

Germán Cala Gaitán

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Mechanical Engineer specializing in the Oil and Fats Industry.

Engineering consultant specializing in industrial and agricultural process of Palm Oil: Extraction, Refining and Oleo chemicals. Development Oil Palm Projects for small and large scale projects.

EDUCATION

Specialization: **Industrial Production**, 1971
Universidad de los Andes, Bogotá, Colombia

BS: **Mechanical Engineering**, 1970
Universidad América, Bogotá, Colombia

OTHER STUDIES (1973-1995)

- Financial. Management, INCAE (Honduras)
- Trade in Agro industrial Goods, Port Alegre (Brazil)
- English Language, London (England)
- Logical Framework, Inter-American Development Bank (Costa Rica)
- Guthrie Palm Oil Mill Executive Course (Malaysia)

PUBLICATIONS

Books Published

G. Cala Gaitán and G. Bernal G. 2008 *Procesos Modernos en Plantas Extractoras de Aceite de Palma (Modern Proceses in Palm Oil Mills)* 2008. FEDEPALMA

N Wambeck (translated by G. Cala Gaitán and G. Bernal G.) *Sinopsis del Proceso de la Palma de Aceite (Synopsis of the Oil Palm Process)* 2005. FEDEPALMA

Journal Articles

G. Cala Gaitán. "Manual de Plantas extractoras de Aceite de Palma" ("Handbook of Palm Oil Mills") 1973. For the management of Monterrey Palm OIL Mill in Puerto Wilchez, Colombia.

G. Cala Gaitán. "Aplicación Energética de los Racimos Vacíos de la Palma Aceitera" (Energy Application of the empty bunches) 1995.

G. Cala Gaitán. "Las Alianzas Estratégicas en el Desarrollo Palmero" ("The Strategic Partnerships in the Palm Development) 1998.

G. Cala Gaitán. "La Oleo química como Alternativa para el Desarrollo de la Agroindustria de la Palma Aceitera" ("Oleochemical as an Alternative for the Development of Agricultural and Industrial Process of Oil Palm") 2000.

G. Cala Gaitán. "Industrialización y Perspectivas del Aceite de Palma" ("Industrialization and Prospects for the Palm Oil " 2001.

EXPERIENCE

NEDOIL. SIERRA LEONA (AFRICA), OIL PALM PROJECT. (2009 – 2010)

Lead a 7 person team for a feasibility study for a complete development agro-industrial project in Sierra Leone. Planting 40.000 has of oil palm with partial irrigation. Includes two mills (palm oil extraction plants) of 90 ton/hr. As well as an electricity facility plant with turbo steam generators fueled by biomass and biogas boilers; including an electrical high tension grid extending 60 km feeding villages and Lungi International Airport. Project also includes development of a port for the exportation of oil and import the fertilizer. The project considers the direct employment of 7.000 employees.

EXPORTACIONES CALA Y BLANCO S.A. Costa Rica (2000- Present)

Owner & President

Company specializing in the mixing and homogenization of oils and fats for the animal feeding industry. Responsible for the overall industrial and administrative operations. Company currently employees 25 persons with annual revenues of USD \$3 million.

FEDEPALMA . Colombia. 2008 and 2005

Responsible for four, week-long seminars throughout Colombia (located in oil palm areas). Training seminars focused on the book: "*Procesos Modernos en Plantas Extractoras de Aceite de Palma*" ("*Modern Processes in Palm Oil Mills*"). Co-author with G. Bernal. **FEDEPALMA**. Colombia. February 2005: Co-author in the translation, publication, edition and technical complementation for four, week-long seminars throughout Colombia of the book denominated "Synopsis del proceso de la palma de aceite" ("Overview of the Oil Palm Process") by Noel Wambeck.

ACCIONA BIOCOMBUSTIBLES S.A., subsidiary of ACCIONA S.A. Spain. (2006 to 2008)

Served as a consultant and adviser in possible Oil Palm development and agro-industrial projects in nine Central and South American countries. Responsible for country selection, investment opportunities, and areas for crop developments. As well as writing and implementing business plans.

CIPA R.L. Costa Rica. (1997 to 1999 and 2007)

Technical adviser for the assembly of a 15 ton RFF/hr, palm oil mill located in Puntarenas, Costa Rica.

COOPERATIVA DE PRODUCTORES DE PALMA ACEITERA R.L. (COOPEAGROPAL) Costa Rica. (1997- 2000)

Company composed of small farmers with fields ranging between 6 and 20 hectares of oil palm. Served as:

Director of Strategic Partnerships. (November 1999 - August 2000)

General Manager

(August 1997-October 1999)

INTER AMERICAN DEVELOPMENT BANK (1977–1982 and 1987-1997)

AGROINDUSTRIAL DE COTO SUR PROJECT, Costa Rica (1987-1997)

- Loan: 196 IC-CR - (1987 to 1997)
- International Consultant IDB
- Project Director-Executive Unit
- Cost of the Project USD \$ 54 million.
- Developed Area: 5,100 hectares divided in units of Agrarian Reform
- Beneficiary population: 1900 small farmers.

Project Director

Project benefited 520 farmers, establishing a total of 5100 hectares of Oil Palm. Responsible for the construction and operation of palm oil extraction mill with a capacity 25 tons/hour; as well as oil palm refinery with a capacity of 90 tons/day. Infrastructure of project included the construction of 270 km of roads, 240 km of sewers and 65 bridges.

