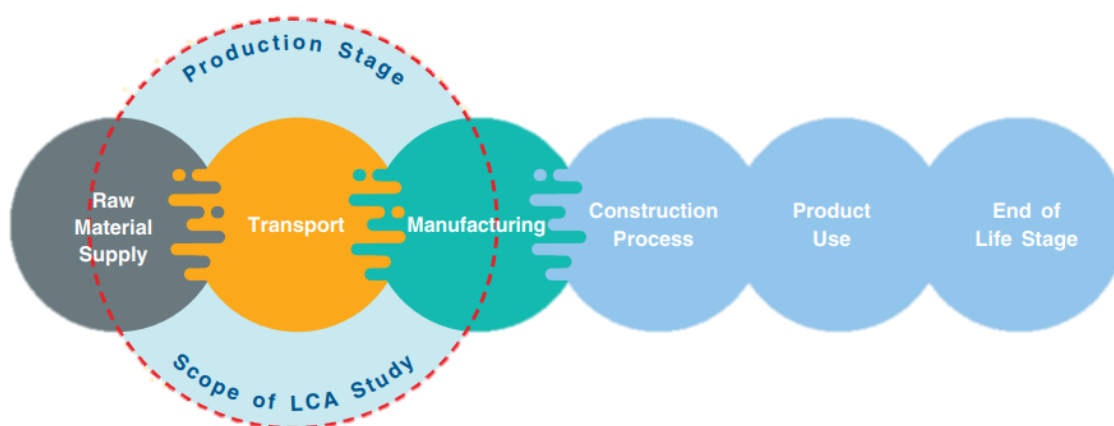




CASE STUDY: MANUFACTURING GREENER PRODUCTS

(Extracted from the Boustead Sustainability Report 2019)

UAC Berhad conducted a Life Cycle Assessment (LCA) study in 2019 to assess the environmental impact of our Fibre Cement Board product in line with ISO 14025 Environmental Labels and Declaration and EN 15804 Sustainability of construction works – Environmental Product Declaration. The Cradle-to-Gate assessment covered the entire production stage from the supply of raw material to the transportation and manufacturing process.



We investigated the following processes as part of the LCA study:

- Manufacturing of preliminary products including cement, sand, pulp, alumina, silica fumes and red pigment.
- Transportation of raw materials and preliminary products to the plant.
- Manufacturing process employed at the plant in terms of energy utilised, emissions incurred, manufacture of auxiliaries and disposal of residual materials.
- Manufacturing of packaging materials.

We undertook an assessment of the following parameters as part of our study:

- Environmental impact of our fibre cement board products, comprising its contribution to global warming, impact on the depletion of the stratospheric ozone layer, eutrophication potential as well as acidification potential, amongst others.
- Resource utilised in terms of total renewable and non-renewable sources.
- Output flows and waste categories, be it hazardous, non-hazardous or radioactive waste.

As a result of this study, we established that the upstream cement production process was the key contributor in terms of environmental impact, due to the energy and resource intensive nature of the processes involved.

Manufacturing activities within the UAC Berhad plant itself recorded a relatively lower environmental impact.

This study was an important undertaking for the Group as it allowed us to identify our environmental footprint. Consequently, we undertook the following initiatives to reduce our environmental impact:

- Continuous monitoring of the effectiveness of our waste management system.
- Sourcing of greener raw materials such as pulp from suppliers that have a solid reforestation programme in place.
- Conception of low carbon footprint products by substituting the materials originally utilised with that of greener raw materials that fulfil the expected product standards.
- Minimisation of wastage.



- Utilisation of recyclable green materials to further reduce waste headed for landfills.

Through this study, we found that for every 1 tonne of UAC Fibre Cement Board:

