

ANNEX –1: LIST OF STAFF

TSBF Institute - Director

Sanginga, Nteranya (Soil Microbiologist)

TSBF Institute – Africa Staff

Senior Staff

Amede, Tilahun (Soil Scientist)

Bationo, André (African Network Coordinator -
Soil Scientist)

Chianu, Jonas (Socio Economist)

Delve, Robert (Soil Fertility Management)

Huising, Jeroen (BGBD Coordinator/GIS Scientist)

Jefwa, Joyce (Microbiologist)

Lesueur, Didier (Microbiologist)

Murwira, Herbert (Soil Scientist)

Ohiokpehai, Omo (Food & Nutrition Scientist)

Okoth, Peter (Information Manager)

Ramisch, Joshua (Social Scientist)

Vanlauwe, Bernard (Soil Scientist)

Verma, Ritu (Anthropologist)

Andren, Olle (Soil Scientist, Modeler)

Roing, Kristina (Agronomist)

Consultants

Danso, Seth (Rhizobiology, BGBD project)

Osgood, Diane (Economist, BGBD Project)

Swift, Mike (BGBD Project)

Research Assistants

Ekise, Isaac (Asst Scientific Officer)

Kankwatsa, Peace (Research Asst, Kampala)

Kihara, Job (Asst Scientific Officer)

Mukalama, John (Snr Scientific Assistant)

Rusinamhodzi, Leonard (Research Asst, Harare)

Wangechi, Helen (Asst Scientific Officer)

Waswa, Boaz (Asst Scientific Officer)

Technical staff

Muthoni, Margaret (Laboratory Attendant)

Ngului, Wilson (Laboratory Technician)

Nyambega, Laban (Field Technician)

Njenga, Francis (Laboratory Attendant)

Muranganwa, Francis (Field Worker Harare)

Administration staff

Agalo, Henry (Driver / Field Assistant)

Akech, Caren (Secretary)

Akuro, Elly (Driver/Field Assistant)

Chisvino, Stephen (Driver/OA, Harare)

Kareri, Alice (Administrator)

Meyo, Rosemary (Administrative Assistant)

Mulogoli, Caleb (Finance/IT Asst)

Ngutu, Charles (Finance/Admin. Officer)

Nyamhingura, Isabella (Admin. Asst, Harare)

Ogola, Juliet (Senior Administrative Secretary)

TSBF Institute – Latin America Staff

Senior Staff

Amézquita, Edgar (Soil Physics)

Ayarza, Miguel (Agronomy) MIS Coord., Honduras

Barrios, Edmundo (Soil Ecology and Biodiversity)

Estrada, Rubén D. (Resource Economist, CIP)

Rao, Idupulapati (Plant Nutrition and Physiology)
(40% TSBF Institute, 30% IP1, 30% IP5)

Rubiano, Jorge (Agronomist/GIS)

Senior Research Fellows

Rondón, Marco (Ecosystem Services)

Rubiano, Jorge (GIS/Agronomy)

Consultants

Mesa, Eloina (Biometrics)

Research Associates

Asakawa, Neuza

Cobo, Juan

Research Assistants

Borrero, Gonzalo

Chávez, Luis Fernando

Corrales, Irlanda Isabel

García, Edwin

Girón, Ernesto

Hurtado, María del Pilar

Molina, Diego Luis

Ocampo, Gloria Isabel

Pernett, Ximena

Quintero, Jenny

Quintero, Marcela

Rivera, Mariela

Rodríguez, Gloria Marcela

Trejo, Marco

Specialists:

Galvis, Jesús Hernando
Rodríguez, José Arnulfo
Melo, Edilfonso

Secretaries:

Cervantes de Tchira, Carmen
Núñez, Cielo
Escobar, Vilia

Technicians:

Alvarez, Arvey
Díaz, Enna Bernarda
Herrera, Pedro
Mina, Hernán
Molina, Jarden

Otero, Martín
Rodríguez, Carlos
Rodríguez, Maryory
Rojas, Gonzalo
Sánchez, Amparo
Toro, Flaminio
Trujillo, Carlos Arturo

Workers:

Cayapú, Joaquín
Messu, Adolfo
Ortega, Viviana
Salamanca, Josefa

ANNEX-2: LIST OF STUDENTS

A. TSBF Institute - Africa

Name	Nationality	Degree	Status	Institution	Research theme
Alejandro Ponce		PhD	Continuing	CINVESTAV-IPN	Abundance and diversity of macrofauna and soil aggregates in soil of Central Kenya added with organic material.
Aliou Faye	Senegalese	PhD		Centre International d'Enseignement a Distance, Rouen, France	Contribution of the assessment of the rhizobial diversity and its impact on the soil fertility within a natural settlement of <i>Acacia nilotica</i> subs <i>tomentosa</i> : example of the natural forest of Diarra located in the Senegal River Valley.
Amadou Sarr	Mauritanian	PhD	Completed	University Cadi Ayyad, Faculte des Sciences, Semlalia/ arrakech (Maroc).	Symbiotic improvement of growth of <i>Acacia senegal</i> and <i>Acacia nilotica</i> in Senegal and Mauritania.
Charles Walaga	Ugandan	PhD	Continuing	University of Natural Resources and Applied Life Sciences (BOKU), Vienna, Austria	Organic agriculture development and livelihood improvement in Uganda: Future scenarios and policy measures.
Dilys Kpongor	Ghanaian	PhD	Continuing	ZEF, Univ. of Bonn, Germany	Evaluation of the best-bet soil fertility restoration technologies in Northern Nigeria.
Edward Yeboah	Ghanaian	PhD	Continuing	University of Ghana, Ghana	Sustaining crop productivity: the influence of organic resource quality and quantity.
Elisabeth Gotschi	Austrian	PhD	Continuing	University of Natural Resources and Applied Life Sciences (BOKU), Vienna, Austria	Social capital in smallholder marketing groups in Sofala Province, Mozambique.
Jacintha Kimiti	Kenyan	PhD	Continuing	Kenyatta University, Kenya	Integrating legumes in the farming systems of Eastern Kenya to enhance soil fertility.
Jackson Tumwine	Ugandan	PhD	Continuing	University of Natural Resources and Applied Life Sciences (BOKU), Vienna, Austria	Linking farmers to market: challenges and opportunities of improving rural livelihoods for communities affected by HIV/AIDS in Uganda.

Name	Nationality	Degree	Status	Institution	Research theme
Jane Kapkiyai	Kenyan	PhD	Continuing	Cornell University, USA	Effects of legume green manures on crop productivity and nutrient cycling in maize-based cropping systems of Western Kenya.
John Ojiem	Kenyan	PhD	Continuing	Wageningen University, Netherlands	Niche-based approach to soil fertility improvement by legumes in Western Kenya smallholder farming systems.
Joseph Kimetu	Kenyan	PhD	Continuing	Cornell University, USA	Restoration of soils in Western Kenya using manure and <i>Tithonia diversifolia</i> .
Juan Cobo	Colombian	PhD	Continuing	Hohenheim, Germany	Spatial and temporal management of nutrient and water resources in Zimbabwe and Mozambique.
Kibiby Mtenga	Tanzanian	PhD	Continuing	Cornell University, USA	Gender and soil fertility management in Malawi: a participatory analysis of farmers' incentives to reinvest in soil fertility management innovations by women and men farmers.
Michael Misiko	Kenyan	PhD	Continuing	Wageningen University, Netherlands	Knowledge and networks: Challenges and opportunities for scaling up integrated soil fertility management regimes.
Monicah Mucheru	Kenyan	PhD	Continuing	Kenyatta University, Kenya	N dynamics as affected by soil fertility status and nutrient replenishment inputs in the central highlands of Kenya.
Pablo Tittonell	Argentina	PhD	Continuing	Wageningen University, Netherlands	Exploring options, analysing tradeoffs and deriving indicators of efficiency for integrated nutrient management in smallholder farming systems of East Africa.
Pamela Pali	Ugandan	PhD	Continuing	University of Natural Resources and Applied Life Sciences (BOKU), Vienna, Austria	Impact of organic agriculture in Uganda: improving livelihoods through sustainable natural resource management.
Pauline Nhamo	Zimbabwean	PhD	Continuing	University of California, USA	Exploring how organic and mineral nutrient combinations interact to regulate nutrient cycling.

Name	Nationality	Degree	Status	Institution	Research theme
Peter Ebanyat	Ugandan	PhD	Continuing	Wageningen University, Netherlands	Dynamics of soil organic matter and nitrogen in farmer field schools generated integrated soil fertility management practices.
S. Some	Burkinabe	PhD		ZEF, Univ. of Bonn, Germany	Water use efficiency of sorghum based cropping systems in Dano, Burkina Faso.
Shamie Zingore	Zimbabwean	PhD	Continuing	Wageningen University, Netherlands	Farm-scale evaluation of nutrient use efficiencies of resource management options in smallholder farming systems of Zimbabwe.
Agnes Kavoo	Kenyan	MSc	Continuing	Kenyatta University, Kenya	Interactions between resource quality, aggregate turnover, and C and N cycling in the Central Highlands of Kenya.
Dick Lufafa	Ugandan	MSc	Continuing	Makerere University, Uganda	On-farm comparison of the economic profitability of selected dual-purpose live barriers. Second year.
Emily Ruto	Kenyan	MSc	Completed	Moi University	An attempt to promote the use of prep-pac in Western Kenya.
Esther Rutto	Kenyan	MSc	Completed	Egerton University, Kenya	Farmers' perceptions and evaluation of integrated approaches to combat striga, stemborer and soil fertility problems in Western Kenya.
Giannis Papanagiotou	Greek	MSc	Continuing	Wageningen University, Netherlands	The effect of endogeic earthworms on aggregate formation, stability and carbon distribution within different aggregate fragments in a vitro study.
Grace Agwaru	Ugandan	MSc	Continuing	Makerere University, Uganda	Assessing approaches and developing methods for presentation of research results to farmers within their livelihood situations: a case study in Soroti and Arua Districts.
Harrison Githinji	Kenyan	MSc	Continuing	Moi University	Effects of conservation tillage and organic residues on crop productivity.
Job Ogada	Kenyan		Completed	Egerton University, Kenya	Evaluation of interactions between farmers' resource endowment and within-farm resource flows in Western Kenya.

Name	Nationality	Degree	Status	Institution	Research theme
Judith Odhiambo	Kenyan		Continuing	Egerton University, Kenya	Effect of selected legume species on germination of <i>Striga hermonthica</i> seeds: a control strategy in maize.
Justin Muriuki	Kenyan	MSc	Continuing	Kenyatta University, Kenya	Economic evaluation of organic and inorganic technologies for soil nutrient enhancement in Mukuuni and Murugi, Central Kenya.
Kiwanka Achilles	Ugandan	MSc	Continuing	Makerere University, Uganda	Environmental and socio-economic impact of organic farming on the livelihood of small-scale farmers in Uganda.
Mary Baaru	Kenyan	MSc	Completed	Kenyatta University, Kenya	Effects of organic materials of differing quality and inorganic fertilizer on soil microbial biomass at Kabete, Kenya.
Matieu Henry	French	MSc	Continuing	CNEARC/ENGREF	Carbon sequestration in the agrarian system of Western Kenya and eligibility to clean development mechanism.
Micheal Ochieng	Kenyan	MSc	Continuing	Jomo Kenyatta University, Kenya	On-farm interaction between soil fertility factors, farmer management, pests and diseases and the growth and yields of banana in Maragwa district, Kenya.
Moses Thuita	Kenyan	MSc	Completed	Moi University	On farm testing of phosphorus availability from phosphate rocks as affected by addition of local organic resources in western Kenya.
Mwashasha Rashidi	Kenyan	MSc	Continuing	Jomo Kenyatta, Kenya	Evaluation of the potential of various AMF strains to improve the initial growth of banana.
Nelesa Abigail	Kenyan	MSc	Completed	Moi University	A study on the liming effect of Minjingu phosphate rock in an acidic soil in western Kenya.
Nelson Ojango	Kenyan	MSc	Completed	Wye College, University of London, UK	Market and demand for soybean by livestock feed industries in Kenya.
Salome Muriuki	Kenyan	MSc	Completed	Kenyatta University, Kenya	Assessment of long term impacts of organic and inorganic fertilizers on soil P fractions in Machanga, Mbeere District, Kenya.

Name	Nationality	Degree	Status	Institution	Research theme
Telesphoret Ndabamenya	Rwandese	MSc	Continuing	Wageningen University, Netherlands	Interactions of soil macrofauna, tillage and organic amendment affect soil aggregation, organic matter dynamics and crop performance in Kenyan cropping systems.
Wouter Ton	Dutch	MSc	Completed	University Twente, Netherlands	Comparison of participatory approaches in Uganda.
Samwel Njoroge	Kenyan	BSc	Completed	Kenyatta University, Kenya	Laboratory methods for soil analysis.
Amek Tom	Kenyan	MA	Continuing	Economics Department, University of Nairobi, Kenya	Ex-ante adoption potential of seven technological options for improving ecosystem services in Kenya.
Lucy Njaramba	Kenyan	MA	Continuing	Institute of Development Studies (IDS), University of Nairobi, Kenya	Market and demand for soybean by food processing industries and supermarkets in Kenya.

B. TSBF Institute - Latin America

Name	Nationality	Degree	Status	Institution	Research theme
Alvaro Rincón	Colombian	PhD	Completed	National University, Colombia	Integration of maize with forages to recuperate degraded pastures in the Llanos of Colombia.
Andrés Rangel	Colombian	PhD	Continuing	University of Hannover, Germany	Mechanisms of aluminum resistance in common bean.
Annabé Louw-Gaume	South African	PhD	Continuing	ETHZ, Zurich	Mechanisms of low phosphorus adaptation in <i>Brachiaria</i> .
Aracely Castro	Honduran	PhD	Continuing	Nacional University, Colombia	Nutrient dynamics in the Quesungual Agroforestry System.
Edier Humberto Pérez	Colombian	PhD	Continuing	U. del Valle, Colombia	Pollutants and soil water fluxes.
Jorge F. Navia	Colombian	PhD	Continuing	National University, Colombia	Impact of residue quality on beneficial soil biota in root-rot infested soils.
Julie Major	Canadian	PhD	Continuing	Cornell University, USA	Reducing nutrient leaching on acid soils through charcoal amendments to soils.
Mariela Rivera P.	Colombian	PhD	Continuing	Nacional University, Colombia	Water dynamics in the Quesungual Agroforestry System.

Name	Nationality	Degree	Status	Institution	Research theme
Martha Bolaños	Colombian	PhD	Completed	National University, Colombia	Role of soil enzymes in vegetable banana production systems.
Natasha Pauli	Australian	PhD	Continuing	Univ. of Western Australia	The potential of the Quesungual Agroforestry System for soil biodiversity conservation and management in Western Honduras.
Nelson Castañeda	Colombian	PhD	Continuing	University of Goettingen, Germany	Genotypic variation in P acquisition & utilization in <i>A. pintoi</i> .
Sergio Mejía	Colombian	PhD	Continuing	National University, Colombia	Identification of candidate genes responsible for adaptation of tropical forage grass, <i>Brachiaria</i> to low phosphorus soils.
Steve Fonte	American	PhD	Continuing	U.C.Davis, USA	Influence of management practices, litter inputs and earthworm activity on soil fertility and soil organic matter dynamics in the Quesungual Agroforestry System.
Twaha Atenyi	Ugandan	PhD	Completed	Agricultural University of Norway	Soil phosphorus transformations and organic matter dynamics.
Belisario Volverás	Colombian	MSc	Continuing	U.de Nariño, Pasto-Colombia	No-tillage systems in hillsides planted with potato.
José Jaumer Ricaurte	Colombian	MSc	Continuing	National University, Colombia	Impact of aluminium tolerant <i>Brachiaria</i> genotypes on soil quality characteristics of an Oxisol of the Altillanura of the Meta Department of Colombia.
Jesús H. Galvis	Colombian	MSc	Completed	National University, Colombia	Sealing and crusting in the Llanos.
José Augusto Rodríguez T.	Colombian	MSc	Completed	National University, Colombia	Influence of some amendments in some physical, chemical and biological characteristics of a magnesium soils.
Luis Carlos Pardo	Colombian	MSc	Completed	Universidad del Valle, Cali	Biological erosion in rainforest.
Lyda Zárate	Colombian	MSc	Completed	National University, Colombia	Dynamics of water stable soil aggregation mediated by three different AMF species.

