BUILDING FOR A **SUSTAINABLE FUTURE**

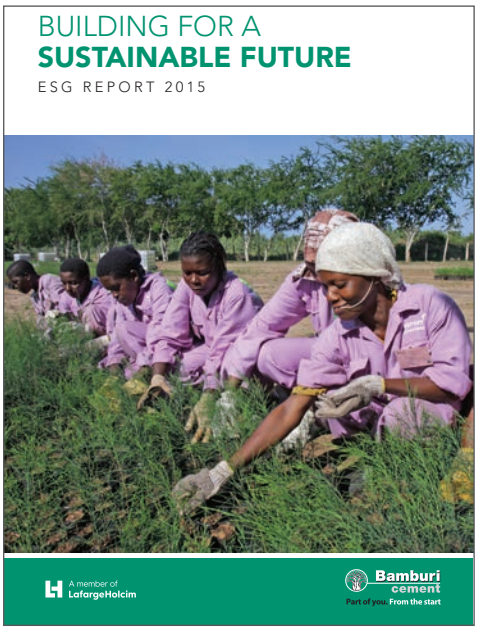
Environmental, Social & Governance Report 2015

KENYA

Bamburi cement

Part of you. From the start

ABOUT THIS REPORT



Over the years, one consistent theme for Bamburi Cement has been a marked interest among stakeholders on certain sustainability practices that are a key facet of the company's culture. What surprises most people is that the company did not set out to prove its sustainability credentials. Instead, right from inception, several key business practices were inculcated in the way Bamburi does business. Inception here refers to the 1950s when the current buzz on sustainable business practices was unheard of. This was the age of profit maximization, all else was details. And yet, in that golden age with colonialism fast fading, the cold war heating up, rock and roll and the age of bliss, Bamburi was already building the key pillars that would produce world class sustainability practices.

Sustainability in this report refers to the process by which Bamburi Cement manages its financial, social and environmental performance, risks, opportunities and impacts. It alludes to the triple bottom line approach covering social, environmental and economic performance and often summarized as Profits, People and Planet (3 P's)

This report seeks to profile these sustainability practices and respond to the oft curious question asked in this regard. It is an effort to identify, document and publicize the varied practices that have been employed by Bamburi in ensuring it is a sustainable, responsible and ethical business. It may not pass for a classical sustainability report since it simply intends to showcase sustainable business practices at Bamburi Cement. It does however, form a precursor to consistent sustainability reporting.

The report provides both a historical viewpoint, giving details on the process in inculcating certain practices and also current facts and figures, underscoring overall results that the company has achieved through the varied processes. The intention is to provide insight on the overall journey taken by Bamburi Cement and the current benefits accruing to stakeholders through the creation of shared value.

CONTENTS

ABOUT US

Bamburi Cement Ltd

A subsidiary of LafargeHolcim, the world leader in building materials. Plants located in Mombasa and Athi River

Hima Cement

Uganda based subsidiary with an Integrated Grinding Plant in Kasese

Bamburi Special Products

Wholly owned subsidiary of the Bamburi Cement Limited and the largest supplier of **Ready Mix Concrete** and **Precast blocks**

Lafarge Eco Systems

Wholly owned subsidiary of the Bamburi Cement Limited, focusing on sustainability of land use, quarry rehabilitation and Biodiversity Management. Provides market leadership in environmental responsibility as well as a point of engagement for neighbouring communities and other stakeholders

OUR VISION

To delight our customers with innovative construction solutions while being committed to sustainability.

OUR VALUES

Ownership

We are committed to doing things differently and drive for results by always thinking outside the box through the involvement of all employees and contractors to ensure they are part of the success of the organization.

Accountability

We strive to be accountable to each other and team work is a key pillar in the work place. This is because when we work as a team, projects are accomplished on time and mistakes are minimised. In addition, we expect our employees to have a greater level of integrity.

Ambition

We are focused on achieving greater results by going the extra mile in accomplishing projects before or on time and empowering our employees and contractors of always keeping the end in mind.

APPROACH

At Bamburi, sustainability contributes to our business strategy and is a key lever for growth. We want to lead in sustainability and set new standards. We want to help transform the way our industry works and encourage the whole construction sector to play its full part in addressing our planet's biggest issues.

BUILDING A SUSTAINABLE FUTURE

Our undisputed leadership comes with years of developing a region with groundbreaking products and services

STRATEGY

Bamburi Cement Ltd - Our understanding of sustainability

Bamburi Cement's sustainability performance identifies the company's impacts on stakeholders and efforts to create shared value. For Bamburi Cement Limited, sustainable business practices are an integral part of the way the company operates. Sustainability means adhering to the highest standards of business ethics, committing to a "no harm" policy towards all stakeholders, playing an active role in the communities where we operate and showcasing best practice in the co-existence between industry and the natural environment. Overall, Bamburi Cement Ltd wants to create sustainable shared value for all its stakeholders, and including the Communities that it operates in.Our sustainability strategy is guided by the 2030 Plan, which is outlined below.

	Climate	Circular economy	Water and nature	People and communities
In-house	We will reduce net specific CO_2 emissions by 40% per tonne of cement (vs 1990)	We will use 80 million tonnes of waste-derived resources per year	We will reduce specific freshwater withdrawal in cement operations by 30% We will implement The WASH Pledge on all sites	We want zero fatalities We will reduce LTIFR to <0.20 We will reduce TIFR by 50% We will reduce our disease rate to < 0.1 We will have 30% minimum gender diversity at all management levels
Beyond our fence	We will help our customers avoid 10 million tonnes of CO_2 being released from buildings each year through our innovative solutions	We will provide end-of-life solutions for our products and will supply four times more recycled aggregates from CDW/RAP	We will make a positive impact on water in water-scarce areas We will show a positive change for biodiversity	We will develop initiatives to benefit 75 million people We will engage in collective action to combat bribery and corruption in high-risk countries
Innovative solutions	– Low-carbon cement and concrete – Insulating concrete – Thermal-mass solutions	– Recycled aggregates – Urban mining solutions – Waste management services	– Rainwater harvesting – Pervious concrete – Stormwater protection – Vertical green solutions	– Affordable housing materials and solutions – Affordable sanitation solutions

"The 2030 Plan" was developed with involvement of employees from every relevant Group function and every region of LafargeHolcim. In addition, 11 high-level external stakeholders were involved in developing it.

The 21st century will be defined by the challenge of climate change, in which the construction sector can play a key role. For LafargeHolcim, this global challenge requires a collaborative response that goes beyond our ambitious efforts in own operations. The Group is committed to reducing CO_2 emissions across the entire construction value chain. LafargeHolcim is committed to actions across the entire construction chain to minimize environmental impact and maximize value creation.
As the most advanced group in its sector, LafargeHolcim's approach is to generate, monitor, and report greenhouse gas savings right through to the use of its solutions through their life cycle.

Contributing to energy efficiency of buildings

- Low-carbon cements. Produced from recovered resources
- Innovative low carbon products
- High-performance insulating concretes

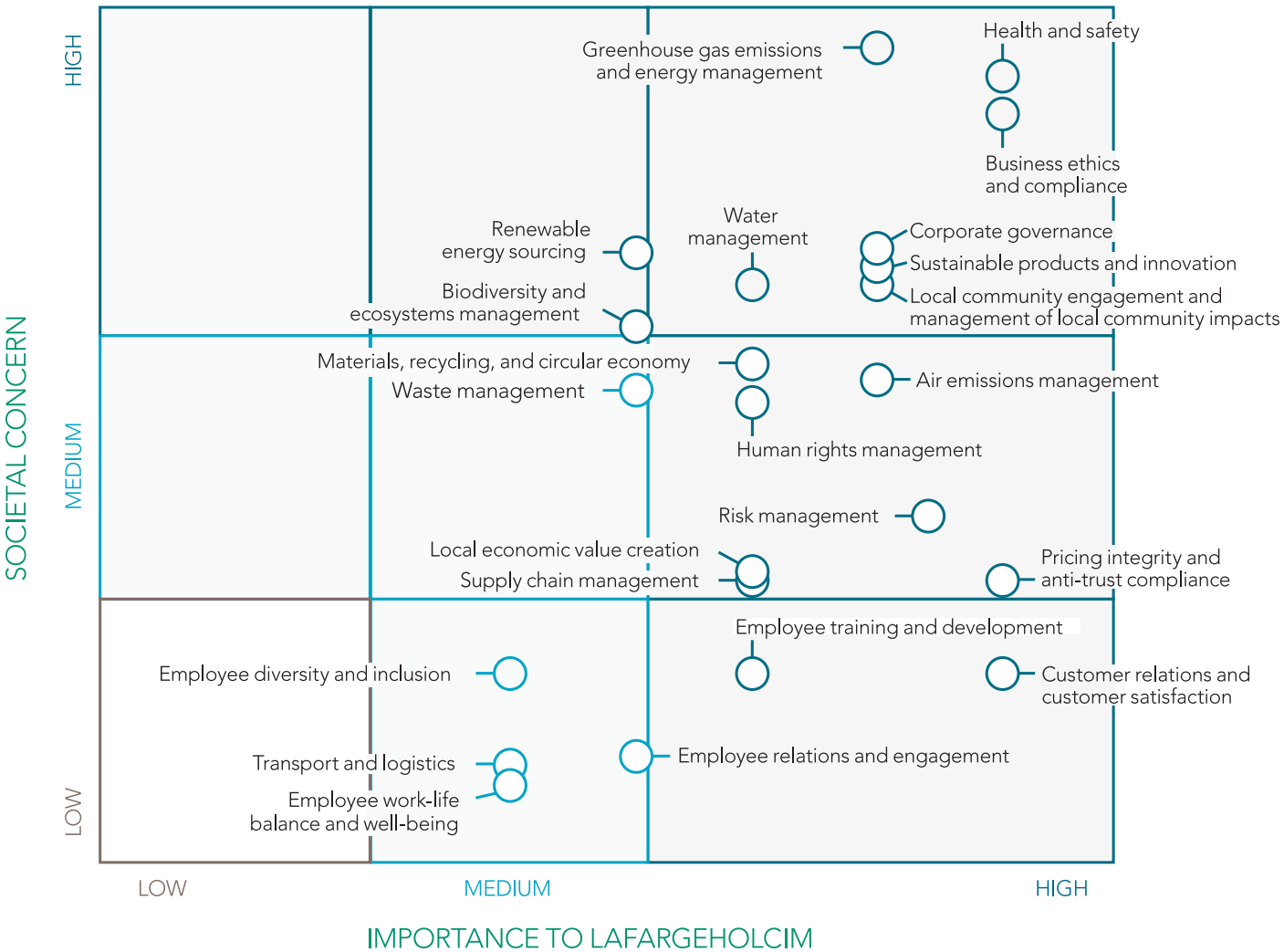
OUR MATERIAL ISSUES

Context

A sustainability issue is considered material if it could substantively affect the organization's ability to create value in the short, medium or long term. Materials issues are often covered under five themes namely, Marketplace behaviour, Workplace practices, Corporate Governance, Community engagement and the Environmental stewardship. These themes reflect key relationships, spheres of influence, footprint of operation and stakeholder concerns. Material matters are determined by considering the sustainability context of the company, stakeholder issues and assessments of risks and opportunities within the operating environment

Half of the world's population now lives in cities. It is estimated that this figure will rise to 70 – 80% by 2050. This rapid growth of urbanization is also being witnessed in East Africa which accounts for nine of the thirty fastest growing cities in the world. Additionally, second cities within the region, that is, towns which are currently closely linked to major commercial centres are also experiencing growth and rapid urbanization.

Urbanization brings with it specific demands for housing, infrastructure, city planning, provision of public services and management of negative externalities such as waste and emissions. Thus while rapid urbanization offers great commercial prospects for Bamburi, it also creates major sustainability responsibilities. Operating in this exciting yet challenging environment demands innovation, leadership and a clear vision for increasing shared value for all stakeholders.



GOVERNANCE AND INTEGRITY

Code of Business Conduct

Our Code of Business Conduct is embedded in the principles of LafargeHolcim which emphasizes its commitment to ethics and compliance with laws, sets forth basic standards of behaviour for its employees when dealing with clients, suppliers, competitors and the general public. It provides reporting mechanisms for known or suspected breaches while also ensuring prevention and detection of wrong doing.

To ensure that all employees were up to date on what was required of them, refresher trainings on the Code were held in 2015 and all employees were required to submit a declaration testifying to their understanding of and commitment to comply to the Code at the end of the sessions.

In the second half of the year, LafargeHolcim launched the new Code of Business Conduct which is in line with the previous Code. Bamburi Cement has adapted the same practice. It also provides a toll free whistle blowing line that allows all employees the opportunity to make confidential disclosure relating to suspected impropriety or wrongdoing.

The Group has further defined the conduct expected of its suppliers through the Suppliers' Code of Business Conduct.

Ethics and compliance

Our ethics and compliance mechanisms are articulated in our Code of Business Conduct (CoBC) handbook. The CoBC framework is embedded on integrity; integrity in the workplace, in our business practices and in the communities in which we conduct our business. It incorporates health and safety, diversity, fairness and respect, protection of company assets and information systems including email and social media, anti bribery and anti corruption, gifts and hospitality, fair competition, accurate recording and reporting, conflicts of interest, insider trading, conducting international business and preventing money laundering, the environment, human rights and community engagement.

The Code of Business Conduct, emphasizes its commitment to ethics and compliance with laws, it sets forth basic standards of behaviour for its employees when dealing with clients, suppliers, competitors and the general public.

Every new employee is inducted on the CoBC while refresher courses are conducted by our human resources and legal departments. All employees and officers, regardless of their positions, are required to comply, with the rules set out in the CoBC.

All staff members have signed a commitment to abide by the CoBC. Independence declarations forms are signed by all vulnerable committees such as the tender committee.

OUR VALUES

Our core values and underlying behaviors guide us in how we work at Bamburi Cement. They create the foundation for our new and common culture.

HEALTH AND SAFETY

Health and safety is the overarching value of Bamburi Cement. At Bamburi, we want to do more than prevent accidents, we want to create a healthy and safe environment for our employees, contractors, communities, and customers based on a true safety culture.

CUSTOMERS

Means we will continue to build an organization and culture that is centered on markets and customers. We understand who our customers are and who our end users are. We listen to them and understand what drives their businesses and what they value in order to be able to anticipate their needs and provide innovative solutions for shared value creation.

INTEGRITY

Means creating an environment where compliance is a central commitment. We have the courage to make the right decisions based on our ethical principles at all times, even when it means foregoing a business opportunity.

