

DISCUSSION NOTE October 2020



REPUBLIC OF THE PHILIPPINES

NATIONAL ECONOMIC AND
DEVELOPMENT AUTHORITY

AN ASSESSMENT OF REFORM DIRECTIONS FOR THE **PHILIPPINE SUGAR INDUSTRY**



Sugar's prominent role in Philippine economic history traces back to at least the 19th century. But starting at least two decades ago, some had begun to see it, rightly or wrongly, as a sunset industry. In recent years, the country has found itself importing the commodity, in stark contrast to its history of being a top export earner up until the 1970s, when the bulk of total production was exported to the United States. The days when the US Sugar Quota was a prized privilege to sell at premium prices to a highly subsidized market are long gone. So are the days of the large and powerful sugar barons drawing wealth from ownership of huge tracts of sugar land, which had since been fragmented by the Comprehensive Agrarian Reform Program (CARP) and generational partitioning. The Sugar Regulatory Administration (SRA) currently estimates that there are around

88,000 sugarcane farmers, 85 percent of whom farm less than 5 hectares.

Yet "sunset," in the sense of heading towards extinction, may not be an apt description for an industry that continues to employ well over half a million workers, spans an aggregate area (around 410,000 hectares) actually larger than it did 25 years ago, and still directly contributes P86 billion to the economy. It is also an industry finding new business opportunities in alternative products like bioethanol, muscovado, biomass-based electric power, and more.

Still, the industry's competitiveness had considerably declined over time. Domestic sugar prices have diverged from international trading prices especially within the past decade, reaching up to twice the world market price and Thai export prices (see Figure 1).

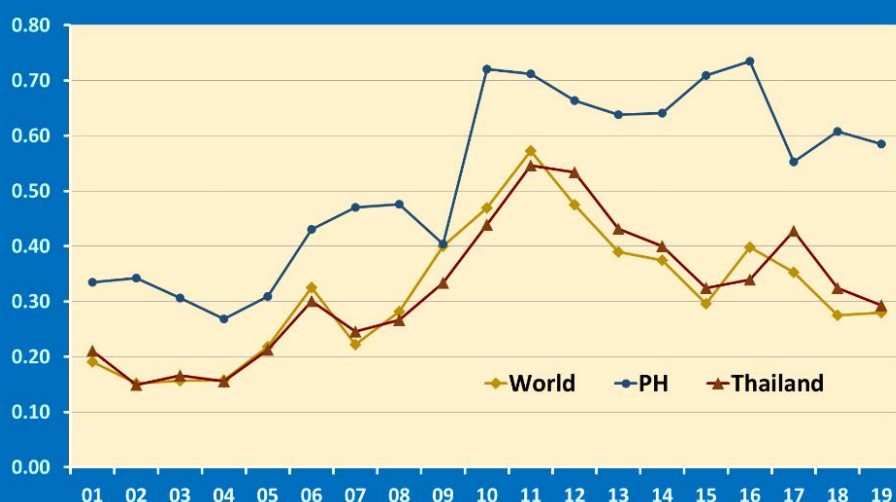


Figure 1. Philippine Domestic Price of Raw Sugar vs. Thailand and World Export Prices, 2001-2019

Source of Price Data:
USDA, World Bank

Fragmentation of sugar farms led to some 140,000 hectares being held by about 74,800 small farmers or holders of less than 5 hectares of farmland (Table 1). These farmers generally have marginal capability to cultivate these lands.

Table 1. Sugarcane Farmers Distribution by Farm Size

FARM SIZE	NUMBER OF FARMERS	
	2016-2017	2018 -2019
≤ 5 ha (85%)	55,250	74,800
5.01 to 50 ha (14%)	9,100	12,320
≥ 50.01 ha (1%)	650	880
Total	65,000	88,000

Economists argue that the ultimate reason for the divergence, and why it had persisted and widened over time, is the historical insulation of the industry from the international market. This, combined with other peculiar features of the domestic industry, had dampened the impetus to invest in improved productivity and efficiency on the part of industry players (planters and millers) and government alike.

