 196 p. (Co-editor), Download

Darghouth S, Ward Ch, Gambarelli G, Styger E, Roux J, 2008. **Watershed Management Approaches, Policies, and Operations: Lessons for Scaling Up.** Water Sector Board Discussion Series, No. 11, May 2008, The World Bank, Washington DC, 137 p. <u>Download</u>

The World Bank, 2006. **Sustainable Land Management: Challenges, Opportunities and Trade-Offs**; Agriculture and Rural Development Department, The World Bank, Washington DC, 87 p. <u>Download</u>

Analytical Articles

Styger E and Uphoff N, 2016. The System of Rice Intensification (SRI): Revisiting Agronomy for a Changing Climate. Climate-Smart Agriculture Practice Brief. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Download

Styger E, 2014. **System of Rice Intensification Research: A Review (1993-2013).**Oral presentation at the International Rice Congress (IRC), October 31, 2014, Bangkok Thailand; Download

Styger E, 2013. **SRI 2.0:** How is **SRI evolving and what are we learning?** In: SRI – much more than more rice; *Farming Matters;* March 2013, Vol 29 (1), p.10-13. Article; <u>Download</u>

Styger E, 2012. Increasing rice yields and saving water: Lessons for Policy and Practice - The System of Rice Intensification (SRI). Lead Article for: Rethinking the Rice Value Chain; Knowledge for Development, Observatory on Science, Technology and Innovation for ACP Agricultural and Rural Development, CTA, Wageningen, The Netherlands. CTA website, Article posted 11/20/2012; Download

Styger E, 2012. The Price of Rice; Port Magazine, Issue 6, London, 2012, p 124-125

Research Reports

Styger E, Guindo H. 2021. Improving fonio productivity in an organic production system by applying SRI principles in Douentza, Mopti, Mali. A collaboration between 3A-Sahel, SRI Global Inc, Yolélé Foods Inc, and Climate-Resilient Farming Systems program at Cornell University, p. 16.

Edwards I, Styger E, 2021. Jubilee Justice SRI Rice Initiative, Rice Field Trials in Louisiana and Mississippi; Jubilee Justice, Alexandria, Louisiana and Climate-Resilient Farming Systems Program, Cornell University, Ithaca, New York, p. 56.

Styger E, 2019. Adoption and Adaptation of the System of Rice Intensification (SRI) in the Northern Corridor of Haiti; AVANSE Project, Cap-Haitian, Haiti, DAI Global LLC, USAID Haiti, p.96.

Styger E, 2010a. **Scaling-up the System of Rice Intensification (SRI) in Goundam and Dire, Timbuktu 2009/2010.** Final Report. Africare Goundam and Africare Bamako, Mali, 29 p. <u>In English</u>

Styger E, 2010b. Introducing the System of Rice Intensification (SRI) to irrigated systems in Gao, Mopti, Timbuktu and to rainfed systems in Sikasso, 2009/2010. Initiatives Intégrées pour la Croissance Economique au Mali (IICEM) Project, Bamako, Mali, p. 26. In English

Styger E, Ibrahim H, 2009. **The System of Wheat Intensification (SWI). First time testing by farmers in Goundam and Dire, Timbuktu, Mali 2009**. Africare Goundam and Africare Bamako, Mali. 20 p.

Styger E 2009. System of Rice Intensification (SRI) - Community-based evaluation in Goundam and Dire Circles, Timbuktu, Mali, 2009/2009, Africare, Bamako, Mali, 37 p. In English and French

Styger E 2001. **Fireless Upland Management in Eastern Madagascar**. IN: Neimark B., and Styger, E (Eds) (2001). LDI/CIIFAD Annual Research Report, 1999-2000, CIIFAD, LDI, Chemonics International, Ministry of Environment, Madagascar, USAID. Chemonics International, Washington DC, USA, p. 38-42.