PEOPLE

Stands for openness and inclusion, and for truly caring for and respecting every individual. We seek out diversity and embrace new and different ideas, experiences, and perspectives, and are open to collaboration and sharing. We enable teams and empower individuals to reach their full potential and succeed. We recognize high performance and will address underperformance.

RESULTS

Stands for a passion to achieve our goals and deliver on our targets through rigorous execution with zero harm to people. We strive for continuous improvement and challenge the status quo with innovative solutions that drive lasting results for shareholders.

SUSTAINABILITY

Stands for demonstrating leadership in environmental stewardship and being a responsible role model for future generations. We proactively engage with stakeholders to create shared value with society. And we drive sustainable solutions through the entire value chain.

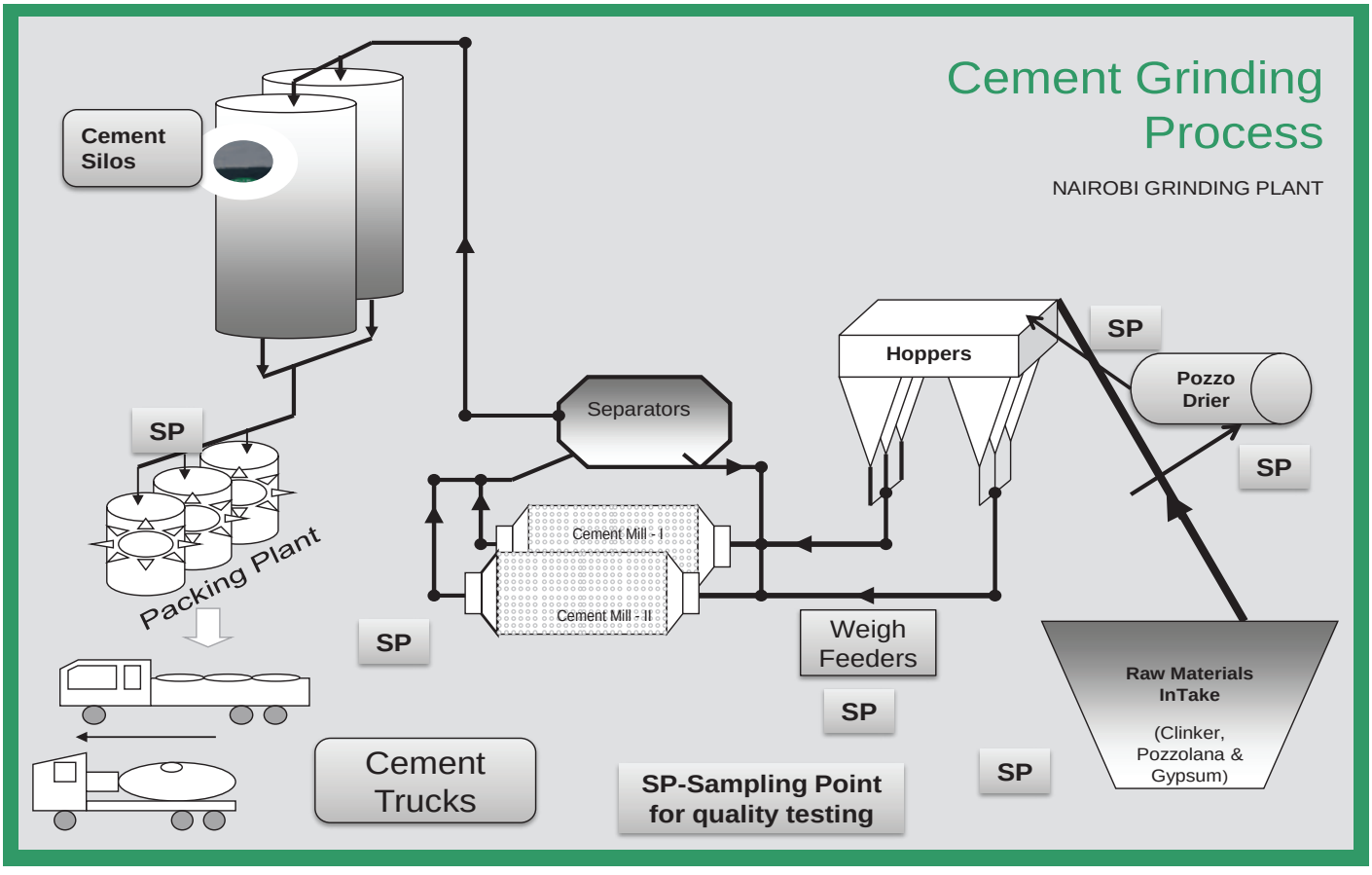
OUR BUSINESS MODEL

a) Mining

Mining operations involve the extraction of limestone, pozzolana, and gypsum. The predominant raw material extracted by Bamburi is limestone that is extracted in Kilifi and Kajiado Counties. Pozolana extraction takes place in Lukenya, Katani and Ngurunga while Gypsum is extracted in Konza, Isinya, Garissa and Tana River County.

Extraction involves removing the raw material from the quarry through different methods including open cast mining using heavy machinery and sometimes blasting. Materials are then transported by road using tippers to the respective plants – Mombasa or Nairobi Grinding Plant.

b) Processing



c) Distribution and sale

Bamburi has a wide network of business partners and direct clients. Business partners provide outlets through which cement is sold to customers. Direct clients predominantly collect their cement from Bamburi Cement directly. Products are distributed by rail and road to varied destinations in Kenya and Uganda.

FOCUS AREAS

The construction sector of tomorrow will be innovative, climate-neutral and circular in its use of resources. It will be respectful of water and nature. It will be inclusive – enhancing quality of life for all. We continuously monitor our direct and indirect impacts, positive and negative, over the whole lifecycle of our products and services. Our aim is to address the impacts our operations have beyond the fence line of our plants.

OUR PEOPLE
Page 14

OUR COMMUNITIES
Page 22

CLIMATE
Page 35

CIRCULAR ECONOMY
Page 39

WATER AND NATURE
Page 45

A safe, healthy and diverse workplace is a prerequisite for motivated, productive and committed people.

OUR PEOPLE

0.7TIFR
reduction in Total Injury Frequency Rate (vs 2015) by 2016

30%
gender diversity at all management levels by 2016

Key Achievements

The Lost Time Injury Frequency Rate (LTIFR) in 2015 was 0.26 against a target of 0.35.

Total Injury Frequency Rate (TIFR) stood at 0.7 against a target of 1.0.

We closed the year at 92% overall compliance level in road safety against 90% in 2014.

We achieved a 98% score on Health Assessment Standard Operating Procedure (HASOP) implementation of health assessments for employees and contractors in 2015.

OUR PEOPLE

KEEPING OUR PEOPLE SAFE

Material issues in the workplace involve a company's efforts to be a responsible employer. We continue to work on improving our health and safety culture and create a zero harm environment. Some of the key issues relevant for Bamburi include:

HEALTH AND SAFETY

Impacts on the health and safety of employees, contractors, suppliers, impacted communities and other stakeholders due to the cement value chain can be significant if not mitigated. The mining and processing dimensions of cement production create a large array of health and safety risks and concerns. Safety in the mining process results due to the use of explosives, driving and operating heavy mechanical equipment, loading and offloading raw materials. Within the manufacturing plants several safety risks exist including burns, falls, inhalation of dust and various gases, exposure to noise, injuries and even fatalities. Fatalities are most likely to happen while driving or operating mobile plant equipment and contractors have a higher risk of fatalities than employees.

