

## **CARLOS A. DA SILVA**

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### **SUMMARY OF QUALIFICATIONS**

- More than 30 years of experience in international agribusiness development, mainly in Southeast Asia, Africa and Latin America
- Areas of expertise: agribusiness development, farmer-market linkages, contract farming, agrifood value chain analysis, agroindustrial development policies and strategies, agroindustrial investment project formulation and evaluation
- Strong skills in research and capacity building activities
- Solid interpersonal skills
- Strength in building, mentoring and leading results-oriented multidisciplinary teams
- Excellent written and oral communication skills.

### **EDUCATION**

- Ph.D. Agricultural Economics, Michigan State University, East Lansing, Michigan, USA, 1981
- M.Sc. Agricultural Economics, Michigan State University, East Lansing, Michigan, USA, 1979
- B.Sc. Economics, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, 1976

**Countries of principal work experience:** Brazil, Myanmar, Cabo Verde, Angola, Mozambique, Botswana, Indonesia, Laos, Philippines, Afghanistan, Egypt, Peru and Samoa

### **PROFESSIONAL EXPERIENCE**

#### **FEDERAL UNIVERSITY OF VIÇOSA (UFV), VIÇOSA, BRAZIL, January 2017 – Present**

UFV's Voluntary Professorship Program. Voluntary Professor, following retirement in January 2017; area of Agroindustrial Economics and Management; Department of Food Technology.

#### **INDEPENDENT CONSULTANT**

##### **Food and Agriculture Organization of the United Nations (FAO)**

Provision of expert support services in the preparation of an assessment of the policy and legal framework for contract farming in Laos. Ongoing since July 2018.

##### **The World Bank, Agricultural and Food Global Practice**

Guidance to consultants on the development of a series of studies on the potential for agroindustrial development in Burkina Faso, as well as technical review of these reports and collaboration in the preparation of the final synthesis document *"Transformation of Agriculture in Burkina Faso: Pathways*

*to Increased Value Addition through Agroprocessing*". The studies and their synthesis comprise a comprehensive analysis of the country's agribusiness enabling environment, the selection of chains with higher potential for value addition through agroprocessing, and the proposal of policies and strategies to foster investments in competitive and sustainable agroindustrial enterprises in the selected chains. March 2017 – June 2018.

### **Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA)**

Technical guidance and capacity building on rapid appraisals of agrifood value chains developed in Cambodia, Laos, the Philippines and Myanmar, as part of a project funded by the International Fund for Agricultural Development (IFAD) on "Agricultural Transformation and Market Integration in the ASEAN Region: Responding to Food Security and Inclusiveness Concerns". Training activities targeted government officials, researchers and academics who were in charge of developing value chain studies in their respective countries. September – December 2017.

### **The World Bank, Global Agriculture and Food Security Program.**

Member of the Technical Advisory Group of the Global Agriculture and Food Security Program (GAFSP). Participation in the evaluation of funding requests under the fourth call for proposals, launched in 2016. A total of US\$ 160 million was allocated to selected projects in seven countries, to help increase food security, raise rural incomes and reduce poverty ([www.gafsp.org](http://www.gafsp.org)). February – March 2017.

### **FEDERAL UNIVERSITY OF VIÇOSA (UFV), VIÇOSA, BRAZIL; December 2015 - January 2017**

#### **Professor of Agroindustrial Economics and Management, Department of Food Technology)**

#### **Disciplines taught**

- Contract Farming for Agrifood Supply Chain Development
- Productive Processes in Agroindustries

#### **Consultancies (implemented through contracts with UFV's Foundation)**

- FAO Representation, Tbilisi, Georgia; Provision of expert support services to propose policy options for a contract farming promotion program for the Ministry of Agriculture of Georgia. Review of ongoing contract farming operations, analysis of opportunities and challenges for contract farming development and conduction of a capacity building seminar targeting government officials, agribusiness managers and academic professionals (December 2016 – February 2017).
- South-South Cooperation and Resource Mobilization Division, FAO – Rome; Technical assistance and support for South-South Cooperation (SSC) exchange between the People's Democratic Republic of Lao and Brazil on contract farming practice and policies. Coordinated a study tour of Brazilian contract farming operations for Laotian government officials and held a capacity

building workshop on contract farming planning and implementation in Vientiane (December 2016 – May 2017).

