



# PHILIPPINE COUNTRY REPORT :

## POLICY AND STATUS OF HUMAN RESOURCE DEVELOPMENT OF AGRICULTURAL MECHANIZATION

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*3<sup>rd</sup> Regional Forum on Sustainable Agricultural Mechanization in Asia and the Pacific*  
*3<sup>rd</sup> ASEAN Conference on Agricultural and Biosystems Engineering*  
*Co-located with the 12th Engineering Research and Development for Technology in Agriculture*  
*9-11 December 2015, Manila, the Philippines*

# PRESENTATION CONTENTS

1. Policies on Agricultural Mechanization HRD
2. Philippine Agricultural Mechanization Workforce
3. Agricultural Mechanization HRD Program

# Policies on Agricultural Mechanization HRD

1. **Republic Act No. 10601 (Agricultural and Fisheries Mechanization Law)**
  - Human Resource Development as a major component in the National Agricultural and Fisheries Mechanization Program ( 2015-2022)
  - Skills Certification of Agri-Fisheries Machinery Operators and Technicians

# Policies on Agricultural Mechanization HRD

## 1. Republic Act No. 10601 (Agricultural and Fisheries Mechanization Law)

- Required manpower complement of Agricultural Engineers and Agricultural Machinery Technicians and Operators in all agricultural machinery pools and service centers, manufacturing establishments and and sales and distribution centers



# Policies on Agricultural Mechanization HRD

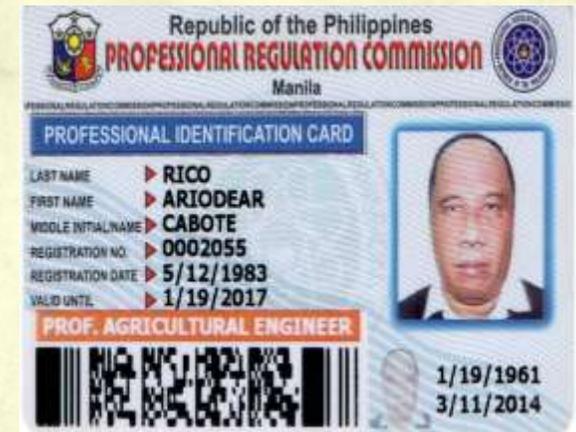
## 2. Republic Act No. 10659 (Sugarcane Industry Development Act

- Formulation and Implementation of Human Resource Development Master Plan for the Sugacane Industry
- Deployment Program of Agricultural Engineers, Agriculturists and Farm Technicians in sugarcane farms

# Policies on Agricultural Mechanization HRD

## 3. Republic Act No. 8559 (Philippine Agricultural Engineering Law of 1998)

- Regulates the practice of Agricultural Engineering in the Philippines
- 5-Year BS Agricultural Engineering and must pass the licensure examination of the Board of Agricultural Engineering
- With valid PRC License- authorize to practice the profession



# Duties and Responsibilities of Philippine Agricultural Engineer (R.A. No. 8559)

- 1) Plans, designs, prepares and prescribes technical specifications and manage the construction, operation and maintenance of :
  - irrigation and soils conservation systems and facilities
  - agricultural buildings and structures;
  - **agricultural, fishery and forest product machinery and equipment;**
  - renewable energy and farm electrification;
  - agricultural waste management facilities;