Project also included all training and development for small farmers.

BAJO AGUAN PROJECT Honduras. (1977 - 1982)

- Loan: 479 SF / HO
- International Consultant IDB
- Project Director- Executive Unit
- Cost of the project \$ 30 Million
- Developed Area: 11,000 hectares, divided in 55 cooperatives

Project Director

Project benefited 55 cooperatives, establishing a total of 11,000 hectares of oil palm. Responsible for the construction and operation of 5 palm oil mills with capacities of 6, 6, 15, 20, 15 tons / hour respectively.

COAPALMA Honduras. (1983-1985)

General Manager

Agro-industrial cooperative composed by 55 cooperatives related with oil palm plantations and 3 Palm Oil Mills of 20, 15 and 15, RFF ton / Hr respectively.

CONSULTÉCNICA, Bogota, Colombia (1976-1977)

Technical Director

Technical Supervisor for the assembly of palm oil mills. Technical Assistance in 22 palm oil mills in Colombia, Ecuador, Honduras, including design and initial startup of new mills.

AGRICULTURAL MONTERREY, Colombia 1973-1975

Oil Palm Mil Technical Manager

FADALTEC SA, Colombia. 1970-1973

Maintenance Manager and Production Manager

INDEPENDENT CONSULTING

INDUSPALMA Dominican Republic, September 2008.

Expansion of the oil palm mill from 22 to 30 ton/hr including installation of additional equipment, and a co-generation system using biomass or solid boiler capacity to 32 bars of pressure.

PALCASA (USA) 2008

Technical assessment of the palm oil mill and plantation of PALMAR DEL RIO, Ecuador.

CONSULTECNICA. Colombia 2007.

Technical direction of the assembly and commissioning of an oil palm mill in Coto Sur, Costa Rica, owned by CIPA.

BANCO HSBC (Former Banco Banex). Costa Rica. July 2002 to Present.

Consultant. Various projects consisting in the valuation of companies: Fertica S.A. in 2002, re-valuation in 2004. Quivel S.A. Alajuela, external consultant in the certification of the assembly. Technical assistance in the closure of the Alimentos PRO plant.

AQUAPLASTICA S.A. Dominican Republic, June 2002.

Consultant. Feasibility study for the installation of manufacturing plants in Costa Rica, Nicaragua, and Panama.

INASCA. Dominican Republic, February to August 2001.

Consultant. Provided technical consulting for the selection and subsequent installation of a palm oil refinery.

INDUSPALMA. Dominican Republic. November 2002 to November 2007.

Responsible for a technical study which resulted in an increased efficiency of two palm oil extraction plants.

COMME IL FAUT- CODINA S.A. Haiti. November 2000 to December 2001.

Consultant. Responsible for an international marketing study in Central America, Colombia, and Mexico, for the subsequent import and export of goods to and from Haiti.

BANCO NACIONAL DE COSTA RICA. Costa Rica. February 2000 and January 2008

Responsible for a research study of the strategic convergence of the oil palm and oil chemistry industries and Re-evaluation of equipment extraction palm oil Mill and Refinery

AGENCIA INTERNACIONAL DE DESARROLLO (AID).EE.UU. 1995.

Consultant. Responsible for the installation of a Palm Oil extraction plant for Oikos Corporation in Ecuador, with a capacity of 30 ton fruit/hour.

VARIOUS PALM OIL PROJECTS. 1984 to Present

Consultant. Various degrees of consulting from the manufacturing, installation and marketing to private companies in Colombia, Panamá, Honduras, and Guatemala.

CONSULTANT OIL PALM-HONDURAS 1986-1987

Agro industrial and Infrastructure aspects simultaneously in the following Companies: CAICESA, AGROINVASA and oilseeds Agro Industrial S. A.

VALUATIONS

BANCO NACIONAL DE COSTA RICA 2008

1. Valuation of 4 plants owned by COOPEAGROPAL: palm oil mill, refinery, fractionation and finished products.
2. Technical Conceptualization Feasibility Study: the construction of palm oil mill of PALMATEC. Costa Rica.

BANCO HSBC (Former Banco Banex). Costa Rica. July 2002 to present.
Consultant. Various projects consisting in the valuation of companies: Fertica S.A. in 2002, re-valuation in 2004. Quivel S.A. Alajuela, external consultant in the Certification of the Assembly advance in Quivel. Technical Assistance in the closure of the Alimentos PRO plant.

COOPEAGROPAL. Costa Rica. 1996.
Valuation of a 25 ton/hour palm oil mill located in Laurel, Costa Rica.

HONDUPALMA. Honduras 1996. He did the valuation of a 25 ton/hour palm oil extracting plant.

PROFESSIONAL ACTIVITIES

CAMARA NACIONAL DE PALMA ACEITERA, (CANAPALMA) Costa Rica. Executive Chief. February 1988- March 2000

CONFERENCE PRESENTATIONS

Panelist and conference organizer at 7 conferences on Palm Oil and its applications. Countries participated: Honduras, Brazil, Costa Rica and Colombia.

PARTICIPATION IN INTERNATIONAL EVENTS

Congress, lectures and workshops at the scientific level in palm oil and Oleo chemicals: South America, Central America, Dominican Republic, USA, Europe (4) and Malaysia (5).