Styger E et Rakotoarimanana J, 1996. A la découverte des espèces ligneuses fruitières indigènes de Madagascar. Contribution à l'identification des espèces ligneuses fruitières indigènes de la Region Orientale de Madagascar et à une meilleure compréhension de leur exploitation et appréciation par la population rurale. Etude ethnobotanique dans les sous-région Andasibe, Masoala et Ranomafana entre le 10/1995 et 4/1996. SNGF (Silo National des Graines Forestières) et Projet d'Appui au Silo National (PASN), Intercooperation, Antananarivo, Madagascar et Berne, Suisse, 83 p.

Rakotoarimanana J et Styger E 1996. **Fiches individuelles des arbres fruitiers indigènes de Madagascar: les espèces priorisées.** Fiches techniques. SNGF (Silo National des Graines Forestières) et Projet d'Appui au Silo National (PASN), Intercooperation; Antananarivo, Madagascar et Berne, Suisse, 74 p.

Styger, E 1995. Recherche agricole et agroforestière sur les 'Monka' dans le Menabe Central. Rapport Technique Saison 1994/1995. SAF-CO, Morondava, Madagascar, et Intercooperation, Berne, Suisse, 90 p.

Niang A, Styger E, Gahamanyi A, Twagilimana A, Rutayija JP et Nduwayezu JB 1994. **Projet AFRENA Rwanda: Rapport d'activités, Période Mars 1992-1993.** Rapport AFRENA N° 75. ICRAF: Nairobi, Kenya, 75 p.

Niang, A., Gahamanyi, A. et Styger, E. (1993). Les Leucaena sp.: Etat de connaissances et perspective de recherche pour le Rwanda. Note Technique. ISAR: Rubona, Rwanda, 43 p.

Niang A, Styger E, Gahamanyi A, 1993. **Projet AFRENA Rwanda: Rapport d'activités, Période Mars 1991-1992.** Rapport AFRENA N° 60. ICRAF: Nairobi, Kenya, 107 p.

Niang A, Styger E, Gahamanyi A, 1992. **Simplification des techniques de plantation de Sesbania sesban dans la région des Hautes Terres du Buberuka (Rwanda); Raçines nues, Semis direc**t. Note Technique N°5. ISAR: Rubona, Rwanda, 13 p.

Niang A, Styger E, Gahamanyi A, 1991. **Projet AFRENA Rwanda: Rapport d'activités, Période Mars 1990-1991**. Rapport AFRENA N° 46. ICRAF: Nairobi, Kenya, 83 p.

Niang A, Styger E, Gahamanyi A, 1990. **Projet AFRENA Rwanda: Rapport d'activités, Période Mars 1989-1990.** Rapport AFRENA N° 31. ICRAF: Nairobi, Kenya, 27 p.

Technical training materials

Styger E, 2020. Les Banques Alimentaires et Fourragères (BAF) au Niger: Identification des Bonnes Pratiques de Stockage et Conservation des Aliments et des Fourrages. Rapport Technique pour la Banque Mondiale, la FAO et le Gouvernement du Niger, p. 113.

Styger E, 2019. Le Système de Riziculture Intensive (SRI), Manuel Technique SRI pour Haïti; AVANSE Project, Cap-Haitian, Haitié DAI Global LLC, USAID, Haiti, p. 61

Styger E and Jenkins D, 2014. <u>Technical Manual for SRI in West Africa; Improving the System of Rice Intensification in West Africa;</u> SRI International Network and Resources Center, International Programs, College of Agriculture and Life Sciences, Cornell University, Ithaca, New York, p. 56 (Version 1: February 2014, Version 2: August 2014). https://sriwestafrica.files.wordpress.com/2014/05/sri-technical-manual-version-21.pdf

Translated into French:

Styger E and Jenkins D, 2014. *Manuel Technique sur le SRI en Afrique de l'Ouest; Amélioration et mise à échelle du Système de Riziculture Intensive en Afrique de l'Ouest*; SRI International Network and Resources Center, International Programs, College of Agriculture and Life Sciences, Cornell University, Ithaca, New York, p. 61 (1ère version Février 2014, deuxième version Août 2014). https://sriwestafrica.files.wordpress.com/2014/05/manuel-technique-sri-v2.pdf