- Agricultural Development Economics Division, FAO, Rome; expert support in the implementation of a grant project from IFAD to FAO with the goal to disseminate the “UNIDROIT/FAO/IFAD Legal Guide on Contract Farming”. Activities encompassed the preparation of training materials, the delivery of capacity development workshops in Vietnam, Rwanda, Guatemala, Thailand and Panama, and the provision of technical support in the development of special studies on contract farming legislation (July 2016 – October 2017).
- Sub-Regional Office for the Pacific Islands, FAO, Apia, Samoa. Technical advice in the promotion of contract farming operations. Participation in capacity building on contract design and analysis in Samoa and Fiji and direct support provision to agro-processors and farmer groups on in these countries in planning and implementing contract farming operations. (April – November 2016)

## **FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, ROME, ITALY, 2004 - 2015**

### **Senior Agribusiness Economist, Rural Infrastructure and Agro-Industries Division (AGS)**

Senior (P5) member of the Agribusiness and Finance Technical Group of AGS, with responsibilities in the development of both normative and field project activities in the general area of agro-industries and agribusiness development, with roles as well in the Division’s management. Specific activities, functions and responsibilities included:

- Member of the AGS Management Team, with roles that included participation in work program, human resource and financial planning and oversight, liaison with external partners and representation of the Division in FAO Regional Conferences, external instances and internal committees, among other responsibilities
- Member of the corporate wide FAO core management team with responsibilities in planning and implementing one of the Organization’s five Strategic Programs (SP 4), focusing on “Enabling more efficient and inclusive food and agricultural systems at the local, national and international levels”. Served as one of the three deputy coordinators of SP 4, with roles on program and financial planning, monitoring and evaluation and leadership of a work program area focusing on the formulation and implementation of policies and strategies that enhance inclusiveness and efficiency in agrifood chains. With a budget of US\$ 84 million in the 2014-2015 biennium, including regular program and voluntary contributions, SP 4 encompassed 470 activities in 93 countries, involving some 500 FAO staff. Also led the technical work of one of SP 4 outputs (“Public sector institutions are supported to formulate and implement policies and strategies, and to provide public goods that enhance inclusiveness and efficiency in agrifood chains”)
- Provision of technical support to a World Bank funded assistance to the Indonesian Ministry of Trade focusing on the improvement of sustainability and competitiveness of the beverage crops sector (cocoa, coffee and tea value chains). Responsibilities included capacity building on rapid appraisals of agrifood chains and supervision of the work of consultants developing analyses of the Indonesian beverage crop chains.
- Provision of technical support to a World Bank funded analytical and advisory assistance program on agribusiness development in the Philippines, with responsibilities in guiding the development of

rapid appraisals of the yellow corn and banana chains in Northern Mindanao and also on capacity building on rapid appraisals of agrifood chains.

- Backstopping of World Bank funded rural development projects in the states of Santa Catarina (SC) and Rio de Janeiro (RJ), Brazil, focusing on value chain development issues (SC and RJ) and business plan appraisals for the concession of matching grants for small scale agroindustrial enterprises (SC).

- Formulation of the FAO implementation plans for the “Myanmar Oil Crops Development Project”. This US\$12.3 million, 6 year project was financed through a loan of the OPEC Fund for International Development to the Government of the Union of Myanmar. It aimed to promote improvements in oil crop production and processing, including investments in new solvent extraction plants to be privatized, plus institutional strengthening in policy formulation. Lead technical officer responsible for the implementation of the project (2006-2013).

- Co-formulation and member of the implementation team of a technical cooperation project to support the East African Community in the development of the E3ADP Program (East African Agribusiness and Agro-industries Development Program). The program aims to promote investments in agribusiness and agro-industries in the five member countries of the EAC.

- Formulation and participation, as “Lead Technical Officer” in the implementation of the project “Rehabilitation of the Sugar Industry in Baghlan: Technical and Managerial Support for Small Family Farmer Participation in the Sugar Beet Supply Chain”, financed by the German Ministry of Agriculture and Consumer Affairs (US\$1.3 million). The project consisted of a public-private partnership between German and local investors and the Afghan government, whereby the country’s only sugar processing plant was rehabilitated.

- Formulation, in cooperation with AGS officers, of the project “Small Farmer Livelihoods and Income Enhancement in Baghlan Province - Afghanistan”, financed by the German Ministry of Agriculture and Consumer Affairs (US\$1.3 million).

- Co-formulation of the “Agro-Processing and Agribusiness Investment Promotion Project for Pakistan”, with a total budget of US\$1.4 million. The proposed project aimed to stimulate and facilitate investments in agro-processing and agribusiness enterprise development through strategy design, institutional strengthening and support to direct promotion activities.

