The Best Step To Save Sugar Industry Is Industrialization

By HILARION HENARES

When our fathers drenched Zapote with living blood that we may be independent, that the sun and the three stars may wave aloft undisturbed, their thoughts were fixed only on one desire—that of independence at any cost. Blindly, they fought for the cause they believed was right, and failed in the attempt. But even as they fell and died helpless beside contrived arms and ammunitions their one and common will, emblazoned itself in every heart.

A young man who offered his bright years to the realization of that national hope felt a stronger urge to carry on. That man, now His Excellency, Manuel L. Quezon, fought not with a sword but with a pen and won! And today, as the rusty hinges of the past lay open, we face the future with its glorious and its hazards.

As an agricultural country we now owe it, to ourselves and to our children to declare an economic independence alongside with the political emancipation now close at hand. We owe it to ourselves to uphold our industries. We owe it to ourselves to live and be happy in living. And the Sugar Industry tops the rest of the industries in importance not only because it has been a source of life for over 4,000,000 of us but because it is threatened by a pitiful collapse which could be obviated by proper action.

How may we accomplish this? By saving the by-products of sugar and transforming them into utility, labor and life.

Almost three years ago I took the liberty of suggesting President Manuel L. Quezon as the Industrial Director of the country as an emergency measure. In the same article which appeared in the *Philippines Herald* of March 13, 1935, I suggested the execution of an industrial organization plan for the establishment of new industries to supplement sugar manufacture.

Sugar Cane Planters, in order to live, must produce sugar for a competitive market. To realize this, one thing must be done: utilization of the cane by-products their competitors are throwing away. There are four by-products of the sugar industry which have been experimented on and found of commercial value. They are bagasse for the manufacture of paper and bagasse board, molasses for the manufacture of wines and motor fuel, filter press mud for the manufacture of fertilizer and bagasse ash for bottlemaking.

For the benefit of those who may not be acquainted with the present simple process of sugar manufacture, here is a brief informative outline:

The cane is pressed and as the juice flows out, bagasse is left. Some bagasse is used for fuel and the rest are thrown away. The juice is heated and decanted and the clear liquid is evaporated and its mud is thrown away. The syrup is now boiled in a Vacuum Pan to produce the so-called A-Massecuite. This massecuite is sent to a certifuge running at a very high velocity. The A-sugar is separated from the molasses through a perforated screen, the sugar is what we call A-sugar, a sugar polarizing 97 or 98. The A-Molasses is boiled again on a B-Vacuum Pan and the massecuite that comes out is the B-Massecuite. This B-massecuite is centrifuged on B-Centrifugal and the resulting sugar is the B-sugar. This B-sugar is to be remelted again to be made into A-sugar. The B-Molasses is sent to the distillery to be used for making alcohol and wines.

Now out of 1 ton sugar cane we get out of the ordinary procedure:

23.87%	Bagasse
11.80%	Sugar
2.03%	Mud
2.89%	Final molasses
59.41%	Water and other undetermined losses. (This data taken from the average of 29 centrals on 1929-1930 milling season. See Phil. Sugar Ass., Oct., 1931.)
100.00%	

The total area planted to sugar cane was approximately 350,000 hectares in 1934 but only about 260,000 hectares remain planted at present. Approximately 2,000,000 men and their families are directly dependent upon it, and another 2,000,000 people owe their livelihood to employment in other business to supply the needs of these 2,000,000 of increased buying power.

In the event that America closes her doors to us, can we continue raising sugar cane and maintain the millions of our people dependent on it? Yes, we can.

How? By industrializing the sugar by-products. Our main concern now is to maintain the present area planted to sugar cane so as to continue to provide livelihood for the present farm hands, manufacture just a limited amount of sugar that can be very well disposed of at a competitive price of say four-fifty (₱4.50) a picul, utilize all waste products of the sugar manufacture to make up for the reduction of price of sugar at a competitive market, so as to give the planters, centrals, and laborers almost the same profits and wages for all time.

For this purpose, I propose to have all centrals make only A-sugar so as to put a limitation to

sugar to be marketed, and at the same time produce more molasses for the manufacture of motor alcohol which is in almost unlimited demand here, without in any way reducing the area planted. By making only A-sugar only about 30% of the bagasse will be used for fuel and therefore increases the amount of bagasse for paper manufacture. The amount of press mud will remain the same.

From one ton of cane, if manufactured by the method as suggested, we expect the following products with their respective value:

90 kilos of A-sugar 97 Pol. @ ₱.07 a kg.	₱ 6.30
31.74 kgm. of 100% Bleached Bagassee Cellulose (paper) made on Hazet Process @ ₱.25 a kgm.	7.935
15 liters Alcohol @ ₱.05 a ltr.	.217
8.7 kgm. Mud for Fertilizers @ ₱.025 a kgm.	.217
1.14 kgm. of glass from ash @ ₱.08 a kgm.	.092
Total gross income from 1 ton cane	₱15.324

Total Expenses for producing all the by-products and A-Sugar from 1 ton cane:

For making 90 kilos A-sugar	₱ 2.00
For making 3174 kgm. 100% Bleached Bagasse Cellulose 3.686	
For making 15 liters motor alcohol @ ₱.026 a liter or ₱.10 a gal.	.390
For making 8.7 kgm. mud to fertilizer @ ₱.01 kgm.	.087
For making 1.14 kgm. of glass from ash @ ₱.03 a kgm.	.034
	₱ 6.197

(All figures in this calculation are taken from actual data from the Isabela Sugar Co., Inc. and Paper Factories operated in Germany and the actual test on Isabela Bagasse made by Mr. Weiss.)

In Table A expenses of planter of ₱5.00 includes already rentals to the landowners which is calculated to be about ₱1.00 per ton or 12% to 15% on total values of crops. The yield of 1.87 piculs per ton which is the average of 29 centrals on 1929-1930 milling season, (Annual Report of Philippine Sugar Association Report, Oct. 1931) was taken as the basis.

Inasmuch as the planters have already milling contracts of either 45% for central and 55% for planter—40% for central and 60% for planter, or 50% for central and 50% for planters, it will be hard to change these existing agreements. But these parties can enter into another contract for all the other subsidiary products of say 60% for centrals and 40% for planters.

Under the present conditions the planters and centrals are getting from their ton cane @ ₱7.00 per picul as an average price of exportable and domestic sugar, practically the same income Table B) as they would if they make only A-sugar and sell at ₱4.42 and utilize all by-products. (See Table A.)

Table C shows how hopeless it is to produce the same amount of sugar and selling at a competitive price of ₱4.42 a picul.

Table A shows that by the proposed scheme of making only A-sugar and selling at a competitive price of ₱4.42 per picul and utilizing all by-products, the sugar planter will still be getting practically the same income for his ton of cane and the central will be getting bill a handsome profit and the farm hands will be getting or raising the same amount of sugar cane and the central laborers will be producing enough products to give the central still a good income and profit and consequently are entitled to same wages.

The other problem now is how to dispose of the sugar and how to finance the new industries.

Under the T-M Law the Philippines has a quota of 850,000 tons of sugar allowed to enter the American market now to be free of duty and later to be submitted to a graduated tariff. Suppose we maintain the area planted to sugar cane at present and make all A-sugar only. With the same cane milled we will be producing only 9/11.8 x 850,000 or about 648,000 tons of sugar.

If by controlling the retail price per kilo of sugar like what the Naric is doing for rice we can make the price low enough so as to make sugar a permanent part of the people's diet we will be increasing local consumption easily to 200,000 tons. The manufacture of cheap can containers which the National Development Company will soon undertake will further increase local consumption for the manufacture of preserves. The remaining 448,000 tons can very well be sold to our neighbors, Japan, China, or Denmark where tariff barriers are not so high.

Our government has a strong program for the creation of new industries. It can very well finance or subsidize these new industries and take care of the marketing of its products just the same way it did for the sugar industry.

This scheme, I have to admit, is calculated only on paper, taking data from experts in Germany and the little experience we have here in the Philippines. It will take plenty of nerve, faith, and determination to begin it. But taking into consideration the tremendous problem it is calculated to solve, it is worth while trying it out.

As I said, so I reiterate that the "sugar industry" is not heading towards utter failure if proper steps are taken soon. In fact, I see in it an avenue of escape—escape from economic and industrial poverty and dependence.

There is before us a new country, a country of contentment where food and health are plentiful. It's within reach, but only at the cost of much effort on our part. Must we stand by, wishing we were there, praying to get there, yet not actually lifting a foot towards its wide-opened gates?

We owe it to ourselves, we owe it to our children, we owe it to our fathers and the cause they fought for to strive for the land of plenty.

Let the government throw away two million pesos to find out whether the Sugar Industry could be saved or not. Let us find out if it can be done or if it cannot be done. It is worth-while risking two million pesos to try to save the ₱452,000,000 invested in the sugar industry and approximately 4,000,000 men and their families dependent on this industry. If the Government fails in this venture at least posterity will appreciate that our Government has done its best. If it succeeds the

Government will not need to put any additional capital because private enterprises will rush to take it over. Then the Government could have that invaluable satisfaction of having led blazed the trail for the salvation of the masses in the preserving of the social order. "It is better to have tried and failed than not to have tried at all."

TABLE A

TABLE SHOWING THE INCOME AND PARTICIPATION OF CENTRAL AND PLANTER PER TON CANE WHERE BY-PRODUCTS ARE UTILIZED EVEN IF SUGAR ARE SOLD AT P4.42 A PICUL

	Participation on sugar 45% C 55% P	Participation on by-products 60% P 40% C	Total Income on 1 t.c.	Total Expenses per ton	Gain Net	Per Cent Gain
Central	2.835	5.414	8.249	6.197	2.052	33.1%
Planter	3.465	3.609	7.074	5.000	2.074	41.4%
	Participation on sugar 40% P 60% C	Participation on by-products 60% C 40% P	Total Income on 1 t.c.	Total Expenses per ton	Gain Net	per cent Gain
Central	2.520	5.414	7.934	6.197	1.737	28 %
Planter	3.780	3.609	7.389	5.000	2.389	47.8%
Central	3.150	5.414	8.564	6.197	2.367	38.2%
Planter	3.150	3.609	6.759	5.000	1.759	35.2%

Note: In the above Table Sugar is calculated on a basis of a price of P.07 a kilo or P4.42 a picul.

TABLE B

Under the present conditions the planters and centrals are getting from their ton of cane @ P7.00 per picul as an average price of exportable sugar the following:

	Participation on sugar of 1.87 piculs a ton 45-C; 55-P	Expenses	Net Gain	@ Gain
Planter	5.89	3.00	2.98	96%
Central	7.20	5.00	2.20	44%
	Participation.... 40 central 60 Planter	Expenses	Net Gain	
Central	5.23	3.00	2.23	74%
	7.86	5.00	2.86	57%
	Participation.... 50 Central 50 Planter	Expenses	Net Gain	
Planter	6.54	3.00	3.45	118%
Central	6.54	5.00	1.54	30.8%

TABLE C.

With the present sugar production but with price at P4.42 per picul the planter and central would be getting the following per ton cane.

	Participation on sugar @ 4.42 per picul 45 Central 55 Planter	Expenses	Net gain or loss
Central	3.71	3.00	x 71
Planter	4.55	5.00	— 45
	Participation ..... 40 Central 60 Planter	Expenses	Net gain or loss
Central	3.30	3.00	x .30
Planter	4.96	5.00	— .04
	Participation ..... 50 Central 50 Planter	Expenses	Net gain
Central	4.13	3.00	x 1.13
Planter	4.13	5.00	— .87