



**Republic Act 10601: Improving the Agriculture and Fisheries Sector through Mechanization<sup>1</sup>**  
**Albert P. Aquino, Aleta Belissa D. Correa and Princess Alma B. Ani<sup>2</sup>**

## **Introduction**

Farm mechanization can enhance the efficiency of both land and labor, inputs that are vital in sustaining food production and increasing farm income. However, despite the various innovations in mechanization technologies in the Philippines, the country lagged behind other Asian countries in terms of mechanical power at 1.68 hp/ha (Amongo, 2011). In 2009, PCAARRD (formerly Philippine Council for Agriculture, Forestry and Natural Resources Research and Development or PCARRD) reported that the different farming activities of selected crops were predominantly operated at low mechanization level.

In the Philippines, the Department of Agriculture (DA) was mandated by the Agricultural and Fisheries Modernization Act (AFMA) of 1997 to give priority to the development and promotion of appropriate agricultural machinery and other agricultural mechanization technologies, to enhance agricultural mechanization in the countryside<sup>3</sup>. To fully realize this, Republic Act (R.A.) No. 10601 or the Agricultural and Fisheries Mechanization (AFMech) was signed into law by President Benigno Simeon C. Aquino III on June 05, 2013.

## **The Agricultural and Fisheries Mechanization (AFMech) Law**

Agricultural and fisheries mechanization refers to the development, adoption, assembly, manufacture and application of appropriate, location specific and cost-effective agricultural and fisheries machinery using human, animal, mechanical, electrical, renewable and other nonconventional sources of energy for agricultural production and postharvest/postproduction operations consistent with agronomic conditions and for efficient and economic farm and fishery management towards modernization of agriculture and fisheries (Section 3.b).<sup>4</sup>

RA 10601 covers research, development, and extension (RDE), promotion, distribution, supply, assembling, manufacturing, regulation, use, operation, maintenance and project implementation of agricultural and fisheries machinery and equipment (Section 4).

## **The National Agri-Fishery Mechanization Program (NAFMP)**

---

<sup>1</sup> A short policy paper submitted to the Food and Fertilizer Technology Center (FFTC) for the project titled "Asia-Pacific Information Platform in Agricultural Policy". Short policy papers, as corollary outputs of the project, describe pertinent Philippine laws and regulations on agriculture, aquatic and natural resources.

<sup>2</sup> Philippine Point Person to the FFTC Project on Asia-Pacific Information Platform in Agricultural Policy and Director, Science Research Specialist, and Senior Science Research Specialist, respectively, of the Socio-Economics Research Division-Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (SERD-PCAARRD) of the Department of Science and Technology (DOST), Los Baños, Laguna, the Philippines.

<sup>3</sup> Section 59, AFMA.

<sup>4</sup> All Articles and Sections refer to the provisions of the AfMech Law, unless indicated.

The NAFMP shall be formulated by the DA to (a) promote and support through the provision of research grants, credit, transparent and predictable regulation, the local development and manufacture of agricultural and fisheries machinery by the private sector; (b) unify, lead and support the efforts of various institutions in the research, design and development of agricultural and fisheries machinery; (c) establish quality, safety and performance standards for agricultural and fisheries machinery; (d) support the establishment of quality, safety and performance testing centers for the certification of agricultural and fisheries machinery in strategic localities in the country; (e) establish guidelines for the registration of ownership of agricultural and fisheries machinery; and (f) promote the adoption of certified agricultural and fisheries machinery for improving agriculture and fishery productivity (Section 5).

### **Research, Extension and Human Resource Development**

A Unified National Research and Development and Extension (RDE) Agenda shall be formulated and implemented by the DA, with the Philippine Center for Postharvest Development and Mechanization (PhilMech)<sup>5</sup> as the focal agency (Section 7). An Agri-fisheries Mechanization RDE Network, responsible for the formulation and implementation of the RDE Agenda shall be organized and composed of research and educational institutions, LGUs, nongovernment organizations (NGOs) and the recognized and well-established associations of agricultural and fisheries machinery assemblers, manufacturers and distributors, agricultural engineers, farmers and fisher folk (Section 8).

### **Implementing Institutions of AFMech**

The AFMech law shall be implemented through the creation of the following agencies and committees.

1. The ***Agricultural and Fisheries Mechanization Committee (AFMeC)*** under the National Agricultural and Fishery Council (NAFC) shall act as an advisory body to ensure the success of the programs and activities of the DA concerning agricultural and fisheries mechanization (Section 23). AFMeC shall provide consultative and feedback mechanism to serve as basis in defining and formulating the goals and scope of the agricultural and fisheries mechanization, and infrastructure policies, plans and programs of the country.
2. The ***Bureau of Agricultural and Fisheries Engineering (BAFE)*** is created as a regular bureau of the DA. BAFE, under the supervision of the DA Undersecretary shall have the following functions and responsibilities (Section 24):
  - (a) Coordinate, oversee and monitor the national planning and implementation of agri-fisheries engineering, farm-to-market road and other agri-fisheries infrastructure projects;
  - (b) Assist in the national planning, coordination and implementation of the national agri-fisheries mechanization programs;
  - (e) Prepare, evaluate, validate and recommend engineering plans, designs and technical specifications on agri-fisheries mechanization and infrastructure projects;
  - (d) Oversee and provide technical assistance to the operations of the agricultural engineering divisions of the DA regional field units;
  - (e) Coordinate and integrate all agricultural and fisheries engineering activities of the DA bureaus, attached agencies and corporations;
  - (f) Coordinate and monitor the enforcement of standards and other regulatory policies on agricultural and fishery engineering;
  - (g) Implement accreditation and registration scheme for agriculture and fishery machinery, tools and equipment, in coordination with technology generators:

---

<sup>5</sup> A DA attached agency mandated to Generate, extend and commercialize appropriate and problem-oriented agriculture and fishery postharvest and mechanization technologies.