Name	Nationality	Degree	Status	Institution	Research theme
Marcela Quintero	Colombian	MSc	Continuing	University of Florida	Measurement and valuation of soil environmental services in the Andes.
Oscar Iván Ferreira	Honduran	MSc	Continuing	Nacional University, Colombia	Balances of greenhouse gases in the Quesungual system.
Oscar Molina	Colombian	MSc	Completed	National University, Colombia	Effect of residual P fertilizer and organic manure application on mycorrhizal association of maize-bean rotation in P-fixing Andisol in Cauca, Colombia.
Agustina Calero	Nicaragua	BSc	Completed	UNA	Physiography of the Rio la Danta microwatershed, Somotillo, Nicaragua.
Andrés Ceballos and Victor Bermúdez	Colombian	BSc	Continuing	Universidad del Valle, Cali-Colombia	Charcoal production by small scale producers in Colombia: improvements on the efficiency of production and on safety production.
Andrés Pereira Abella	Colombian	BSc	Continuing	Universidad del Valle, Cali-Colombia	Comparison of NIRS vs MIRS methodologies for analysis of total soil carbon and nitrogen.
Denis Valladares	Honduras	BSc	Completed	ESNACIFOR	
Gettsy Elizabeth Quiñónez Mora	Colombian	BSc	Continuing	Universidad del Valle, Cali-Colombia	Estimating total carbon stocks in soils from the Fuquene Lagoon watershed using a Bayesian statistical model.
Joisse Rincón	Colombian	BSc	Completed	National University, Colombia	Drought adaptation in <i>Brachiaria</i> .
José S. Muñoz	Colombian	BSc	Completed	National University, Colombia	Composting in Pescador, Cauca: an appropriate technology for residue management and environmental protection.
Leslie Fariña	Nicaragua	BSc	Completed	UNA	Physiography of the Rio la Danta microwatershed, Somotillo, Nicaragua.
Lester Talley	Nicaragua	BSc	Completed	UNA	Floristic characterization of the Rio la Danta microwatershed, Somotillo, Nicaragua.
Lina M. Gaviria	Colombian	BSc	Completed	U. Surcolombiana, Neiva-Colombia	Characterization of surface biogenic structures under different cassava treatments in Santander de Quilichao.

Name	Nationality	Degree	Status	Institution	Research theme
Luisa Jiménez	Colombian	BSc	Continuing	National University, Colombia	Physicochemical characterization of charcoal for agricultural use.
Milton Delcid	Honduras	BSc	Completed	UNA	Nitrogen response curves to validate the NuMaSS system.
Namán Sánchez	Honduras	BSc	Completed	ESNACIFOR	Biomass accumulation and nutrient composition of three forest species in the Quesungual system.
Osman Contreras	Honduras	BSc	Completed	UNA	Nitrogen response curves to validate the NuMaSS system.
Tomás Gutiérrez	Nicaragua	BSc	Completed	UNA	Floristic characterization of the Rio la Danta microwatershed, Somotillo, Nicaragua.
Yenni López	Colombian	BSc	Completed	National University, Colombia	Drought adaptation in common bean.

ANNEX-3: LIST OF PARTNERS

TSBF Institute's research for development programme is implemented through projects implemented with a wide range of partners. These include in particular the scientists from NARES and universities in tropical countries and advanced research institutes and universities in developed countries, who are members of the programme networks, of which the largest is the African Network for Soil Biology and Fertility (AfNet) followed by MIS and SARNet. Other projects are implemented through CGIAR system-wide programmes (SWPs) such as AHI and Challenge Programme. Donors for TSBF projects currently include, in addition to the Rockefeller Foundation, CIDA, IDRC, DIFD, IFAD, DANIDA, BMZ, NORAD, USAID, ACIAR and UNEP-GEF and the consortia of donors to the CGIAR's SWPs and CPs. Some of these projects fund the TSBF-CIAT outposted staff in Zimbabwe, Uganda and Honduras.

At the regional basis TSBF-CIAT's alliance with ICRAF and the NARS in East and Southern Africa will be expanded to ICRISAT and CIMMYT and possibly to IITA and WARDA in West Africa. Cooperation with FARA and other regional organization such as ASARECA, CORAF and SACCAR will be strengthened. In Latin America work will focus in Central American hillsides with the MIS consortium, in the Andean hillsides region with CONDESAN and CORPOICA and in the tropical savannas of the Llanos with CORPOICA and the local universities.

TSBF Institute-Africa

NARS: Kenyatta University, Kenya, VLIR project on food security in Central Kenya; RF soybean project; JKUAT, Kenya, RF banana project; NARO, Uganda and LZARDI, Tanzania, Dfid project on striga management in the Lake Victoria Basin; NARO, Uganda, RF project on exploring soybean potential in East Africa; KARI, Kenya, Dfid project on striga management in the Lake Victoria Basin; University of Zimbabwe, Zimbabwe, NSF project on soil aggregation; Soil Research Institute, Ghana, NSF project on soil aggregation; INERA, D R Congo, ISAR, Rwanda, DGDC project on legume integration in systems in Central Africa; DGDC project on banana management in Central Africa; ISABU and IRAZ, Burundi, DGDC project on banana management in Central Africa; University of Kinshasa and University of Bukavu, D R Congo, VLIR project on cassava in D R Congo; Forest Dept of CIRAD, France, Kenyan Forestry Research Institute, Kenya, FOFIFA, Madagascar INCO DEV FOREAIM on Bridging restoration and multi-functionality in degraded forest landscape of Eastern Africa and Indian Ocean islands; INERA-DPF, Burkina Faso and Forest Dept of CIRAD, France, project CORAF/Gomme Arabique on Impact de l'inoculation par les rhizobiums sur la productivite de gommeraiies plantees ou naturelles et la dynamique de facteurs lies au fonctionnement biologique des sols sous-jacents; INERA, Burkina Faso, ISRA, Senegal, FOFIFA, Madagascar, project ANR/MICROBES project on microbial observatories for the management of soil ecosystem services in the tropic; KEFRI, Kenya, Forest Dept of CIRAD, France and Grassland Research Station, Zimbabwe, project INCO DEV SAFSYS on Symbionts in agroforestry systems: what are the long-term impacts of inoculation of *Calliandra calothyrsus* and its intercrops; Antananarivo University, Madagascar and University of Makerere, Uganda project INCO DEV FOREAIM on Bridging restoration and multi-functionality in degraded forest landscape of Eastern Africa and Indian Ocean islands; University of Niamey, Niger and University Cheikh Anta Diop, Senegal, project CORAF/Gomme Arabique on Impact de l'inoculation par les rhizobiums sur la productivite de gommeraiies plantees ou naturelles et la dynamique de facteurs lies au fonctionnement biologique des sols sous-jacents; Institut National de Recherches Agronomiques du Niger (INRAN); Niamey/Niger; Institut d'Economie Rurale (IER), Mali; ARS, Chilanga Zambia (Moses Mwale); EARO (Ethiopian Agricultural Research organization), Ethiopia; Ahmadu Bello University, Nigeria; ARI Mlingano, Tanzania; Egerton University, Kenya; University of Nairobi, Nairobi, Kenya (Rosemary

Atieno); Makerere University, Kampala, Uganda (Elizabeth K. Balirwa, Jonny Mugisha, John Baptiste, Mary Silver); Lake Basin Development Authority (Kenya) (Amos Ameya); Selian Agricultural Research Institute (Tanzania) (Sossi Kweka and Festo Ngulu); Southern Regions Research Institute, Ethiopia. IIAM, Mozambique project on Linking Farmers to Markets.

Advanced Research Institutes: J Six, University of California Davis, USA, NSF project on soil aggregation; R Merckx, Catholic University of Leuven, Belgium, VLIR project on food security in Central Kenya; E Tollens, Catholic University of Leuven, Belgium, DGDC project on legume integration in systems in Central Africa; R Swennen, Catholic University of Leuven, Belgium, DGDC project on banana management in Central Africa; S Recous, INRA, France, VLIR project on food security in Central Kenya; K Giller, WUR, Netherlands, EU project on AfricaNUANCES; L Brussaard, L Stroosnijder, WUR, Netherlands, WOTRO project on soil fauna and soil aggregation; Institut de Recherche pour le Developpement, France, project CORAF/Gomme Arabique on Impact de l'inoculation par les rhizobiums sur la productivite de gommeraiies plantees ou naturelles et la dynamique de facteurs lies au fonctionnement biologique des sols sous-jacents; Institut de Recherche pour le Developpement, France, Centre of Ecology and Hydrology, UK' University of Norway, project INCO DEV FOREAIM on Bridging restoration and multi-functionality in degraded forest landscape of Eastern Africa and Indian Ocean islands; GSF-Munich, Germany and Institut de Recherche pour le Developpement, France project ANR/MICROBES project on microbial observatories for the management of soil ecosystem services in the tropic; Centre of Ecology and Hydrology and, Scottish Agricultural College UK, project INCO DEV SAFSYS on Symbionts in agroforestry systems: what are the long-term impacts of inoculation of *Calliandra calothyrsus* and its intercrops; BIOFORSK Soil, Water and Environment, Norway; JIRCAS (Japan International Research Center for Agricultural Sciences), Japan; Wye College, University of London (Colin Poulton); Kyoto University, Kyoto, Japan (Atsuyuki Asami); Ishikawa Prefectural University, Japan (Hiroshi Tsujii); University of Kiel, Kiel, Germany (Roll A.E. Mueller); Universite Catholique de Louvain (Eric F. Tollens); Swedish Univ. Agric. Sci (SLU), Uppsala, Sweden (Olof Andrén), University of Natural Resources and Applied Life Sciences (BOKU), Vienna Project on Linking Farmaers to Markets.

International Agricultural Research Centres: IITA, Uganda, RF project on ISFM for bananas; DGDC project on banana management in Central Africa; IITA, Nigeria (Alene Arega, David Chikoye, Robert Abaidoo); ICIPE and CIMMYT Kenya, DfID project on striga management in the Lake Victoria Basin; CIMMYT, Kenya, AATF project on striga management in Western Kenya; IFDC, Togo, WOTRO project on soil fauna and soil aggregation; INIBAP, Uganda, DGDC project on banana management in Central Africa; ICRAF, Kenya, RF project on soil fertility gradients and site-specific soil fertility management; ICRISAT, Niger; Centre d'Etude Régional pour l'Amélioration de l'Adaptation à la Sécheresse (CERAAS/ISRA); West African Rice Development Authority (Patrick M. Kormawa); African Highlands Initiative, Ethiopia.

International and Regional Agricultural Research Centers: CIMMYT, Kenya: Hugo de Groote, Mirjam Pulleman; CIP, Kenya: Charles Crissman; ICRAF, Kenya: Frank Place, Steve Franzel, Noordn Qureish, Bashir Jama, Richard Coe, Keith Shepherd; ICRISAT, Kenya: Ade Freeman; ICRISAT, Mali: Tabo; ICRISAT, Niger: Aboudoulaye, Abdoulaye and Mahamane; ICRISAT, Zimbabwe: John Dimes; IITA Ibadan, Nigeria- Abdou; IITA Uganda: Piet van Asten, Cliff Gold, Suleiman Okech; ILRI, Kenya: Patti Kristjanson, Steve Staal, Philip Thornton, Mario Herrero, Dannie Romney; ICIPE: Zia Khan; AATF: Mpoko Bokanga; West African Rice Development Authority – Patrick M. Kormawa; International Institute for Tropical Agriculture – Alene Arega, David Chikoye, Robert Abaidoo.

NGOs: FIPS, Kenya, RF project on soil fertility gradients and site-specific soil fertility management; SACRED-Africa, Kenya, RF soybean project; Diobass and Food for the Hungry, D R Congo, DGDC project on legume integration in systems in Central Africa; DGDC project on banana management in

Central Africa; UR2PI, Congo, ANR/MICROBES project on microbial observatories for the management of soil ecosystem services in the tropic; Hunger Project/Burkina Faso; Groupe d'Action pour le Développement Communautaire (GADEC) ; Tambacounda/Senegal; Union des Groupements Paysans de Mekhe (UGPM/Senegal); Projet Intrants/Niger; Groupement Nabonswendé de Tougouri/Burkina; Entente des Groupements Associés de Toubacouta (EGAT)/Senegal; Caritas-Kaolack/Senegal; AfriAfya (Caroline Nyamai-Kisia); CRS (Tom Remington); Farmers' Own Trading Company (Tony Margetts) Africa2000 Network, UEEF, Africare (Uganda).

The Private Sector: TSBF-Africa is also working with a wide array of private sector and farmers associations. Some of those involved in Kenya as an example include:

Western Seed Company (Kenya)– Saleem Esmail; BIDCO OIL REFINERIES LIMITED (Kenya) – Dileswar Pradhan, Ashish Mandlik; Mukwano Group of Companies (Uganda) – Ibnul Hassan Rizvi; NUTRO MANUFACTURING EPZ LIMITED – Simon Glover; Ebulala Self-Help Group (Shianda Location of Butere Division, Kenya); Tushiauriane Self Help Group (Eluche Sub-location, Kenya); Nabongo Panga Self-Help Group (Matawa Sub-Location, Nabongo Location, Kenya); Jitolee Women Group (Lukohe sublocation, North Marama location, Butere Division, Kenya); Etako Women Group (Lukohe sublocation, North Marama location, Butere Division, Kenya); Bushe Women Group (Butere Division, Kenya); Shishebu farmers' Group (Shianda location, Butere Division, Kenya); Mabile farmers' field school (Shianda location, Butere Division, Kenya); Masaa Men and Women Group; Eluche Mwangaza Community Dev't Organization (Eluche Sublocation, Mumias Division, Kenya); Uriri farmers' cooperative society (Migori District, Kenya); Suna farmers' cooperative society (Migori District, Kenya) AMFRI farms (Uganda), Olivine Industries, Harare, Reapers (Pvt) Ltd, Harare.

TSBF Institute-Latin America

ARIs: CIP, CIAT, IWMI, DIIS (Denmark), GTZ (Germany).

NARS: CORPOICA – La Libertad, Colombia; A. Rincón, R. Valencia, J.J. Rivera, C.J. Escobar; CORPOICA – Macagual, Colombia, C. Escobar; EMBRAPA – Soils, Brasil, H.Coutinho, C. Manzatto, A. de Andrade, A. Armalo; EMBRAPA – Cerrados, Brasil, J.R. Correia; EMBRAPA – Agrobiologia, Brasil, A. Aquino; EMBRAPA – Cassava and Fruit Crops, A. Vilar Trindade; PROMIC (Bolivia); CEDEPAS (Peru); Dario Maya Botero Foundation (Colombia) CAR (Colombia); Regional Government, Moyobamba (Peru); The aqueduct company of Moyobamba EPSA (Peru); PROMACH (Ecuador); ECOPAR (Ecuador).

NGOs:

CENIPALMA, P.L. Gómez, F. Munevar.

Specialized Institutions: ETH, Zurich, Switzerland; Prof. E. Frossard, A. Oberson; Agricultural University of Norway, Norway; Prof. B.R. Singh; University of Göttingen, Germany, Prof. N. Claassen University of Freiburg; Prof. E. Wellmann; University of Chile; Prof. M. Pinto; University of Montana, USA, M.Rillig, D.; Cornell University, USA, J.Thies, M.Devare, J.Duxbury, L.Allee, J.Losey; University of California-Davis, USA, J.Six; Universidade Federal Rural de Rio de Janeiro, Brasil, R. Berbara; University of Western Australia, Australia, A. Conacher; Zhejiang University, China, W. Wu; University of Duke, U.S.A. Prof J. Reynolds; University of New Mexico, U.S.A, Jeff Herrick; Colegio de la Frontera Sur, México, Luis García Barrios; North Carolina State University, Jot Smyth.

International Agricultural Research Centers: CATIE, Costa Rica; J. Beer; ICRAF, R.Coe, K. Shepherd; IFDC, USA; D. Friesen; IWMI, Thailand, A. Noble; IRD, J.L. Janeau and C. Prat; FAO-Honduras, C.Paul, L.A. Welchez.

National Universities: Universidad Nacional de Colombia, M.Sánchez de Prager, Juan C. Menjivar, M. Prager, E. Madero; Universidad Nacional de Agricultura, Catacamas, Honduras, J. Reyes and W.Reyes; Escuela Nacional de Ciencias Forestales-ESNACIFOR, Honduras, P. Dubon, Z. Martínez; Centro Universitario Regional del Litoral Atlántico-CURLA, Honduras, Manuel López; Universidad Nacional Agraria de Nicaragua, M. Somarriba, I. Rodríguez, G. Bonilla; Universidad de los Andes (Colombia); Universidad Javeriana (Colombia); University of Florida (USA).

