

HOUSE OF REPRESENTATIVES
HOUSE BILL No. 1774

Introduced by the HONORABLE AGAPITO H. GUANLAO

EXPLANATORY NOTE

The current issue faced by the country with regards to its ability to sustain and ensure food security present and future consumers has been an eye opener on the situation of the nation's farmers as well as the agriculture sector itself which has been neglected for a very long time. It is said that Philippine rice production of 15.33 MMT cannot meet the required consumption of our growing nation at 18.77 MMT, an annual deficit of 3.44 MMT (2006 BAS Data). The steadily increasing 3tion of the country will consequently result in national rice consumption to reach 16 MMT of rice or 24.61 MMT of *palay* by 2025 (BAS Data).

In view of this, there is now an urgent need to increase and achieve self-sufficiency in rice production, which in turn will reduce or end the government's rice importation. Although this can be achieved by increasing the irrigated application of good seeds and adequate fertilization, agricultural mechanization cannot be ignored.

Through the use of adequate, appropriate and efficient agricultural mechanization practices, rice production will be greatly increased as: 1) the existing two cropping seasons per year in irrigated farms shall be made to three; and 2) better plant growth and yield per unit area shall be attained due to precise planting density, good tillage operation and efficient fertilizer application. Likewise, the 15% crop production losses shall be reduced or eliminated.

This holds true to all other types of crops, livestock and fisheries. Aside from this, it can help accelerate employment and livelihood generation, increase product value adding and diversify farm products. Significantly, the 2.0 million hectares of coconut lands which had remained idle and monocropped for so long will become productive through mechanization.

It is sad to note that the present level of agricultural and fisheries mechanization 'in the Philippines, the available human, animal and mechanical power is still very low at about 1.68 hp/ha. Although this increased significantly from 0.36 hp/ha in the 1980s to 1.68 hp/ha in 1994, the Philippines had acquired the much needed agricultural machineries from 1991 up to 2000. The country is second to the last placer (Myanmar) for agricultural tractors, and last on harvesters/threshers with her rice producing countries in Asia. (Please see table below)

Countries	Agricultural Tractors (No.)	Harvesters/Threshers (No.)
Japan	2,028,000	1,042,000
India	1,525,000	4,000
China	975,000	263,000
Thailand	220,000	70,000
South Korea	192,000	87,000
Vietnam	163,000	163,000
Indonesia	70,000	330,000
Taiwan	14,000	10,000
Philippines	12,000	1,000
Myanmar	11,000	12,000

Source: (Phil SCAT Study and PCARRD report, 2003).

This mechanization level is far below compared with other Asian countries like the Republic of Korea with about 4.11 hp/ha and the People's Republic of China with 3.88 hp/ha. Only about 2% of the agricultural areas are mechanized, and there are about 102 tractors and 6 harvesters/ threshers per 1,000 hectares (*Ang Krisis sa Pangkain, Ibon Facts and Figures, April-May 2008*).

Other problems include the inadequacy of after sales service, supply of substandard agricultural and fishery machinery particularly in the government procurement program and the sporadic, fragmented and disorganized implementation of agricultural and fishery mechanization. Towards this end, there must be in place a system of accreditation and classification of agricultural and fishery machinery suppliers and manufacturers, state of the art testing and evaluation, continued standards development and enforcement and responsive and adequate support services.

To ensure rational planning, distribution and investment of agricultural and fishery machinery, there is a need for an updated and reliable database and information system. The development and implementation of a nationwide registration system on agricultural and fishery machinery is a possible solution to this concern.

Parallel to the above requisites, it is important to guarantee that the various mechanization development activities of the key players in the agriculture sector are put into a comprehensive and integrated national effort to effectively address urgent as well as emerging agriculture and food needs.

In view of the foregoing, a law must be passed to consolidate, integrate and strengthen all existing policies and programs in so far as agricultural and fishery mechanization.

Hence, passage of this legislative measure is earnestly sought.


