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**SENATE**  
**P.S. Resolution No. 371**

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Introduced by Senator Cynthia A. Villar

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**RESOLUTION**  
**DIRECTING THE APPROPRIATE SENATE COMMITTEE TO CONDUCT AN**  
**INQUIRY, IN AID OF LEGISLATION, INTO THE STATE OF AGRICULTURAL**  
**MECHANIZATION OF THE COUNTRY AND THE IMPLEMENTATION OF THE**  
**AGRICULTURAL MECHANIZATION LAW, AND FOR OTHER PURPOSES**

WHEREAS, In the Philippines, the Department of Agriculture (DA) is 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. (1)

WHEREAS, to fully realize the Agricultural and Fisheries Modernization, the Republic Act (R.A.) No. 10601 or the Agricultural and Fisheries Mechanization Act (AFMech) was signed into law on June 5, 2013. (2)

WHEREAS, 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);

WHEREAS, AFMech or RA 10601 also 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).

WHEREAS, under the law a National Agri-Fishery Mechanization Program (NAFMP) shall be formulated by the Department of Agriculture to –

a) Promote and support through the provision of research grants, credit, transparent and predictable regulations, local development and manufacture of agricultural and fisheries machineries by the private sector;

b) Unify, lead and support the efforts of various institutions in the research, design and development of agricultural and fishery machineries;

c) Establish quality, safety and performance standards for agricultural and fishery machinery;

d) Support the establishment of quality, safety and performance testing centers for the certification of agricultural and fishery machinery in strategic localities in the country;

e) Establish the guidelines for the registration of ownership of agricultural and fishery machinery;

f) Promote the adoption of certified agricultural and fishery machinery for improving agricultural and fishery productivity. (Section 5).

WHEREAS, the implementing institutions of RA 10601, are as follows –

1. The Agricultural and Fisheries Mechanization Committee (AFMeC) under the National Agriculture and Fisheries 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 and shall have the following shall have the following functions -

(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;
- (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; (Section 24);

3) The Philippine Center for Post-Harvest Development and Mechanization (PhilMech), 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, it was given a mandate to 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 authorized 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 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).

WHEREAS, despite the presence of an enabling law, our government still lags behind in the agriculture sector competitiveness due to low farm productivity. Majority of our farmers cannot acquire the modern machinery such as tractors and harvesters, infrastructure, like silos, and inputs like organic fertilizers in the magnitude and manner that are necessary to reach the significant mass and number of highly productive farms. The country's capability to mechanize, to generate more employment and bring about better income to the rural folks have remained an aspiration.

WHEREAS, between the period 2003 to 2014, the Philippine Gross Domestic Product (GDP) expanded by 88 percent in real terms. (Dy, 2017). During the period 2010-2014, the economy grew by 36 percent but poverty incidence fell from 26.5 percent in 2009 to 24.6 percent in 2013 and rose again to 25.8 percent in 2014. Poverty incidence among Filipinos in 2015 was estimated at 21.6 percent. (3)

WHEREAS, poverty reduction can only be reached if best practiced farming is widespread. In a study of FAO and Industry sources, the productivity ranking of four countries where the yield of 20 agricultural crops were measured – Thailand, Vietnam, Indonesia and the Philippines, the results showed our poor productivity. The crops are rice, corn, coconut, sugarcane, oil palm, banana, coffee, cassava, etc. Number 1 means the country registered the highest yield from among the countries and number 4 means the lowest yield. The Philippines, in 2013 was 4<sup>th</sup> and with no crop in number 1 and with an average score of 3.30. In 2003 using the same measure, it had an average score of 3.0 on its farm productivity performance. Indonesia both in 2003 and 2013 was the highest crop yielder, with an average score of 1.25. Vietnam moved up in 2013 to second place with an average score of 2.25 with five crops in number 1 and 2. Thailand on the other hand was a very close third in 2013 with an average score of 2.32. It had five crops in number 1 and 6 crops in number 2. (Dy, 2017). (4)