Observers often liken the story to that of rice (although there are important differences, as argued later). Exported in the past (albeit briefly, i.e., in the 1970s) and priced even below import prices, the policy of shielding the rice industry from trade had the unwanted effect of domestic prices creeping higher and above international prices in the course of four decades – reflecting falling productivity and rising costs relative to our rice-producing neighbors,

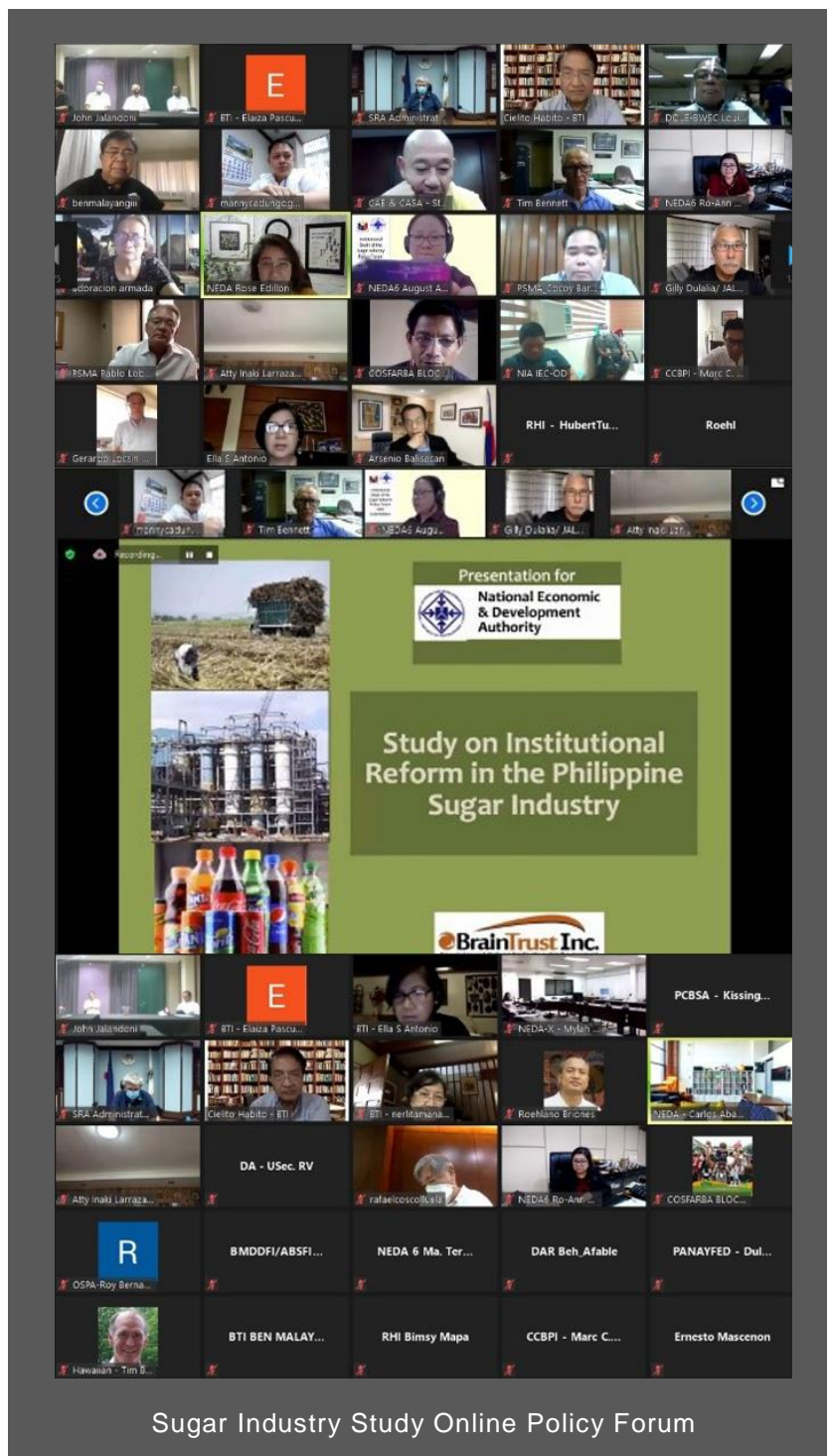
reaching up to 2-3 times. Sugar, like rice, historically enjoyed high levels of trade protection through the era of trade liberalization and globalization in the late 1980s into the 90s and onwards. And like rice, its domestic price evolved from being below international prices then to substantially exceeding them behind the trade shield now. This could have bred complacency over time on the part of both government and producers towards keeping competitive.