HON. AGAPITO H. GUANLAO

FIFTEENTH CONGRESS OF THE)
REPUBLIC OF THE PHILIPPINES)
FIRST REGULAR SESSION)

HOUSE OF REPRESENTATIVES

HOUSE BILL No. 1774

Introduced by the HONORABLE AGAPITO H. GUANLAO

AN ACT PROMOTING THE AGRICULTURAL AND FISHERIES
MECHANIZATION DEVELOPMENT IN THE COUNTRY

Be it enacted by the Senate and the House of Representatives of the Philippines in Congress assembled:

Section 1. Title- This Act shall be known as the Agricultural and Fisheries Mechanization (AFMech) Law of 2010.

ARTICLE I
DECLARATION OF POLICY, DEFINITION OF TERMS AND COVERAGE

Section 2. Declaration of Policy - It shall be the policy of the State to:

1. promote the development and adoption of modern, appropriate and cost-effective and environmentally safe agricultural and fisheries machinery and equipment to enhance farm productivity and efficiency in order to achieve food security and safety;
2. provide a conducive environment to the local manufacturing of engines, machinery and equipment for agricultural and fisheries production, processing and marketing;
3. strengthen the regulatory activities through the development and enforcement of machinery and machine performance standards, regular testing and evaluation, registration and the accreditation and classification of suppliers and manufacturers to ensure compliance to prescribed quality standards of locally manufactured and imported agricultural and fisheries machinery and equipment;

4. strengthen support services like credit facilities, research, training and extension programs, rural infrastructures and marketing services;
5. unify, rationalize and strengthen the implementation, coordination activities and mechanisms on agricultural and fishery mechanization programs and projects ; and
6. deliver integrated support services to farmers, fishermen and other stakeholders, and assist them to be able to viably operate and manage their agricultural and fisheries machinery projects.

Section 3. *Definition of Terms:*

1. *Agricultural and Fisheries Machinery and Equipment* - refers to machinery and equipment for, the production, harvesting, processing, storage, manufacture, preserving, transporting and distribution of agricultural and fishery products. It includes but is not limited to tractor and their attachments, power tillers, seeders, transplanters, windmill, slaughtering equipment, harvesting machines, crop protection- and maintenance equipment, irrigation equipment and accessories, greenhouses and other thermal conditioning equipment, livestock equipment, fishery equipment, slaughtering equipment, meat/fishery and crop processing equipment, post harvest machines such as milling machines, dryer, threshers, strippers, agricultural transport machinery and storage facilities including cold storage, reefer vans, slaughter houses and, fishing vessels.
2. *Agricultural and Fisheries Mechanization* - is the development, adoption, manufacture and application of appropriate, location-specific and cost-effective agricultural and fishery technology using human, animal, mechanical, electrical and other non-conventional sources of energy for agricultural production and post harvest/post production operations consistent with agronomic conditions and for efficient and economic farm and fishery management towards modernization of agriculture and fisheries.
3. *Agro-Industrial Processing* - shall include local activity or series of activities to maintain or raise the quality or change the form or characteristics of agricultural, fishery and forestry products. It also includes cleaning, sorting, grading, mixing, milling, canning, dressing, slaughtering, freezing, pasteurizing, conditioning, packaging, repacking and transporting.
4. *Fishing Vessel* — any boat, ship or other watercraft equipped to be used for taking of fishery species or aiding or assisting one (1) or more vessels in the performance of any activity relating to fishing, including but not limited to, preservation, supply, storage, refrigeration, transportation and/or processing.
(RA 8550)

5. *Department* – refers to the Department of Agriculture;
6. *Secretary* – refers to the Secretary of Agriculture
7. *BOAE* – Board of Agricultural Engineering of the Professional Regulation Commission
8. *DOLE* – Department of Labor and Employment
9. *DOST* – Department of Science and Technology
10. *DTI* – Department of Trade and Industry
11. *TESDA* – Technical Education and Skills Development Authority
12. *CHED* – Commission on Higher Education
13. *AMTEC* – Agricultural Machinery Testing and Evaluation Center, University of the Philippines, Los Baños

Section 4. *Scope and Application* - The provisions of this Act shall apply to the research, development and extension, promotion, distribution, supply and manufacturing, regulation, use, operation and maintenance of agricultural and fisheries machinery and equipment.