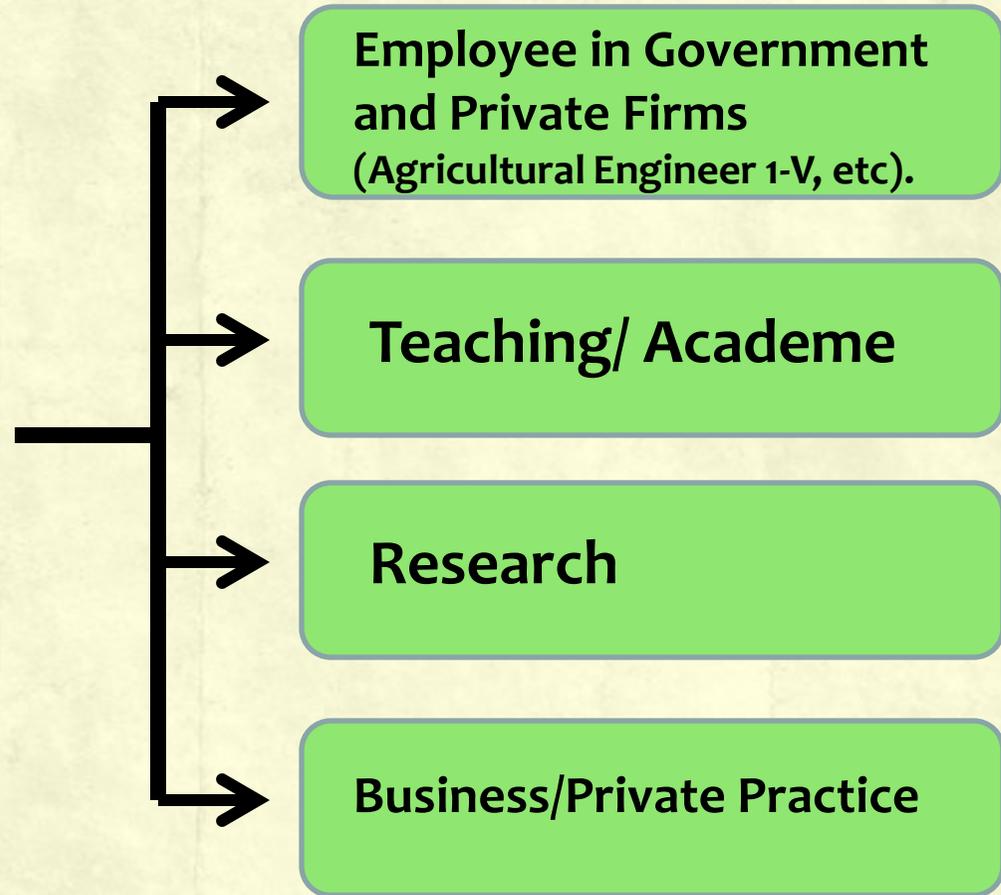
# Duties and Responsibilities of Philippine Agricultural Engineer (R.A. No. 8559)

- 2) Test, evaluate and inspect agricultural, fishery and forest product machinery and other related agricultural engineering facilities and equipment for safe and efficient operation and maintenance; and
- 3) Conduct feasibility study, research, training and extension, consultancy and marketing services on agricultural engineering projects;

# CAREER TRACKS/PATHWAYS OF AGRICULTURAL ENGINEERS



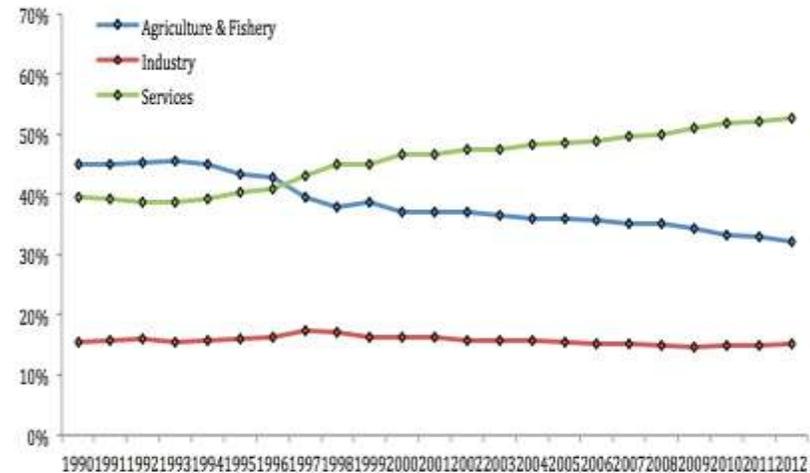
Oath Taking as New Registered Agricultural Engineer



# The Philippine Agricultural Mechanization Workers

- **30.9% or 11.74M workers are employed in the agri-fishery sector**
- **Agri-Fishery Mechanization Workers largely form part in this labor force**