Health

We achieved a 98% score on Health Assessment Standard Operating Procedure (HASOP) implementation of health assessments for employees and contractors in 2015. In Industrial hygiene a survey was carried to check level of exposure of employees to dust, noise and ergonomics. We also focused on closure of high priority actions that had the greatest impact and by closing on these actions, we greatly reduced exposure to employees within our operations.

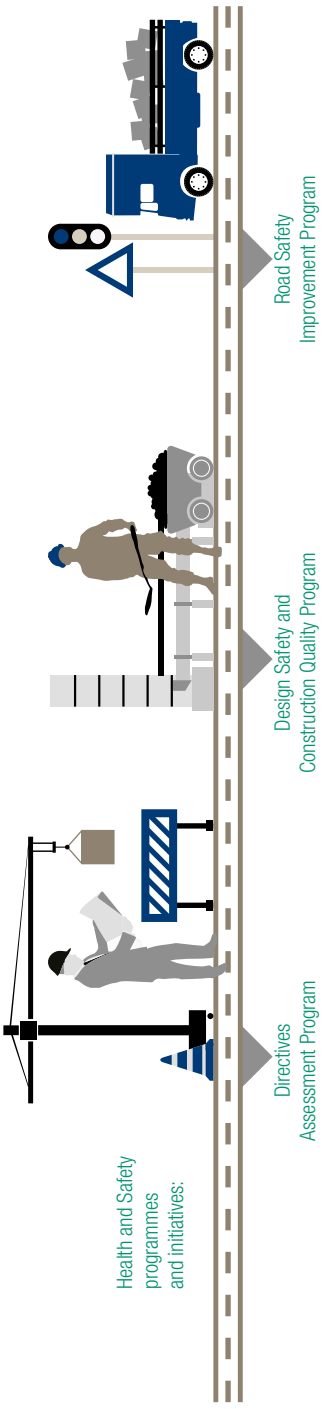
Safety

Industrial Safety

Our focus is on leading indicators like the Visibly Felt Leadership (VFL) Program which allows the business executives and managers to take time on the shop floor to observe and engage supervisors and frontline workers. This tool has gone a long way in reinforcing positive behaviour and correcting negative behaviour. We place emphasis on other leading factors that enabled us to create and maintain a safe working environment. These factors included safety observations, task observations, risk assessment audits and closure rate for high risk actions.

Road Safety

Road and rail transport are major channels through which Bamburi receives raw materials and distributes its products. Raw materials mined in various sites are transported by road to the Bamburi Plants for use in the production of cement. Final products are distributed throughout the country and to neighbouring countries using road and rail transport. The large fleet of trucks on the road create a clear risk for road accidents and incidents. We registered good progress in our driver, vehicle and journey management program closing the year at 92% overall compliance level in road safety against 90% in 2014.



FOCUS AREAS

OUR PEOPLE

OUR RESPONSE

Health and Safety

Health and Safety is the number one priority at Bamburi Cement. It is our uncompromising value of highest significance in the operations of the company covering staff, contractors, customers, suppliers and stakeholders. We have an elaborate safety framework which is implemented with unyielding stringency. Our health and safety policy documents our key commitments to stakeholders with the goal of "zero harm to all stakeholders". Health and safety issues are cascaded throughout the company with the CEO providing leadership and all line managers expected to ensure safety is fully observed.

Safety is not only encouraged in our offices, plants and properties but also within the entire supply chain worldwide. Deliberate participation of leadership in a model termed "Visibly Felt leadership" (VFL) portrays the seriousness that we give to the issue of safety. We use a set of leading and lagging indicators in developing Key Performance Indicators (KPIs) for Health and Safety.

We have 27 health and safety standards that respond to various safety risks. These include risks associated with working in confined spaces, working at height, using tools and machinery, dust emissions, vibration and noise as well as intense heat. Personal Protective Equipment is provided for all scenarios. Clear lock down and start up policies, protocols and procedures are in place to ensure safety. In 2013, we undertook a comprehensive health and safety management systems audit in all industrial sites and depots and are currently implementing its recommendations.

27 health and safety standards that respond to various safety risks.

Ran a successful health and safety month as well as bi-monthly health and safety campaigns sponsored by the executive committee.

Conducted leadership training for the executive committee, managers and supervisors.

Leading indicators

Leading indicators are proactive and futuristic indicators that measure future safety events precedent to the occurrence of the incident and thus seek to prevent or control such an incident. Leading indicators focus on future safety performance and continuous improvement. They tend to be proactive in nature and provide regular data on preventative behaviours rather than historical safety performance.

- *Visibly Felt leadership*
  We emphasize the role of leadership in modelling and championing safe practices. In the course of the last three years we have held more than six thousand forums involving the leadership of the company on safety issues. These engagements provide leadership and managers with the opportunity to observe and evaluate worker behaviour within various parts of the plant in respect to safety.

- *Task observation*
  We encourage safe behaviour by employees through careful consideration of the safety risks associated with a task and the necessary mitigation actions that should be taken before engaging in the task
- *Safety observation*
  We inculcate a culture of recording and reporting safety issues including near misses, unsafe conditions, unsafe acts and good practices consistently.
- *Risk assessment (five questions)*
  We evaluate the level of safety risk associated with our work using a series of five key questions
- *Closure rate of high risk actions*
  We are committed to reducing and eliminating all high risk actions and have created clear targets in this regard

Lagging indicators

Lagging indicators include the traditional safety measurement indicators that provide historical data on key safety metrics. They are useful for providing information on safety trends and particularly indicating adherence and compliance to safety rules and standards. They evaluate the overall effectiveness of a company in ensuring safety. Bamburi Cement has moved emphasis away from lagging indicators to leading indicators so as to proactively address safety risks and concerns.

The key lagging indicators used are:

- *Lost Time Injuries (LTI)*
- *Lost Time Injury Frequency Rate (LTIFR)*
- *Total Injury Frequency Rate (TIFR)*
- *Fatalities*

	Year		
Safety Statistics	2013	2014	2015
Lost Time Injuries (LTI)	1	2	1
Lost Time Injury Frequency Rate (LTIFR)	0.43	0.55	0.26
Total Injury Frequency Rate (TIFR)	1.36	2.49	0.77
Fatalities	0	0	0
Visible Felt Leadership (VFL) reports	2,459	2,106	2,114
Safety Observations	10,337	11,393	17,219
Training in safety (hours)	13,881	11,360	12,377

OUR PEOPLE

Health and Safety Excellence Club

Bamburi Cement's health and safety practice is absolutely world class. The company's staff, business partners, suppliers and customers have benefitted from a superior safety mindset, behaviour and performance. In appreciation of this exceptional safety performance, Lafarge (now LafargeHolcim) recognized Bamburi Cement with the status of Health and Safety Excellence Club. This exclusive club consists of those business units within the Group that display exceptional health and safety performance based on rigorous data and stringent requirement. This achievement has only been attained by two other business units in Africa and twenty four others worldwide, in a network that comprised 140 business units at the time of attaining the award.