Republic Act 8178 or the Agricultural Tariffication Act of 1996 eliminated quantitative restrictions (QRs) on importation of agricultural products (except rice, tariffed much later in 2018), replacing them with more transparent import tariffs. In actual practice, importation remained tightly controlled by the Sugar Regulatory Administration (SRA), endowed with regulatory powers by Executive Order No. 18, and reinforced under the Sugar Industry Act of 2015. The SRA also enforces various regulations on the domestic industry, notably:

- Restrictions on the interisland shipping of sugar.
- Mandatory sharing arrangement between sugar mills and sugarcane planters, ranging from 60%-40% to 70%-30% (planters' and mill's share, respectively).
- Mandatory warehouse receipt or quedan system that segments the utilization of raw sugar into specific uses: exports to the U.S. (A); domestic market (B); reserve (C); and world exports (D). SRA has lately only allocated for A and B sugar, with domestic production already falling short of domestic requirements.



Clockwise from top left: Cane Unloading; 50-Kg bags of Raw Sugar; Cane Crusher for Muscovado Production; Water pond for Sprinkler Irrigation; 1-ton bags of Raw Sugar; Pile of Bagasse



While the shielded high domestic price of sugar has helped support the sugar industry, domestic sugarcane production has not achieved higher productivity; nor has the industry as a whole become more competitive over time. On the other hand, it has increased the cost of sugar for consumers and for food and beverage manufacturers, in turn undermining the competitiveness of the latter.

As a cane-based sugar industry, its continued viability into the future would depend on: (1) its ability to withstand competition from non-cane-based sugar as well as non-sugar substitutes; (2) its ability to secure its share of the domestic and export market; (3) the efficiency of its production system that affects its competitiveness against other sugar suppliers and figuring less in the common thinking on the industry; and (4) its environmental costs that could affect its desirability relative to other competing land uses.

The question of primary concern is: How might the Philippine sugar industry be sustained in the face of traditional, current, and emerging challenges? The National Economic and Development Authority (NEDA) thus commissioned Brain Trust, Inc. to undertake an in-depth evaluation of undertaking fundamental market and institutional reforms in the sugar industry towards a more open, competitive, and less regulated industry.

Quantitative and qualitative approaches were employed to determine the impact of reforms on various industry stakeholders spanning the value chain from farmers to consumers. Quantitative analytical tools used for the analyses included a partial equilibrium model focused on the sugar industry, and a 36-sector computable general equilibrium (CGE) model of the Philippine economy to examine inter-industry and aggregate impacts of eliminating trade restrictions in sugar. The qualitative analyses entailed a review of documents and literature pertaining to the industry, particularly past and current agricultural/sugar development and trade policies, executive orders, laws and other relevant legal documents/issuances on the SRA and the sugar industry. Consultations were held with various stakeholders in selected sugar-producing areas in the country, particularly in Iloilo, Negros Island and Bukidnon, and in Metro Manila. Initial findings of the study were presented in a Policy Forum conducted on July 28, 2020, participated in by more than 120 representatives from government and various stakeholder groups.



Consultation with Department of Agriculture Secretary William Dar



Consultation with Department of Trade and Industry Secretary Ramon Lopez

KEY OBSERVATIONS AND FINDINGS

The case for sugar trade liberalization appears weak at this time. Should it be pursued nonetheless, it would best be done gradually and only partially, especially in the face of severe distortions in the world sugar market.

Simulations indicate that if inter-industry effects are ignored, fully liberalizing trade in sugar would predictably hurt planters and millers, both of whose profits are projected to decline by 57 percent, while consumers gain in welfare (consumer surplus) by up to 65 percent. There is a modest net gain to overall society of P2B or 1.8 percent, but this must be weighed against the implementation costs of mechanisms for the winners (consumers) to compensate the losers (planters and millers), which could well offset the gains to be redistributed.

If inter-industry effects are also accounted for, overall society is projected to gain P7 billion to P9 billion per year from liberalizing sugar trade with its associated investment and productivity effects. This welfare increase is mainly felt by consumers due to lower prices for sugar and sugar-using products. However, all this is accompanied by declining prices (by up to 11%), employment (7%-16% for sugar manufacturing and sugarcane production, respectively), and output (6.8%) in the domestic sugar industry. On the other hand, food manufacturing industries including those using sugar would see increased output (by 1%) and employment (1.1%) with reduced prices (0.24%-0.41%), while imports for these commodities would decline over time (by just under 1%). The industry sector as a whole would see incremental growth with sugar trade liberalization, albeit small (0.08% by 2030).

