

## Reinvigorating the Mango industry in the Philippines

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This year's theme of the 17<sup>th</sup> National Mango Festival is relevant and important in addressing the declining mango industry in the country which needs to be rehabilitated, rebuilt, and reinvented. The observation is true, while the Philippine mango is praised in other countries, local stakeholders seem to disregard the value of our home-grown mangoes.

In 2017, I had an opportunity to join my niece Rhoda Galos of LuckyGam Inc. ([www.luckyGam.asia](http://www.luckyGam.asia)) at the Luzon mango stakeholder's forum in Lingayen, Pangasinan. At this event, the DA secretary Mr. Emmanuel "Manny" Fantin Piñol reiterated his goal of restoring the declining mango industry in the Philippines. This event was one of many that DA organized across the country as a series of consultations to craft a 5-year roadmap for the development of the mango industry.



*Prof. Dr. Vicente Sinining with Rhoda Galos and Loreen Itable of Lucky Gam, Inc. at a Mango Forum in Lingayen Pangasinan in August 2017.*



Presentations and workshops were also held on processing, regulation, and best practices for graving mangoes. Reinvigorating the agricultural sector in our country is important. However, in the 2018 national budget the sector that grows food, catches fish, and plants fruits for the country was only allocated P60.6 Billion out of the P3.77 trillion national budget, only about 2% of the national Budget

In the series of consultations conducted nationwide in 2017, the Secretary said the agriculture department has been facilitating a series of consultations nationwide to come up with a clear picture of what the country should do, to rehab, revive and reinvigorate the mango industry.

Secretary Piñol said they are also gathering recommendations from the stakeholders, especially on their role in reviving the country's mango industry.

### **Mango production in the Philippines**

In a forum in Davao in August of 2017, the following issues were presented and discussed as reported in *Davao Today.com* on Aug. 02, 2017 by ALEX D. LOPEZ.

The decrease in the production of mango from 2006: From 5.35 metric tons per hectare yield in 2006, mango production dropped to 4.33 metric tons per hectare yield in 2016.

Data also presented a slight increase in the number of hectares planted to mango in the country was also noted during the same period – from 171,710 hectares in 2006 to 187,839 hectares in 2016.

Supply production of mango also dropped in the same period, from 919,030 metric tons in 2012 to 814,250 metric tons in 2016.

Pressing issues and concerns from stakeholders were also raised, including the critical conditions of mango trees due to the absence or lack of basal fertilization, pruning, and other management practices.

Participants also looked at the effects of climate change on the country's mango industry and cases of severe pest infestations, as well as the problem of high costs of inputs and very low farm prices during production spikes or surplus, which was also ventilated by the stakeholders.

Stakeholders tackled the lack of production capital as one of the factors that contributed to the decrease of mango production in the Philippines.

The secretary's advocacy of creating a roadmap for every important agricultural product is an important step for the continued sustainable development of the country, especially in reinvigorating the Mango Industry. According to the 2014 FAO survey, the Philippines ranked 10 among the World's top mango-producing countries.

Ms Virginia De La Fuente, President of the Philippine Mango Industry Foundation, Inc., presented some interesting facts in one of her Presentations:

She said, the Philippine Mango (*Mangifera Indica*), has the greatest characteristics that give Philippine mango's most competitive advantage over the other mango varieties in the world, be it in processed, semi-processed (frozen), or fresh forms; These characteristics are:

- unique tangy taste and aroma,
- physiological characteristics of firm pulp which is the best raw material for manufacturing /processing, especially but not limited to mango drying without necessarily transforming the pulp into another state or condition nor additive to make it firm;

Furthermore, mango is the only fruit in the Philippines that can be harvested at the same time.

### **Keys to Successful Mango Industry**

To have a successful Mango Industry, Ms. De La Fuente further argued that unlike the banana and pineapple industries which are owned and operated by multi-national and corporate farms, the mango producers must be organized from the municipal to provincial or regional, to be able to tap grants for funding requirements of the association's business concerns, both from the national government agencies, from the LGUs and foreign funding institutions like World Bank and others.

I strongly recommend continued discussion, training program, and capacity development among Mango stakeholders, and information sharing must be encouraged so all the stakeholders are aware of any studies or relevant reports that provide valuable information to help build capacity and knowledge on the effective reinvigoration of the Mango Industry.

An interesting study on Mango in the Philippines published in April 2017 report by Duke University's Center of Globalization, Governance, and Competition is worth noting. The report was prepared by the Duke University Center on Globalization, Governance and Competitiveness (Duke CGGC) on behalf of the USAID/Philippines, through the Science, Technology, Research and Innovation for Development (STRIDE) Program. This study is part of the Philippines Department of Trade and Industry (DTI) Board of Investment (BOI) Roadmap Initiative for the Revitalization of the manufacturing industry in the Philippines.

Some important highlights of the findings of the study that Mango Stakeholders need to be aware of are:

- Over the past ten years, trade in mango products has tripled; in 2005 the total exports were just US\$696 million, while in 2015 it had increased to almost US\$2.1 billion (UN Comtrade, 2016).
- Mango products include fresh mango and processed ones such as dried, frozen, puree and juice.