SRI training videos for East Africa, 2013; 1) SRI introduction: the spread of SRI in East Africa, 2) SRI Training 1: Seed Germination and Nursery Preparation, 3) SRI Training 2: Field Preparation and Transplanting, 4) SRI Training 3: Weeding and Water Management; co-produced with IFAD and Flooded Cellar Video production: (in French, English, Kinyarwanda, and Kirundi) http://sri.ciifad.cornell.edu/news/features/2013/featured0213.html

Africare Mali and SAC Goundam 2009. **Fiche Technique pour le Système de Riziculture Intensive (SRI) à Tombouctou, Mali.** Africare Mali, Bamako et Secteur de l'Agriculture du Cercle (SAC) de Goundam, DRA Tombouctou, Tombouctou, Mali., p.22.

SRI Timbuktu Blog: Introducing SRI to small farmers in Mali over the course of the 2008/2009 cropping season

Technical assistance and consultancy reports

Styger E, Edwards I, 2021. Jubilee Justice Black Farmers Rice Project, 2021. Jubilee Justice, Alexandria, LA and Cornell University, NY, 36 p.

Styger E, 2019. Adoption and Adaptation of the System of Rice Intensification (SRI) in the Northern Corridor of Haiti; AVANSE Project, Cap-Haitian, Haiti, DAI Global LLC, USAID Haiti, p.96.

Styger E and Barison J, 2016. **SRI Development Planning and Implementation in the St. Marc Commune, Haiti.** Consultancy Report for *Chanje Lavi Plante* Project, Feed The Future, USAID; Port-au-Prince, Haiti, 100 p.

Styger E, 2014. Rice production diagnostic for Chinsali (Chinsali District, Northern Province) and Mfuwe (Mwambe District, Eastern Province), Zambia. July 2014, for COMACO and David. R. Atkinson Center for Sustainable Development; SRI International Network and Resources Center, Cornell University, Ithaca, New York, 51 p. http://sri.cals.cornell.edu/countries/zambia/ZambiaStygerRiceDiagnostic2014.pdf

Styger E, 2014. **Trip Report to Liberia**; **Improving and Scaling Up the System of Rice Intensification in West Africa**. February 22 – March 2nd, 2014, Monrovia, Republic of Liberia; SRI-Rice Cornell University, Ithaca, New York, 13 p.

Styger E, 2010. Introducing the System of Rice Intensification (SRI) to Haiti. Follow-up Field Visit to SRI Introductions; Report, August 30–September 10, 2010; SRI-Rice and Better U Foundation, Ithaca New York, 19 p. Report

Styger E and Barison J, 2010. Introducing the System of Rice Intensification (SRI) to Haiti: Training farmers in three regions of Haiti. June 2010; SRI-Rice and Better U Foundation, Ithaca New York, 18 p. Report

Styger E, 2008. **Douentza Circle in Crisis, Improving Household Resiliency to Food Security Shock in Mali.**Project period Jan 2006-Dec 2007. Final Project Evaluation Report for Catholic Relief Service, Bamako, Mali, 84 p.

Styger E, 2007. Forestry and Agroforestry Analysis for the MCC/MCA Alatona Irrigation Project, Segou, Mali. Constraints and Opportunities. Consultant Report. For DAI, Washington DC, 40 p.

Styger E, 2007. **Constraints Analysis, Timbuktu Food Security Initiative (TFSI), Timbuktu, Mali.** Consultancy Report. Multi Year Activity Proposal (MYAP); for Africare, Washington DC and Bamako, Mali, 24 p.

Styger E, 2007. Achieving the Millennium Development Goal Number One through Agriculture in the 166 Food Insecure Communes of Mali. Project Concept Note written for Millennium Development Goal Alliance Initiative, Bamako, Mali, 33 p.