OUR PEOPLE

ROAD SAFETY

Every day, between 600 – 650 trucks transport Bamburi materials and products covering over 20 million kilometres per annum. According to the WHO, Kenya is ranked 15th worldwide in terms of number of fatalities per 100,000 vehicles on the road. In a country where over three thousand road related fatalities occur per annum, we have experienced minimal accidents and no fatalities due to a comprehensive and stringently implemented road safety practice. In 2006, we recognized that while industrial safety was world class, road safety data indicated a close resemblance between the county data and our own data. A road safety programme, which aims to address the root causes of accidents, was thus established to address this situation.

The road safety programme is anchored on several pillars as follows:-

- Driver management – All drivers carrying Bamburi products must attend and successfully graduate from a defensive driving course. Additionally, they undertake annual medical check-ups with eye testing being of paramount importance. Drivers must have certain qualifications including five years accident free driving experience with the specific truck. A driver induction process is in place to ensure that all drivers are conversant with our expectations.
- Vehicle management – all vehicles are subject to a 21 point inspection on every visit to the plant. Vehicles must be fitted with a GPS system to allow for driver behaviour monitoring. The monitoring involves journey and speed management to avoid issues like over speeding, harsh braking and freewheeling. Check points are situated every 200 kilometres where drivers are able to refresh and debrief before continuing with their journey.
- Load management – the load must be in compliance with the national legislation. Over loading is strictly forbidden. Load weights are stringently recorded at all entry and exit points.
- Management review – the top leadership of the transporter company are expected to model visibly felt leadership in the area of road safety. KPIs are developed for the management including the chief executive. Each company is expected to recruit a safety manager who is fully empowered to enforce compliance to prescribed safety standards. Bamburi undertakes to train the Safety Manager. Regular reviews are conducted with the transporter company with the KPIs being tracked and reviewed on a quarterly basis.

The 8th edition of road safety awareness campaign was held in December 2015

FOCUS AREAS

OUR PEOPLE

Several practices underpin the road safety programme. These include road patrols by Bamburi staff and the transport companies, continuous driver engagement through tool box discussions, accident review where these occur across all transport companies, annual premise audits for the transporters. At the plant, traffic marshals have been hired to manage 500 – 750 trucks that visit the Bamburi premises on a daily basis and ensure that on-site accident do not occur. Designated drivers are provided by transporters whose mandate is within the company premises.

Transport companies sign up to the supplier's code of business conduct which binds them to observe the same standards that Bamburi ascribes to, thus ensuring that the company is responsible within its supply chain and avoids outsourcing ethical challenges.

All Bamburi premises perform using the same road safety practices and standards and no site will commission the other sites non-conformity. Use of dedicated drivers – Dedicated drivers have been deployed at NGP and Mombasa Plant to assist highway drivers take a break on arrival at the sites while their trucks are being loaded or offloaded at night. This ensures that the drivers get adequate rest to manage fatigue while ensuring their trucks are well utilized and in safe hands.

Zero road fatalities in the last three years

Four accidents involving third party drivers recorded in last three years

374 road patrol report submitted

OUR PEOPLE

CHAMPIONING DIVERSITY

Diversity and inclusion portrays a company's efforts to support the participation and advancement of traditionally marginalized groups. Maintaining and improving the diversity of the human capital portrays a company's appreciation of inclusion as a key driver for business success and long term sustainability. It also impacts on the wellbeing of employees through improvements in technical, personal and life skills.

We gained momentum with our diversity and inclusion efforts with the launch of Diversity and Inclusion policy. It was also the year that saw the launch of Bamburi Women Series, a resource group for women that meets every quarter. The resource group is focused on engaging, inspiring and developing the women of Bamburi Cement to drive total business performance and establish a strong reputation as a great place to work for women, and has had the opportunity of engaging women in corporate leadership positions.

Three female staff members participated in a ten (10) modular programme with seasoned facilitators in corporate governance and Board leadership known as the Women On Boards Network. The network is an initiative aimed at promoting and encouraging women into Board leadership. The aim of the program is to provide participants with a frank, open and practical assessment of what you need to get ahead.

19%
Gender diversity in 2015 (target 30% by 2030)

FOCUS AREAS

In Kenya, we continued to register good progress in our driver, vehicle and journey management program closing the year at 92% overall compliance level in road safety against 90% in 2014.
The 8th edition of the pre-Christmas road safety awareness campaign was held in December 2015 with the event kicking off at the Nairobi Grinding plant where the Country CEO hosted government officials, road safety bodies and like-minded organisations for a half day event. This was then followed by a 3-day road safety caravan that covered 500 kilometers on the Northern Corridor with stop overs in major towns and engagement with other motorists, motorbike riders and members of the public on road safety. The theme for 2015 was "Barabara Yangu, Barabara Yetu" which effortlessly translates to "My Road, Our Road".

We have long recognized the value of engaging with the communities in which we operate. We believe there are opportunities and an obligation to develop affordable solutions and new business models for people at the base of the pyramid.

OUR COMMUNITIES

Ingrained within Bamburi Cements' value system is the long-standing commitment to make positive, tangible and sustainable difference, within our communities

Key Achievements

Our teams are in the process of piloting the housing microfinance program under the brand 'MASKANI'.

The Builders Academy, an initiative began twelve year ago, has to date trained over 200,000 masons (fundis).

All major contractors and suppliers have signed up to our supplier code of conduct which provides clear ethical and responsible business requirements.

OUR COMMUNITIES

AFFORDABLE HOUSING SOLUTIONS

Housing is a fundamental human need worldwide. In Kenya, the Habitat for Humanity cites a housing shortage of 2 million houses, which is growing at approximately 200,000 houses per annum. Further, good quality housing is limited, with informal settlements accounting for almost 60% of all settlements within key cities.

Our focus is to support the enhancement of the local economy and wealth. And in response to the enormous challenge of providing a decent, sustainable housing at an affordable cost, we have developed an affordable housing solution. At least 300,000 people in 18 countries have already benefited from these programs.

Our Affordable Housing initiative is targeted at individual home builders and is organised around the pillars:

- Microfinance solutions to help people in emerging markets to fund the construction, renovation or extension of their homes
- Technical assistance and labour training to ensure good quality construction
- New building materials such as Durabric – soil stabilization block (low-carbon brick) that contributes to reduce construction costs
- Solutions for the distribution of building materials in small qualities of cement and ready mix concrete to areas that are hard to reach through standard methods of delivery.

Under the program, we have partnered with various financial institutions to provide financing to individuals to construct, renovate or extend their homes. In turn, Bamburi Cement provides technical support comprising; free architectural drawings, free bill of quantities (BOQs) & schedule of materials, free technical assistance and construction advice, access to the best quality building materials and finally access to Bamburi's Cement's countrywide retail network.

OUR COMMUNITIES

Cement stabilized earth blocks

Urbanization challenges in emerging countries require construction techniques and products that are: Innovative, sustainable and benchmarked to traditional techniques.

LafargeHolcim has developed green cements and adapted the technique of mixing earth and cement to offer a novel approach to the production of sustainable Compressed Stabilized Earth Bricks – CSEBs.

The input of cements in green infrastructure is not well understood. Modern cements are holistically green cements and play an important role in environmental sustainability - production of low CO_2 emission cements; Consumption of wastes generated by other industries; Use of alternative fuels e.g. tyres ; Use of bio-fuels and in quarry rehabilitation.

The development of this innovative approach of CSEB dovetails well with our agenda. This innovative technology has been used successfully in Malawi, and based on this experience, we have held initial capacity building sessions with identified potential contractor partners in Kenya. The production of CSEB's involves the use of local materials; earth, water and sand, and typical use of damp mix – low water content.

