

[ANALYSIS] Saving the soil: Marcos gets it right at the DA

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While importers and a select few traders are happy, farmers and fisherfolk are prevented from achieving greater economies that reduce local cost and supply chain inefficiencies.

To validate, simply compute for the contribution to GDP of each link in our agricultural supply chain. Now compute for per capita GDP of each. See why farmers are the poorest.

Look also at the incremental burdens borne by farmers from our 90% dependence on imported chemical fertilizers. Note how the current system is terribly anti-farmer.

From the time Ferdinand Marcos Jr. took on the agriculture portfolio, presumably to imbue the Department of Agriculture (DA) with the powers of the President and compel structural reforms, to today, as on a monthly basis we are continually victimized by food shortages repeatedly forcing us to rely on foreign economies, very little has been discussed to address long-festering reasons agricultural productivity remains not simply weak, but costly.

While agricultural productivity rose on the wave of post-pandemic demand, at 10.07% of gross domestic product (GDP), ours remains below the global average of 10.35%. Under Benigno Aquino III, it was 12.27%. Under Rodrigo Duterte, before the pandemic, it fell to 8.82%.

So far, there's been a series of abuses of authority, terrible disunity where structural changes should have created bureaucratic efficiency, a zombie resurrection of failed programs, plus toxic infatuation with importations.

That propensity to import as a quick fix severely aggravates domestic agriculture's economies of scale leading officials to bank on supply from where agriculture is subsidized, mechanized, and prioritized. This blurs the focus needed to address incessant food shortages. It is also non-inclusive.

From the basic landed cost of imported chemical fertilizers, add the FOREX differentials. Then add at least 3% for duties, arrastre, and stevedoring costs. Further add from 7% to 10% respectively for importer and distributor margins. Slap on dealer's margins. All told, the fertilizer supply chain can bloat by as much as 300% by the time the farmer adds his margins, thus leaving him with few choices, if any.

This is one problem officials cannot blame on COVID-19. Instead, it is a failure to identify systemic costs. By overlaying historical graphs between fertilizer use and agricultural productivity, we would see an undeniable irony. At the about the time Marcos Sr.'s martial law was tightening its stranglehold in the mid-seventies, agricultural productivity had begun its steep decline. Ironically, fertilizer use was increasing.

The graphical data, however, does not show the negative cost-squeeze effect, and there lies the problem. We need to dig deeper.

Let us identify factors behind the high input prices, because to be fair, Marcos may have stumbled upon a solution when he adopted a **Balanced Fertilization Strategy (BFS)** primarily to preserve soil health.

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One, our 90% net imported fertilizers invariably carry FOREX volatility costs especially painful when high inflation devalues the peso. Since importations require foreign currency cashflows, a net importation economy tends to inflate costs even further.

Two, incompetent high-level energy management inflates power prices, thus increasing transportation and logistical costs. Think of its negative impact from transporting imported fertilizers to food preservation, refrigeration, processing, handling, and storage. All these are energy-dependent. That energy inflation in the countryside is highest worsens matters for farmers.

Three, from a low of 18% to as much as 40%, since early 2021 there has been a global price uptrend among all major chemical fertilizer grades. And it does not help that our most applied fertilizer, urea, is petroleum-based, where its price dovetails with rising fuel costs.

It is interesting to note that at nearly P2,000 per 50-kilo bag, those high urea prices were inflicted in Region 1, Marcos's bailiwick.

Four, among the detrimental factors was a program spawned during the final years of the Marcos dictatorship. From 1981 onwards, import licensing that protected domestic producers was eliminated for a number of products including duties and tariffs on fertilizers.

This unlocked the gates for corruption, cartelization, and cronyism. If Marcos wants to flush smugglers out, the best way would be to check out his Malacañang guest list.

Five, the hostile and hegemonic hand of China has been controlling our fertilizer importations ever since. That's a virtual hostage situation. 90% of our fertilizer need comes from China. For fertilizers alone, data show only 10% are produced locally. And for those, urea feedstock, raw materials, and its petroleum chemical base are all imported.

When China decided to re-channel a substantial amount for their domestic needs, that invariably led to even higher prices.

Six, along with the BFS, organic fertilizers and microbial/biorational non-chemical **bio-fertilizers** were to be promoted. This makes more sense than importing expensive Chinese chemical fertilizers. Unfortunately, the DA is busy tending to self-ignited fires.

Seven, check our ignorance of the science of chemicals fertilizers. Urea, other than being costly, petroleum-based, and prone to cartel-pricing and supply manipulation, through a chemical reaction turns into ammonium carbonate when introduced into the soil, thus affecting soil acidity or its pH. Excessive urea means excessive ammonia. This impacts on soil health and long-term productivity.

Beneficial soil microorganisms maintain soil fertility. But toxic chemical fertilizer overuse acidifies the soil and negatively influences these microorganisms, eventually decreasing crop yields. Crops eventually do not develop good plant characteristics from its roots and shoots to its nutrients and nutrient recovery.

Evidence-based science shows that **bio-fertilizers** are superior alternatives to our reliance on toxic chemicals. **Bio-fertilizers** contain live microorganisms that colonize inside plants and encourage growth by increasing a plant's nutrients and, eventually, crop yields.

Early into his stint at the DA amid the shortages and importations, Marcos began a push for reforms in government's fertilizer programs. Through the BFS and hopefully via an active promotion of biofertilizers and technology transfers so that our farmers can produce these locally, Marcos can address food security and long-term soil health – a unique, fundamental, and possibly fortuitous direction few take.

Study the science, Mr. DA Secretary. It works!



"Bio-fertilizers contain live microorganisms that colonize inside plants and encourage growth by increasing a plant's nutrients and, eventually, crop yields."