

Our Commitment to Good Environmental Performance

At GAB, we believe in minimising the impact of our operations on the environment by setting challenging improvement targets to progressively reduce emissions and discharges.

WE CARE ABOUT OUR ENVIRONMENT

GAB is committed to improving our environmental performance through the implementation of sound environmental practices. Our aim is to achieve environmental sustainability, where our business upholds the sustainable growth of natural resources, species, habitats, biodiversity and climate that we operate in. The Company adopts a systematic approach to environmental management which is designed to ensure compliance with government legislation, international protocols and global best practices.



OUR COMMITMENT TO GOOD ENVIRONMENTAL PERFORMANCE

ENVIRONMENTAL CONSERVATION INITIATIVES

At GAB, we believe in minimising the impact of our operations on the environment by setting challenging improvement targets to progressively reduce emissions and discharges. The following environmental conservation initiatives continued to be undertaken over the course of FY09:

Thermal Energy Conservation

GAB uses heat mainly for brewing, cleaning bottles and the pasteurisation process. This heat is mostly generated from natural gas sourced from the national natural gas pipeline which we began tapping into in 2007. Fuel oil was used prior to this. The switch to this more environmentally-friendly energy source has greatly reduced our dependence on fuel oil while reducing our emission of carbon dioxide into the atmosphere. Besides natural gas, renewable gas, mainly biogas, is used to generate some of the heat we require. This biogas is obtained from the anaerobic treatment of wastewater at the wastewater treatment plant.

In FY09, our specific thermal consumption was reduced by about 5.6% in comparison to the previous year. In terms of energy conservation, GAB managed to reduce the evaporation rate at the brew house by 6 MJ/hl. Moreover, a TPM team launched to increase the Chemical Oxygen Demand (COD) loading at the waste water treatment plant contributed towards increased biogas generation. This in turn helped reduce the amount of natural gas that needed to be purchased. We continue to explore other avenues to obtain further savings in waste heat recovery.

Emissions Reduction

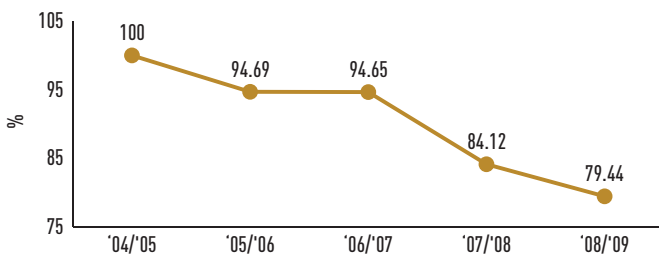
The use of non-renewable fuel generates bi-products such as carbon dioxide (CO₂), nitrous oxide (NO_x) and sulphur oxide (SO_x) which can all cause climate change. Due to the proactive steps we took to switch to natural gas, our fossil CO₂, NO_x and SO_x emissions fell by 3%, 3% and 6% respectively in FY09 in comparison to the previous year.

Lower Electricity Consumption

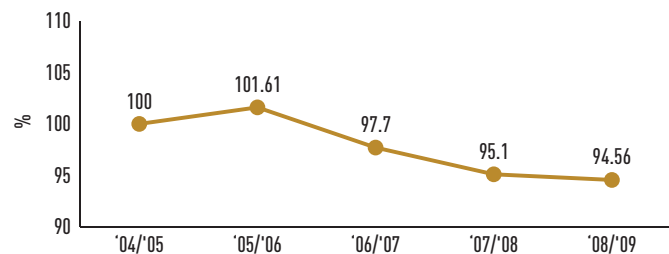
At GAB, we use electricity mainly for purposes of refrigeration and water treatment as well as to drive compressors and other machinery. On top of this, electricity is used for liquefying CO₂ as well as for office equipment and lighting purposes. In the year under review, specific electricity consumption at the brewery decreased slightly by 0.6%.

This reduction came from electricity reduction activities carried out by our TPM teams. Activities based on the de-aerated water plant, plus the efforts of the Kaizen teams in tackling compressed air leakages and restoring the cooling plant plate heat exchanger evaporators, also helped lower our electricity consumption.