The key outcome is that for Environmental sustainability – no firewood, green cement (low CO_2 emission), there is 60% water reduction versus fired bricks, avoid transport and concomitant fuel consumption and ultimately, the engagement and mobilization of local community in technology transfer.

OUR COMMUNITIES

STAKEHOLDER AND COMMUNITY ENGAGEMENT

In line with Lafarge Holcim's stakeholder engagement approach, Bamburi Cement identifies its stakeholder's as those who have influence over our activities as well as those who are impacted by them.

We proactively seek to identify, engage, manage and partner with our stakeholders to create shared value. We employ different channels and mechanisms to engage with our stakeholders. These engagements vary in intensity, scope, purpose, frequency and type depending on the stakeholder group and the issue at hand.

Our stakeholders are:

- Clients and end-users: We seek to satisfy our clients by providing them with high quality and relevant products that address their needs and requirements. We listen to our customers and take their complaints and complements seriously. Our innovations are intended to ensure that our customers enjoy high quality, innovative and sustainable solutions.
- Workforce: Our employees are our leading resource for the delivery of our business strategy. They are the interface between us and our stakeholders and are our lead champions in these engagements. We are committed to giving our employees a safe, healthy and inclusive workplace. We will provide competitive remuneration and diverse opportunities for personal and professional development
- Local communities: We draw resources and our social licence to operate from the communities around our plants, installations and properties. We seek to maintain mutual and respectful relationships with these communities. We engage the community regularly to ensure that we are conversant with their concerns about our operations and also to facilitate social investment programs. We will continue to champion improvements in the lives of community members through our social investment activities
- Suppliers and business partners: We depend heavily on our suppliers and contractors for the delivery of non-core functions. As critical business partners, we seek to develop a respectful and profitable relationship that creates mutual benefits. We expect our contractors to adhere by our code of business conduct. On our part, we seek to respect our contractual obligations to our contractors and provide them with meaningful support to ensure the success of their businesses.
- Public authorities: Bamburi Cement works closely with government agencies in the housing, construction, environment and safety sectors. We aim to adhere to national legislation and regulations pertinent to our operations. We seek to partner with governments in areas of mutual interest and foster good relations between us.
- Shareholders & investors: We seek to increase shareholder value so as to build a business that is sustainable in the long term. Our approach to business ensures that we safeguard the resources that investors have provided to us through sound and sustainable business practices. We observe the best practice in governance and management of the company to ensure a good return for shareholders while observing the tenets of sustainable and ethical business practices. We are fully accountable to our shareholders.

OUR COMMUNITIES

LAND AND COMMUNITY RELATIONS

Poverty, in its varied forms, remains a major concern in Kenya. Companies in region provide an important ally in the effort to address poverty through diverse approaches. While community engagement is voluntary, the context creates a major demand on leading companies like Bamburi to express concern for society.

Bamburi Cement strives to be a trusted corporate citizen and to fulfil its responsibilities to the communities in which it operates. This is done by contributing through investment and engagement, and building relationships based on mutual respect and trust with all stakeholders in the community. Our community investment programme focuses on six key area namely environmental conservation, health, community empowerment, sponsorship, sports & culture and education.

Health

We support initiatives that increase access to affordable health care, including specialized health care that is often out of the reach of many. This is executed through partnerships with health care service providers and communities in constructing and equipping health facilities, providing health information and services through medical camps and supporting the provision of specialized health services.

Education

With the aim of providing quality education, we support the construction and renovation of classrooms and made donations towards bursaries. Investments in infrastructural development in schools help improve education and literacy standards in the community.

Community Empowerment

We support organisations and communities to implement development projects in income generation, security, road safety, employment creation and construction of social amenities. The projects range from small scale community initiatives to larger scale nationwide initiatives.

Environmental Conservation

We invest in supporting initiatives in environmental and wildlife conservation through participatory conservation activities, public education and sustainable preservation of natural resources

SHAMBA SYSTEM

Bamburi Cement holds approximately 750 hectares of reserve land in Vipingo and Diani. On both parcels of land, we annually allocate land to community members for farming purposes. This is part of enhancing community relations with the farmers and also improving food security.

TREE PLANTING

Supported several schools and institutions with tree seedlings for planting. Additional, we are currently engaged in a one million tree planting campaign.

MOTHER TO CHILD PROGRAM

We provide medical support at our staff clinic in Mombasa to community members with a focus on mothers and children under the age of five years.

BLOOD DONATION DRIVE

Encouraged Kenyans to give blood through the "toa damu, okoa maisha" campaign

ANNUAL ROAD SAFETY AWARENESS CAMPAIGN

We conduct an annual road show focusing on road safety.

HEALTH

- Donations towards Beyond Zero Campaign, Kenya
- Cancer Awareness Event and donation to Faraja Trust
- Supported Mother to child program

OUR COMMUNITIES

Builders Academy

We are committed to improving skills in the building and construction industry. The Builders Academy, an initiative began twelve year ago, has to date trained over 200,000 masons (fundis). The main objective of the Academy is to enhance masons' skills and professionalism in the building and construction industry in both countries, through offering formal training, and this in turn aiding to promote safe construction and job creation in the country. In 2015, under the theme 'Professionalism in Construction- causes of Building Collapses and Mitigation Measures' over 2000 masons from across the country benefited from the training program – covering diverse topics including in site planning, drawings, setting out and foundations, mix designs, causes of building defects and how to avoid them, and on site safety procedures.

OUR COMMUNITIES

Sports and Culture

We recognize that sports play a key role in terms of promoting health and well-being, as well as supporting cohesion and development initiatives amongst communities. By partnering with organizations and sponsoring cultural events, we promote the preservation natural heritage in arts, music and culture.

Sponsorships

By supporting events, conferences and projects that are closely linked to our business and the community we foster relationships that are focused on generating long term value.

SPONSORSHIPS

- Kenya Association of Manufactures (KAM) Energy Management Awards
- Boabab Trust Fund
- National Road Safety Campaign
- FiRe Awards & conference
- Mining Conference
- KEPSA Speakers Roundtable
- East African Community Day celebrations

EDUCATION

- Cement donations to put up either classrooms or dormitories to support construction of various structures in 13 primary and secondary schools across Kenya

ENVIRONMENTAL CONSERVATION

- Baobab Trust: Support in conservation of environment and wildlife in Nguuni
- World Environment Day
- National Environmental Trust Fund (NET FUND)
- Green Initiative Challenge (GIC) planting of trees in schools in partnership with KenGen Foundation & Better Globe Forestry
- Planted 298,000 trees in Coast Region through the 1-million Tree per County initiative
- Donation of paving blocks to Karura Forest through Friends of Karura

COMMUNITY EMPOWERMENT

- Training on good road safety practices and defensive driving of 4,500 boda boda operators and road users
- 4 boreholes for the Mwembelegeza Community in Mombasa.
- 200 bags of cement donated to assist construction of roads in Machakos County
- Donation to WEMA Center who provide support to street children and vulnerable orphans.

