40TH ANNIVERSARY

COMMITMENTS TO WORK SAFETY

I.D.E.A.S. CENTER GOES CSR

ZERO DISCHARGE INITIATIVES

ECONOMIC VIABILITY
Special recognition was given to our long service employees, many of whom have been with us for decades. Without this loyalty, Musim Mas could surely not have achieved nearly as much as it has done so.

We also highlight advances made in the 3P’s:

People
We care for the people working for us, and a safe working environment is of utmost importance to us. Musim Mas believes that a safe working environment goes beyond just providing safety equipment but also the fostering of a Safety-First culture.

Planet
We continue the quest to reduce negative environmental impacts from our processes. The target is to achieve Zero Discharge for the mills.

Prosperity
Sustainable profitability is a key element in our business strategy. To achieve this, it is important to constantly strive for continuous improvements in our performance. Without profitability we would not have enough to share or distribute.

Happy reading to all of you!
Other CSR programs included donation of 4,000 ration packages to the under-privileged families in various parts of Medan City by enthusiastic MusimMasians who spent many weekends to help distribute the packages.

Musim Mas believes that education is a key pillar to provide a bright future for the next generation.

The highlight of the celebration therefore included the donation of a three-storey Multipurpose Hall to the University of North Sumatera (USU). The groundbreaking ceremony coincided with the anniversary.

The celebrations culminated in an award ceremony held at the head office to honour 149 members of the Musim Mas workforce who have spent more than 20, 30 and 40 years of their lives working and contributing to the growth of the Group. They are a very important part of the Musim Mas family to whom Musim Mas has also become an important part of their lives. As Hasan, one of the recipients of 30-year Service Award, put it: “After spending more than half of my life working in Musim Mas, it has become my second family. From a tiny dot in Medan, we have now expanded to become one of the biggest palm oil companies in the world. I am truly proud to be a member of the Musim Mas family!”
In matters of work safety, Musim Mas believes that there can be no compromise. A Safety, Health and Environmental Quality (SHEQ) Committee is set up at every location to ensure that the protocols and standards of safety are strictly adhered to. The main tasks of these committees are to identify potential hazardous sources, ensure availability of safety equipment, monitor workers’ food and nutrition and other related tasks. For example, the Fire Service is a subcommittee of SHEQ. In every plantation, a fully trained firefighter team is on call to provide fire rescue services when required. All factories are equipped with early warning and firefighting systems. Musim Mas also co-operates with the local governmental fire safety centers to carry out fire drills and training for its staff to attain high fire safety standards.

As the saying goes:

“Prevention is better than cure”

Beside providing adequate Personal Protective Equipment (PPE) such as gloves, helmets, boots, masks and safety clothing, Musim Mas focuses on fostering a strong Safety-First culture by conducting regular training and drills.

There are 18 clinics strategically located all over the Musim Mas plantations to ensure easy accessibility for workers who may require first aid and health care attention. Monthly medical check ups are conducted for workers who handle chemicals such as herbicides and pesticides to ensure their continued well-being.

As a result of these systemic efforts, many Musim Mas palm oil mills have achieved zero accident status and won Zero Accident Awards from the local government. It requires full-time commitments, willpower and discipline to achieve and maintain such high safety standards. Musim Mas constantly strives to improve these programs through rigorous training so that a Safety-First work culture will permeate all levels of staff and workers.
The I.D.E.A.S. Center, situated at the Musim Mas Oleochemical and Specialty Fats Complex, is a sophisticated R&D center for the Group.

As the name suggests, I.D.E.A.S. Center spearheads the research and development activities of the Group. There are pilot plants to simulate production processes using different parameters. Customers can witness trial runs which simulate their production processes to show the characteristics and applications of various Musim Mas products.

Beside routine tests and analysis, I.D.E.A.S. Center also participated in various CSR projects in which ice cream, bakery and chocolate products made in the pilot plants were distributed free to orphanages in the city of Medan. Seeing children enjoying delicacies specially made for them is a highlight for the staff. The beautiful smiles of these little angels not only melted the chocolates but also their hearts!
The pursuit of zero discharge from palm oil mills has been the subject of many environmental initiatives in the recent past with some gains but still short of any comprehensive success story. The subject has taken on additional importance with the increased focus on sustainable development. At Musim Mas, it has been studied and implemented in earnest in the last two years with significant success.

