



Eliot Thomas Masters

Specialist in Product Development and Quality Assurance, Branding and Marketing

Associate Fellow, World Agroforestry Centre (ICRAF) under Science Domain 3 (Plant Biodiversity)

Registered Expert in Environmental Impact Assessment (Kenya NEMA)

www.eliotmasters.com – e.masters@cgiar.org

Key Qualifications

Eliot Masters is a specialist in **product development and quality assurance, branding and marketing** with over 25 years' experience in **design, implementation and oversight of integrated conservation and agricultural development projects** and applied research for product and market development.

With excellent communication skills in English, French and Luo, he has conceived, designed and implemented applied research programs in a series of targeted interventions based on **integrated production and value chains development of agricultural and natural products, post-harvest processing, product development, branding and marketing along natural product value chains, and sustainable agricultural intensification under integrated landscape-level production systems.**

Served as consultant technical specialist to the United Nations (FAO, WFP, UNEP and UNDP-GEF), **donors** (USAID, the CFC and the Rockefeller Foundation), **NGOs** (including IUCN, Oxfam GB, CARE, IRC, CHF and ACF), **private consulting firms** (Abt Associates) and **international bodies** including the **CGIAR** (ICRAF and ICRISAT) on assignments in 16 African countries, the Philippines, Vietnam and Myanmar.

Designed and implemented **applied phytochemical research on plant biodiversity** with the Kunming Institute of Botany (China Academy of Sciences), Nihon University (Japan) and the University of Vienna. Organized and implemented **10 regional, international and inter-governmental technical conferences**, has organized and led representation of natural products at **11 international trade fairs.**

Education

- Currently undertaking a postgraduate Diploma (level 8) in Sustainable Aquaculture at the Nelson Marlborough Institute of Technology (NMIT), with a focus on integrated multi-trophic mariculture
- MBA (Marketing), University of Liverpool (2010); Dissertation: '*Brand Aotearoa? Deep Origin Marketing of Functional Foods and Other Natural Products of New Zealand Origin*'. 98 pp.
- B.Sc. (International Agricultural Development), University of California, Davis (1994)

Languages: English (native), French (fluent), KiSwahili (functional), Luo – Lango / Acholi (functional)

Professional Experience: Independent Consultant

World Agroforestry Centre (ICRAF) Global Headquarters at Nairobi, Kenya: July to December 2014
Lead author, comprehensive literature review on the Shea butter Tree *Vitellaria paradoxa* across Africa;
Development of program design and elaboration of a full project proposal on integrated conservation of intra-species biodiversity, product development and sustainable agricultural intensification in the shea parkland of sub-Saharan Africa.

World Agroforestry Center (ICRAF) Myanmar June through August 2013

Designed integrated conservation and development project based on sequential monitoring of ecological integrity under conditions of agricultural intensification across a watershed in southern Rakhine State. Multi-trophic production systems based on the ‘ridge to reef’ integrated landscape management approach developed by ICRAF and World Fish in southern Philippines.

Abt Associates Inc, Bethesda MD USA: February 2011 to July 2014

Senior Associate, International Economic Growth Division

Specific Assignments Included the Following:

- **Technical Advisor on Value-Added Products, USAID West Africa Trade Hub Project**
Lead Author on value chain selection and value chain assessment for added-value products under the USAID West Africa Trade Hub Project, with a focus on shea products (shea kernel and shea butter), honey and beeswax, sesame and sustainable seafood. Attended Global Shea Alliance (GSA) US conference, May 2014 at New York City, and developed value chain studies at Accra.
- **Technical Director, Integrated Initiatives for Economic Growth in Mali (IICEM)**
Technical supervision and support to the flagship economic growth program of USAID/Mali, which spurs economic expansion and increased access to nutritious foods through resilient agricultural development and increased productivity in basic cereals and horticultural crops under the Feed the Future (FTF) initiative; focus on integrated multi-species aquaculture integrated with paddy rice production in partnership with Winrock International.
- **January 2013, Technical Support to the official launch of the West Africa Grain Network (WAGN) and USAID ATP/EATP Business Fair** held at Accra, 28 January – 01 February 2013.
- **October – December 2012, Lead Researcher trade data study mission to the Central Basin of West Africa:** 5-week mission to 40 key regional food markets and border crossing points to track, map and analyze commercial flows of cereals, pulses, livestock and other pulses of nutritional and economic significance along trade corridors linking Ghana, Côte d’Ivoire, Burkina Faso, Togo, Benin, Niger, Nigeria and neighboring ECOWAS countries under the USAID ATP and EATP projects.
- **May 2011 – September 2012, Short-Term Technical Advisor, USAID FARM Project (South Sudan):** Development of a methodology for small-scale land clearing activity which will embed responsible land clearing practices for long-term sustainable agriculture production in southern Sudan under the USAID Sudan Food, Agribusiness and Rural Markets (FARM) Program
- **April 2011 – April 2012, Technical Director, USAID Tanzania Market Based Solutions (MBS) Project:** Technical supervision and support to MBS, which addresses nutrition through improved processing and fortification of nutritious foods, targeting the most vulnerable.
- **May 2011 – December 2011, Short-Term Technical Advisor, Vietnam Avian and Pandemic Influenza Initiative (APII):** Socioeconomic analysis and business plan development for stakeholders of the poultry products value chains (duck and chicken) in Vietnam, including investment options for upgrading and up-scaling enterprises, under the USAID Avian and Pandemic Influenza Initiative (APII).