ARTICLE II RESEARCH, EXTENSION AND HUMAN RESOURCE DEVELOPMENT

Section 5. *Unified National R & D and Extension Agenda*

1. A unified National Agricultural and Fisheries Mechanization R & D and Extension (RDE) Agenda shall be formulated and implemented by the Department and shall integrate all agricultural and fisheries mechanization R & D and extension programs and projects of all concerned national government agencies, local government units, state colleges and universities, shall be geared towards job generation, address market and industry demands and help accelerate agricultural and fisheries modernization in the countryside.
2. The National Agricultural and Fisheries Mechanization RDE Agenda shall include but shall not be limited to the following:

- a) development, pilot testing and commercialization of appropriate, location specific and cost-effective agricultural and fisheries machinery and equipment in support to land consolidation and machinery pooling;
- b) Local manufacture of agricultural engines and equipment;
- c) Development and utilization of renewable energy resources such as bio-fuels;
- d) Development of efficient production and postproduction mechanization systems;
- e) Development of technical standards and testing procedures for quality agricultural machinery and components;
- f) Training of farmers, fishermen, manufacturers, extension workers, agricultural engineers, technicians and operators engaged in the agricultural and fisheries machinery;
- g) Promotion of technologies through agricultural and industrial extension activities and techno-demo centers;
- h) Development of prototype and fabrication of agricultural machinery and equipment; and
- i) Development and conduct of commercialization strategies involving all sectors representing the demand and supply sides of agricultural and fisheries mechanization technologies.

Section 6. *Agri-Fisheries Mechanization RDE Network* – An Agricultural and Fisheries Mechanization Research, Development and Extension (RDE) network is hereby organized, composed of research and education institutions, Local Government Units, non-government agencies and the recognized associations of agricultural and fishery machinery manufacturers and distributors, agricultural engineers and farmers and fishermen organizations.

Section 7. *Agri-Fisheries Machinery and Equipment Service Centers* - The Department of Agriculture and the Local Government Units in partnership with the private sector shall establish Agricultural and Fishery Machinery Service Center in the Strategic Agricultural and Fishery Development Zones (SAFDZs), at least one in each municipality and/or barangay if applicable and feasible so as to accelerate agricultural and fishery modernization in the countryside; *Provided that* these shall form part of the major basic services of the Local Government Units in the

barangays, municipal/ city and provincial levels, in addition to the basic services mandated under the Local Government Code.

Section 8. *Agricultural and Fisheries Machinery Information Network* – The Agricultural Machinery Information Network (AgMachIN) of the Department and the DOST shall be strengthened to serve as a network of information system and data bank on agricultural and fisheries machinery and equipment, and a facility for the on-line registration of agricultural and fishery machinery.

Section 9. *Skills Certification of Agricultural Machinery Technicians and Operators* – TESDA in collaboration with the Department, BOAE, NAMDAC and the national associations of agricultural engineers and agricultural machinery manufacturers and distributors shall undertake certification and accreditation systems for agricultural and fishery machinery operators and technicians.

Section 10. *Research Grants* – To enhance research and technological development on agricultural and fishery mechanization, the government through the Department, DOST and CHED shall provide research grants to strategic research institutions including concerned State Colleges and universities to undertake needs oriented research as well as institutional development and upgrading of laboratory facilities and equipment.

Section 11. *Training and Scholarship Program* – The Department in partnership with State Colleges and Universities and the private sector shall train the agricultural extension workers of the Local Government Units who in turn shall train the farmers and fishermen on agricultural and fishery mechanization technologies and practices. The DOLE and TESDA shall be responsible in the training of agricultural and fishery machinery technicians and operators. Scholarships for graduate and undergraduate degree on agricultural engineering and trade/vocational course on agricultural and fishery mechanization shall be given priority by the Department, CHED and DOST.

Section 12. *Manpower Complement* – All agricultural and fishery machinery pools, and centers including sales and distribution outlets and manufacturing establishments either public or private shall have the required manpower complement of agricultural engineers and skilled technicians and operators in accordance with the guidelines and standards to be formulated and adopted by the BOAE and DOLE to ensure efficient operation and maintenance and good management practices.