Sectoral share in total employment



Sources: NSO and DOLE-BLES

# The Philippine Agricultural Mechanization Workers



With Established HRD	Largest Group of Agri-Fisheries Mechanization Workers	With Established HRD
Professionals	Professionals (Agricultural Engineers)	Professionals
Technicians	Technicians	Technicians
Workers/ Laborers	Operators ( Low Skilled/ Non-TESDA Certified)	Workers/Laborers
Agri-Fisheries Machinery Manufacturing and Marketing	Farm Production and Post Production	Industrial Agri-Fisheries Processing
<b>AREAS OF EMPLOYMENT</b>		

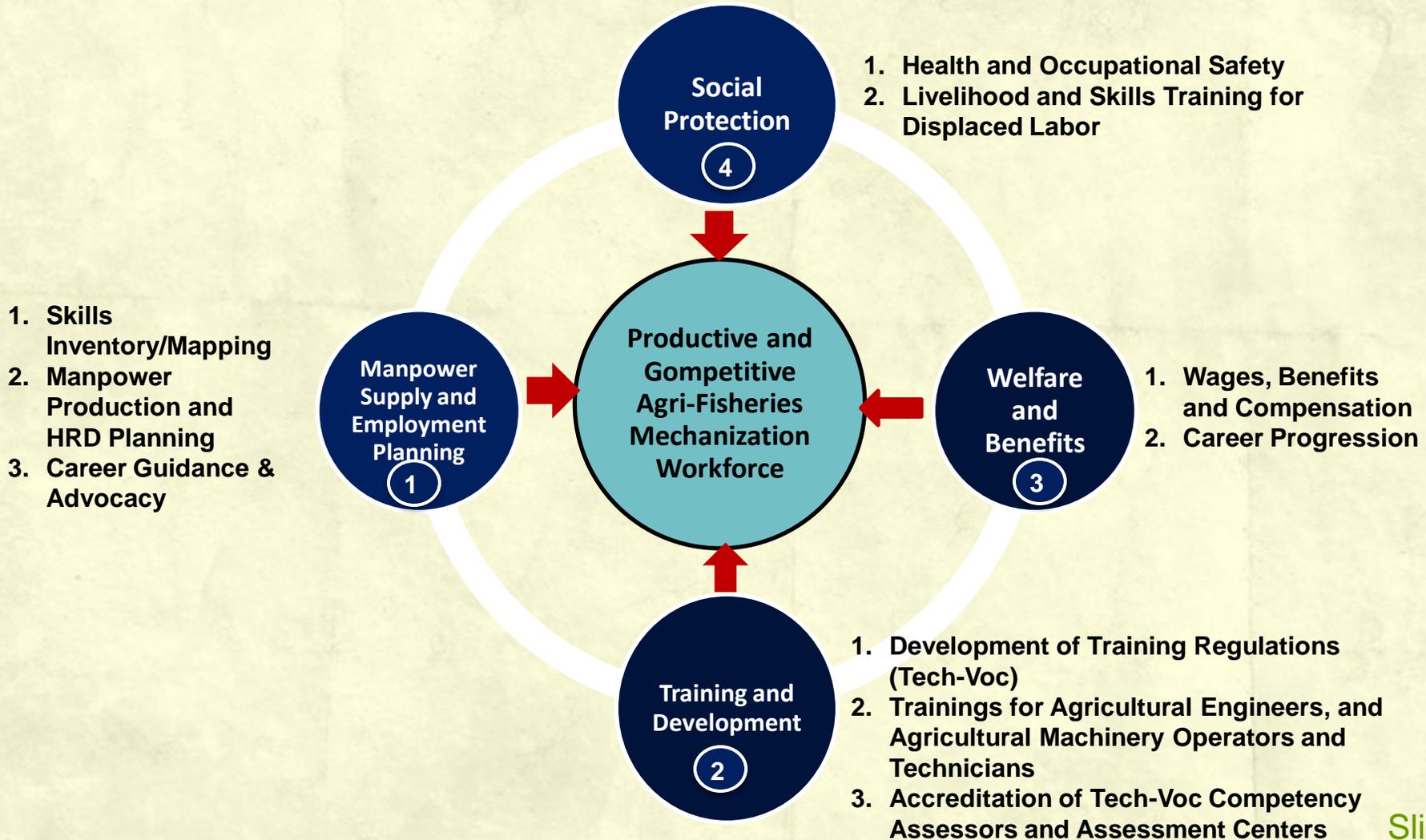
# The Philippine Agricultural Mechanization Workers

