# Philippine Agriculture at the CROSSROADS

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PHILIPPINE agriculture has its beginning in the small clearings along the coasts of the different islands of the archipelago, where early settlements were established. Through hundreds of years, farm products, principally foodstuffs were raised in small self-sufficient farms. But, during the three decades prior to the outbreak of World War II in 1941, Philippine agriculture developed into a new shape. Sugar cane plantations, coconut plantations, and abaca plantations prospered and vast tracts of lands were cultivated to only one crop, namely rice.

Due to free trade with America, Philippine agriculture witnessed an unprecedented expansion in those farm industries whose products found a profitable market in the United States such as copra, abaca, tobacco and sugar. Thus the country enjoyed a prosperity that made possible the progress of Filipinos in cultural, educational, political and economic advancement which with self-sufficient farms would have never been effected within such a brief period of

Now, Philippine agriculture faces entirely new prospects. By 1946, Philippine independence will be granted in accordance with the Tydings McDuffie Act unless new legislations to the contrary are enacted between now and next July. The economic provisions regarding tariff will be in operation and the Philippines will gradually lose the free trate market with U.S. Philippine agriculture must reckon only with the competitive market of the world.

It might be said in passing that the Tydings McDuffie Act provided a tenyear preparation from 1935 to 1945, a period during which Philippine farming industries should have made the necessary adjustments to meet whatever difficulties or disadvantages the loss of free trade might bring. Several years of this period passed without any defi-

nite measure of adjustment taking shape. Three years of Japanese occupation actually disrupted the farming industries by destroying farms and mills, killing farmers and work animals, wiping out transportation facilities and disorganizing every phase of agricultual production. Now, instead of having to adjust, war completely placed agriculture on a new plane of beginning. The problem today is rehabilitation with the distinct advantage that we can now plan to develop the desired kind of agricultural set-up, if we know what we want and we are set to build up what we desire for our own good. Philippine agriculture today is at the crossroads, so to speak.

During the three decades preceding the outbreak of World War II, our agriculture was characterized by an expansion of cultivated area. The production rate increased, improvements in many practices were achieved and the total output of farm crops was augmented by leaps and bounds. The number and quality of crops have been enriched; labor saving devices have been enriched; many new uses for farm products were developed; and new crop industries have been established such as the growing of onions, ramie, cotton, soybeans, derries, citrus, rubber, truck garden crops, etc. With the improvements of health condition and transportation, there has been a marked progress in the general welfare and standard of living in the rural districts. What actually was achieved may be summarized as follows: (figures based on 1903-38 census).

Rice production increased by three times from 504,000,000 kgs. per year in 1903 to 1,825,047,000 in 1938.

Corn by four times from 92 million kgs. per year in 1903 to 460 million kgs. per year in 1938. Sugar cane by over five times from 180 million kgs. in 1903 to 1,019 million kgs. in 1938.

Coconuts by almost ten times from 232 million nuts yearly in 1903 to 2,303 million nuts yearly in 1938.

Abaca by two times from 66 million kgs. yearly in 1903 to 144 million kgs. in 1938.

Tobacco by almost two times from 17 million kgs. yearly in 1903 to 32 million kgs. in 1938.

Sweet potatoes (camote) by six times from 65 million kgs. yearly in 1903 to 406 million kgs. in 1938.

The importation of rice decreased from 334 million kgs. yearly in 1903 to 9 million kgs. in 1938.

Such were the changes in agricultural production suggesting progress, achieved because of the influence of free trade with America gauged in terms of a few important items. Greater still has been the progress in diversification for in the span of three decades, it has contributed toward the stabilization of agriculture. The number of sources of income of farmers has been increased. It enabled effective utilization of the favorable factors of production. It provided a diversity of occupation for farmhands. It helped improve the cropping system, which may in the near future bring about revolution in production. It enhanced the possibility of profitable far-ming under modern economic require-ments of economic exchange. The new order demands great changes in fundamental objectives and line of improvements in farm practices particularly in the reduction of cost of production in order to enable Philippine products to meet competition in the open market. The new order requires that our country must have a vision of the future economic fields and the place our export products will occupy in the trade of the world. Short of this vision no plan would insure stability of our agricultural production.