ARTICLE III

LOCAL MANUFACTURE, SUPPLY AND AFTER SALES SERVICE

Section 13. *Local Manufacturing* – Production of locally made engines and other machinery for agricultural and fisheries purposes shall be promoted and encouraged by the Department in partnership with the Metal Working Industry

Association of the Philippines (MIAP) and through joint venture agreement. For this purpose, the Department in partnership with the recognized national organization of agricultural machinery manufacturers and distributors, agricultural engineers and the Department of Science and Technology shall undertake the feasibility study and R & D for the local manufacture of agricultural engines/prime mover, and other agricultural machinery and equipment.

Section 14. *Exemption from Import Duties* – To support the local agricultural manufacturing industry, the latter is hereby exempted from the payment of import duties arising from the importation of raw materials and components, engine and mechanical parts required for their manufacture and fabrication of agricultural and fisheries machinery and equipment.

Section 15. *Classification and Accreditation of Manufacturers, Importers, Suppliers, Distributors and Dealers* – Agricultural and fisheries manufacturers, importers and suppliers, distributors and dealers shall be classified into small, medium and large, and shall be encouraged to build-up their manufacturing/service facilities; *Provided* that agricultural and fisheries machinery manufacturers, importers, suppliers, distributors and dealers shall be classified and accredited based on their organizational strengths and track records, area of operation, marketing and distribution network, after sales service and manufacturing capabilities;

Section 16. *Supply of Agricultural and Fisheries Machinery in Government Procurement Program* – Only manufacturers, importers, suppliers, distributors and dealers accredited by NAMDAC shall be eligible to supply government procurement requirements on agricultural and fisheries machinery and equipment based on their classification rating;

Section 17. *After-Sales Service* – All agricultural and fisheries machinery manufacturers, importers, suppliers, distributors and dealers are required to provide after-sales service and warranty to their respective clients including insurance coverage for "wear and tear" during the warranty period which shall be monitored by the DA and NAMDAC.

ARTICLE IV REGISTRATION, LICENSING AND STANDARDIZATION

Section 18. *Testing and Evaluation* – Agricultural and fisheries machinery and equipment to be sold in the market shall pass through testing, and, evaluation by the AMTEC in accordance with the national policies and guidelines to be promulgated by the Secretary of Agriculture. Specifically, before it can be commercially sold, a model of the machine and any modification thereof should be tested by AMTEC and should pass prescribed quality and performance standards before it is manufactured and sold in the market. The regular testing and evaluation of machinery sold shall be undertaken every five years by AMTEC.

Section 19. *Registration of Agricultural and Fishery Machinery:*

1. All agricultural and fisheries machinery shall be registered, in all Municipal and City Local Government Units through the Agricultural Engineering Unit of the City/Municipal Agriculture Offices.
2. The registration information shall include the engine serial number, name and address of the owner, technical specifications, date of acquisition and acquisition value of the agricultural and fishery machinery being registered;
3. The Provincial Agricultural Engineering Groups of the Local Government Units shall establish and maintain a provincial data on all agricultural and fishery machinery being registered, with the DA Regional Agricultural Engineering Division being responsible for the regional data and the PhMech for the national data using the facilities of the AgMachIN.
4. The Department in consultation with the private sector and LGUs shall promulgate national guidelines and procedures in the registration of agricultural and fishery machinery by the LGUs including the collection of registration fees. The amount collected should be utilized to fund the operation of the agricultural and fishery mechanization service centers.

Section 20. *Standards Development and Enforcement* - The Department in coordination with the DTI, DOST, BOAE and AMTEC and in consultation with the accredited associations of farmers and fisherfolk, agricultural machinery manufacturers and distributors and agricultural engineers shall develop standards specifications and test procedures of agricultural and machinery. These standards should be in conformity with the International Standards Organization (ISO) and be part of the existing Philippine Agricultural Engineering Standards.

Thereafter, the Department and LGUs shall enforce the above standards on the manufacture, sale and distribution of agriculture and fisheries machinery and equipment, and its accreditation system for agricultural and fishery facilities and establishments. Likewise, the Department of Public Works and Highways shall enforce the Philippine Agricultural Engineering Standards in the design, construction, operation and maintenance of agricultural and fishery buildings and structures as part of the implementation of the National Building Code of the Philippines

ARTICLE V INSTITUTIONS

Section 21. *Agricultural and Fisheries Mechanization Committee* - The existing Agricultural and Fisheries Mechanization Committee (AFMeC) under the National

Agricultural and Fishery Council (NAFC) is hereby strengthened and reorganized into the Agricultural and Fishery Mechanization and Infrastructure Committee (AFMIC) to act as an advisory body to ensure the success of the programs and activities of the DA concerning agricultural mechanization and infrastructure. It is also tasked to serve as the consultative and feedback mechanism from the lowest level to the top decision makers and to assist in defining and formulating the goals and scope of the country's agriculture and fishery mechanization policies, plans, and programs. To support its activities, the Agricultural and Fishery Mechanization Staff of NAFC is also hereby strengthened.