Zero Discharge is a rather tall order and there will be no one-size-fits-all system. A solution for a particular mill will depend on the seasonal inputs to the mill, local site condition, energy requirement, mill design, crop type variations and others. Basically, there are three types of wastes from a mill: Solid, Liquid, Gaseous. By definition, Zero Discharge means the wastes are either recycled back into the process, converted into a completely unreactive and innocuous material before discharge or converted into a useful material which can be used viably in other locations.

A summary of the waste treatments in Musim Mas mills is as follows:

**Solid**
Solid wastes including press cake fibres, empty bunch fibre and kernel shells are traditionally used in the mills as fuels for heat and electricity generation. More difficult waste such as boiler ash is applied back to the plantation as soil conditioner while decanter solid is used as fertilizer substitute after being dried using boiler flue gas in a tailor made process system.

**Liquid**
Palm Oil Mill Effluent (POME) is anaerobically digested in deep ponds and treated in a series of facultative and algal lagoons. It is finally treated in the oxygenated aeroflow ponds to reduce its B.O.D. level to below 100 ppm, only after which it is applied to oil palm trees.

**Gaseous**
In a recent development, anaerobic digestion of POME is carried out in specially engineered ponds which capture the methane (a greenhouse gas 21 times more potent than CO₂) and using it to produce electric power. This process has been successfully installed in the Pangkalan Lesung Mill in Riau, Sumatra, which is also registered as a Clean Development Mechanism (CDM) project which earns carbon credits (CER). About 250,000 litres of diesel was so saved in 2011 and this figure is expected to reach 650,000 litres in 2012. Musim Mas aims to extend this to all mills in its estates in the immediate future.
ECONOMIC VIABILITY

DRIVER FOR SUSTAINABLE PALM OIL PRODUCTION

Oil palm plantation is a long term investment. The pattern of the yields which increases with the maturity of the trees dictates that typically a plantation can only generate positive cash flow 6-8 years after planting. The yields will start to decrease toward the end of the 25-year cycle by which time replanting will need to commence if the plantation is to be sustainable. Significant investment is required in infrastructure such as roads and housing for the workers.

The sustainability of any investment hinges on its ability to bring in reasonable profits. Indeed, the foundation of the 3P core values rests on the viability of the investment. It is not surprising that this goal is also enshrined in the Principle No.3 of the RSPO Principles and Criteria: Commitment to long term economic and financial viability.

Faced with the challenge of ever increasing production cost as a result of inflation and periodic increment in overhead costs while the price of palm oil fluctuates according to market, Musim Mas’ answer is to keep the production cost low by resorting to continuous improvement measures. The increase in the CPO yield per hectare achieved has helped keep the unit production cost in check, and the Group has been able to implement its social and environmental projects according to plans. Various improvement projects that have been carried out successfully including Integrated Pest Management Control, reduction of pesticides usage, mechanisation of fertilizer application, usage of palm oil mill wastes such as decanter solid as organic fertilizer, efficient soil management, stringent selection of planting materials and others.

The goal, as always, is to maintain growth in a sustainable manner!
Musim Mas is a fully integrated palm oil corporation with operations spanning the entire palm oil value chain from upstream oil palm plantations to midstream and downstream operations such as kernel crushing, refining and manufacturing of specialty fats, biodiesel, oleochemicals including fatty acids, fatty alcohols and glycerine, soap, palm wax and fine chemicals. Its supply chain is managed through strategically located bulking installations and transportation assets to provide efficient logistics solutions. Musim Mas, a pioneer member of the Roundtable on Sustainable Palm Oil (RSPO), is committed to doing business in a socially responsible and environmentally friendly manner.

This newsletter is published by the Musim Mas Group. Comments and suggestions are welcome. Please contact Dr Gan Lian Tiong at email: liantiong.gan@musimmas.com or visit our website at: www.musimmas.com