- **8,336 Licensed Agricultural Engineers**
  - **46 Higher Educations Institutions with BS Agri Engineering Program, on increasing enrolment**
- **About 1.2 Million Agricultural Machinery Operators (Non-TESDA certified)**

## Schools Offering BS Agricultural Engineering

1. Agusan del Sur State College of Agriculture & Technology
2. Bataan Peninsula State University
3. Benguet State University
4. Bohol Island State University
5. Bulacan National Agricultural State College
6. Cagayan State University
7. Camarines Norte State College
8. Capiz State University
9. Cavite State University
10. Central Bicol State University of Agriculture
11. Central Luzon State University
12. Central Mindanao University
13. Central Philippine University
14. Central Philippines State University
15. Don Mariano Marcos Memorial State University
16. Dr. Emilio B. Espinosa Sr. Memorial College
17. Eastern Samar State College
18. Ilocos Sur Polytechnic State College
19. Isabela State University
20. Jose Rizal Memorial State College
21. Kalinga Apayao State College
22. Laguna State Polytechnic College
23. Mariano Marcos State University
24. Mindanao State University-General Santos City
25. Mindanao State University- Maguindanao
26. Mindanao State University- Marawi City
27. Mindoro State College of Agriculture & Technology
28. Misamis University
29. Nueva Viscaya State University
30. Pampanga Agricultural College
31. Pangasinan State University- Sta Maria
32. Ramon Magsaysay technological University
33. Rombloan State College
34. Samar State College of Agriculture and Forestry
35. Southern Phil. Agribusiness & Aquatic School of Technology
36. Tarlac College of Agriculture
37. University of Eastern Philippines
38. University of Rizal System
39. University of Southeastern Philippines
40. University of Southern Mindanao
41. University of Southwestern Mindanao
42. University of the Philippines Los Banos
43. Visayas State University
44. Western Mindanao State University
45. Western Philippines University
46. Xavier University

# The Agri-Fisheries Mechanization HRD Program



# **Training Regulations (TR) for Agri-Fisheries Mechanization**

**Existing : Rice Machinery Operation- National Certificate (NC)-2**

**On-going Development :**

- 1. Farm Machinery Operations (NC-2)**
- 2. Farm Machinery Servicing**
- 3. Drying and Milling Processing Plant Servicing –NC2**
- 4. Irrigation System Installation and Maintenance,**
- 5. Biogas Systems Installation and Maintenance, and**
- 6. Dairy Processing**
- 7. Aquaculture NC III (Mechanization);**