Performance Index for Thermal Consumption (%)
2004/05 - 2008/09



Performance Index for Electricity Consumption (%)
2004/05 - 2008/09



Lower Water Consumption

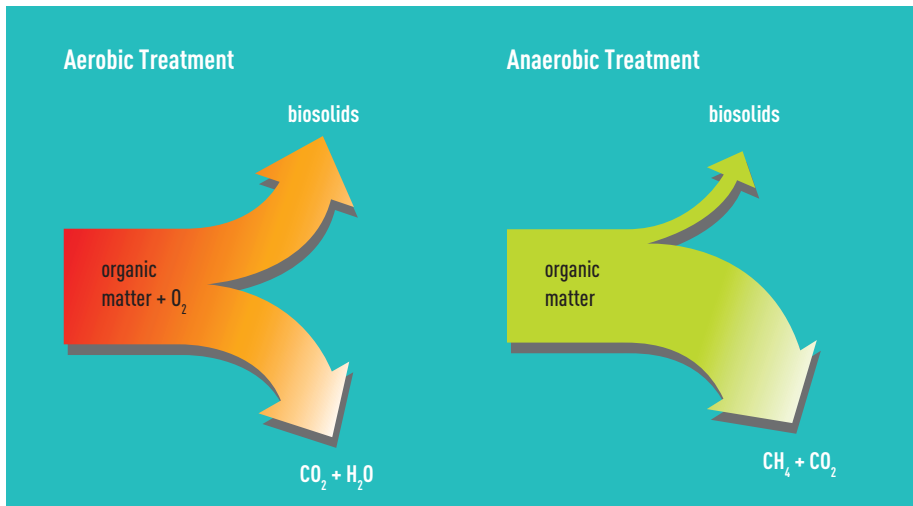
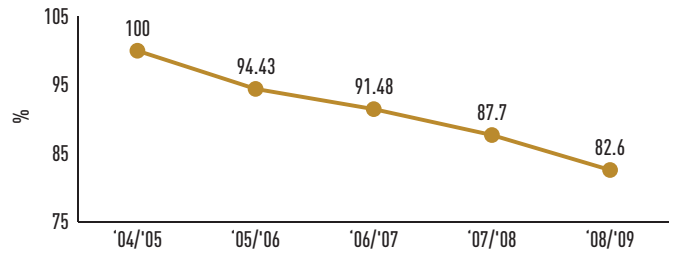
A significant portion of the raw materials in our products consists of water. Water is also used for cleaning process tanks, packaging, production equipment and utility installation. In FY09, we undertook various initiatives to reduce water consumption which resulted in a 5.8% reduction in water consumption against the preceding year. This result is directly attributable to TPM activities that focused on optimising water consumption and reducing wastage in the production process.

RECYCLING PRACTICES

The Company’s wastewater is treated at our wastewater treatment plant to ensure no harmful substances are discharged from the brewery. We utilise two methods of biological treatment to treat this wastewater. The first method involves anaerobic treatment where biochemical reactions take place in the absence of oxygen. The organic carbon is then converted to CO₂, CH₄ and biomass.

The second method utilises aerobic treatment where oxygen is associated in biological reactions. The organic carbon is converted to CO₂ and biomass. GAB’s treatment of wastewater is fully compliant with local legislation.

Performance Index for Water Consumption (%)
2004/05 - 2008/09



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The graph below demonstrates that the Chemical Oxygen Demand (COD) and Suspended Solids (SS) levels of our final effluent discharge are below the permissible limit of 100 mg/L.



Packaging Standards

Our brews come packaged in glass bottles, kegs and cans. The primary packaging for our glass bottles includes crown corks and labels, while the secondary packaging includes cardboard and plastic film for transportation. All our packaging is governed by the highest quality standards such as ISO 9001:2000 and HACCP and we faithfully comply with statutory guidelines.

GAB strictly prohibits the use of known or expected carcinogenic or other harmful substances such as solvents and pigments. The coatings and inks we use for packaging materials such as labels and cans are free of heavy metals. The printing inks for labels intended for use on returnable bottles is free of copper to prevent wastewater treatment problems. GAB does not use any form of PVC in our crown corks liners.





All returnable kegs and glass bottles are sent back to our brewery where they are cleaned and reused. All cans, bottles, crown corks and labels that are rejected during the production process are separated and sold to assigned contractors for recycling. Broken kegs are sold as scrap metal.

Bi-products and Waste

GAB’s brewing process creates a number of bi-products, namely spent grain and yeast. We sell this spent grain as animal feed while the majority of the spent yeast is partially treated in the wastewater treatment plant.

Future Plans

To ensure the environmental sustainability of our operations, GAB will continue to look at implementing continual improvement initiatives and environmental conservation initiatives.

GAB remains committed to improving our processes, conserving resources and undertaking good recycling practices to minimise any business impact on the environment. As GAB pursues its vision of becoming an icon in business, we will work relentlessly to ensure the Company remains committed to environmental sustainability in a way that truly befits our role as a responsible corporate citizen.