Private sector: CORPOMORTIÑO (Colombia), AGROALIZAL (Colombia), Ford Foundation

Others: FINAGRO (Fondo Nacional de Garantías Agropecuarias)

ANNEX-4: LIST OF PUBLICATIONS

TSBF Institute - Africa

Refereed journal articles

Journal articles published in 2005

- Chianu, J., N. and Hiroshi, T. 2005. Integrated nutrient management in the farming systems of the savannas of northern Nigeria: what future? *Outlook on Agriculture* 34: 197-202.
- Diouf D., Duponnois, R. Ba AT, Neyra, M. and Lesueur, D. 2005. Influence of rhizobial and mycorrhizal symbioses on growth and mineral nutrition of *Acacia auriculiformis* and *Acacia mangium* under salt stress conditions. *Functional Plant Biology* 32: 1143-1152.
- Esilaba, A.O., Nyende, P., Nalukenge, G., Byalebeka, J., Delve, R.J. and Ssali, H. 2005. Resource flows and nutrient balances in smallholder farming systems in Mayuge District, Eastern Uganda. *Agriculture, Ecosystems and Environment* 109: 192-201.
- Esilaba, A.O., Byalebeka, G., Delve, R.J., Okalebo, J.R., Ssenyange, D., Balule, M. and Ssali, H. 2005. On-farm testing of integrated nutrient management strategies in Eastern Uganda. *Agricultural Systems* 86: 144-165.
- Lesueur, D. and Duponnois, R. 2005. Relations between rhizobial nodulation and root colonization of *Acacia crassicarpa* provenances by an arbuscular mycorrhizal fungus, *Glomus intraradices* Schenk and Smith or an ectomycorrhizal fungus, *Pisolithus tinctorius* Coker & Couch. *Annals of Forest Sciences*, 62: 467-474.
- Mando, A., Ouattara, B., Sédogo, M., Stroosnijder, L., Ouattara, K., Brussaard, L., and Vanlauwe, B. 2005. long-term effect of tillage and manure application on soil organic fractions and crop performance under Sudano-Sahelian conditions. *Soil & Tillage Research* 80: 95-101.
- Probert, M.E., Delve, R.J., Kimani, S.K. and Dimes, J.P. 2005 Modelling nitrogen mineralization from organic sources: representing quality aspects by varying C:N ratios of sub-pools. *Soil Biology and Biochemistry* 37: 279-287.
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- Sarr, A., Diop, B., Peltier, R. Neyra, M., Lesueur, D. 2005. Effect of rhizobial inoculation methodologies and host plant provenances on nodulation and growth of *Acacia senegal* and *Acacia nilotica*. *New Forests* 29: 75-87.
- Sarr, A., Neyra, M., Oihabi, A., Houeibib, M.A., Ndoeye, I. and Lesueur, D. 2005. Characterization of native rhizobial populations presents in soils from natural forests of *Acacia senegal* and *Acacia nilotica* in Trarza and Gorgol regions from Mauritania. *Microbial Ecology* 50: 152-162.
- Tittonell, P., Vanlauwe, B. Leffelaar, P. A., Rowe, E. and Giller, K.E. 2005. Exploring diversity in soil fertility management of smallholder farms in western Kenya. I. Heterogeneity at region and farm scale. *Agriculture, Ecosystems and Environment* 110: 149-165.
- Tittonell, P., Vanlauwe, B., Leffelaar, P.A., Shepherd, K.D. and Giller, K.E. 2005 Exploring diversity in soil fertility management of smallholder farms in Western Kenya. II. Within farm variability in resource allocation, nutrient flows and soil fertility status. *Agriculture, Ecosystems and Environment*, 110: 166-184.
- Vanlauwe, B., Aihou, K., Tossah, B.K., Diels, J., Sanginga, N. and Merckx, R. 2005. *Senna siamea* trees recycle Ca from a Ca-rich subsoil and increase the topsoil pH in agroforestry systems in the West African derived savanna zone. *Plant and Soil* 269: 285-296.
- Vanlauwe, B., Gachengo, C., Shepherd, K., Barrios, E., Cadisch, G. and Palm, C.A. 2005. Laboratory validation of a resource quality-based conceptual framework for organic matter management. *Soil Science Society of America Journal* 69: 1135-1145.

Vanlauwe, B., Diels, J., Sanginga, N. and Merckx, R. 2005. Long-term integrated soil fertility management in South-western Nigeria: crop performance and impact on the soil fertility status. *Plant and Soil* 273: 337-354.

Journal articles in press

- Barrios, E., Delve, R.J., Bekunda, M., Mowo, J., Agunda, J., Ramisch J., Thomas, R.J. 2006. Indicators of Soil Quality: A South-South development of a methodological guide for linking local and technical knowledge. *Geoderma* (in press).
- Chianu, J., Hiroshi, T., and Awange, J. 2006. Environmental impact of agricultural production practices in the savannas of northern Nigeria. *Journal of Food, Agriculture & Environment* 4 (in press).
- Kimetu, J.M., Mugendi, D.N, Bationo, A., Palm, C.A., Mutuo, P.K., Kihara, J, Nandwa, S. and Giller K. 2006. Tracing the fate of nitrogen in a humic nitisol under different management practices in Kenya. *Nutrient Cycling in Agroecosystems* (in press).
- Mafongoya, P.L. and Bationo, A. 2006. Appropriate available technologies to replenish soil fertility in southern Africa. Submitted to *Nutrient cycling in agroecosystems*. *Nutrient Cycling in Agroecosystems* (in press).
- Odendo, M., Ojiem, J., Bationo, A. and Mudeheri, M. 2006. On-Farm Economic Evaluation and Scaling-up of Soil Fertility Management Technologies in Western Kenya. *Nutrient Cycling in Agroecosystems* (in press).
- Okalebo, J.R., Othieno, C.O., Karanja, N.K., Semoka, J.R.M., Bekunda, M.A., Mugendi, D.N., Woomer P.L. and Bationo, A. 2006. Appropriate available technologies to replenish soil fertility in Eastern and Central Africa. *Nutrient Cycling in Agroecosystems* (in press).
- Ouattara, B., Ouattara, K. and Serpantié, G., Mando, A., Sédogo, M. and Bationo, A. 2006. Intensity cultivation induced-effects on Soil Organic Carbon Dynamic in the western cotton area of Burkina Faso. *Nutrient Cycling in Agroecosystems* (in press).
- Schlecht, E., Buerkert, A., Tielkes, E. and Bationo, A. 2006. A critical analysis of challenges and opportunities for soil fertility restoration in Sudano-Sahelian West Africa. *Nutrient Cycling in Agroecosystems* (in press).
- Shepherd, K.D., Vanlauwe, B., Gachengo, C.N. and Palm, C.A. 2006. Decomposition and mineralization of organic resources predicted using near infrared spectroscopy. *Plant and Soil* (in press).
- Tittonell, P., Leffelaar, P.A., Vanlauwe, B., van Wijk, M.T. and Giller, K.E. 2005. Exploring diversity of crop and soil management within smallholder African farms: a dynamic model for simulation of nutrient (N) balances and use efficiencies at field scale. *Agriculture, Ecosystems and Environment* (in press).
- Vanlauwe, B. and Giller, K.E. 2006. Popular myths around soil fertility management in sub-Saharan Africa. *Nutrient Cycling in Agroecosystems* (in press).
- Vanlauwe, B., Tittonell, P. and Mukalama, J. 2006. Within-farm soil fertility gradients affect response of maize to fertilizer application in western Kenya. *Nutrient Cycling in Agroecosystems* (in press).

Journal articles in review

- Amede, T. and Bekele, A. 2006. Niches for Integration of Green Manures and Risk Management through Growing Maize Cultivar Mixtures in Southern Ethiopian Highlands. *Journal of Agronomy and Crop Science* (in review).
- Amede, T. and Delve, R.J. 2006. Improved decision making for achieving the Triple Benefits of Food Security, Income and Environmental Services through Modeling Cropping Systems in Ethiopian Highlands. *Agricultural Systems* (in review).
- Amede, T. and Delve, R.J. 2006. Improved decision making for achieving triple benefits of food security, income and environmental services through modeling cropping systems in Ethiopian Highlands *Agricultural Systems* (in review).