- (h) Issue permits to operate to agriculture and fishery tools and equipment manufacturers, fabricators, assemblers and importers; and
- (i) Promulgate and implement accreditation guidelines for testing centers.

3. The ***Philippine Center for Postharvest Development and Mechanization (PHILMech)*** primarily shall take the lead in overall research, development and extension (RDE) in farm and fisheries mechanization in the country. It shall serve as the focal unit to integrate and unify all agricultural and fisheries mechanization RDE programs and projects (Section 7).
4. The ***Bureau of Agriculture and Fisheries Product Standards (BAFPS)***, in addition to its functions under Sections 62 and 63 of AFMA, shall develop standards for agriculture and fishery machinery, tools and equipment in coordination with accredited testing centers, and other concerned government and private entities (Section 26).

The BAFPS which was renamed into Bureau of Agriculture and Fisheries Standards (BAFS) is authorize to create a new section under the current Standards Development Division on agricultural and fisheries machinery regulations. It may call upon experts, professional groups and other government agencies to assist in the performance of its functions.

5. The ***Agricultural Machinery Testing and Evaluation Centers (AMTEC)*** of the College of Engineering and Agro-Industrial Technology (CEAT) of the University of the Philippines Los Baños is institutionalized. The AMTEC is designated as the premier and reference testing center in the country, and for purposes of functional coordination and integration, shall closely coordinate its activities with the BAFS and BAFE. As the primary testing center, it shall assist the BAFS in the formulation of quality, safety and performance standards of agricultural and fisheries machinery and of accreditation guidelines for testing centers. It shall also provide technical assistance in the establishment of testing centers in other parts of the country (Section 27).
6. The ***Local Government Units (LGUs)***, pursuant to the provisions of Republic Act No. 7160, otherwise known as the "Local Government Code of 1991, shall undertake applied research, extension, dispersal, management and regulation of agricultural and fisheries machinery and equipment, including the collection of fees (Section 28)

The agricultural engineering division or section of the agriculture offices of the LGUs shall serve as the planning, coordinating, regulating and implementing bodies at the provincial, city and municipal levels on agricultural and fisheries engineering, mechanization and infrastructure programs and projects (Section 29).

#### **Prohibited Acts under AFMech**

RA 10601 provisions stipulates different unlawful activities that may be committed by an individual. The acts include among others (a) selling, mortgaging and leasing of agricultural and fishery machinery without being registered with the BAFE; (b) the selling of agricultural and fishery machinery without warranty or after-sales service; (c) claiming of ownership to an agricultural and fishery machinery that has not been properly registered in his or her name; and (d) operating a testing center without proper accreditation.

#### **Conclusion**

To date, the Department of Agriculture through the PhilMech has conducted several public consultations in the three island groups (Luzon, Visayas, and Mindanao) of the country regarding the Implementing Rules and Regulations (IRR) of the AFMech. RA 10601 is viewed to improve the lives of the Filipino farmers and fisherfolk. The modernization of agriculture through mechanization is seen as a mechanism to improve efficiency of production and to promote cost-effective technologies thereby enhancing the meager farm income. With the passage of

AFMech Law, harmonization of efforts of various institutions and RDE projects related to agriculture and fisheries mechanization is deemed attainable.

**References:**

AFMA Primer. Accessed in December 2013 at [http://nafc.da.gov.ph/afma/primer\\_en.php](http://nafc.da.gov.ph/afma/primer_en.php).

AFMech Law. Accessed in December 2013 at <http://www.gov.ph/2013/06/05/republic-act-no-10601/>.

Agricultural and Fisheries Modernization Act of (AFMA) 1997. Accessed in December 2013 at <http://nafc.da.gov.ph/afma/PDF/ra8435.pdf>.

Amongo, R.M.C., Amongo, L.D. and Larona M.V.L. 2011. Mechanizing Philippine Agriculture for Food Sufficiency. Paper presented during the UNAPCAEM and FAO Joint Roundtable Meeting on Sustainable Agricultural Mechanization in Asia. Bangkok, Thailand, December 8-9, 2011.

Local Government Code of 1991. Accessed in December 2013 at <http://www.gov.ph/1991/10/10/republic-act-no-7160/>.

Official Gazette. 2013. PhilMech takes expanded role in farm mechanization under AFMech. Accessed in December 2013 at <http://www.gov.ph/2013/09/06/philmech-takes-expanded-role-in-farm-mechanization-under-afmech/>

Philippine Council for Agriculture, Forestry and Natural Resources Research and Development. 2009. Agricultural Mechanization in the Philippines. Book Series No. 179/2009.

PhilMech website. Accessed in December 2013 at <http://www.philmech.gov.ph/?page=aboutus>.

Public Opinion sought on Afmech Law implementation. 2013. Aggie News. Accessed in December 2013 at <http://cagayandeoro.da.gov.ph/public-opinion-sought-on-afmech-law-implementation/>.

Date submitted: December 12, 2013

Reviewed, edited and uploaded: December 16, 2013