- Leading FAO’s work in the general area of contract farming. Activities included: conceptualization and coordination of the development and management of the “Contract Farming Resource Centre” ([www.fao.org/ag/ags/contract-farming](http://www.fao.org/ag/ags/contract-farming)) a web based knowledge center that became the major international reference in this area; design and delivery of a training program on planning and implementing contract farming operations, with offerings in Thailand (3), Vietnam (2), El Salvador, Tanzania, Cape Verde (2), Fiji, Barbados, Samoa (2) and Portugal; participation as trainer in this area in collaboration with FAO partner institutions in Malaysia, Iran, Indonesia, Thailand and Sri Lanka; leadership of the FAO team that collaborated with the International Institute for the Unification of Private Law (UNIDROIT) in the development of a “Legal Guide on Contract Farming”, launched in June 2015; development of FAO’s “Guiding Principles for Responsible Contract Farming Operations”; support to the World Bank’s “Enabling the Business of Agriculture” project, on contract farming issues

- Provision of Technical Assistance to the Ministry of Education of Cape Verde in the implementation of the FAO project “Soutien à la Sécurité Alimentaire et à la Nutrition Scolaire”. The assistance focused on the proposal of a strategy to include smallholders as suppliers of fresh fruits and vegetables to the country’s school lunch program.

- Provision of technical assistance to the Ministry of Industry and Trade of Mozambique, with focus on capacity building and institutional strengthening towards the improvement of an agricultural marketing and trade information system
- Provision of Technical Assistance to the Ministry of Agriculture of Botswana towards the development of the “Botswana Agriculture Value Chain Project”. The project was initiated with the development of a comprehensive assessment of the competitiveness of the country’s beef chain, which was completed in 2012.
- Co-formulation of the Italian funded “Proyecto de fortalecimiento de agrocadenas seleccionadas con un enfoque empresarial en El Salvador, Guatemala, Honduras y Nicaragua”. This US\$5.9 million regional project sought to help improve food security in four Central American countries through improved marketing of agricultural products, as well as the promotion of efficiency and equity in selected agrifood chains.
- Provision of Technical Assistance to the Ministry of Agriculture of Peru towards the development of the country’s agro-industrial development strategy
- Member of the AGS team responsible for developing the “African Agro-Industries and Agribusiness Development Initiative” (3ADI), a program framework endorsed at the “High Level Conference on Agribusiness and Agro-Industries Development”, held in March 2010 in Abuja, Nigeria. This activity was executed in partnership with UNIDO, the African Union, IFAD, the African Development Bank, the UN Economic Commission for Africa and the Government of Nigeria.
- Co-leader of the task-force responsible for the technical program of the “Global Agro-Industries Forum”, a landmark international conference organized by FAO in cooperation with UNIDO and IFAD, which took place in New Delhi in April 2008 ([www.gaif08.org](http://www.gaif08.org)). The Forum had among its objectives the development of a shared vision on the factors critical to the development of competitive agro-industries and the promotion of the engagement of multilateral organizations and financial institutions in launching initiatives at national and regional levels to foster agro-industrial development.
- Responsibility for the socio-economic and policy aspects of a Technical Cooperation Program implemented by FAO in Egypt, on “Rice Straw Management and Conservation of Environment”. Activities performed included the provision of technical guidance to the local consultant responsible for feasibility appraisals of agro-industrial uses of rice straw.
- Coordination of a series of cross-country appraisals on “Enabling Environments for Agro-industry and Agribusiness Development”. Regional appraisals of the policies, institutions and support services that define the business climate for agrifood related investments were conducted in 2006 in Latin America and Eastern Europe and in Asia and Africa in 2007.
- Other activities, including: chairman of the AGS publications committee; review and analysis of several AGS publications, project proposals, project concepts; member of a number of project development / implementation task forces; member of an interdepartmental work group on capacity building; AGS representative in the extended CAADP task team; AGS representative in FAO’s Private Sector relations advisory group; supervision of several consultants, field project staff, volunteers, interns and young professionals; participation in various staff selections in AGS and other FAO divisions; member of FAO’s Professional Staff Selection Committee (PSSC) representing the Agricultural and Consumer Protection Department.