SPORTS & CULTURE

- Mombasa International Cultural Festival
- Beaujolais Nouveau
- Bastille Day
- Alliance Francaise - Mombasa and Nairobi

OUR COMMUNITIES

CASE STUDY

JUNJU PRIMARY SCHOOL

The school has been a beneficiary of several projects all sponsored by Bamburi Cement Limited

- A computer lab with 6 functional PCs donated by Bamburi. This lab was recently used by the Kilifi county government in training locals on computer literacy and e-government. Hiring of the lab generated income for the school and is also used to teach students on basic computer skills
- One million tree project that has seen over 1500 seedling planted in the school compound. The school has sold some of the mature trees to local wood traders and generated income from the sale
- A student environmental club has been formed to spearhead the tree planting activities giving the students an opportunity to learn more on environmental conservation. The school hosts a garden of 'mipingo' trees which have become rare in the area due to over –cutting by wood carvers.
- Two classroom blocks that were built by Bamburi that are now host the lower primary section of the school
- A fully kitted library that was donated by Bamburi Staff members including shelves and learning charts
- A water tank donated by Bamburi for water catchment during the rainy season. The water stored is utilized during the dry season

OUR COMMUNITIES

CASE STUDY

At the Vipingo Estate, Bamburi Cement has established a cordial relationship with the local Mwambelegeza community, permitting them to practice their indigenous religious practices within the property. This is due to the existence of sacred caves and indigenous sites within the property that have historically served as the focal point for traditional religious practices for the local communities. A local medicine man operates from the caves within the heavily forested Vipingo estates, an area that is currently being actively mined by the company. The local community observe Health and Safety requirements in accessing the sacred site including wearing reflective jackets but are free to visit the site at will.

The medicine man plays an important role in the community as a traditional healer and spiritual leader. He is also the custodian of traditional knowledge and practices inherited over generations on traditional healing, medicinal practices and spiritual guidance to the community. Although the property is duly owned by the company, Bamburi Cement has acknowledged the pivotal place played by the traditional medicine man and sacred shrines in the lives of the local community.

Community access to the sacred site and medicine man is guaranteed by the company as part of its commitment to respect indigenous community practices and the sanctity of community cultural and religious practices and sites. This is in accordance to the standards elaborated in the International Finance Corporation (IFC) Performance Standards with specific reference to performance standard 7 on indigenous communities and performance standard 8 on cultural heritage. Community consultation remains the cornerstone for this engagement with free and unrestrained access provided to community within specified guidelines.

OUR COMMUNITIES

OUR COMMUNITIES

PROMOTING CLEAN AND FAIR BUSINESS PRACTICES

BUSINESS PARTNERS

Bamburi Cement works with a large number of contractors and business partners providing diverse services and products to the company. These suppliers and contractors contribute to the success of the company by undertaking outsourced services and providing key materials for production. Supply chain responsibility creates a demand on Bamburi to ensure that the company's sustainability practices are mirrored by these business partners. It also prevents Bamburi from outsourcing controversial or difficult tasks to companies which have inferior sustainability practices leading to harm.

Concern for Business Partners

Business partners are key stakeholders for Bamburi. We therefore manage our logistics network with a view of gaining efficiencies and cost savings for our transporters. One of the major concerns for our business partners is the amount of time that their trucks spend at our plants either offloading raw materials or loading finished products.

In addition, we have undertaken certain measures to improve the performance of the logistics system including:

- Payload optimization: We ensure that trucks gain better fuel efficiency per ton of cargo loaded on the truck through payload optimization thus reducing their environment impact and improving returns to transporters through lower costs per unit of produce ferried.
- Optimization of ship loading operations of imported bulk products thus reducing time spend on offloading and saving costs since we don't incur demurrage expenses
- Used our Mariakani yard for ship offloading of imported clinker so as to ease transportation to NGP and gain remarkable cost savings.
- Measuring and controlling service level performance by various transporters to various regions.

Supply chain stewardship Supplier code of conduct

We work with a large number of suppliers and contractors. The Group takes a proactive approach to sustainable business practices ensuring that our suppliers and contractors adhere to Group's ethical business requirements. All major contractors and suppliers have signed up to our supplier code of conduct which provides clear ethical and responsible business requirements. Every year, we undertake an ethical assessment of our key suppliers and contractors to ensure they are applying our code of ethics in their operations.

Local supplier development

We are committed to support local suppliers and ensure that their experience in working with us is meaningful. Among the measures we have undertaken to support local contractors include:

- Increased the efficiency of our packers at our Grinding Plant in Kenya from an average of 68tph (Tonnes per Hour) to 75tph thus reducing waiting time.
- Debottlenecked our entry points at our Grinding Plant in Kenya by installing a second cement weighbridge in October 2015 to reduce congestion of trucks at the main gate.
- Installed a weighbridge at the bulker loading point to prevent over or under filling of silo trucks.
- Actively monitor our truck registration and driver behaviour to proactively address any behavioural concerns that would affect efficiency.
- Used pallets at palletizing shed to improve loading and off-loading time.

OUR COMMUNITIES

PRODUCT QUALITY

Product stewardship is the act of reducing the health, safety, environmental, and social impacts of a product and its packaging throughout its lifecycle while also maximizing economic benefits. Maximization of economic benefits is driven by product benefits to consumers which is anchored by the product quality. Thus quality is of material importance due to the important role played by building materials in the construction sector. On a broader basis, product stewardship involves customer engagement, with a view of incorporating customer concerns and ideas.

We have an in-house laboratory that ensures that our products are of the highest quality. Additionally, this high quality should be consistently achieved in all our products all the time. Bamburi maintains a continuous and stringent quality control process that ensures all procedures and processes required to achieve high quality products are consistently adhered to and record meticulously maintained.

Increased the efficiency of our packers from an average of 68tph (Tonnes per Hour) to 75tph

Customer Relations

Our Customer Relationship Management Tool offers a key platform for managing and achieving expectations. It enables the company to respond in an effective and speedy manner to customer needs, concerns and complaints. Our response to customer complaints is managed through the OTIFIC (On Time, In Full, Invoiced Correctly) model. In addition, the Group has invested in an M-Service portal that offers an easy to use, digital platform on which customers can transact their business with us through their mobile phones or tablets.

OUR COMMUNITIES

The key highlight for the Group in 2015 was the launch of the first ever mobile concrete laboratory in East Africa in November. This state of the art laboratory is being provided as a value added service to our customers free of charge, enabling them to conduct on-site testing of concrete and its constituent materials while gaining access to solid technical advice at various construction sites across the country. This investment of over KES 20 million reaffirms our continued efforts to innovate; evolving from a building materials supplier to an all-round construction solutions provider.

This service is currently available for customers in Kenya, offers flexibility and convenience to users who would otherwise have been forced to go to stationary concrete laboratories for tests. The mobile approach thus reaches out to a greater geographical sphere with regard to far off sites that have limited or no access to concrete testing facilities. The laboratory also aims at ensuring that the quality of concrete and its constituent materials used at construction sites meet the specifications of standards stipulated by Kenya Bureau of Standards, and requirements of the National Construction Authority which will ultimately result in overall improvement of construction quality and safety standards in the construction and building industry.

The Mobile Concrete Lab is able to conduct the following tests among others at construction sites:

- Aggregate analysis – flakiness index, particle size distribution
- Testing of fresh concrete – workability, consistency and air content
- Testing of hardened concrete – density, compression strength of concrete cubes and non-destructive tests on in-situ structures
- Soil stabilization tests for road works – density measurements

Customers are now able to know the quality and adequacy of their aggregates, sand and concrete mix designs. Users are also able to benefit by getting expert technical advice on concrete optimisation and best construction practices.

We're continuing our mission to cut carbon, and helping our customers avoid CO_2 emissions released from buildings and infrastructure.