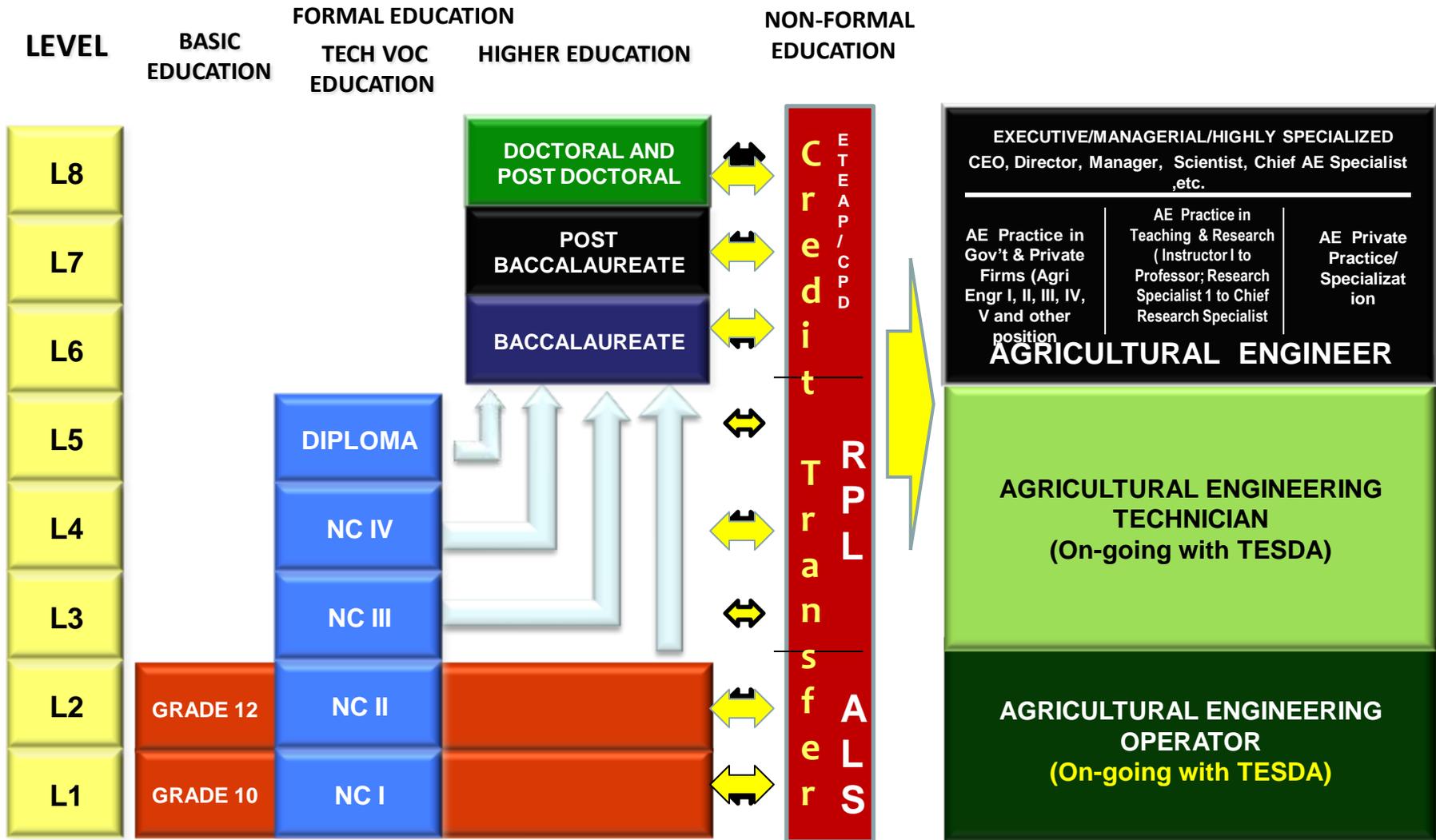
# **Agricultural Machinery Operation NC-2**

## **(On-going development with TESDA)**

### **QUALIFICATION DESCRIPTOR**

It consists of competencies that an Agricultural Machinery Operator, Tractor Operator, Post-harvest machinery operator or Production Machinery Operator must have in order to operate agricultural small production machinery and equipment, operate agricultural large production machinery and equipment and operate agricultural post-production machinery and equipment.