## **FEDERAL UNIVERSITY OF VIÇOSA (UFV), VIÇOSA, BRAZIL (1981 - 2004)**

Successively Instructor, Associate Professor and Professor, with activities in the areas of Agroindustrial Development and Food and Agribusiness Management. Joint appointment at the Departments of Food Technology and Agricultural Economics. Dean of Academic Research from 1993 to 1996. Disciplines taught included Agroindustrial Project Formulation and Evaluation, Research Methodology, Dairy Plant Management and Agricultural Marketing

### **Selected consultancies while at UFV:**

- Agribusiness Department of the Brazilian Small Business Promotion Agency (SEBRAE). Design and implementation of the “Agroindustrial Productive Chains Program”. The program had as its major objective the improvement of efficiency and competitiveness of agrifood chains nationwide. It was implemented in 16 of Brazil’s 26 states, covering 22 different chains. Beyond designing the program, specific responsibilities included training about 300 staff and consultants, as well as the supervision of sector studies in at least 6 states and the provision of technical advice on methodological and policy design aspects of the overall program. Led several project teams and support staff in the implementation of these activities.
- Food and Agriculture Organization of the United Nations (FAO). Consultant responsible for the coordination of a research team that defined a set of technical coefficients for utilization in agroindustrial project preparation. Technical coefficients on raw materials, labor, utilities and other input uses were computed for 11 different types of small scale agro-processing enterprises.
- SEBRAE. Development of the agency’s Strategic Program for the Agribusiness Sector
- FAO. Preparation of a comprehensive analysis of agricultural marketing and agro-processing constraints and opportunities in Angola, as part of a post-conflict agricultural sector review of the country
- FAO. Evaluation of a training manual on agrifood systems assessment methodologies
- Market Solutions Inc., USA. Development of a study about market prospects for American dairy exports to Brazil. This study was commissioned by the U.S. Dairy Export Council as a subsidy to the mid to long-term planning of the activities of their Brazilian office
- FAO. Coordinator of the development of the “Agriventure” Decision Support System, a tool designed to assist in the preparation and evaluation of agroindustrial projects, including risk analysis
- SEBRAE Agency at Minas Gerais (MG) State. Coordinator of a sector study focusing the analysis of efficiency and competitiveness of the fruit production-distribution system at the state level. This study has been used as a basis for the preparation of a statewide fruit system improvement program.
- SEBRAE Agency at Minas Gerais (MG) State. Coordinator of a study about the efficiency and competitiveness of MG’s milk distribution system. This study has been integrated into a wider research and policy effort to enhance the performance of Minas Gerais’ dairy industry
- Brazilian National Confederation of Industries (CNI), National Confederation of Agriculture (CNA) and SEBRAE; Coordinator of the “Study of the Efficiency and Competitiveness of the Beef Production Chain in Brazil”. This study analyzed the Brazilian beef sector and proposed several public policies and business strategies which could contribute towards chain performance

improvement. Its recommendations led to policy and organizational changes that were instrumental in the achievement of Brazil's significant gains in market shares in the international beef market in recent years.

- Brazilian Ministry of Agriculture and Ministry of Rural Development. Coordinator of the project "Agroindustrial Profiles and Interactive Software Systems for their Financial Evaluation". The objective was the provision of software tools to disseminate information on technological, market and financial aspects of agroindustrial investment projects, including risk analysis. Fifteen profiles of different agro-processing enterprises were developed and are distributed by the Ministry of Rural Development in a nationwide effort to promote investments in small scale agro-industries.
- Brazilian Ministry of Agriculture. Coordinator of a feasibility study for the implementation of bulk milk collection systems in 14 dairy cooperatives. This study investigated the technical and economic aspects of bulk milk collection, including financial and risk analysis of investments in on-farm cooling tanks. It provided guidelines for similar implementations of bulk milk collection systems throughout Brazil
- Brazilian Ministry of Environment and Water Resources. Coordinator of a study of critical success factors for the sustainable development of three irrigation based agroindustrial growth poles in the Brazilian Northeast (Areas of Açú-Mossoró, Jaguaribe-Apodi and Northern Minas Gerais state)
- Brazilian Agency for the Development of the Northeast (SUDENE). Member of a team of researchers responsible for the evaluation of critical success factors for the development of the Petrolina Agroindustrial Cluster, in the Brazilian Northeast.
- Brazilian Ministry of Agriculture. Coordinator of an Agroindustrial Promotion Program, based on the organization and dissemination of technical and economic information on several agroindustrial processing technologies. Ten profiles of agroindustrial projects were developed in the program and were distributed to private investors and agricultural cooperatives in Brazil.

## **LANGUAGE PROFICIENCY**

- Portuguese (native speaker), fluent in English and Spanish, working knowledge of French and Italian, basic knowledge of German

## **CITIZENSHIP**

- Brazilian. Born in Nova Friburgo, Brazil, on April 3, 1954

## **SELECTED PUBLICATIONS (full list available upon request)**

- FERNANDES, A. R. and SILVA C.A.B.; Ten years later: a comparison of results of simulation scenarios under a systems dynamics approach and the actual economic performance of small-scale agroindustries supported by Brazilian Agroindustrial Development Programs. *Journal on Food Systems Dynamics* 8 (2) 2017, 106-129.

