

EXPERT'S PROFILE

Name of Grantee : Rico O. Cruz, PhD

Area of Expertise : Agricultural Engineering

Inclusive Date of Contract as BSP Awardee : April 8-May 25, 2019 (Phase 1)
July 8 – August 10, 2019 (Phase 2)
(Short-Term engagement)

Host Institution : Visayas State University

E-mail Address : igot2x007@gmail.com



EDUCATIONAL BACKGROUND

- PhD Agricultural Engineering, University of Idaho, USA, 1984
- MS in Agricultural Engineering, Silsoe College, Cranfield Institute of Technology, England, 1983
- BS in Agricultural Engineering, Visayas State College of Agriculture (now VSU), Philippines, 1980

Professional Experiences

Owner/Founder (2018-present)

Cruz Agricultural & Biosystems Services, LLC

Volunteer Specialist/Agro-processing Engineer (2016 – Jun 2018)

ACDI/VOCA, Washington, DC

Tribal Agricultural Center Manager (2013-2016)

Tribal Agricultural Center, Nez Perce Tribe, Lapwai, Idaho

Terrestrial Ecologist/ Program Manager (2004- 2013)

Department of Science and Engineering, Confederated Tribes of Umatilla Indian Reservation

Hanford Cultural Resources Coordinator (2000-2003)

Nez Perce Tribe, Department of Natural Resources Coordinator

President/Consultant (2002-2009)

EcoEnergy International LLC, Idaho, USA

Senior Science and Technology Associate (1999-2000)

International Institute for Indigenous Resource Management, Colorado, USA

To Be Accomplished as a BSP Awardee (Deliverables):

1. Conduct training, workshop and seminar on the following topics:
 - a. Bamboo processing and utilization
 - b. Biofuel and renewable energy
 - c. Fiber processing and utilization

2. Produce biodiesel from waste cooking oil and other locally available oils
3. Assist in crafting of research and development on improved productivity of key agricultural commodities in the region
4. Initiate bamboo processing methods to produce engineered bamboo for at least 3 bamboo species
 - a. Installation of pilot heat treatment system and testing using biofuels/biomass as source of heat
 - b. Installation of heat kiln and accessories
5. Provide methodologies and techniques in processing locally available fiber plants (i.e. abaca, sisal, pineapple, coconut coir, and other hemp-like plants)
6. Enhance Renewable Energy Research Center
 - a. Installation of pilot gasification system for solid biomass
 - b. Installation of mini/micro hydro-power system and hydraulic ram incorporation
7. Assist in the developing of long-term proposals for funding consideration on the following areas:
 - a. bamboo and fiber processing
 - b. renewable energy
 - c. production of fiber plants that are not available locally