2007–2013 Independent Consultant

- *World Agroforestry Centre (ICRAF):* Program development, technical consultations in Myanmar.
- *BERCI International:* Select participants, convene and implement regional technical workshop at Rabat, Morocco on processing and trade in aromatic plants and essential oils, including gums and resins and floral extracts and distillates.
- *CHF - Partners in Rural Development:* Ghana Market Assessment: Pro-Poor Value Chain Analysis of indigenous tree products (shea butter) in northern Ghana.
- *International Relief and Development, Inc. (IRD):* Capture and program development on agriculture and rural livelihoods, to provide technical input in to proposals related to food security, agriculture growth, trade and development within the eastern Africa sub-region, with particular reference to Ethiopia.

- *World Agroforestry Centre (ICRAF)*: Regional Coordinator, NaturallyAfrican Platform; natural products program design and proposal preparation on natural products development for submission to USAID, the CFC and other donors (pan-Africa).
- *Fairtrade Labelling Organizations International (FLO)*: Lead Author and Applied Researcher on Smallholder Farmer Adaptation to Climate Change. Assignment included desk review, research design and implementation of a field study in Ghana and Burkina Faso (n = 699) and recommendations on revision of fair trade standards for shea products.
- *Kimetrica International for the Roundtable on Sustainable Biofuels (RSB)*: Lead Author, ‘Guidelines and Toolkit for Assessment and Mitigation of Food Security Impacts of Biofuels’ including monitoring and evaluation indicators of sustainability. Presentation at FAO-BEFSCI meeting, Rome, December 2009.
- *Action Contre Le Faim (ACF)*: Program Design and €3 m proposal development for the EC, on Food Security in Arid and Semi-Arid Lands (ASAL) of Kenya.
- *Kimetrica International for UNAIDS and the Bill and Melinda Gates Foundation*: Uganda team leader on research for scaling up of food security and nutritional support services to TB and HIV/AIDS programs through local purchase of agricultural commodities under WFP Purchase for Progress (P4P).
- *World Agroforestry Centre (ICRAF)*: Designed and implemented program of regional networking to establish the NaturallyAfrican platform, ‘to develop the science, cultivation and trade of tree and other natural products’ for eastern, southern, western and central Africa. *World Agroforestry Centre (ICRAF)*: Team leader on closeout and ex-post technical evaluation and assessment of outputs and sustainability of interventions implemented under project CFC/IGOOF/23, a regional project focused on natural products development.
- *Oxfam - GB*: Developed a program design and full project proposal to the European Commission for a €1.3 m 5-year project on SME and micro-enterprise development and marketing for primary producers in the 3 regions of northern Ghana.
- *Tree Talk (Straight Talk Foundation)*: Led an ethnobotanical study of multiple-use tree species prioritized by local communities for reforestation, resource management and conservation in buffer zones, and through sustainable use in heavily encroached forest reserves of northern Uganda bordering southern Sudan.
- *COVOL and UN-FAO*: Supervised and coordinated multiplication, first stem harvest, collection and distribution for scaling up production of CMV-resistant cassava and short-maturity groundnut cultivars in support of resettlement in northern Uganda.
- *World Agroforestry Centre (ICRAF)*: Authored a series of comprehensive sub-sectoral review papers on product diversification and development, product quality control, compliance and certification of horticultural and natural product value chains of sub-Saharan Africa.
- *World Food Programme – Uganda*: Food Security and Livelihoods Analysis in support of a joint FAO/WFP assessment, in collaboration USAID-FEWS and the Government of Uganda, assessing the needs of 50,000 households displaced by flooding in northern Uganda.
- *Kimetrica International Limited*: Lead Technical Advisor and lead researcher on plant biodiversity of the Indigenous Vegetation Project of UNEP and UNDP-GEF, on establishment of an Africa regional network on indigenous vegetation in the ASAL of sub-Saharan Africa, with particular reference to Kenya, Mali, and Botswana.
- *ICRAF and Common Fund for Commodities (CFC)*: Value Chain analysis, program design and proposal development on processing and marketing of Gum Arabic (*Acacia* species), donor networking and implementation arrangements for a regional project across the African production zone, and in Kenya, Sudan, Chad and Senegal in particular.
- *World Agroforestry Centre (ICRAF)*: Provided technical assessment of agricultural and natural products development and marketing in Malawi, with reference to value addition by the primary producer.

2004-2007 **Chief of Party and Regional Project Coordinator, as Consultant to the World**

Agroforestry Centre (ICRAF) Regional Project Coordinator of a regional project focused on natural products value chains in Senegal, Mali, Burkina Faso, Niger, Nigeria & Ghana. Supervised and coordinated technical elaboration of standard operating procedures (SOPs) and regional product quality standards in partnership with NARS and the inter-governmental bodies ECOWAS, UEMOA, CEAC, ARSO and COMESA.

2001-2003 **Independent Consultant:** Clients and projects included the following:

- *Intl. Crops Research Inst. for the Semi-Arid Tropics (ICRISAT)*: Sub-sectoral market analyst and lead author of a background study on the global groundnut value chain, in support of a CFC-funded regional project on “Development of sustainable groundnut seed systems in West Africa”.
- *Common Fund for Commodities (CFC)*: Commodity value chains analysis, program design and proposal development, donor networking and implementation arrangements for a regional project on product quality and value chain development of natural products (see below).
- *UN Food and Agriculture Organization (FAO)*: Commodity analyst on shea (*karité*) processing and trade. Organized and coordinated participation at an international workshop of stakeholders from the 16 shea-producing countries of sub-Saharan Africa at Dakar, 4-7 March 2002. Compiled and edited proceedings for bilingual publication (French and English); convened focus group following the event, and developed a comprehensive project profile for submission to the CFC.
- (*Multiple Agencies*): Technical Advisor to Christian Aid, Concern, Save the Children – Sweden (Radda Barnen), Norwegian Peoples Aid (NPA), Catholic Relief Services, International Rescue Committee and MEDIC on natural products development by community-based producer associations in the Wulu, Mapel, Kajo Keji, Atrieu, Akot and Yirol areas of southern Sudan.

1998-2000 **Chief of Party, Cooperative Office for Voluntary Organizations (COVOL)**

Chief of Party and Project Coordinator, expansion phase of the Shea Project for Local Conservation and Development (The Shea Project) in northern Uganda, implemented in partnership with Makerere University and 15 other international partner institutions. Responsible for program concept and project design, proposal development, donor agreement negotiations, project implementation and management, monitoring and evaluation, reporting to multiple donors.

1998 **Consultant to United States Agency for International Development (USAID)**

Technical Advisor on program design for reconstruction of war-affected areas in northern Uganda, including labor-based rehabilitation of feeder roads and bridges, reconstruction of schools, and valley dams for livestock development.

1994-1997 **Chief of Party, Cooperative Office for Voluntary Organizations (COVOL)**

- Project Coordinator, The Northern Uganda Food Security (DERO) Project on production, post-harvest processing and storage and community banking of local food crops. Responsible for program concept and project design, proposal development, donor agreement negotiations (with USAID), project design, project implementation and management, monitoring and evaluation, donor reporting.
- Project Coordinator, pilot phase of the Shea Project for Local Conservation and Development (The Shea Project). Responsible for program concept and project design, proposal development, donor agreement negotiations, project implementation and management, monitoring and evaluation, and donor reporting.

1992-1994 **Independent Consultant.** Clients and projects included the following:

- *International Union for the Conservation of Nature (IUCN)*: Assessment training program on rapid and participatory rural appraisal techniques for collection of baseline and diagnostic data, in support of the Kibaale and Semliki Conservation and Development Project (KSCDP) in conservation buffer zones adjacent to Kibaale and Semliki National Parks of Uganda.
- *USAID / Government of Uganda*: Technical Advisor on Decentralisation of Environmental Services and assessment training of Kasese District Administration staff in support of the 5-year USAID-funded National Environment Action Plan (NEAP).

- *Rockefeller Foundation*: Support to project evaluation assessing the results of the Foundation's assistance to the Uganda National Banana Research Programme at Kawanda Agricultural Research Institute (KARI), and in Bushenyi and Luwero Districts of Uganda.

1988-1992 **Founder and Coordinator of the Cooperative Office for Voluntary Organisations** (COVOL), a US 501(c)(3) non-profit organization registered as an NGO in Uganda, focused on community-based producer groups with broad membership at the landscape level.

Memberships

New Zealand Plant Conservation Network (NZPCN)

Royal Forest and Bird Protection Society of New Zealand (Forest & Bird)

Recent Publications

1. Dawson IK, Leakey R, Clement CR, Weber JC, Cornelius JP, Roshetko JM, Vinceti B, Kalinganire A, Tchoundjeu Z, Masters E, Jamnadass R (2014). 'The management of tree genetic resources and the livelihoods of rural communities in the tropics: non-timber forest products, smallholder agroforestry practices and tree commodity crops'. In: *Forest Ecology and Management* 333: 9-21.
2. Zhang, J.; M. Kurita, T. Shinozaki, M. Ukiya, K. Yasukawa, N. Shimizu, H. Tokuda, E. T. Masters, M. Akihisa and T. Akihisa (2014). 'Triterpene Glycosides and Other Polar Constituents of Shea (*Vitellaria paradoxa*) Kernels and Their Bioactivities' In: *Phytochemistry* 108: 157–170.
3. Masters, E.T. (2014). 'Value Chain Assessment Report: Shea'. USAID West Africa Trade Hub and African Partners Network: Accra. Abt Associates and J.E. Austin for USAID West Africa. 37 pp.
4. Masters, E.T. (2014a). 'Value Chain Assessment Report: Honey'. USAID West Africa Trade Hub and African Partners Network: Accra. Abt Associates and J.E. Austin for USAID West Africa. 36 pp.
5. Masters, E.T. (2014b). 'Value Chain Assessment Report: Sesame'. USAID West Africa Trade Hub and African Partners Network: Accra. Abt Associates and J.E. Austin for USAID West Africa. 34 pp.
6. Masters, E.T. (2014c). 'Value Chain Selection Report: Sustainable Seafood'. USAID West Africa Trade Hub and African Partners Network: Accra. Abt Associates and J.E. Austin for USAID West Africa. 32 pp.
7. Masters, E.T. (2014d). Post-Harvest Loss Data & Measurement Landscape Analysis – Country Annex for Ghana. Prepared for the Bill and Melinda Gates Foundation by Abt Associates. 38 pp.
8. Hynes, N.; B. Caemmerer, E. Martin and E. T. Masters (2014). 'Use, Abuse or Contribute: A Framework for Classifying How Companies Engage with Country Image'. *International Marketing Review* 31(1): 79-97.
9. Jamnadass, R.; F. Place, E. Torquebiau, E. Malézieux, M. Iiyama, G.W. Sileshi, K. Kehlenbeck, E.T. Masters, S. McMullin and I.K. Dawson (2013). 'Agroforestry for food and nutritional security'. *Unasylva* 241(64): 23-29.
10. Dawson, I.; F. Place, E. Torquebiau, E. Malézieux, M. Iiyama, G. Sileshi, K. Kehlenbeck, E.T. Masters, S. McMullin and R. Jamnadass (2013). 'Agroforestry, food and nutritional security'. Background paper for the International Conference on Forests for Food Security and Nutrition, 13–15 May, 2013. FAO: Rome.
11. Masters, Eliot (2012). 'Trade Data Study - Central Basin of West Africa: Rapid Market-Based Situation Analysis Component, Ghana, Burkina Faso, Togo and Benin - with reference to Ivory Coast, Mali, Niger and Nigeria'. USAID Agribusiness and Trade Promotion Project/Expanded Agribusiness and Trade Promotion Project: Accra.
12. Place, Frank; Oluyede C. Ajayi and Eliot Masters (2011). 'Tree-based and other land management technologies for landscape restoration and livelihood in Africa'. Background Paper for the World Bank PROFOR Investment Forum on Mobilizing Investment in Trees and Landscape Restoration. World Agroforestry Centre: Nairobi. 59 pp.
13. Hynes, N.; B. Caemmerer, and E. Masters (2011) 'The Use of Sustainable Country Images in Organizational Branding', Academy of Marketing Science Conference (AMS), 24 – 27 May, Coral Gables.
14. Akihisa, T.; N. Kojima, N. Katoh, T. Kikuchi, M. Fukatsu, N. Shimizu and E.T. Masters (2011). 'Triacylglycerol and triterpene ester composition of shea nuts from seven African countries'. *J. Oleo Sci.* 60: 385–391.