- Amede, T. and Taboge, E. 2006. Optimizing Soil Fertility Gradients in the Enset (*Ensete ventricosum*) Systems of the Ethiopian Highlands: Trade-offs and Local Innovations. Nutrient Cycling and Agroecosystems (in review).
- Zingore, S., Gonzalez-Estrada, E., Delve, R. J. and Giller, K.E. 2006. Evaluation of resource management options for smallholder farms using an integrated modelling approach. Agricultural Systems (in review)
- Zingore, S., Murwira, H.K., Delve, R.J. and Giller, K.E. 2006. Influence of nutrient management strategies on variability of soil fertility, crop yields and nutrient balances on smallholder farms in Zimbabwe. Agricultural Systems (in review)
- Zingore, S., Murwira, H. K., Delve, R.J. and Giller, K.E. 2006. Soil type, historical management and current resource allocation: three dimensions regulating variability of maize yields and nutrient use efficiencies on smallholder farms. Agriculture Ecosystems and Environment (in review).

Book Chapters

- Amede, T. and Taboge, E. 2006. Optimizing Soil Fertility Gradients in the Enset (*Ensete ventricosum*) Systems of the Ethiopian Highlands: Trade-offs and Local Innovations. In: Bationo et al., 2006 (Forthcoming), from the Yaundee Conference.
- Bationo A., Kihara, J., Vanlauwe, B., Kimetu, J. and Sahrawat, K.L. 2006. Integrated nutrient management – Concepts and experience from SSA. (in press).
- Feig, G., Scholes, M., Otter, L. and Vanlauwe, B. 2005. Nitrogen in Africa. Start funded IGBP Africa global change synthesis book.
- Giller, K., Bignell, D., Lavelle, P., Swift, M., Barrios, E., Moreira, F., van Noordwijk, M., Barois, I., Karanja, N. and Huising, J. 2005. Soil diversity in rapidly changing tropical landscapes: scaling down and scaling up. In: Bardgett E., M.Usher, D.Hopkins (Eds.) Biological Diversity and Function of Soils, pp.295-318. Cambridge University Press.
- Nandwa S. M., Bationo, A. Obanyi, S.N., Rao, I.M., Sanginga, N. and Vanlauwe, B. 2006. Inter and intra-specific variation of legumes and mechanisms to access and adapt to less available soil phosphorus and rock phosphate. In: A. Bationo (Ed) Fighting Poverty in Sub-Saharan Africa: The Multiple Roles of Legumes in Integrated Soil Fertility Management, Springer-Verlag, New York (in press).
- Swift, M.J., Stroud, A., Shepherd, K., Albrecht, A., Bationo, A., Mafongoya, P., Place, F., Tomich, T.P., Vanlauwe, B., Verchot, L. and Walsh, M. 2006. Confronting land degradation in Africa: Challenges for the next decade. ICRAF 25th Anniversary proceedings, Nairobi, Kenya (in press).
- Tabo, R., Bationo, A., Kandji, S., Waswa, B.S. and Kihara, J. 2006. Global Change and Food Systems in Africa. (in press).
- Vanlauwe, B., Ramisch, J. and Sanginga, N. 2006. Integrated soil fertility management in Africa: from knowledge to implementation. In: N Uphoff et al (Eds), Biological Approaches to Sustainable Soil Systems. CRC Press, USA (in press).

Books Edited

- Ramakrishnan, P.S., Saxena, K.G., Swift, M.J., Rao, K.S., Maikhuri, R.K. (eds.). 2005. Soil biodiversity, ecological processes and landscape management. Oxford & IBH Publishing, New Delhi, IN. 302 p.

Articles in conference proceedings

- Adamou, A., Bationo, A., Tabo, R. and Koala, S. 2006. Improving soil fertility through the use of organic and inorganic plant nutrient and crop rotation in Niger. Springer (in press).
- Amede, T., Mengistu, S. and Roothaert, R. 2006. Intensification of Livestock Feed Production in Ethiopian Highlands: Potentials and Experiences of the African Highlands Initiative. Proceeding of the Ethiopian Veterinary Society (in press).

- Baaru, M.W., Mugendi, D.N., Bationo, A., Louis, V. and Waceke, W. 2006. Soil Microbial Biomass Carbon and Nitrogen as Influenced by Organic and Inorganic Fertilisation in Kenya. Springer (in press).
- Bado, B., Bationo, A., Lompo, F.; Cescas M.P. and Sedoso M.P. 2006. Mineral fertilizers, organic amendments and crop rotation managements for soil fertility maintenance in the Guinean zone of Burkina Faso (West Africa). Springer (in press).
- Bationo, A, Kihara, J., Waswa, B. and Vanlauwe, B. 2005. Technologies for Sustainable Management of Sandy Sahelian Soils. Keynote paper- Proceedings paper presented during workshop, 24th-3rd December 2005 in Khon Khaen Thailand.
- Bationo, A., Kihara, J., Waswa, B., Ouattara, B. and Vanlauwe, B. 2005. Integrated Soil Fertility Management Technologies for Sustainable Management of Sandy Sahelian Soils. Proceedings of the International Symposium on 'The management of tropical sandy soils for sustainable agriculture- a holistic approach for sustainable development of problem soils in the tropics', November 2005, Khon Kaen, Thailand.
- Chianu, J.N., Tsujii, H., Manyong, V.M. and Okoth, P.F. 2005. Crop-livestock interaction in the savannas of Nigeria: Nature and determinants of farmer decision to use manure for soil fertility maintenance. An invited paper presented at the 4th All Africa Conference on Animal Agriculture, September 20-24th, 2005, Arusha International Conference Centre. To appear in Conference proceedings
- Delve, R.J. and Hauser, M. Strengthening competitiveness through research: Enabling rural innovation in smallholder organic in Uganda. Poster presented at the 15th IFOAM Organic World Congress 2005. Shaping Sustainable Systems. Adelaide, Australia, 20-23rd September 2005.
- Delve, R.J., Hauser, M., Ssebunya, B., Mulindwa, J., Byandala, S. 2005. Strengthening the Competitiveness of Organic Agriculture in Africa through Linking Farmers to Service Providers and Exporters. In: Eric Tielkes, Christian Halsebusch, Inga Hauser, Andreas Deininger, Klaus Becker: Tropentag 2005 - The Global Food & Product Chain – Dynamics, Innovations, Conflicts, Strategies, October 11-13, 2005, University of Hohenheim, Stuttgart, 488; MDD Media Digitaldruck Copy Shop Baromaschinen GmbH Stuttgart, ISBN: 3-00-017063-4.
- Desallegn, G. and Amede, T. 2005. Land degradation in Ethiopian Highlands: Major causes, development attempts and future deliberations. Presented in the 17th Symposium of the International Farming Systems Association, Rome, Nov. 17-20. www.ifsa.ufl.edu <<http://www.ifsa.ufl.edu/>>.
- Kaya, B., Niang, A., Tabo, R. and Bationo, A. 2006. Performance de diverses espèces agroforestières en jachère améliorée de courte durée et leurs effets sur la fertilité des sols et les rendements du sorgho au Mali. Springer (in press).
- Kihara, J., Kimetu, J.M., Vanlauwe, B., Bationo, A. and Mukalama, J. 2006. Increasing land productivity and optimising benefits through nitrogen and phosphorus management in legume-cereal rotations in western Kenya. Springer (in press).
- Kimani, S.K., Esilaba, A.O., Odera, M.M., Kimenye, L., Vanlauwe, B. and Bationo, A. 2006. Effects of organic and mineral sources of nutrients on maize yields in three districts of central Kenya. Springer (in press).
- Kimiti, J.M., Esilaba, A.O., Vanlauwe, B. and Bationo, A. 2006. Participatory Diagnosis in the Eastern Drylands of Kenya: Are Farmers aware of Their Soil Fertility Status? Springer (in press).
- Mekonnen, K., Amede, T., Kidane, B., and Alebachew, M. 2005. Experiences of AHI in participatory technology development and dissemination at Galessa, Ethiopia. pp.57-67. In: Proceedings of a workshop on "Farmer Research Groups: Concepts and Practices". EARO-OARI, JICA Cooperation.
- Miriti, J.M., Esilaba, A.O., Kihumba, J. and Bationo, A.:2006. Tied-ridging and integrated nutrient management options for sustainable crop production in semi-arid Eastern Kenya. Springer (in press).
- Okoth, P.F. 2005. Project Data Sharing and Intellectual Property Rights: The Conservation and Sustainable Management of Below Ground Biodiversity Project' by in the Annual Meeting of the

- CSM-BGBD Project in Manaus Brazil, April 2005. Paper to be published in the technical proceedings of the BGBd project annual meeting transactions.
- Okoth, P.F., Oketch, P.A. and Kimani, P.K. The use of erosion proxies for the spatial assessment of erosion in a watershed and modelling the erosion risk in a GIS. Paper to be published in the proceedings of the Yaounde Workshop and published as a book.
- Tabo, R., Tarawali, S.A., Singh, B.B., Bationo, A., Traore, B., Traore, M.D., Don-Gomma, Odion, A.E.C., Nokoe, S., Harris, F., Manyong, V. M., Fernandez-Rivera, S., de Haan, N. and Smith, J.W. 2005. Enhancing the productivity and sustainability of Integrated Crop-Livestock Systems in the dry savannas of West Africa. (Omay, G.O. and Pasternak, D. (eds.), Sustainable agriculture systems for the drylands. Proceedings of the international symposium for sustainable dryland agriculture systems, 2-5 December 2003, Niamey, Niger ICRISAT, pp.271-285.
- Tabo, R., Bationo, A., Bruno, G., Ndjeunga, J., Marcha, D., Amadou, B., Annou, M.G., Sogodogo, D., Sibiry Taonda, J.B., Ousmane H, Maimouna K. Diallo and Koala, S. 2005. Improving the productivity of sorghum and millet and farmers income using a strategic application of fertilizers in West Africa. Springer (in press).
- Tabu, I.M., Bationo, A., Obura, R.K. and Khaemba, J.M. 2006. Effect of rock phosphate, lime and green manure on growth and yield of maize in a non productive niche of a rhodic ferralsol in farmer's fields. Springer (in press).
- Vanlauwe, B_2005. Managing organic inputs for enhancing biological and physico-chemical soil health in the West African savannas. Proceedings of the International Symposium on 'The management of tropical sandy soils for sustainable agriculture- a holistic approach for sustainable development of problem soils in the tropics', November 2005, Khon Kaen, Thailand.
- Vanlauwe, B., Sanginga, N., Diels, J. and Merckx, R. 2005. Case studies related to the management of soil acidity in the West African moist savanna. In: TECDOC on Acid Savanna Soils. International Atomic Energy Agency, Vienna, Austria.

Oral/Poster presentations at conferences

- Amede, T. 2005. Development of Tools and Methods for Promoting Integrated Natural Resource Management in East African Highlands. In IPMS/ILRI meeting for Research and Development Officers. Oct 20, 2005, Addis Ababa, Ethiopia.
- Amede, T. 2005. Integrated nutrient management in systems perspective: regional experiences. CIAT-PABRA workshop, Oct30-Nov 4, 2005, Mukono, Uganda.
- Amede, T. 2005. Integrating natural resource management into farmers' production objectives in East African Highlands. Scientific Seminar no. 8. International Livestock research Institute (ILRI). July 3, 2005, Addis Ababa, Ethiopia.
- Amede, T; Mengistu S; Roothaert R, 2005. Intensification of livestock feed production in Ethiopian Highlands: Potential and Experiences of the African Highlands Initiative 19th EVA Annual conference, 8 June 2005, ECA, Addis Ababa.
- Bationo, A. 2005. Available Technologies for soil fertility replenishment in East, West and Southern Africa: presentation made during an IAEA workshop on Combating drought held in Nairobi, October 2005.
- Bationo, A. 2005. Combining rainwater and nutrient management strategies to increase crop production and prevent soil degradation in the Desert Margins of Africa. Presentation given during DMP evaluation meeting in South Africa in May 2005.
- Bationo, A., Sanginga, N., Kimetu, J., Kihara, J. 2005. From Knowledge to implementation: The challenge of the African Network for Soil Biology and Fertility (AfNet).
- Bationo, A. 2005. Progress Report of TSBF Activities in West Africa.
- Bationo, A. 2005. Promoting use of Indigenous Phosphate Rock for Soil Fertility "Recapitalization" in the Sahel. Presentation made during the launch of CORAF Funded projects in West Africa.

- Bationo, A. 2005. The Collaboration between Jordforsk and the African Network for Soil Biology and Fertility (AfNet) of TSBF Institute of CIAT. Presentation made in Norway during a visit to enhance TSBF-JORDFORSK collaboration.
- Bationo, A., Kihara J., Kimetu, J. and Waswa, B. 2005. The role of the African Network for Soil Biology and Fertility (AfNet) in training and capacity development of young researchers in Africa. Presentation given in Rwanda in February 2005 during training needs assessment for Rwanda workshop.
- Chianu, J.N., Tsujii, H., Manyong, V.M. and Okoth, P.F. 2005. Crop-livestock interaction in the savannas of Nigeria: Nature and determinants of farmer decision to use manure for soil fertility maintenance' an invited paper presented at the 4th All Africa Conference on Animal Agriculture, September 20-24th, 2005, Arusha International Conference Centre.
- Delve, R.J., Ssebunya, B., Mulindwa, J., Byandala, S., Hauser, M. 2005. Strengthening competitiveness through research: How rural innovations support market-led organic agriculture in Uganda. Paper presented at the conference on 'A critical look at the role of research in achieving the Millennium Development Goals'. The Commission for Development Studies, Vienna, November 29th 2005.
- Kaaria, S. and Delve, R.J. 2005. Developing Innovative Partnerships for Effective Research for Development Initiatives: *A case study of Enabling Rural Innovation (ERI) in Africa*. Paper presented at the IFAD conference on 'What are the innovations needed for rural development'. Rome, Italy, November 15-17th 2005.
- Sanginga, N., Vanlauwe, B., and Bationo, A. 2005. Evaluation of long term agroforestry: Nitrogen and phosphorus use efficiency in the derived savanna in West Africa. Presentation given in Vienna, April 2005, during an Agro-forestry workshop.
- Sanginga, N. and Bationo A. 2005. TSBFI-CIAT: The New Challenge: Strategy Direction (presented at AfNet FPR-SU training workshop held in Nairobi, Kenya, 19-30th September 2005. Made for a second time during an IAEA workshop on Combating drought held in Nairobi, October 2005.
- Verma, R. 2005. Impact of Collective Action on Gender Relations , CAPRi Workshop, Gender and Collective Action, Chiang Mai, Thailand.
- Verma, R. 2005. What is Participatory and What is Not?, Power Point Presentation and Participatory Exercise, AFNET Training Workshop on Participatory Research and Scaling Up, Nairobi, Kenya.
- Verma, R. 2005. Gender Issues in Cross-Cultural Participatory Research, Power Point Presentation and Participatory Exercise, AFNET Training Workshop on Participatory Research and Scaling Up, Nairobi, Kenya.
- Verma, R. 2005. Interdisciplinary Respect, Power Point Presentation and Participatory Exercise, AFNET Training Workshop on Participatory Research and Scaling Up, Nairobi, Kenya.

TSBF Institute - Latin America

Refereed journal articles

Journal articles published in 2005

- Barrios, E., Cobo, J.G., Rao, I.M., Thomas, R.J., Amézquita, E. and Jiménez, J.J. 2005. Fallow management for soil fertility recovery in tropical Andean agroecosystems in Colombia. *Agriculture, Ecosystems and Environment* 110: 29-42.
- Chen, W.M., de Faria, S.M., Straliootto, R., Pitard, R.M., Simoes-Araujo, J.L., Chou, J.H., Chou, Y.J., Barrios, E., Prescott, A.R., Elliot, G.N., Sprent, J.I., Young, J.P.W., James, E.K. 2005. Proof that *Burkholderia* strains form effective symbioses with legumes: a study of novel Mimosa-nodulating strains from South America. *Applied and Environmental Microbiology* 71: 7461-7471.
- Rangel, A.F., Mobin, M., Rao, I.M. and Horst, W.J. 2005. Proton toxicity interferes with the screening of common bean (*Phaseolus vulgaris* L.) for aluminum resistance in nutrient solution. *J. Plant Nutr. Soil Sci.* 168: 607-616.