Succint summary statements of the actual working of Philippine agriculture up to the outbreak of World War II would help illustrate if there exists the cornerstone to preparedness to make our agriculture of tomorrow stable. Fortunately, the Philippines had all the beginnings, which if resumed, vitalized, adjusted to new conditions, and intensified would serve to rehabilitate our agriculture and make it the sound foundation upon which may safely rest Philippine stable economy.

There existed before the war, the exchange of seeds and foreign plant materials with 48 countries, principally with the most advanced countries in technical agriculture. Thousands of economic plants have reached our shores and cultivated fields from abroad and consequently have enriched tremendously our agricultural flora. Similarly, through importation of superior

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breeds and strains, our animals have increased in type and quality. Many of the new comers have replaced inferior old stand-bys. We have now avocados, camotes, tiessa, mandarins, oranges, limes, onions, ramie, soybeans, castor oil, coffee, rubber, duroc jerseys, white leghorns, cambodia carabaos, etc. Simultaneously with introduction, selection and breeding in experimental stations produced valuable strains of animals and crops, providing new impetus to increased production.

A progressive view of the utilization and industrialization of the by-products and wastes of farms has been rapidly gaining ground for a more profitable agricultural enterprise. The country had to extricate itself from the practice of merely producing export crops and importing manufactured commodities from Philippine raw materials as in the case of sugar, abaca and coconut oil products. As a result of adaptability trials in many parts of the Philippines, many of the extremely localized farming industries have been introduced to many parts of the Philippines such as the onion growing, derries production, ramie production, "palagad rice", and cotton culture. With the advanced knowledge in nutrition, increased production of vegetables and fruits with particular em-phasis on protective foods had been taken into consideration in the promotion of production.

There was up to the outbreak of World War II a well-organized system of regional and provincial propagation station, which helped disseminate valuable seeds and planting materials. This activity needs to be stepped up if ever resumed. Crop diversification and soil improvements of our major industries; accelarated production of profitable minor crops; crop drives for the expansion of cultivated area of promising industries; increased production of vegetables and fruits to facilitate better nutrition, amelioraion of rural conditions through the improvement of homes and developments of home industries for te-nant farmers, were the basic lines to which the agricultural extension service of the government projected its work and services. In order to safeguard agriculture from the ravages of pest and diseases effective methods of control have been the object of studies and organized field activities.

The government also operated a Central Experiment Station and eight regional experiment stations. This system permitted close study of problems at the central station and regional tests to deermine local applications under the different agronomical districts of the Philippines. Besides, provinces were encouraged to operate with local funds the provincial stations which served as local demonstration and propagation stations. Technical men were encouraged to keep abreast with scientific progress abroad. New findings with possibility of local application were made part of the investigation in the Experiment Stations. Scientific work in the Philippines in agriculture was reviewed in other scientific centers of the world, just as their work became part of our in-formation made possible by the exchange of the Philippine Journal of Agriculture published monthly by the Bureau of Plant Industry up to the outbreak of the War with scientific agricultural journal of other countries.

With the above recital of the working of our agriculture and the actual tendencies and the part which the government played in this connection in the past, our responsibility to agriculture under the new conditions and new economic and political exigencies are clear and unmistakable.

Foremost is the urgent need of rehabilitation. The war wrought destruction to physical plants. Farm buildings and implements were destroyed, farm animals and farmers were killed; farm organization was disrupted, agricultural areas were abandoned, agrarian difficulies became acute, peace and order continue to remain unsatisfactory in remote farming areas. Due to sufferings, losses of property and belongings, deaths among the near relatives, the average farmer is demoralized. He is in a dilemna. He is lost where to begin or when to begin. The farmer himself needs rehabilitation before he can rehabilitate his farm. Indeed, our most urgent need first is to rehabiliate the rural population. He worked for three years under distress. He kept on producing and every time harvest came, others harvested his crop ahead of him. For three years, he lived miserably on crops that remnants of depredations, and whatever he could secure to sell to buy his necessities he received either an emergency note or a mickey mouse mo-When the sudden change came, these were the only legal tender he had and nothing has yet happened to enable him to buy necessities with it.