Styger E, 2006. Profitable and Environmentally Sound Farming Systems Replace Slash-and-Burn Agriculture Practices at Landscape Level in the Toamasina (forest corridors Ankeniheny-Zahamena) and Fianarantsoa (forest corridors Ranomafana – Andringitra – Pic d'Ivohibe) provinces of Madagascar. Mid-Term Program Evaluation Consultancy Report of Module 3 of project; for Eco-Regional Initiatives to Promote Alternatives to Slash-and-Burn (ERI-Program) and DAI, Washington DC; produced for review by the United States Agency for International Development, 95 p.

Workshop proceedings (selection)

Jenkins D, Tack S and E Styger (2013). System of Rice Intensification Regional Training for Peace Corps; September 2012, Kakanitchoe (Oueme), Republic of Benin. Summary report, Peace Corps (USAID), SRI-Rice and ROPPA; 26p

Styger E and Fisher-Post M, 2011. *First International Workshop on the System of Rice Intensification (SRI) for Latin America and the Caribbean*; October 31 and November 1st, 2011. Proceedings. EARTH University Campus, Guácimo, Limón, Costa Rica; SRI-Rice Cornell University, Jim Carrey's Better U Foundation, California, and EARTH University, Costa Rica; p. 28

Styger E and Neimark B (Eds), 2001. **LDI/CIIFAD Annual Research Report, 1999-2000**; CIIFAD, LDI, Chemonics International, Ministery of Environment of Madagascar and USAID. Chemonics International, Washington DC, USA, p 72.

Niang A, Gahamanyi A and Styger E (Eds), 1991. **Actes de la Réunion Agroforestière organisée par le projet ICRAF/ISAF du 13. au 15. 09. 1990.** Workshop proceedings. Rapport AFRENA N° 36. ICRAF: Nairobi, Kenya.

Contributions CIIFAD Annual Reports (Cornell International Institute for Food, Agriculture and Development)

Styger E, 2002. **Retaining and regaining agricultural productivity of degrading uplands.** In: CIIFAD Annual report 2000-2001. CIIFAD (Cornell International Institute for Food, Agriculture and Development), Cornell University, Ithaca, NY, USA, p. 88-89.

Styger E, 2001. **Upland management without fire.** In: CIIFAD Annual report 1999-2000. CIIFAD (Cornell International Institute for Food, Agriculture and Development), Cornell University, Ithaca, NY, USA, p.78-79.

Styger E, 1999. Villagers learn to propagate high quality exotic and indigenous fruit trees. In CIIFAD Annual report 1997-1998. CIIFAD (Cornell International Institute for Food, Agriculture and Development), Cornell University, Ithaca, NY, USA, p. 62-63.

Video co-productions

SRI Video from Sierra Leone, 2015, Co-produced video with Flooded Cellar: Mendesora Unites – SRI in Sierra Leone (13:11 min); Gerald Aruna and SRI in Sierra Leone: (3:51 min)

SRI Video from Nepal, 2014, Co-produced with Flooded Cellar Video production: <u>Long version (12:28 min)</u>, <u>short version</u>: (4:53 min)

SRI training videos for East Africa, 2013; 1) SRI introduction: the spread of SRI in East Africa, 2) SRI Training 1: Seed Germination and Nursery Preparation, 3) SRI Training 2: Field Preparation and Transplanting, 4) SRI Training 3: Weeding and Water Management;

co-produced with IFAD and Flooded Cellar Video production: (in French, English, Kinyarwanda, and Kirundi) http://sri.ciifad.cornell.edu/news/features/2013/featured0213.html

Feeding West Africa with Climate-Smart Rice Farming: 6 min video produced for Cornell booth at the UN Climate Change Conference for the 23rd session of the Conference of Parties (COP23), in Bonn, Germany, 6-17 November 2017

Dissertation

Styger E, 2004. Fire-less Alternatives to Slash-and-Burn Agriculture (Tavy) in the Rainforest Region of Madagascar. Department of Crop and Soil Sciences, Cornell University, Ithaca, New York, 326 p.

Master Thesis

Styger E, 1989. Population dynamics of two stemborer species *Sesamia calamistis* Hmps und *Eldana* saccharina Walker in sole and mixed infestations on maize and their influence on maize yield. Institute of Crop

Science, Field of Phytomedicine, Swiss Federal Institute of Technology, (ETH) Zurich, Switzerland and Biological Control Program, IITA, Cotonou, Benin 87 p.

PRESENTATIONS AT CONFERENCES AND MEETINGS (Selection)

Oral presentations

Genomic diversity of Saamaka rice varieties in Suriname, Oral presentation by J. Landis for the paper: Jacob B. Landis, Rosemary Glos, Margaret Royall, Yuna Seo, Sandra Harrington, Iriel E. Edwards, Chelsea D. Specht, Susan McCouch, and Erika Styger; International Plant and Animal Genome Conference, PAG, San Diego, January 13, 2020.

Diversity and In-Situ Management of Rice by the Saamaka People of Suriname; Oral presentation at the Carolina Gold Rice Foundation Fall Meeting, Middleton Place, Charleston, South Carolina, November 9, 2019

Making Research and Extension work for Rice Farmers in West Africa; Oral presentation IP-CALS Seminar Series, Cornell University, October 30, 2019

Arriver à l'Autosuffisance en Riz avec une Riziculture Intelligente face au Climat ; Oral Presentation at the Senegal Pavilion, UN Climate Change Conference, for the 24rd session of the Conference of Parties (COP23), in Katowice, **Poland**, December 12, 2018

Feeding West Africa with Climate-Smart Rice Farming; Oral Presentation at the Nigeria Pavilion, UN Climate Change Conference, for the 24rd session of the Conference of Parties (COP23), in Katowice, **Poland**, December 12. 2018

Closing the Rice Production Gap in West Africa by Scaling-up the System of Rice Intensification (SR), Oral presentation, International Rice Congress, Singapore, October 17, 2018.

Changing the way rice is grown in West Africa: from 1 to 50,000 farmers, Pecha Kucha Presentation at Knowledge Matters Fellowship Event, **Cornell University**, Ithaca, December 4, 2017

Climate-Smart Rice Production: how to increase yields, adapt to climate change and reduce greenhouse gas emissions, Press conference at the UN Climate Change Conference for the 23rd session of the Conference of Parties (COP23), in Bonn, Germany, November 16, 2017

Lessons learned with SRI data collection, Oral presentation at the Second Regional SRI Conference for Latin America and the Caribbean, Ibague, **Colombia**, 12 October 2017.

Harnessing 3D Printing to Increase the Sustainability and Productivity of Smallholder Agriculture, by Wenjia Gu, Erika Styger, Derek Warner, Oral presentation at the Second Regional SRI Conference for Latin America and the Caribbean, Ibague, Colombia, 10 October 2017.

Alternate Wetting and Drying (AWD) and System of Rice Intensification (SRI) Techniques for Sustainable Irrigated Rice Production; Water in Agriculture Innovation Series. The World Bank, Washington DC., June 8, 2017

Scaling up Climate Smart Rice Production in West Africa; Presentation at Issues in African Development Seminars, institute of African Development, **Cornell University**, February 11, 2016.

System of Rice Intensifications: Opportunities for Latin America; Video presentation to the Minister of Agriculture Luis Felipe Arauz Cavallini, **Costa Rica**, including key staff from INTA and CONARROZ, March 12, 2015.

Scaling up SRI in Southeast Asia: How do we get there? Keynote presentation; Southeast Asia Regional Conference on SRI 2015, Alor Setar, Malaysia. 25-28 May 2015.

Improving and Scaling Up SRI in West Africa: Insights from a regional, 13-country project. Regional review and planning workshop for the project: Sustaining and Enhancing the Momentum for Innovation and Learning around the System of Rice Intensification (SRI) in the Lower Mekong River Basin (SRI-LMB); Siem Reap, Cambodia, June 2-3, 2015.

System of Rice Intensification (SRI): Opportunities for Liberia; Presentation to the Agriculture Coordination Committee Meeting at the Ministry of Agriculture, Gardnerville, Monrovia, **Liberia**, February 27, 2014

System of Rice Intensification Research: A Review (1993-2013). International Rice Congress (IRC), Bangkok, **Thailand**, October 31, 2014.

System of Rice Intensification in China: Research Dynamics and Innovative Adaptations. International Rice Congress (IRC), Bangkok, **Thailand**, October 31, 2014.

Mechanization for climate-smart rice production and SRI. Three public presentations during the Rice Special Exhibition **Agritechnica**, Hannover, **Germany**, November 2013.

SRI: How a crop management approach lets farmers preserve and improve productivity of indigenous rice varieties in Asia and Africa. Keynote to annual meeting of Carolina Gold Rice Foundation, Charleston, South Carolina, April 18, 2013.

Introduction to SRI; Lectures at the **Nanjing Agriculture University** and **Nanjing University of Finance and Economics**, Nanjing, **China**, September 2013,

Adapting SRI principles to rainfed rice – lessons from Mali and Tanzania. South-South Knowledge Sharing Video conference; connections with Kenya, Malawi, India, Indonesia, Cornell University and the World Bank in Washington. The World Bank Institute, Washington DC, November 15, 2012.

SRI in Africa – 4 years of experiences from Mali. International Symposium on System Intensification towards Food and Environmental Security, organized by Crop and Weed Science Society (CWSS) and West Bengal State Agricultural University (BCKV); Presentation: Kalyani, **India,** February 25, 2011.

System of Wheat Intensification in Mali, West Africa. National Colloquium on System of Crop Intensification, organized by Bihar Department of Rural Development, Patna, Bihar, **India**, March 2, 2011.

SRI – a Global Overview. Inter-American Institute for Cooperation in Agriculture (IICA) Symposium, organized by IICA, Santo Domingo, Dominican Republic, June 14, 2011.

The System of Rice Intensification. Second Annual Northeast USA Rice Conference, organized by Growing Rice in NE USA project, Westminister, Vermont, August 6, 2011.

SRI: Producing more rice with less inputs – 3 years of experience from Mali; Plenary presentation. 1ST West Africa Networking Forum organized by ECHO, Ouagadougou, **Burkina Faso**; Sept 19-25, 2010;

SRI – 3 years of experience from Mali and Introducing SRI to Haiti; SRI-Day in Hanoi, organized by Ministry of Agriculture, Vietnam and Oxfam; Presentation, Hanoi, **Vietnam**, November 8, 2010

System of Rice Intensification (SRI) versus farmer practice – a comparative evaluation in the Timbuktu region of Mali; Africa Rice Congress 2010; in Bamako, Mali, 22-26 March, 2010.

Watershed Management Operations: Approaches and Emerging Lessons. World Bank Water Days, Washington DC. March 6, 2006

The World Bank Experience in Watershed Management. International Workshop: Watershed Management: Lessons from Experience and Innovations in Design and Practice; **Washington DC.** February 24-25, 2005.

Participatory and Socially Sustainable Land Use and Management. Issue Note and Presentation at the Distance Learning Course: Sustainable Land Management in South and East Asia: organized by the World Bank Institute (WBI) and The German Technical Cooperation (GTZ). Connected to Distance Learning Centers in Bangkok (Thailand), Colombo (Sri Lanka), Dili (Timor Leste), and Hanoi (Vietnam), November 16-19, 2004.

Poster presentations (Selection)

New Insights Into Saamakan Rice Diversity in Suriname: Poster presentation by R. Glos, for poster by RAE Glos, JB Landis, M Royall, S Harrington, S McCouch, CD Specht, and E Styger. Botany Conference, Tucson, Arizona. July 29, 2019.

