The Story that Revolutionized the Palm Oil Industry

Palm Oil is a widely used vegetable oil in the world with 28% market share in the oil and fats market domain. Palm oil is predominantly cultivated in Malaysia and Indonesia with an annual production of 55mn MT per year. The industry shows a healthy growth rate of 7% per year and China and India being the largest consumers of it.

Our Client

Goodhope Asia Holdings Ltd., incorporated in Singapore, is a holding company with investments in the food ingredient industry in Indonesia, Malaysia and India. The Goodhope group own and manage a total land bank of 157,889 hectares of which 74,913 hectares and has currently developed the necessary processing facilities. In Peninsular Malaysia, Goodhope currently owns and manages 1,398 hectares of Oil Palm plantations. PT Agro Indomas (PTAI), based in the Central Kalimantan region of Indonesia is the first OPFO solution client of AHLBS. With our success story with PTAI, we hope to deploy the OPFO Solution to the other plantations of the Goodhope Group.

Business Scenario

Currently the oil palm industry is highly dependent on manual operations with minimal mechanization and automation. Most of the manual work is laborious, inefficient, a waste of productive time, which leads to potential loss of revenue and adds to the cost of production. The most critical business issues are as below:

- High labour intensity : 1 person for every 4 hectares
- Labour accounts for about 30% of the total cost
- Price fluctuation : Encourages cost optimization
- Large volumes of data generated due to field activities
- Human errors due to high data intensity: Inaccurate manual data capture and long lead time
- Data manipulation: Ghost labour and ghost bunches are possible exploits
- Large amount of supervisory and administrative staff

About OPFO

OPFO delivers a Powerful Prebuilt Agricultural Industry-Operational Automation customized to suit your business needs. The Product is capable of electronically capturing large volumes of field data utilizing QR code technology for all in-field activities. This facilitates 3 times faster data capturing with significant improvement in data accuracy compared to the manual process.

Handheld devices have been introduced to capture data in a faster and secure manner. Bluetooth printers enable the printing of tickets on the field. These devises are ruggedized and hence, can be used in all weather conditions.

Elimination of ghost labour has been identified as one of the key factors of implementing the OPFO Solution. PTAI was able to greatly improve traceability of its labour data from the automatically generated attendance registrar to work completion which led to more accurate data being transferred for processing by payroll with zero data manipulations. The OPFO product helps PTAI improve its operational performance in field operations with faster and more accurate data being transferred to the MIS. Previously norm extended working hours of data entry operators has been eliminated by availability of direct downloading of electronically captured data to the OPFO System. The MIS preparation time has been reduced from 4 hours to 5 minutes with the powerful prebuilt reports.

Apart from the automation of key field-based activities such as Harvesting, Up-keeping and Fertilization; the OPFO Solution is bundled to provide a wide range of solutions for end-to-end oil palm field operations that include Transportation, Weighing Activities, Mill Grading and Agronomy Quality Audits. OPFO has been built to provide seamless integration between any ERP solutions available within an organization.   For PTAI, the OPFO Solution has been integrated with the core ERP of JD Edwards 9.1 and HARP payroll solution.

Rationale for implementing the OPFO Solution for the Goodhope Group

Current Issues

All Goodhope Group plantations in-field data capturing is carried out manually, using field-based and administrative staff. The field-based activity where such data capturing is undertaken includes Harvesting, Up Keeping & Field Maintenance, Fertilization, Agronomy Quality Audits and EHS Field Audits. Further HR related aspects such as worker attendance recording is also done manually. At present these in-filed activities tackle the recording of data; manually. Main issues faced are:

- This process takes up a significant amount of time of field supervisors thus increasing the manpower numbers in order to reduce the administrative burdens faced by field supervisors.

- Manual recording is also prone to errors in data-entry at estate offices, data recording and delays in the production of the MIS which leads to the lack of reliability of the information generated and has made decision making somewhat constrained.

- This has also led to much inefficiency in plantation estate administration and management leading to increased estate level overhead costs and also avenues for potential loss of revenue such as oil losses in the field due to poor crop recovery, un-accounted field balances and crop theft.

Advantages of Automating the In-Field Activities

The automation of data recording and data capturing of field-based activities is aimed at enhancing the efficiency levels and thus leading to improved productivity across all mature plantation operations of the Group. The Goodhope Group expects these enhanced efficiency levels to result in cost savings and also eliminate wasteful processes. The automation will further improve the accuracy and reliability of data inputs, thus improving decision making within the Oil Palm Plantation segment of the Goodhope Group.