Section 22. *Strengthening the DA Agricultural Engineering Groups* – Pursuant to Section 46 of R.A. No. 8435, a Central Agricultural and Fishery Engineering Office (CAFEO) is hereby created under the Department of Agriculture to be headed by a Department Undersecretary. The CAFEO shall coordinate, oversee, integrate and monitor all agricultural and fishery infrastructure, mechanization and engineering programs and projects of the Department. Likewise, the Regional Agricultural Engineering Divisions of the Regional Field Units are hereby strengthened and institutionalized to carry out the field implementation of the agricultural and fishery mechanization infrastructure programs.

Section 23. *Institutionalization of the NAMDAC Board* – The National Agricultural and Fisheries Machinery Manufacturers, Importers, Distributors and Dealers Accreditation and Classification (NAMDAC) Board is hereby institutionalized to serve as the sole national accreditation and classifying body on agricultural and fisheries machinery and shall perform the following functions:

1. Establishment of an updated and accurate data base on their sector;
2. Formulate policies, guidelines and criteria for accreditation and classification on manufacturers of agricultural and fishery machinery;
3. Encourage self regulation in the sector by delegating the task of accrediting and classifying manufacturers/dealers/distributors and approval of the quality and safety of their products to their respective associations;
4. Advocate policies to regulate the importation and exportation of agricultural and fisheries machinery consistent with GATT-WTO provisions; and
5. Ensure that the manufacturers'/dealers' associations conduct regular inspection of agricultural and fisheries machinery fabrication plants to ensure compliance with accepted processes and products.

Section 24. *Composition of NAMDAC* – NAMDAC shall be organized by the private sector and shall include representatives from the manufacturers, importers,

suppliers and distributors of agricultural machinery and equipment. The heads of CAFEQ, PhMech, AFMIC and AMTEC shall also be members of NAMDAC.

Section 25. *Role of PhMech - The Philippine Institute for Post-harvest Development and Mechanization (PhMech)* shall strengthen its existing research, extension and post harvest development services functions on postproduction and mechanization concerns. The PhMech shall coordinate, plan and execute the agricultural and fishery mechanization and post harvest programs and projects of the Department.

Section 26. *Agricultural Machinery Testing and Evaluation Center* - The existing Agricultural Machinery Testing and Evaluation Center (AMTEC) is hereby institutionalized as a Center the College of Engineering and Agro-Industrial Technology (CEAT) of UPLB, and for purposes of functional coordination and integration, shall closely coordinate its activities' with CAFEQ and PhMech.

ARTICLE VI RESPONSIBILITIES OF THE LOCAL GOVERNMENT UNITS

Section 27. *Implementation by the Local Government Units* - The Local Government pursuant to the provisions of Republic Act No. 7160, otherwise known as the Local Government Code shall undertake applied research, extension, dispersal, management and regulation of agricultural and fisheries machinery and equipment including the collection of fees in accordance with national policies, procedures, guidelines and rules and regulations as promulgated by the Secretary of Agriculture.

Section 28. *Role of the Agricultural and Fishery Engineering Offices of the Local Government Units.* - The Provincial, City and Municipal Agricultural Engineering Offices of the Local Government Units organized under Section 46 of. R.A. 8435, Executive Order No. 86, Series of 1999 are hereby strengthened and shall serve as the coordinating, planning, regulating and implementing body at the provincial, city and municipal levels on agricultural and fishery machinery.

In cases of provincial, city and municipal LGUs which do not have Agricultural Engineering Offices, the Department through the Regional Agricultural Engineering Division shall assume such responsibility, and as deemed necessary establish provincial, city and municipal operation units.