- Thierfelder, C., Amézquita E., Stahr, K. 2005. Effects of intensifying organic manuring and tillage practices on penetration resistance and infiltration rate. *Soil and Tillage Research* 82: 211-226.
- Tscherning, K., Barrios, E., Peters, M., Lascano, C. and Schultze-Kraft, R. 2005. Effects of post harvest treatment on aerobic decomposition and anaerobic in-vitro digestion of tropical legumes with contrasting quality. *Plant and Soil* 269: 159-170.
- Vanlauwe, B., Gachengo, C., Shepherd, K., Barrios, E., Cadisch, G., and Palm, C.A. 2005. Laboratory validation of a resource quality-based conceptual framework for organic matter management. *Soil Science Society of America Journal* 69: 1135-1145.
- Velásquez, E., Lavelle, P., Barrios, E., Joffre, R. and Reversat, F. 2005. Evaluating soil quality in tropical agroecosystems of Colombia using NIRS. *Soil Biology and Biochemistry* 37: 889-898.
- Wagatsuma, T., Khan, M.S.H., Rao, I.M., Wenzl, P., Tawarayama, K., Yamamoto, T., Kawamura, T., Hosogoe, K. and Ishikawa, S. 2005. Methylene blue stainability of root-tip protoplasts can serve as an indicator of aluminum tolerance in a wide range of plant species, cultivars and lines. *Soil Science and Plant Nutrition* 51: 991-998.

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- Begum, H. H., Osaki, M., Nanamori, M., Watanabe, T., Shinano, T. and Rao, I.M. 2006. Role of phosphoenolpyruvate carboxylase in the adaptation of a tropical forage grass, *Brachiaria* hybrid, to low phosphorus acid soils. *Journal of Plant Nutrition* 29: 35-57.
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ANNEX-5: LIST OF DONORS AND SPECIAL PROJECTS

ACIAR - Australia

- Extension to LWR2/1999/03, Integrated nutrient management in tropical cropping systems: improved capabilities in modeling and recommendations from ACIAR (awarded to TSBF-CIAT) (2003-2005).
- Integrated nutrient management in tropical cropping systems: improved capabilities in modeling and recommendations (2003-2005).

Austrian Government (BMF) - Austria

- Linking farmers to markets: Developing sustainable marketing systems to improve the competitiveness of small holder organic agriculture (2004-2006).

BMZ-GTZ - Germany

- Fighting drought and aluminum toxicity: Integrating functional genomics, phenotypic screening and participatory evaluation with farmers to develop stress resistant common bean and *Brachiaria* for the tropics (2005-2007).
- Bean genomics for improved drought tolerance in Central America (2003-2006).

Biocarbon Fund

- Rehabilitation of degraded lands through silvopastoral systems and reforestation of marginal lands in the Caribbean savannas of Colombia - Carbon trading (not research) project (2005-2007).

CIDA bilateral funds - Canada

- Using market-led approaches to drive investments in soil fertility management and improve production and incomes of rural communities in selected areas of the central watershed of Zimbabwe (2004-2005).
- Fuelling economic growth by increasing land productivity with grain legumes in Sub-Saharan Africa: Linking Technical options, technology transfer and market access to empower farmers (2003-2008).

CGIAR

- Payment for Environmental Services (PES) as a mechanism for promoting rural development in the upper watersheds of the tropics (CGIAR, WFCP, GTZ, CONDESAN and DIIS) (2006-2007).
- Achieving equitable and sustainable management of land and water in upper catchments: A proposal for linking regional soils consortia to Theme 2 of the CGIAR Challenge Program on Water and Food. SDC-Switzerland (2005-2007).

Challenge Program – Water and Food

- Enhancing rainwater and NUE in Volta (2005-2007).
- Quesungual Slash and Mulch Agroforestry Systems (QSMAS) (2004-2006).

Challenge Program – Generation

- Evaluation and development of transgenic drought-tolerant varieties. Commissioned research Project (2005-2006).

CRC - Colombia

- Ubicación y Medidas de Control de Procesos Erosivos de la Cuenca del Río Cauca (2005).

CTA

- Training workshop on FPR&SU (2005).

CVS - Colombia

- Environmental impact of reforestation (2005).

DGDC - Belgium

- Enhancing the resilience of agro-ecosystems in Central Africa: a strategy to revitalize agriculture through the integration of natural resource management coupled to resilient germplasm and marketing approaches (2005-2007).
- Building impact pathways for improving livelihoods in *Musa*-based systems in Central Africa (2005-2007).
- Legumes, markets, and nutrition (2005-2007).
- Bananas (with INIBAP) (2005-2007).

DFID - England

- Striga, stemborer, soil fertility management (2005).
- Linking demand for, and supply of, agricultural production and post-harvest information in Uganda. (200-2005).
- Integrated pest and soil management to combat *Striga*, stemborers and declining soil fertility in the Lake Victoria basin (via ICIPE) (2003-2006).

DGIS – The Netherlands

- Improving cassava drought tolerance through enhanced mycorrhizal symbiosis (Cassava Biotechnology Network-LAC Small Grants DGIS) (2005).

European Union

- FAO-CIAT project on seed production systems (2004-2006).

GEF - UNEP

- Conservation and sustainable management of below ground biodiversity, Phase I (via UNEP). (2002-2007).
- Desert Margins Programme (DMP) Phase I (2003-2008).
- PDF-B: Overcoming land degradation to mitigate deforestation in the humid tropics (2006).

IFAD

- Combating soil fertility decline to implement smallholder agricultural intensification in sub-Saharan Africa (2004-2005).

IDRC - Canada

- Strengthening Folk Ecology (2005-2007).
- Building teamwork and research capacity for sustainable agricultural development in the dry lands of Africa: The challenge of combining water and nutrients (2004-2006).
- Combining rainwater and nutrient management strategies to increase crop production and prevent soil degradation in the Desert Margins of West Africa (2004-2006).
- Strengthening Folk Ecology: Applying community-based learning and communication strategies to improve soil fertility and livelihoods in Western Kenya (2005-2008).

JIRCAS - Japan

- Nitrification Inhibition (2004-2006).

Kellogg Foundation

- Institutional Strengthening of CAIS - an alliance for local codevelopment (2005-2007).

National Science Foundation - USA

- Social dynamics of integrated production systems for food insecure households in marginal environments of sub-Saharan Africa. (2005-2008).
- The interaction between resource quality and aggregate turnover controls ecosystem nitrogen and carbon cycling. (2004-2006).

Norway Government

- Linking policy and natural resource management to combat food insecurity poverty and land degradation in the Ethiopian highlands (2004-2007).

OPEC (Fund for International Development)

- Increasing legume efficiency (2005).
- Increasing efficiency of legume cover crops' (LCCs) use in selected benchmark sites of Africa (2003-2005).

Rockefeller Foundation

- Banana (2005).
- Promiscuous soybean processing and utilization for improving the health and nutrition of rural households in HIV/AIDS affected areas of Kenya and Uganda (2005-2006).
- Soybean (2005-2006).
- Legume network for Uganda-prop devt. (2002-2005).
- ISFM in the tropics (2005-2007).
- Book Publishing (Yaoundé proceedings (2005).
- Valuing within-farm soil fertility gradients to enhance agricultural production and environmental service functions in smallholder farms in East Africa (2004-2006).
- Integrated Soil Productivity Initiative through Research and Education (INSPIRE) Phase Two: Scaling-up and out INSPIRE (awarded to TSBF-CIAT) (2003-2005).
- Publishing the proceedings of the African Network for Soil Biology and Fertility Network (AfNet) International Symposium held in Yaoundé, Cameroon May 17-21, 2004 (2004-2005).
- Exploring the multiple potentials of soybeans in enhancing rural livelihoods and small industry in East Africa (2004-2007).
- Exploration of integrated soil fertility management for banana production and marketing in Uganda and Kenya: Arbuscular Mycorrhizal Fungi help establishment and production of tissue culture banana (2005-2006).

SANREM - CRSP - USA

- Agro-pastoral transitions (2005).

SDC-ZIL - Switzerland

- Adaptation of *Brachiaria* grasses to low-P soils (2003-2006).

USAID

- Congo livelihood improvement and food security (2004-2006).
- Linkages Fund: Black carbon interactions with soil functions (2004-2005).
- Assessing the effect of Bt crops and insecticides on arbuscular mycorrhizal fungi and plant residue carbon and turnover (USAID, Soil Management CRSP) (2003-2008).

VLIR (Flemish Inter-University Council)

- Integrated soil fertility management strategies to enhance food security in the Central Highlands of Kenya (2003-2007).

WECARD

- Water harvesting (2005-2007).
- Fertilizer Micro dosing (2005-2007).
- Promoting Indigenous PR (2005-2007).