Can the farmer build new farm buildings, repair irrigation systems, buy animals, threshing machines, plows, etc. if credit at reasonably low interest are not made available to them? Obviously the need is substantial aid and credit with low interest. A few items may be mentioned to suggest the urgent needs to speed up food production as follow: Three hun-

dred sets of tractor and threshing machines to harvest speedily the coming rice crops of central Luzon. Five hundred trucks to move crops from the fields to the warehouses. Sufficient number of rice mills for a daily capacity of 50,000 cavanes of clean rice to be distributed in the different important rice-producing centers. Ten million new jute sacks as containers of palay, rice and corn. Fifty thousand carabaos to provide a reasonable beginning for building up the stock of work animals Ten thousand sows and 500 boars to provide a foundation stock to revive the hog industry. Half a million sheets of galvanized iron for roofing warehouses and farm buildings. These are large items and their money equivalent will stagger the imagination of farmers.

Then comes the problem of crop adjustments. New conditions, new economic and political requirements presuppose revision of many existing condi-tions. Fortunately, the War made pre-paration for adjustments. The adjustment program, however, must be com-prehensive and must feature provisions for the uplift of the welfare of the small farmers at the same time that basic industries are encouraged to improve. There are thousand of hectares devoted to some crops that are either unsuited due to wrong choice of crops or to soil deficiency due to neglect and continuous cropping. Due to poor yields, production will mean an uneconomical use of labor, materials and capital. Withdrawal of these areas from production and shifting them to better uses or shifting proshifting duction to better lands is an imperative need. Greater yields in rice must be achieved through general practice of already known effective methods. Irrigation must be further developed to promote greater food production. Ricelands should be utilized the year round thru a sound cropping system. The average tenant should produce more,

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## Philippine Agriculture . . . (Continued from page 13)

earn more, live better and be a better farmer.

Our tobacco industry demands definite adjustment. The filler tobacco at the outbreak of the war was in a state of overproduction. On the other hand, aromatic cigarette tobacco and wrapper tobacco were in premiums and are likely to be in demand under the new conditions. Tobacco lands will be excellent for corn, peanuts, soybeans, cowpea, tapilan, white navy bean and many others. This indicates which direction adjustment may well take its course.

In the coconut industry, new uses for oil and the possibility of reducing the cost of production and an effective organization for handling the products are encouraging signs. If the oil is exported to be made into lard, oleomargarine, soap and other products, why could not production of these manufactured products be done in the coconut growing centers and save all the cost of transportation of raw materials. If other countries provide their population better wages as factory workers, why don't we do the same here by establishing our factories close to the source of raw materials and power? What is the use of making copra, when the nuts could be hauled into the factory and the oil mixed with caustic soda in the plantation to produce soap? How many arduous steps and costly work can be eliminated? We have seen already how nuts can be desiccated, then passed through an ex-peller and high-grade oil and coconut flour are produced? Many labor-saving devices in collecting the unhusked nuts can yet be developed. Again the coconut grower can raise hogs under the coconut plantation and there is no reason why we cannot processed the hogs into ham and bacon for which there is a fairly large demand. What the coconut industry needs is readjustment in its organization and adoption of progressive farm management.

There is an excellent opportunity now to rehabilitate sugar production in districts where this can be achieved at costs that will enable Philippine products to compete in the world's open market. Marginal sugar lands should be definitely abandoned and devoted to other staple crops such as soybeans, castor oil, peanuts, cassava and fruit trees.

In the abaca industry, the problem is similar to that of sugar cane except that the market for abaca still depends upon the Philippines as the principal supplier. But farmers and the government must be decided to rehabilitate only good abaca lands and in abandoning marginal lands. Machinery and labor saving devices should be used to achieve economical production of good quality products. Many times the industry had been threatened by pest and diseases. No efforts should be spared to find out the best control measure for the known pests and diseases. Abaca lands must look forward to effective farm management to protect the plantation from the ravages of typhoons or they must turn to other crops. Unless made up by other advantages, lands in districts often ravaged by typhoons will not be suited to abaca, unlike those in Mindanao with its rich soil and under climate that registers no destructive typhoons.

In rice we are yet to see the greatest revolutionary changes in our production. Heretofore, a riceland gives at most eighty cavanes of palay per hectare per harvest. The average in good land is forty, in fair lands, thirty and less. Unless irrigated as is usually the case, only one crop is taken from the land in one year. Through the use of better seeds and good irrigation practice, the yield may be increased by 20% to 50%. But the greatest changes will come in the utilization of ricelands after the regular rice season to another crop of potential economic value. This has been demonstrated in recent years with the use of soybeans, mongo, cowpea, corn and camote. Because of its adaptability and good yields, camote can be utilized by the farmer to diversify his enterprise in the farm. For the cultivation of camote will enable the farmer to take care of hogs, utilizing the leaves, stems and roots. The use of machinery will be required to facilitate the change as the land must be promptly prepared after the rice harvest and planted to camote. camote planted after the rice crop, would yield after four months from three to seven tons of camote tubers.