# THE PHILIPPINE AGRICULTURAL ENGINEERING & MECHANIZATION CAREER PROGRESSION PLAN



**PHILIPPINE QUALIFICATION FRAMEWORK**

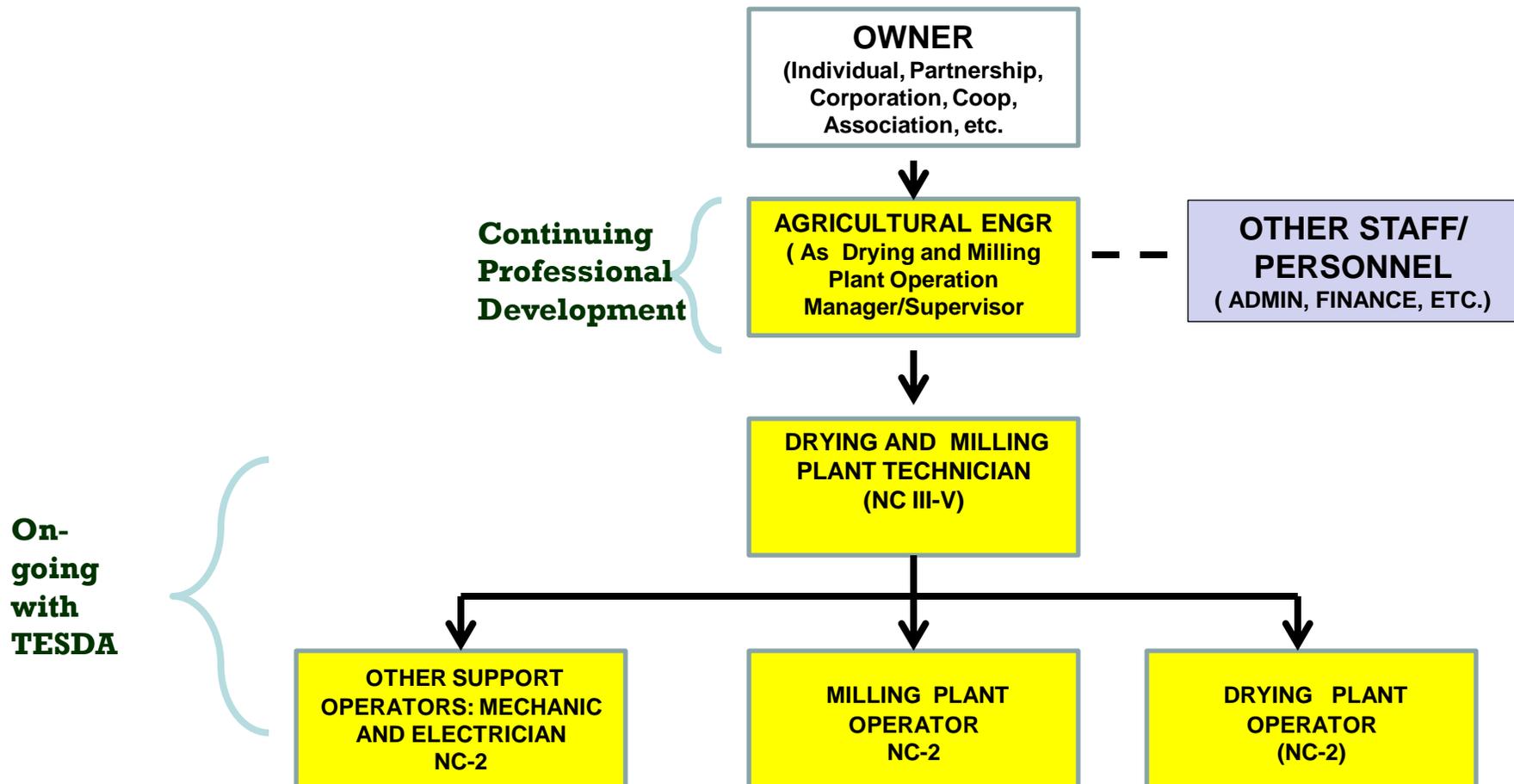
**CAREER PATH**

**Acronym:**

ETEAP- Expanded Tertiary Education Equivalency and Accreditation Program  
 CPD- Continuing Professional Development ; RPL- Recognition to Prior Learning  
 ALS- Alternative Learning Scheme ; AE- Agricultural Engineering

# AGRICULTUAL ENGINEERING CAREER PROGRESSION PLAN IN AGRI-FISHERIES MACHINERY SERVICE CENTER EXAMPLE : RICE MILL – SINGLE /MULTI PASS)

Pursuant to Agricultural and Fisheries Mechanization Law and  
Philippine Agricultural Engineering Law





*Thank you*