15. Akihisa, T.; N. Kojima, N. Katoh, Y. Ichimura, H. Suzuki, M. Fukatsu, S. Maranz and E.T. Masters (2010). 'Triterpene Alcohol and Fatty Acid Compositions of the Kernel Fats of Shea Nuts from Seven African Countries'. In: *Journal of Oleo Science* 59(7):351-60.
16. Akihisa, T.; N. Kojima, T. Kikuchi, K. Yasukawa, H. Tokuda, E.T. Masters, S. Maranz, A. Manosroi, and J. Manosroi (2010). 'Anti-Inflammatory and Chemopreventive Effects of Triterpene Cinnamates and Acetates from Shea Fat'. In: *Journal of Oleo Science* 59(6):273-80.
17. Bail, S., S. Krist, E.T. Masters, H. Unterweger and G. Buchbauer (2009). 'Volatile compounds of shea butter samples made under different production conditions in western, central and eastern Africa'. Department of Clinical Pharmacy and Diagnostics, University of Vienna. In: *Journal of Food Composition and Analysis* 22: 7-8, 738-744
18. Masters, Eliot (2009). 'Shea Producer Response to Climate Change in Ghana and Burkina Faso: Experience and Adaptive Measures'. Results of a Field Survey, June to September 2009. Fairtrade Foundation: London. 47 pp.
19. Masters, Eliot (2009a). 'Looking Ahead in West Africa: Climate Change, Shea Production and Adaptive Strategies'. Fairtrade Foundation: London. 90 pp.
20. Masters, E.T., R. Rose, B. Watkins (2009). 'Guidelines and Toolkit for Assessment and Mitigation of Food Security Impacts of Biofuels'. To Kimetrica International for the Roundtable on Sustainable Biofuels (RSB): Lausanne. 63 pp.
21. Masters, Eliot (2007). 'A Tree Ethnobotany of the Madi sub-Region, Northern Uganda'. Tree Talk and the Straight Talk Foundation: Kampala. 32 pp.
22. Masters, Eliot (Ed.), A. Niang, M. Ramouch and P. Thoenes (2006). *Consultative Regional Workshop on Shea Product Quality and Product Certification System Design, Bamako, Mali 6 - 8 October 2004: Proceedings*. CFC Technical Paper 46, Common Fund for Commodities (CFC). World Agroforestry Centre (ICRAF): Nairobi. 130 pp.
23. Ntare, B.R.; F. Waliyar, M. Ramouch, E.T. Masters and J. Ndjeunga (2005). *Study of Market Prospects for Groundnuts in West Africa*. CFC Technical Paper 39, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and the Common Fund for Commodities: Amsterdam. 117 pp.
24. Masters, E.T. (Ed.) (2005). *International Workshop on Processing and Marketing of Shea Products in Africa, Dakar, Senegal 4-6 March 2002: Proceedings*. CFC Technical Paper No. 21, United Nations Food and Agriculture Organisation (FAO) and the Common Fund for Commodities. United Nations Food and Agriculture Organisation (FAO): Rome. 217 pp.
25. Masters, E.T.; J.A. Yidana and P.N.C. Lovett (2004). 'Reinforcing Sound Management through Trade: Shea Products in Africa'. In "Trade and Sustainable Forest Management," In: *Unasylva* 219, Vol. 55 (2004/4). United Nations Food and Agriculture Organisation (FAO): Rome.

Upcoming Publications

1. Masters, E.; R. Coe, H. Liang, T. Akihisa and Y. Yongping (publication forthcoming). 'Defining Provenances or Chemical Profiles by Geographic Origin for the Shea Butter Tree (*Vitellaria paradoxa*) across Africa'.
2. Masters, E.T. (2014) *Vitellaria paradoxa*: A comprehensive literature review. World Agroforestry Centre: Nairobi.
3. Zhang, J.; M. Kurita, K. Ebina, M. Ukiya, H. Tokuda, K. Yasukawa, E.T. Masters, N. Shimizu, M. Akihisa and T. Akihisa (in press). 'Melanogenesis-Inhibitory Activity and Cancer Chemopreventive Effect of Glucosylcurcubic Acid from Shea (*Vitellaria paradoxa*) Kernels'. Accepted by *Chemistry & Biodiversity*, December 2014.