New crops in prospect are the ramie, the citrus, the avocado and the soybeans. Ramie is one of the best as an export crop and for the increasing demand for raw material of the growing local textile industry. United States textile mills are interested specially now that a million dollar crop and several hundreds of acres has been developed in the everglades of Florida. Citrus is a protective fruit needed daily in everyday's family menu, to improve nutrition. The avocado is a nutritious fruit and is grown in every part of the Philippines. Soybeans is the modern miracle plant.

Lastly, but equally important is the menace from the mounting agrarian difficulties. Basicallly, this is an economic problem. The individual tenant or independent small farmer should be placed on an economic level and security, which attains for him a good standard of living, opportunity for educating his children and the enjoyment of such comforts of living similar to those enjoyed by workers in industries. Naturally. this is a problem of the tenant himself and the landowner. It is the tenant's business to organize farm work in order that his income may be enough to provide a good standard of living for his family. Obviously, it is the business of the landowners to cooperate with the tenants in his case, because the prosperity of the tenant farming will reflect upon the income of the land.

No amount of bickering on terms of sharing, on rights and tenure, will benefit the tenant unless his farming is profitable, unless the area he tills is economically large and unless his farming methods and practices are efficient. Therefore, both the landowner and the tenant must strive to increase the rate of production, 'adopt up-to-date practices, increase farm income, create good living conditions in rural communities and avoid such abuses which socal legislation is trying to prevent. The need at present is more general enlightenment.

The discrepancy in attainment and in bargaining power between landowners and tenants is so wide that abuses be-

#### Rehabilitation Problems .

(Continued from page 7) security of our tenants, or there will be no peace in our rural communities. They demand justice, and I ask for them justice. They are still amenable to reason and fairness. They need a chance to earn a decent living, an opportunity for their children to be enlightened, an economic security in their own little and close world. Let us examine our tenancy law, let us study their problems closely and let us be fully determined to give them the necessary improvements.

come possible. Were tenants better enlightened, it would be impossible for landowners to commit abuses which are the cause of agrarian difficulties. Happily, there is a new trend in this direction as large farm owners are beginning to put more business ideas to farming and they are realizing that the only way to make the farm pay under tenancy system, is to make tenants prosperous and happy. The greatest need of our country is an enlightened citizenry.

In order that Philippine agriculture may be speedily rehabilitated and readjusted to the exigencies of present day conditions, it must take cognizance of the following basic needs of the rural districts.

1. Establishment of complete peace and order in the rural districts in order that the farmers even in the remote bar-

2. Liberal aid in the form of relief for reconstruction of farm facilities and procurement of work animals and (b) Sustantial credit facilities at low interest to enable the farmers to rehabilitate on their own account.

3. Stable prices of farm products.

4. Social and economic security for small farmers and tenants.

5. Establishment of adequate transportation and machinery facilities.

6. Government liberal support to make science serve agricultural progress.

### The Rebirth of . \_ .

(Continued from page 19)
FIRST CONGRESS OF THE
PHILIPPINES

Second Special Session
HOUSE OF REPRESENTATIVES

INTRODUCED BY CONGRESSMEN
RAMOS, ROMERO, GALLEGO,
MONTANO AND DE LOS SANTOS, AS MEMBERS OF THE
C O N G R E S S I O N A L RECONSTRUCTION AND REHABILITATION COMMISSION.

AN ACT TO AMEND SECTION FIVE OF COMMONWEALTH A C T NUMBERED FIVE HUNDRED SIXTY-FIVE ENTITLED "AN ACT PROVIDING FOR THE ORGANIZATION OF COOPERATIVE ASSOCIATIONS. AUTHORIZING THE CREATION OF AN AGENCY OR DESIGNATION OF AN INSTRUMENTALITY OF THE GOVERNMENT TO PROMOTE AND SUPERVISE THE S A I D ASSOCIATIONS, AND PROVIDING FUNDS FOR THE PROMOTION AND SUPERVISION OF THE SAME."

Be it enacted by the Senate and House

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

SECTION 1. Section five of Commonwealth Act Numbered Five hundred (Continued on page 22)