- The mango export market is quite concentrated and dominated by developing countries located in the Tropics. The Philippines holds a relatively significant position in the mango global value chain(GVC), and in 2015, the country ranked seventh amongst exporters of fresh and dried mango, with US\$91 million in exports and a 4% share of the global market(UNComtrade, 2016).
- Participation in the GVC is based primarily on the export of processed mango—85% of the country's processed mango is destined for the export market.
- The mango industry plays an important role in the Philippines' economy, providing a source of livelihood to about 2.5 million farmers (PCARRD-DOST, 2011).
- However, despite climatic advantages, fresh mango exports have declined considerably in recent years due to failure to meet strict SPS requirements in key markets.

### Philippine Mango in the Global Market



The study reports that the Philippines holds a relatively significant position in the mango Global Value Chain GVC. The country has been an important player in the global market since 1980, with exports taking off in the 1990s. By 2015, the Philippines ranked seventh in exports of fresh and dried mango, it must be noted that the Philippines has the most significant footprint in the processing segment.

In 2014, processed mango exports climbed to US\$91 million. Dried mango represented the largest share among all processed products (77%), followed by juice (9%), airtight (8%), and puree (7%) (PSA, 2007-2014). In this segment, fruit quality is less of an issue, and destination markets do not require the strong SPS requirements that are mandatory for fresh exports.

The study shows that in 2014, approximately 66 companies were exporting processed mango, including dried, puree, airtight, and juice. Nearly 70% of those firms are small and medium-sized, exporting less than US\$500,000. Dried mango processors are mostly based in Cebu; processors of other mango products operate in and around metro Manila and metro Cebu (Briones et al., 2013). Three large firms that lead the industry were Profood, M'Lhuillier Food Products, and FPD Food International.

The study also recommended that to capitalize on the advantages in the Philippines, the industry will need to:

- Address several constraints at the farm level. It also needs to address issues of postharvest □ And certifications.
- Coordination among value chain actors is essential to strengthen the competitiveness of the industry.

The study also presented a summary of the challenges:

- Lack of scale economies at the production level: The dependence on small-scale, noncommercial production fails to create the scale economies required to supply processors with sufficient raw material to deliver to their clients abroad.
- Global buyers tend to favor suppliers that can consistently and reliably deliver on time, price, and quality. Repeated failure to do so generally results in exclusion from their supply chains.
- Lack of modern production and harvesting techniques: Due to limited knowledge of available technologies, little formal training/education, and lack of financing, farmers continue to produce mangoes with outdated agricultural techniques and poor management.
- From 2010 to 2014, the farm gate price of 'Carabao' mango increased by roughly 8%, while the cash cost of inputs (e.g. fertilizers, flower inducers) increased by 23%, thereby significantly deteriorating the profitability of mango production (BAS, 2010; PSA, 2015). Even in large-scale and technically sophisticated agribusiness firms, technology use is far below that of competitor countries such as Mexico and Peru (Briones et al., 2013).
- Poor Post-Harvest Management and SPS Control: Compounding the effect of poor production practices is the lack of capacity to comply with quality and SPS standards due to shortcomings in the cold chain system, poor SPS management, and lack of packing skills (Field Research, 2016). Cold chain management is almost nonexistent or deficient across the agricultural sector. Given the geographic distribution of production across the country, this essentially excludes farmers in distant locations from participating in the export sector. Freshly harvested fragile produce is exposed to sunlight and inadequate road and transportation infrastructure en route to export pack houses and processors, which are located in major cities (Hambloch, 2015). Furthermore, there are few exporters with VHT and HWT facilities required for fresh mango entry into the Japanese and Korean markets (Briones et al., 2013; Hambloch, 2015). Finally, the equipment for handling and packaging is greatly inadequate and graders have no formal training on sorting or proper handling. As a result of this, post-harvest fruit damage and rejection rates climb up to 50% (FieldResearch, 2016).
- Lack of coordination between industry stakeholders and high levels of bureaucracy: The public sector is characterized by multiple government agencies offering similar services. The Department of Agriculture (DA) and the Department of Trade and Industry (DTI) have both issued separate roadmaps and planning documents for the mango industry. The implementation of these national strategies is uneven due to the autonomy of local governments to select which recommended initiatives to undertake. In addition, high costs of bureaucracy are often mentioned as constraints for accessing information, training, and financial resources (FieldResearch, 2016).

Understanding the key findings of related studies conducted by various research organizations and the continued sharing of knowledge and expertise among scientists and professionals with regard to the issues and concerns surrounding the Philippine Mango Industry will help all Mango Stakeholders in drafting a 5-year Roadmap in successfully reinvigorating the Philippine Mango Industry to help not only the mango Industry but also the country's socio-economic development Agenda. Through partnership and collaboration, we can make a big difference in in our country's sustainable development in Agriculture and other sectors.

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