- PEREZ, R., SILVA Jr. A., PASSOS, M. and SILVA, C.A.B (Eds). Small-scale Biodiesel Production as an Alternative for Agro-industrial Diversification: The Brazilian Experience, FAO, 2016
- SILVA, C.A.B. and Rankin, M. (Eds). Contract Farming for Inclusive Market Access. FAO, 2014
- SILVA, C.A.B. and Rankin, M. Contract farming for inclusive market access: Synthesis and findings from selected international experiences. In: SILVA, C.A.B. and Rankin, M. (Eds) Contract Farming for Inclusive Market Access. FAO, 2014
- Christy, R.D., SILVA, C.A.B Mhlanga, N., Tihanyi, K. and Mabaya, E., (Eds.) Innovative Institutions, Public Policies, and Private Strategies for Agro-Enterprise Development, World Scientific Publishing, Singapore, 2014
- Konig, G., SILVA, C.A.B. and Mhlanga, N. Enabling Environments for Agribusiness and Agro-industries Development: Regional and Country Perspectives. Agribusiness and Food Industries Series, 1, FAO, 2012
- Pultrone, C; Silva C.A.B and Shepherd, A. Guiding Principles for Responsible Contract Farming Operations. FAO, 2013
- SILVA, C.A.B., and Mhlanga, Nomathemba (Eds); Innovative Policies and Institutions in Support of Agro-industries Development, FAO, Rome, 2011
- SILVA, C.A.B., Baker, D.; Shepherd, A.; Jenane, C. and Miranda da Cruz, S. (Editors); Agro-Industries for Development; CABI International, London, 2009
- SIQUEIRA, B.; SILVA, C.A.B. and AGUIAR, D.; The Viability of Introducing Milk Futures Contracts in Brazil: A Multiple Criteria Decision Analysis; Agribusiness, Vol. 24, Issue No. 4, Autumn 2008
- BAKER, D, and SILVA, C.A.B.; Contracting Issues at the Various Levels of the Value Chain. In: Governance, Coordination and Distribution along Commodity Value Chains. FAO Commodities and Trade Proceedings 2, p. 69 – 82, Rome, 2007.
- SILVA, C.A.B. and SOUZA FILHO, H.; Guidelines for Rapid Appraisals of Agrifood Chain Performance in Developing Countries. Agricultural Management, Marketing and Finance Occasional Paper 20, FAO, Rome, 2007.
- VAN DER VORST, J., SILVA, C.A.B and Trienekens, J.; Agroindustrial Supply Management: Concepts and Applications. Agricultural Management, Marketing and Finance Occasional Paper 17, FAO, Rome, 2007.
- MILLER, C. and SILVA, C.A.B.; Value Chain Financing in Agriculture. Enterprise Development and Microfinance, Vol. 18, No. 2/3, Jun/Sept 2007, p. 95-108.
- SILVA, C.A.B.; The Growing Role of Contract Farming in Agrifood Systems Development: Drivers, Theory and Practice. Agricultural Management, Marketing and Finance Working Document 9, FAO, Rome, 2005
- SILVA, C.A.B. and SILVA Jr. A.; Information Technology and E-Commerce in Brazilian Agribusiness. In: Schmitz T., Moss, C., Schmitz A., Kagan, A. and Babcock B. (Eds.) E-Commerce in Agribusiness. Florida Science Source, Longboat Key, 2005
- SILVA, Carlos Arthur B. & FERNANDES, A. R. F; Decision Support Systems for Small Scale Agroindustrial Investment Promotion in Rural Areas. In: Davison, R., Harris R., Quresh, S., Vogel D. and Vreed. G. (Eds). Information systems in developing countries: Theory and Practice. City University of Hong Kong Press,



- SILVA, Carlos Arthur B. & FERNANDES, A. R. (Eds.); Projects of Agroindustrial Enterprises Volume I Products of Animal Origin – (ISBN 85-7269-159-6) Editora UFV, Viçosa, MG, 308 p., 2003 (In Portuguese)
- SILVA, Carlos Arthur B. & FERNANDES, A. R. (Eds.); Projects of Agroindustrial Enterprises – Volume II Products of Vegetal Origin (ISBN 85-7269-161-8) Editora UFV, Viçosa, MG, 459 p., 2003 (In Portuguese)
- SILVA, Carlos Arthur B. & BATALHA, M.; Competitiveness in Agroindustrial Systems: Methodology and Case Studies. Anais do II Workshop Brasileiro sobre Gestão de Sistemas Agroalimentares; USP, Ribeirão Preto, 1999, 9-20 (In Portuguese)