WHEREAS, the Asean economic integration might have dire consequences for Philippine agriculture, which remains largely underdeveloped and "un-mechanized" and is, therefore, ill-equipped to compete in the free market. Dr. Rene Ofreneo, a former dean of the school of labor and industrial relations at the University of the Philippines,

said the failure to mechanize the agriculture sector and poor farm-to-market linkages render Philippine agriculture vulnerable to unfair trade practices in the Asean market.<sup>(5)</sup>

WHEREAS, A PhilRice-IRRI study recommends that the country focus on increasing rice yield, reducing production costs, and improving milling efficiency to boost PH's rice competitiveness. The two institutions co-implemented the study titled Benchmarking the Philippine Rice Economy Relative to Major Rice-Producing Countries in Asia. Comparative studies were done in sites representing irrigated and intensively cultivated areas in six countries: Philippines (Nueva Ecija); China (Zhejiang); India (Tamil Nadu); Indonesia (West Java); Thailand (Suphan Buri); and Vietnam (Can Tho). Farm mechanization was also among the study's major recommendation in order to reduce production costs.

WHEREAS, Mechanization and other labor-saving technologies are often met with objections because of labor displacement. Hence, job generation is important beyond the agriculture sector such as construction and factory works or within agriculture such as logistics, processing and even in equipment maintenance and servicing.<sup>(6)</sup>

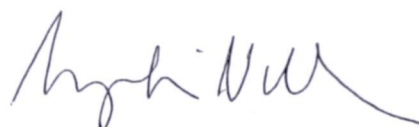
WHEREAS, Relative to exporting countries, it is expensive to produce paddy in Nueva Ecija at P12.34/kg. with 14% moisture content, while it is only P8.87/kg in Tamil Nadu, India and P9.46 in Suphan Buri, Thailand. It is cheapest to produce dry paddy in Can Tho, Vietnam at P6.50/kg. High labor cost is the second major reason why it is more expensive to produce rice in Nueva Ecija. On the average, a farmers pay P3.76 on hired labor to produce a kilogram of paddy while farmers in Can Tho only pay P0.46.<sup>(7)</sup>

WHEREAS, the Philippine farming competitiveness that caters to the ever-increasing demand for rice should be addressed. Increasing rice yield is central to being competitive. This is where hybrid rice technology helps, coupled with appropriate crop management in suitable areas. Increasing the availability and reliability of irrigation water particularly in the dry season will also lead to improved yields. In reducing cost, the intensified use of labor-saving technologies such as the combine harvester and direct seeding is in the right direction. Improving the efficiency of milling and handling can also reduce the cost of processing and marketing rice. Investment in the state-of-the-art rice R&D to create next-generation technologies would be the source of future yield growth. We cannot allow the rice industry to die a natural death, but we also cannot afford to be complacent and continue to produce expensive rice. We should become competitive in rice production.<sup>(8) (9)</sup>

WHEREAS, the basic task of government is to feed the 103.9 Million Filipinos. This cannot be achieved under a business-as-usual approach. The Philippine agricultural output should grow to meet the burgeoning requirements of domestic as well as foreign markets. Rice production as well as that of sugarcane, banana, other fruits, root crops, and vegetables should exhibit robust output trend. The challenges for agriculture should be addressed, and raising farm productivity and competitiveness through mechanization in planting, post-harvest management, milling quality, irrigation, should be addressed now before it is too late.<sup>(10)</sup> According to the UN FAO, in order for a country to feed its people, it should enhance its investment in sustainable agricultural production and rural development; promote technology change and productivity growth, access to trade, markets among others.<sup>(11)</sup>

WHEREFORE, BE IT RESOLVED as it is hereby resolved, that the Senate of the Philippines direct the appropriate Senate Committee to conduct an inquiry in aid of legislation, into the state of agricultural mechanization under the AFMech Law or RA 10601, under the supervision of the Department of Agriculture and, and for other purposes.

*Adopted,*



**CYNTHIA A. VILLAR**

Senator

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