The other impact of concern would be on the distribution of welfare gains across household income groups. In the face of negative impacts on the sugar industry, simulation results point to welfare gains across all household groups from liberalization, through their gains as consumers. However, higher-

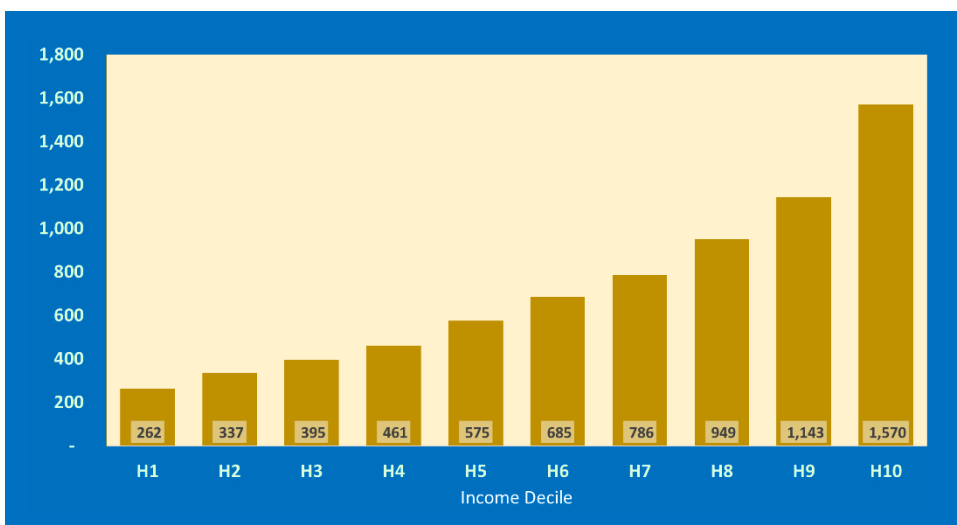


Figure 2.
Distribution of Liberalization Benefits Across Household Income Groups (Million Pesos)

Source: Authors' Calculations

income groups tend to gain more than lower-income groups do: the lowest income decile gains P262 million, progressing up to P1.6 billion for the richest income decile, reflecting higher consumption levels of the affected products by the better endowed (Figure 2).

All told, liberalization would benefit consumers but would favor the rich more than the poor. All this would be at a clear cost to the sugar industry stakeholders. While industrial users of sugar would benefit, the impact on them appears relatively modest. It may be noted that the case for reducing prices for consumers at the expense of industry stakeholders is not as compelling as it has been for rice. The latter is a food staple that takes a substantial portion of the average family's consumption basket, especially of the poor. Sugar, on the other hand, takes a much smaller part of the average family budget, and given now widespread dietary health concerns, is even subject to moves to reduce consumption, including additional excise taxation. Thus, even as liberalization would lead to a net overall welfare gain for society, the net gains to be achieved may not be substantial enough to offset the downsides in terms of adverse distributional impacts and non-economic costs in the social and political realms.

The traditional planter-miller sharing system has contributed to lower productivity at the mill and farm levels.

In the Philippines, the traditional planter-miller sharing arrangement is unique to the sugar industry (as provided in Republic Act No. 809), wherein planters receive 60-70 percent of the milled sugar and the millers the remainder as "service fee." The scheme contrasts with direct crop payments that is the norm in all other farm products, and with the cane purchase system that is practiced elsewhere, where the miller directly pays the planter for all cane delivered, at prices usually adjusted for cane quality. As such, the mill acquires full ownership over the processed output. Still another alternative is toll milling, where the planter pays the miller a service fee while maintaining ownership of the cane and the product(s) derived from it.

The sharing system implies shared ownership over the milled sugar, which introduces considerable disincentives on both sides of the transaction. To illustrate, suppose that the mill share is 30 percent, and

it is contemplating a change in production practice or equipment that will yield an additional 100 tons of sugar, but at an additional investment equivalent to the value of 40 tons of sugar. Under cane purchase, the mill will undertake the adjustment as it keeps all 100 tons of increased output and gains a net of 60 tons. But under the sharing system, the mill receives only 30 out of the 100 additional tons. The investment will thus net it a negative 10 tons, which makes no economic sense, thereby eliminating all incentives to invest in the improved milling practice.¹

The planter has a similar disincentive, best seen when compared to the toll milling arrangement. Suppose that a planter can take action on the farm that would raise cane output by 100 tons, requiring an investment equivalent to the value of 80 tons of cane output. Under toll milling, s/he will make the investment and gain 20 tons. But under a sharing system, s/he must pay a share of 30 tons to the mill. The investment in improved productivity will then net a negative 10 tons, which makes no economic sense and eliminates the incentive to invest in the improved farm practice altogether.

In both illustrations, there is effectively a penalty for investing in higher productivity. This *penalty problem* affects both mills and planters, made even worse by the requirement under RA 809 to reduce the mill share when mill capacity increases. Borrell et al. (1994) cited this penalty problem to explain our lower sugar extraction rates (Philippine mills then were at 78 percent while Australian mills were at 92 percent), an observation repeatedly made over the years that the sharing scheme has prevailed.

There is an additional problem when there are economies of scale, which is common in raw sugar processing. Suppose for instance that it processes 10,000 tons of sugar at the average cost of P300 per ton, but processing 15,000 tons drives cost down to P250 per ton. Under cane purchase, the miller can attract more cane deliveries by raising the purchase price, thereby lowering the cost per unit output (average cost). But under the sharing scheme, the mill cannot offer a higher price per ton of cane as an attraction for more cane deliveries. The sharing system negates the mill's ability to incentivize cane deliveries via higher cane prices, in order to realize

¹ The adjustment may be a capital investment that generates an additional gain over multiple periods into the future. The argument holds just the same though capital budgeting techniques have to be invoked.



Stakeholder
Consultations

economies of scale.² This is called the *overcapacity problem*; indeed, the industry has been saddled with persistent overcapacity, which in turn leads to higher average costs for milled sugar.

These provide an important explanation why productivity in the Philippine sugar industry has persistently been lower than elsewhere, especially where cane purchase is the norm, and investments in state-of-the-art milling and cane production technologies have been minimal. Instead, industry stakeholders have tended to look to the government for support and assistance toward higher productivity. The inherent disincentive problems associated with the planter-miller sharing system are the same disincentive problem associated with sharecropping, which CARP sought to eliminate and replace with fixed leasehold tenurial arrangements.

The quantitative analysis indicates that shifting to a cane purchase system could lead to expansion of cane output (by 16%), and a corresponding rise in sugar output (by 23%). Planters' profit would rise substantially (by 79%), but because sugar price falls (by 29%), mills' profits decline (by 72%). Consumers stand to benefit from the lower price, with consumer surplus expanding by 52%, and overall society's welfare (economic surplus) rising by 3.9%, showing that planters' and consumers' gains still offset the millers' losses. These results still do not consider the expected increase in productivity resulting from

improved impetus to invest in both the planting and milling sectors.

Field consultations revealed that millers are open to a shift to a cane purchase system. But planters tend to be wary of it, even as they are likely to derive substantial gains from such shift, for two reasons: (1) They feel vulnerable to the bargaining power of the mill, and thus object to its likely price-setting power under the cane purchase scheme; and (2) They favor holding on to sugar quedans to be able to perform arbitrage across time and space (through swaps).

The allocation of quedans for sugar exports to the U.S. has outlived its usefulness, and introduces unwanted distortions in the market.

The continued issuance of 'A' quedans for export sugar to the U.S., where prices are lower, appears incongruous in a situation where domestic requirements already equal or exceed domestic production. It also introduces a distortion that is suspected to yield substantial economic rents (unwarranted profits) to certain unscrupulous elements in the industry. There are allegations in the industry that 'A' sugar quedans, which fetch lower prices given the market segmentation, have somehow found their way to be improperly sold in the higher-priced domestic market.³

² Conceivably the mill can address this by offering a higher share to planters, but this would worsen the penalty problem. In practice, mills give various forms of incentives to growers, or even truck drivers, to attract them to deliver their cane to their mill.

³ Furthermore, assigning a portion (currently 5%) of total production to lower-priced 'A' quedans could have the ultimate effect of pushing up domestic sugar prices, reflected in the price of 'B' quedans, higher than they would be under a unified non-segmented market, especially when domestic production falls short of requirements.

Table 2. Raw Sugar Production, Domestic Withdrawals and Exports, 2015-2020

CROP YEAR	1 DOMESTIC PRODUCTION (MT RAW SUGAR)	2 DOMESTIC WITHDRAWALS (MT RAW SUGAR)	3 US QUOTA ALLOCATION (MT RAW VALUE)	4 US EXPORTS ACTUAL (MT RAW VALUE)	DIFFERENCE (1)-(2+3) (MT)
2015-2016	2,238,872	2,163,170	141,443	141,443	-65,741
2016-2017	2,500,509	2,116,373	205,999	142,154	178,137
2017-2018	2,083,638	2,098,353	142,167	121,302	-156,882
2018-2019	2,074,110	1,884,220	142,167	108,226	47,723
2019-2020	2,145,693	1,414,049	142,167	114,201	589,477

Source: SRA, 2020

The SRA justifies maintenance of the ‘A’ quedan allocation on the desirability of continued access to the preferential US sugar market, where the Philippines has enjoyed a quota allocation for decades. The reasoning is that the US quota would be useful in the event of a bumper harvest that leads to a substantial surplus, as the US price tends to be higher than world prices. However, Table 2 shows that in recent years, domestic production is already barely able to meet total requirements.⁴ The country has also been unable to fulfill its US sugar quota allocation lately, and exports to the US are being effectively supported by imports from the world market (introducing yet another alleged opportunity for abuse and fraud). All told, the contingent incremental benefit that hinges on the uncertain prospect of bumper harvests must be weighed against the certain tangible and non-tangible costs already incurred from the distortions arising from the issuance of ‘A’ quedans.

Seven factors stand out as constraints to productivity at the farm level.



Fragmented Land Ownership due to CARP and generational partitioning has reduced productivity of sugarcane, a plantation crop. While various modes of land consolidation help address this, many small farms continue to operate marginally.



Poor soil quality. Prior soil testing is imperative to determine optimum levels of fertilizer and lime (to address soil acidity) application. Many small farmers take soil testing and fertilization lightly, usually because of lack of working capital.



Improved Cane Variety at SRA La Granja



Lack of improved cane varieties.

While improved varieties are actively developed by SRA's La Granja research facility and the Philippine Sugar Research Institute (PHILSURIN), dissemination to and access by farmers remain limited.

⁴ Note that the sum of Domestic Withdrawals and the US Quota do not comprise all of total requirements. Indeed, annual imports in the last 3 years are estimated at around 400,000 MT, far exceeding the computed difference from total production. Meanwhile, the COVID-19 pandemic is reported to have significantly reduced mill

withdrawals, leading to an unusually large difference in 2019-2020, suggesting the need to export this unusual excess to the world market.



Inadequate irrigation. Even as irrigation can raise yields by 10-30 percent, sugarcane largely remains a rain-fed crop, and rainfall patterns have traditionally defined the cropping cycle. Irrigation systems require substantial investments, and financing is often a constraint.



Sprinkler Irrigation



Labor shortages. Labor shortages, which have contributed to reduced sugarcane supplies, are attributed to three factors: (1) Competing demands in other industries, notably construction, (2) Workers' preference for occupations that generate daily cash flow, drawing them to non-farm occupations (e.g., transport services, trading), (3) Government's 4Ps conditional cash transfer program, widely blamed for reducing initiative to work.



SRA Tractor for Use by Block Farms



Low farm mechanization. With labor shortages, farm mechanization has become imperative, but remains limited even in large farms because of substantial capital requirements. Mechanization support under the Sugar Industry Development Act (SIDA) remains hampered by bureaucratic bottlenecks.



Inadequate financial capital. Ultimately underpinning all the above is farmers' common lack of access to financial capital. Financing facilities under SIDA and other government productivity enhancement programs are hamstrung by procurement and procedural issues.

The sugar industry is moving in promising new directions that could enhance its future prospects.

Sugar planters and millers are beginning to venture towards product diversification that will provide better income and/or added earnings, such as muscovado production with its higher-priced niche market, power co-generation, bio-water, and even high-grade plastics. Muscovado, currently seen as a preferred sugar of the health conscious and certain food manufacturers (bakeries and confectionaries), is exported to at least 18 countries in North America, Europe, Middle East, Asia and the Pacific. The market is wide and growing and offers attractive opportunities for small to medium mills, and even farm cooperatives, to enhance income with minimum investment.

To more fully utilize the sugar milling waste material bagasse, a number of millers have established power co-generation facilities to provide electric power beyond their own requirements. These help provide a substantial boost to the revenues of sugar mills, especially in the face of overcapacity amid limited cane supplies. The challenge lies in marketing the excess power via access to the grid, securing preferential feed-in tariff (FIT) rates from the Department of Energy, or obtaining supply contracts with local electric cooperatives.



Victorias Milling Co. Co-Generation Plant

A large amount of water is derived from sugarcane during processing and most are wasted and form part of the discharged effluents of the mills. Investment in bio-water production as a by-product is an emerging new direction in the cane milling industry.