Styger E, 2017. Vision General: Sistema de Intensificacion del Cultivo del Arroz (SRI): Poster presentation at the Second Regional SRI Conference for Latin America and the Caribbean, in Ibague, Colombia, 10-12 October, 2017.

Styger E, 2017. A New Conceptual Framework for the System of Rice Intensification (SRI) for Research and Practice. 2nd Agriculture and Climate Change Conference, Sitges, Spain, 26-28 March, 2017.

Jenkins D, Traore G, Styger E and Bagayoko M, 2014. **Improving and Scaling up the System of Rice Intensification in West Africa**, Institut d'Economie Rurale, Bamako, Mali and SRI-Rice, Cornell University, Ithaca, New York (IRC14-0675); 4th International Rice Congress, October 27-Nov 1, 2014, Bangkok, Thailand.

Fisher L and Styger E 2014. **Development of small-scale equipment for the System of Rice Intensification (SRI).** SRI-Rice, Cornell University, Ithaca, New York (IRC14-P391); 4th International Rice Congress, October 27-Nov 1, 2014, Bangkok, Thailand.

Bagayoko M, Traore G, Styger E and Jenkins D, 2014. System of Rice Intensification (SRI): an opportunity to improve the productivity and resilience of African Rice production. General Assembly and Science Week of CORAF/WECARD, Senegal, June, 2014; Institut d'Economie Rurale, Bamako, Mali and SRI-Rice, Cornell University, Ithaca, New York.

Styger E, 2010. Impact of System of Rice Intensification (SRI) practices on cropping system resilience to fluctuating climate conditions in Timbuktu region, northern Mali, West Africa. Poster presented at the third International Rice Congress (IRC), in Hanoi, Vietnam, Nov 9-11, 2010. SRI-Rice, Ithaca New York

Styger E, Fernandes ECM, Rakotondramasy HM, 2001. **Restoring Biodiversity through Agricultural Intensification in the Rainforest Region of Madagascar.** At: International Symposium: Managing Biodiversity in Agricultural Ecosystems. Co-organized by United Nations University (UNU), Secretariat of the Convention on Biological Diversity (SCBD), International Plant Genetic Resources Institute (IPGRI), 8-10 November, 2001 Montreal, Canada. Link to Abstract

Styger E, Fernandes ECM, Rakotondramasy HM, 2001. **Mycorrhiza Fungal Diversity as Impacted by the Loss of Endemic, Rainforest Plants in Madagascar**. At: ICOM 3, Third International Conference on Mycorrhizas, 8-13th July; 2001. Adelaide Convention Centre, Adelaide, Australia.

Styger E, and Fernandes ECM, 2000. **The Dynamics of Fallow Vegetation and Land Productivity in Eastern Madagascar.** At: ASA 2000 Fallow Management in the Tropics Symposium. Organized by the Management of

Organic Inputs in Soils of the Tropics (MOIST) at the Cornell International Institute for Food, Agriculture and Development (CIIFAD), November, 8th, 2000 Minneapolis, Minnesota, USA.

Fisher L, Styger E and Fernandes ECM, 2000. **The Cornell Tropical Fallow Management Initiative**. In: Fallow Management in Tropical Africa, International Seminar in Dakar, April 13-16, 1999, Dakar, Proceedings. IRD, Senegal.

CO-ORGANIZATION AND CO-FACILITATION OF INTERNATIONAL EVENTS IN ASIA, AFRICA AND LATIN AMERICA

2020

 Regional Remote Consultation Workshop, RICOWAS-Project, Scaling-up climate-resilient rice production in West Africa. Convened representatives from 13 West African countries; with the Sahara and Sahel Observatory, Tunis, Tunisia, April 14, 2020. Online video-conference.

2017

• Second Latin American SRI Conference: 10-12 October, Ibagué, Tolima, Colombia

2016

- <u>SRI WAAPP Methodology workshop for Impact Study</u>: 14-18 March 2016; **Dakar, Senegal**
- SRI WAAPP Final project results workshop: 30 May 3 June 2016; Bamako, Mali

2015

- <u>SRI WAAPP Reporting and Planning Workshop:</u> with project partners from 13 countries, 16-19 February 2015; **Abidjan, Cote d'Ivoire**
- <u>First Southeast Asia Conference on SRI</u>: co-organized with Malaysian Agroecology Society for Sustainable Resource Intensification (SRI-Mas) (www.sri-mas.org); > 100 participants from Malaysia, Indonesia, the Philippines, Myanmar, Vietnam, Thailand, Nepal, Sri Lanka, Nigeria and USA. 25-28 May 2015; **Alor Setar, Malaysia**
- SRI WAAPP Monitoring and Evaluation Workshop: 30 May-5 June 2105; Cotonou, Benin
- SRI WAAPP Annual Review and Planning Meeting: 4-9 Dec 2015; Dakar, Senegal

2014

- <u>SRI WAAPP Programming and Methodology Workshop</u> and launch of the *Improving and Scaling up the System of Rice Intensification (SRI) in West Africa project*, Songhai Center, 17-19 February 2014, **Porto Novo, Benin**
- <u>SRI WAAPP Training of Trainers and Technical Exchange Workshop:</u> more than 50 participants from 12 West African countries, 4-11 August 2014; **Kpalime, Togo**
- <u>Building Alliances Around SRI and Agro-Ecology Workshop</u>: co-organized with Oxfam; 50 participants from 16 countries, 27-28 October 2014; **Bangkok, Thailand**
- SRI Information Booth at the 4th International Rice Congress (IRC): Bangkok International Trade and Exhibition Center (BITEC), co-organized with SRI Global Inc and Oxfam. SRI-Rice developed overall messaging, handouts, booth design and backdrops, and staffed the booth. 27-30 October 2014; Bangkok Thailand
- <u>Small-Scale Rice Production Equipment Workshop:</u> co-organized with Asian Institute of Technology Conference Center (AITCC), 60 participants from 12 countries, 1-3 November 2014; **Bangkok, Thailand**

2013

 <u>Second West Africa Workshop:</u> Preparation of SRI WAAPP project, Validation of project proposal by stakeholders from 13 countries, July 2013; Saly, Senegal

2012

• <u>First West Africa Workshop on SRI:</u> Conceptual design and planning of SRI WAAPP project with stakeholders from 13 countries: Benin, Burkina Faso, Cote d'Ivoire, Ghana, The Gambia, Guinea Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo; co-organized with the West and Central African Council for Agricultural Research and Development (CORAF/WECARD), the National Center of Specialization for Rice (NCOS-Mali), and Oxfam America, July 2012; **Ouagadougou, Burkina Faso**

2011

- <u>First National SRI Conference in Haiti</u>: 120 participants including rice growers, extension personnel, private sector, government researchers, NGOs and bilateral and multi-lateral donor organizations; Jim Carrey's Better U Foundation, Los Angeles, California, USA and the USAID-funded WINNER project, March 2011; **Montruis, Haiti**
- <u>First International Workshop on the SRI for Latin America and the Caribbean</u>: EARTH University. 27 SRI practitioners from 10 countries: Bolivia, Colombia, Costa Rica, Cuba, the Dominican Republic, Nicaragua, Mexico, Panama, Trinidad and Tobago, and the USA; Co-organized with Jim Carrey's Better U Foundation, California, USA and EARTH University, November 2011; **Limon, Costa Rica**, Conference website http://sri.ciifad.cornell.edu/conferences/LatinAmWorkshop11/index.html

2010

• <u>First National SRI Conference in Mali</u>: 80 participants (farmers, government, NGO, donors) sharing experiences from Gao, Timbuktu, Mopti, Segou and Sikasso region. Co-organized by Africare, IICEM (*Initiative Intégrée de la Croissance Economique au Mali*), Syngenta Foundation and *Institute d'Economie Rurale* (IER), February 2010, **Bamako, Mali**