ARTICLE VII MISCELLANEOUS PROVISIONS

Section 29. *Agricultural and Fisheries Mechanization Plan*- The Department shall formulate and implement a National Agricultural and Fisheries Mechanization Plan upon approval of this Act.

The Local Government Units through an ordinance shall also formulate and implement their active Provincial, City and Municipal Agricultural and Fishery Mechanization Plans as a vital component of their respective Agricultural and Fishery Modernization Plans.

Section 30. *Land Consolidation* – The Department together with the Department of Agrarian Reform shall carry out land consolidation projects in order to affect suitable field shapes and sizes conducive to efficient operation of agricultural machinery and equipment and likewise to ensure economies of scale.

The land consolidation projects shall:

1. promote farm land clustering with a minimum of 50-hectares cluster for synchronized farming operations from land preparation to harvesting in cooperation or contract with agricultural mechanized operation service providers;
2. undertake farm development planning; and
3. strengthening of farmers' cooperatives and associations.

Section 31. *Use of Renewable Energy* – The use of renewable energy such as those generated by windmills, solar panels, bio-mass and other farm-based energy sources shall be promoted as power sources for the operation and maintenance of agricultural and fishery machinery and equipment for agriculture and fisheries. The Department of Energy together with the DOST and State Colleges and Universities, and in collaboration with the private sector shall undertake research and extension activities to enhance the use of renewable energy in the Philippine farm operation.

Section 32. *Infrastructure Support*- The government shall provide priority investment for the infrastructure needs in clustered farm lands identified as key agricultural and fishery production areas to accelerate agricultural and fishery mechanization in the countryside and this include irrigation facilities, farm-to-market roads, and power and communications facilities.

Section 33. *Implementing Rules and Regulations* – The Department in consultation stakeholders shall promulgate the necessary rules and regulations within six (6) months of promulgation of this Act.

Section 34. *Funding*:

1. The amount necessary to carry out the program shall be incorporated in the General Appropriations Act.

2. All funds currently allocated for agricultural and fisheries machinery and infrastructure projects under the Agricultural and Fisheries Modernization Program, in particular, the various national government programs for rice, corn, livestock, HVCC and fisheries, and other locally or foreign assisted projects of the Department of Agriculture, and that of the Agrarian Reform Funds of the Department of Agrarian Reform (DAR) and that of the Department of Science and Technology (DOST) shall be integrated to constitute the initial Agricultural and Fisheries Machinery and Infrastructure Program Fund, and thereafter, shall be incorporated as part of the funding appropriation of the Agricultural and Fisheries Modernization Program;
3. All Local Government Units shall likewise include in their investment plans, as part of the priority appropriations of their 20% Economic Development Fund, the funding support for the implementation of their respective provincial, city, municipal and barangay agricultural and fisheries mechanization and infrastructure programs;
4. The Agricultural and Fisheries Machinery and Infrastructure Program Fund shall be used for the following activities:
 - a) Training of farmers, fisherfolk, farm workers, agricultural and fisheries machinery operators and technicians and program implementers;
 - b) Upgrading of agricultural and fishery mechanization facilities and equipment of the Department of Agriculture and Local Government Units;
 - c) Investment and Feasibility studies on agricultural and fisheries machinery and infrastructure projects;
 - d) Information campaign;
 - e) Testing and evaluation of AMTEC ;
 - f) Registration of agricultural and fisheries machinery, and equipment and other regulatory activities;
 - g) Agricultural and Fisheries Machinery Demonstration Centers;
 - h) R & D on the manufacturing of local engines;
 - i) Grant for the young entrepreneurs and agricultural engineers who intend to pursue agricultural and fishery machinery enterprises projects; and
 - j) Strengthening the DA and LGU's Agricultural Engineering Groups.

Section 35. *Separability Clause* - The provisions of this Act are hereby declared separable, and if any clause, sentence, provision or section hereof, should be declared invalid, such invalidity shall not affect the other provisions of this Act which can be given force and effect without the provisions which have been declared invalid.

Section 36. *Repealing Clause* - All laws, or parts thereof, inconsistent herewith are hereby repealed or modified accordingly.

Section 37. *Effectivity* - This Act shall take effect fifteen (15) days after its publication (2) newspapers of general circulation.

Approved.