In biodegradable plastic production, sugar is converted to ethylene, then converted to polyethylene plastic, which is an alternative to plastics derived from petrochemicals, which produce hazardous wastes. Plastic from sugar is said to be 100 percent recyclable, hence appealing as an environmentally friendly product.⁵

Finally, bioethanol production from molasses and sugarcane has been around for many years, and domestic producers remain unable to supply domestic requirements for blending with gasoline under the

mandated 10% bioethanol blend (E10). Significant amounts of bioethanol have had to be imported by petroleum companies to be able to comply with E10 requirements.

A coherent policy and program framework is in place to address long-standing challenges besetting the sugar industry.

The government has made it a policy to promote consolidation of small farms to achieve economies of scale and efficiency in both cane production and milling and convergence of assistance to small farmers. At least three forms of consolidation have emerged: block farms, which is a deliberate consolidation of farms 5 hectares and below into a contiguous area of at least 30 hectares and located within a two kilometer radius; farmland lease wherein private consolidators (usually large landowners) lease small farms over a certain period; and professional management of a farm cluster, which involves the provision by a third party of professional management services to a cluster of farmers, cooperatives and block farms.

A landmark policy is the Sugar Industry Development Act (SIDA) of 2015 (R.A. 10659), which responds to major challenges that beset cane and sugar production. SIDA allocated P2.0 billion per year to implement productivity enhancement programs, especially for the small farmers, with allocations shown in Table 3.

Table 3. SIDA Programs Annual Fund Allocation, (P Million)

SIDA PROGRAM	ANNUAL ALLOCATION
Block Farms Grant Program Organization and start-up assistance covering fertilizers, tractors and implements, etc.	300
Socialized Credit Program Consists of concessional loans for farm mechanization and acquisition of production inputs, and the deployment of farm technicians, agricultural engineers, agriculturists, etc.	300
R&D, Capability Bldg, Technology Transfer, Extension Services For intensified R&D and extension services on high yielding cane varieties, pest control and prevention, latest technologies, soil analysis and fertility mapping, etc.; seminar-trainings on sugarcane farming, production, etc.; and establishment of competency standards and training regulations for technical vocational education and training	300
Scholarship Grants Program For underprivileged but deserving students taking up courses relevant to the sugar industry, and vocational/skills development for farmers, technicians, and workers	100
Infrastructure Support Program Construction/Improvement of trans-loading ports, farm-to-mill roads, and irrigation facilities	1,000
TOTAL	2,000

Source: SIDA, 2015

⁵ See <https://ecostore.com/au/sugar-plastic>.

However, implementation has been hampered by a number of issues, notably procurement bottlenecks, resulting in underutilized allocations and underperformance. For instance, the banner Block Farm Program had organized and assisted 216 block farms from 2016 to 2019, covering about 8,523 hectares. While significant given many organizing challenges, this is far too small compared to the estimated 140,000 hectares held by small farmers. The Socialized Credit Program was supposed to have a total allocation of PhP1.2 billion from 2016-2019, but only PhP624 million was approved for release, of which only PhP111.5 million was actually released to borrowers. Utilization rate was thus only 17.8 percent of approved funds and 9.3 percent of the SIDA-prescribed allocation.

SRA is organizationally challenged to perform developmental roles that support its regulatory functions and its over-all implementation of SIDA.

SRA's current staff complement is observed to be highly competent and dedicated, but ill-equipped for the expanded challenges posed by SIDA and the current development landscape. The agency's structure is heavy on regulation and much of staff time and resources are spent on their enforcement. Its developmental function is largely on R&D, which is focused on development, propagation and distribution of high-yielding varieties of sugar points. Its structure, competence and staff complement remain unchanged even after its designation as primary implementer of SIDA, which requires a different set of competencies, and larger staff and budget support. While the agency has formulated a restructuring plan, this has yet to be fully implemented. Meanwhile, the Sugarcane Industry Roadmap 2020 formulated in 2015 needs to be updated and its institutional support rationalized, also in

light of SIDA and new developments within the industry.

POLICY RECOMMENDATIONS



Pursue a phased shift to a cane purchase system that begins on a voluntary basis

- Conduct a campaign to clearly and widely explain its merits and implications.
- Establish a tripartite price management system to curb monopsony.
- Incentivize investments in state-of-the-art milling technologies and processing, and use of milling by-products.
- Provide ample financing to fund the working capital needs of mills to purchase cane.



Phase out segmentation of the sugar market

- Adopt a unified quedan that makes no distinction between domestic and export sugar.
- Take deliberate efforts to expand market opportunities for sugar exports beyond USA.



Strengthen the sugar industry's institutional support mechanisms

- Beef up SRA's developmental role and provide human resource and budget support.
- Expand SRA Board membership to include representatives of small farmers, service providers and user industries.
- Operationalize SIDA Institutional provisions and re-align Roadmap entities therein.
- Further strengthen LGU participation in the industry's development efforts.
- Maximize the engagement of block farms and other small farmers in planning and program identification and implementation.



Revisit and affirm clear directions and strategies for the whole sugar industry, taking a holistic perspective to address its multi-dimensional challenges

- Update the Sugarcane Roadmap 2020 with focus on concrete measures to raise farm and mill productivity, and with its scope extended to include sugar trade and utilization.
- Boost the implementation of SIDA programs by unsnagging institutional bottlenecks and extending the programs to downstream operations, eg., financing for mill modernization.
- Adopt the Socio-Ecological System Framework (Berkes, Colding, & Folke 2003) to move well beyond the economic dimension in planning for and adopting measures aimed at competitiveness and sustainability of the Philippine sugar industry.

Should government wish to pursue sugar trade liberalization (even as the findings suggest that the case for it is weak at this time), it must be through a gradual easing of controls over sugar trade, to ensure that gains therefrom are equitable, and not unduly penalize the groups directly dependent on the sugar industry. To operationalize this, SRA/DA and NEDA could jointly: (1) determine the pace of decreasing the QR within a defined period, e.g., 3, 5 years or more; (2) set parameters for annual sugar import volumes, taking into account global and local market conditions, with the aim of progressively easing up the restriction to lead local prices to gradually move in the direction of the border price; and (3) establish a monitoring and evaluation mechanism to permit proper calibration of the phased liberalization process. It is crucial to undertake reforms that will lead to higher productivity and reduced domestic costs of production that are competitive with comparable sugar-producing countries. But only when long-standing distortions in the world sugar market are eventually removed should full liberalization be pursued. It is thus imperative for the government to join the call for reform in the global sugar industry in international forums, especially the World Trade

Organization, G-77, UNCTAD and UN-FAO, towards elimination of highly distortive government subsidies to domestic sugar industries in major exporting countries. The Philippine government needs to make a forceful plea for international economic justice that is compromised by these persistent distortions in the world sugar market.

Finally, lifting the sugar industry to renewed prominence will require from all its stakeholders transformed mindsets, collaborative partnerships, and openness to shedding tradition in pursuit of broader, deeper, and lasting benefits. If these can be achieved, the future can yet be sweeter for Philippine sugar.

LITERATURE CITED

- Berkes, F., J. Colding and C. Folke. 2003. *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change*. Cambridge University Press.
- Borrel, B., D. Quirke, B. de la Pena and L. Noveno. 1994. *Philippine Sugar: An Industry Finding its Feet*. Report for ACIAR Project No. 8903. Australian Centre for International Agricultural Research, Canberra.



Brain Trust Inc. thanks the following for the photos used in this Discussion Note:

BUSCO Sugar Milling Company Inc.

Sugar pile (cover photo), 50-kg bags of Raw Sugar

Crystal Sugar Company Inc.

1-ton bags of Raw Sugar, Pile of Bagasse, Water pond for Sprinkler Irrigation, Cane Unloading

Victorias Milling Company

Co-generation Plant

Hawaiian-Philippine Company

Cane crusher for Muscovado Production

This Discussion Note was produced by Brain Trust: Inc. (BTI) for the National Economic and Development Authority (NEDA). It summarizes the results of the Study on Institutional Reform in the Philippine Sugar Industry, undertaken by BTI, which benefited from a wide consultative process with government officials and key stakeholders in key sugar-producing provinces and Metro Manila, which culminated in a Multi-Stakeholder Policy Forum.

Any shortcomings in this Discussion Note are of BTI alone, and opinions and recommendations expressed herein should not be taken to represent the position of NEDA or the Philippine government.

CONTACT US:

NEDA Agriculture, Natural Resources, and Environment Staff

Address: NEDA Pasig Building,
#12 Escriva Drive,
Ortigas Center,
Pasig City,
Philippines

Telephone: (+639) 8631-3714

Email: &agri@neda.gov.ph

Website: www.neda.gov.ph

Facebook & Twitter: NEDAhq



REPUBLIC OF THE PHILIPPINES
NATIONAL ECONOMIC AND
DEVELOPMENT AUTHORITY

AN ASSESSMENT OF REFORM DIRECTIONS FOR THE PHILIPPINE SUGAR INDUSTRY

Discussion Note October 2020