**4.0 The Existing System**

**4.1 Background of the Organization**

The Sugar Regulatory Administration (SRA) is a Philippine government agency that was formed March 28, 1986. The agency’s objectives are: to institute an orderly system in sugar production for domestic consumption, exportation and reserves; to establish and maintain a balanced relation between production and demand of sugar and marketing conditions to ensure balanced prices that are reasonably profitable to producers and fair to consumers; to advocate the effective merchandising of sugar and sugar products in the in the domestic and foreign markets.

**4.1.1 Vision**

An empowered government organization that ensures long-term viability, environmental sustainability and global competitiveness of Philippine sugarcane industries through greater and significant participation of the stakeholders.

**4.1.2 Mission**

To provide stakeholders of the Philippine sugarcane industries with pro-active and effective policies, regulatory, R&D and extension services.

**4.1.3 Products and Services**

**4.1.3.1 Regulatory Services**

The agency enforces sugar policies and guidelines; issuances of licenses and registrations to sugar mills, sugar refineries, traders, and bioethanol producers; performs quality assurance and product analysis of raw and refined sugar, imported sugar and sugar premises. The SRA does monitoring of sugar production, withdrawals, imports and usage of CBW, stock balances, prices, and imports/exports.

**4.1.3.2 Production Support Services**

The SRA provides breeding and distribution of good varieties of sugarcane, analyzes soil samples for recommendations of fertilizer, creates studies for production technology, crop management, quality assurance and environmental.

**4.1.3.3 Extension Support Services**

The agency implements the block farm program for sugarcane farmers, transfers developed technologies on sugar production and sugarcane farming, gathers farm inventory, crop estimates; implements outreach programs for trainings of sugarcane farmers on farm practices and technologies; coordinates with MDDCs in implementing programs and projects.

**4.1.3.4 Policy and Information Support Services**

The SRA formulates, reviews, and propagates the policies on the allocation of produced sugar, products from sugar, sugarcane juice and syrups. The agency also develops information systems on sugar production and other related processes. A sugarcane industry roadmap is also created for the agency.

**4.1.3.5 Institutional Strengthening Program**

Through this program, the SRA Service Guide and the website contents are updated regularly, implemented programs, projects, and activities are monitored and evaluated. This also includes codification of SRA regulations and penalties.

**4.2 Transactional Processes**

The process starts with the planning for the crop estimate for an entire crop year. For the whole crop year, there will be four main estimates which will be done quarterly. These are the pre-preliminary, preliminary, pre-final and final estimates. The pre-preliminary estimate is done before the start of the start of the planting season. This estimate is done by the mill district officer using the final production data from the previous crop year. A quarterly crop validation survey is done to gather the farm data from the individual farms of a district. A monthly crop monitoring is done by the agriculturist. This monitoring is done for checking the crop characteristics. A photo of the sugarcane crop is also taken. Afterwards the agriculturist or mill district officer will process all the data gathered and create the crop monitoring report. Next will be the the field observation which is done by the agriculturist as well. Here, the agriculturist go around each farm to do a visual observation of the area. The crop assessment report will then be created using the data from the observation as well as from the weekly factory statement coming from the mill. All of the reports will be sent to the SRA office where the technical staff will consolidate all of these reports. The data from these reports will be used to adjust the crop estimate. Finally, the weekly production statistics report will be created. These report will be used for the board meeting for deciding on the allocation of sugar and planning of programs, recommendations and advice for farmers.

**4.3 Managerial Processes**

The crop estimate for the current year is being planned based from the final production data from the previous crop year in order to know the target production.

The farming programs, advice and recommendation based on the productivity level of each district. That is based from the weekly production statistics report.

The SRA board members are the ones that decide the allocation of sugar to the four categories namely, US Export, Domestic, Reserve and World Export. The decision for allocation is mainly based from the actual production which comes from the weekly production report from the regulation department and the crop estimate from the weekly production statistics report. Another factor included would be the withdrawals. These are the sugar that has been procured by the traders from the mills. The withdrawals pertain to the basic demand of sugar since this shows the quantity of L/kg sugar bags that are being purchased. The price of the sugar which comes from the traders is also used to know if SRA would have to allocate all sugar to the domestic level in order to regulate the price if it is a bit high. The policies or sugar orders also affect the allocation of sugar. The usual allocation is 96% for domestic. The sugar orders are based from how much supply the country has and the board members can change the policy depending on the need. Example is that they can allocate 100% of the total supply to domestic if the sugar supply is low.

*Please Refer to the Process Diagram*

**4.4 Problem Statement**

The main problem encountered by the company is the *difficulty in providing appropriate programs, projects, and farming recommendations.* This main problem is caused by having difficulty in interpreting and processing reports (such as weekly production statistics report, quarterly production reports, crop assessments, damage caused by calamities, crop monitoring, and crop validation survey) that identify causes of underproduction. Examples of the causes of underproduction are lack of fertilizer, poor irrigation, pests and diseases, and damages from calamities.

The main cause of the problem is then led by two causes as well which are the following:

**4.4.1 Tedious compilation and retrieval of data**

The compilation of data is tedious because whenever there are unforeseen factors such as typhoons and other calamities, the MDO would need to create a crop estimate. This is a requirement from the MDO because the crop estimate should be constantly updated, which makes it harder for the MDO since they have to regather data again for the crop estimate. These unforeseen factors greatly affect current and future estimates and are very important for the mill district officers when making the crop estimates. Because of that, data gathered needs to be always processed because of the constant changes to provide updated estimates.

**4.4.2 Underutilizing the factors for evaluating its impact to the crop estimate**

Different factors such as weather data, crop growth, and soil data are collected and not used for creating the crop estimate but are currently used for research purposes. Only data such as historical data from the previous year, actual production, harvest area, millable stalks and its weight from surveys, monitoring report and crop assessment are used while other factors are not processed with the used data in order to compute for a crop estimate. Most of the unused data are important factors in computing for a more reliable crop estimate. To use the said data in the crop estimate, it would mean that the model they are using currently for their estimate is not reliable enough since it does not include the said unused data. It would also require a non-stagnant changing model in order to consider the needed factors. The company currently does not have a process of using the different factors as parameters in computing for the crop estimate.

Aside from the previously stated causes, another reason why the factors for evaluating impact to the crop estimate is underutilized is because they have insufficient time to process reports. The reason behind this is because they lack people to gather and process reports. The MDO is the one responsible for both gathering and processing data of their district and they only have 5 days to gather and process their data. But they use most of their time in gathering through observations for the entire district having no time to process the gathered information. In addition to that, the MDO lacks the tools to process their data and understand how does each of the data affects the crop estimate. This would limit the range of recommendations that can be suggested by the MDO.

*Please Refer to Appendix A for the Ishikawa Diagram*