CLIMATE

Committed to conducting business consistent with sustainable development principles.

Key Achievements

To obtain ISO 14001:2004 certification by the end of 2016
Over KES 800 million invested in the past 5 years in the upgrade of the Electrostatic Precipitators with more efficient bag filter technology, to curb stack emissions in our operations
World class Haller Park and Forest trails

CLIMATE

MANAGING EMISSIONS

Our ambitions are focused on reduction of specific CO_2 emissions by 2030 vs (1990) through innovative solutions. Our investments of over KES 800 million in the past 5 years in the upgrade of the Electrostatic Precipitators with more efficient bag filter technology, to curb stack emissions in our operations, was a key milestone in our drive to be compliant to Global Environmental Standards and in line with our Sustainability Ambition goals. Further to this, we consistently undertake emission monitoring within our operations and conduct regular external air quality audits to ensure that the ambient air quality at all our operations are within the legislated limits and that requisite reports are provided to the regulator as required by law.

Air quality

Dust emission is a major and stubborn component associated with cement production which needs to be managed progressively. We have undertaken several measures to address this challenge with varying degrees of success. One of the most successful approaches has been the use of electrostatic precipitators with bag filters which have been installed at the two plants in Mombasa and Nairobi. Baghouses are incredibly versatile and can be engineered for almost any dust producing application by varying size and bag types. They offer high treatment efficiency, safety and ease of operation thereby providing an environmentally friendly technology for air quality management. They have been found to be the best available technology for the two operations as they operate even during periods of power failure. Current investment in this technology is in excess of KES 1 billion.

Gas emissions

Cement production also results to the emission of several forms of gases. We undertake gas monitoring within the plant using online probes that capture the gas constituents and concentrations within the combustion chambers. External air quality audits are undertaken annually as per the NEMA requirements to ensure that the ambient air quality at the plants is within the legislated limits.

CLIMATE

Logistics Network Optimization

Every day, approximately 600 - 650 trucks deliver raw materials or finished goods for Bamburi Cement. We have therefore worked on improving the performance of our logistics network so that we gain environmental and social benefits. In many cases, especially with finished goods, trucks are forced to transport produce to a customer and then return empty. This phenomenon is called empty miles. We have worked at reducing the number of empty miles covered by trucks so as to reduce the overall costs and also environmental impacts of these trucks, through a network optimization strategy. This strategy identifies produce that can be transported on return trips to ensure that trucks travel fewer empty miles. This includes using clinker trucks to backhaul cement to Eastern and Coastal regions.

Use of rail transport

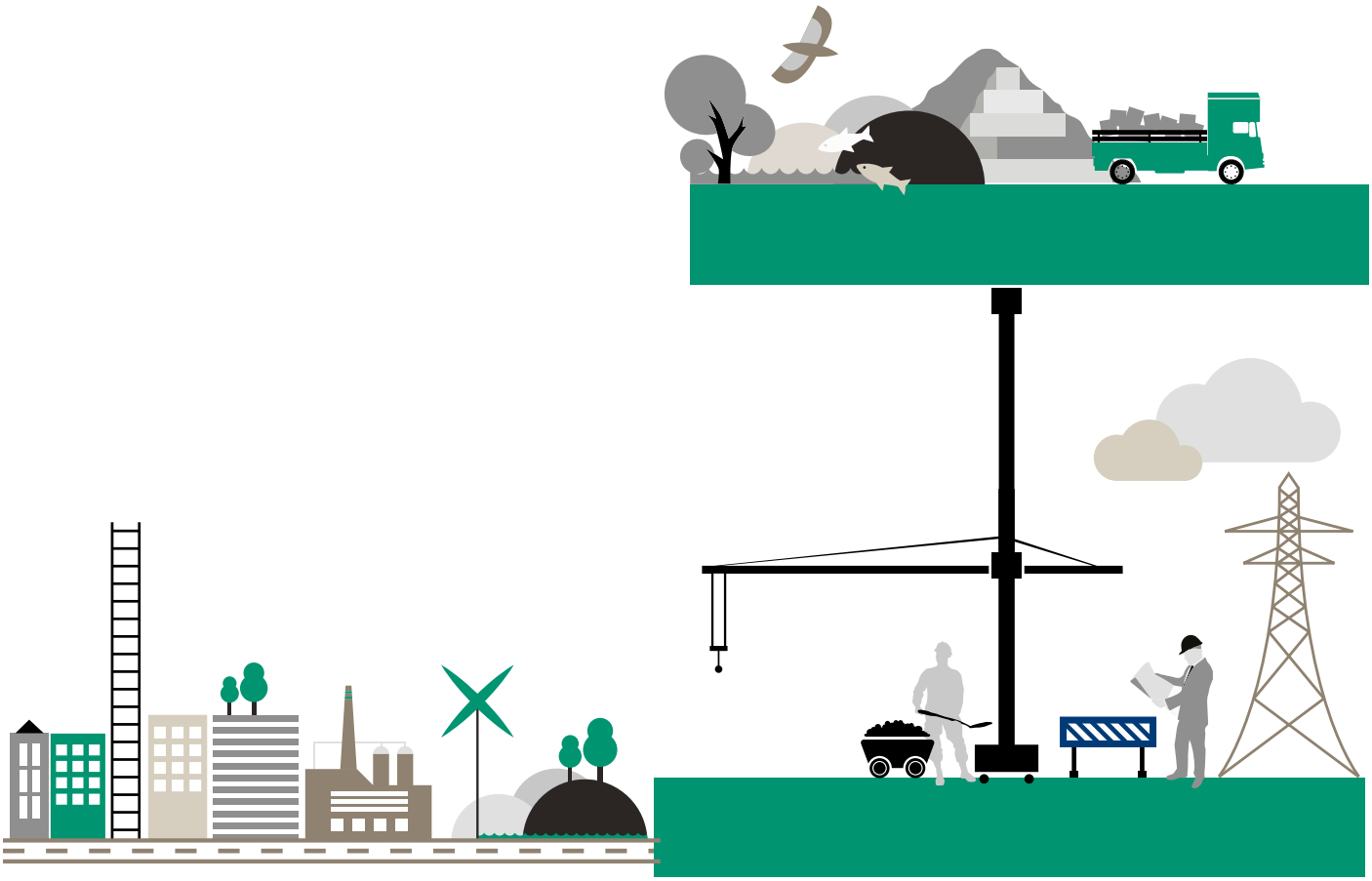
As part of our effort to reduce the impact of road transportation, we have embarked on an effort to increase the use of rail transport. On average we transfer 35 – 45KT by rail annually from Athi River to Uganda. 8KT transferred by rail to Eldoret in 2015.

MANAGING ENERGY

We are continuously working on improving our plant and logistical efficiencies such as reduced power consumption, better alternative fuels substitution, process optimisation for better energy consumption and increased alternative fuels substitution.

Clinker to Cement ratio

Clinker can be blended with a range of alternative materials. The clinker-to-cement ratio (percentage of clinker compared to other non-clinker components) has an impact on the properties of cement. Ordinary portland cement can contain up to 95% clinker. Substitution therefore has to consider the cement quality that is anticipated so as to identify the type and proportion of alternative main constituents that can be used. Yet the reduction of the clinker-to-cement ratio means lower emissions and lower energy use. Bamburi Cement has therefore made efforts to reduce the amount of clinker utilized substituting it with secondary additives so as to reduce the amount of energy used and emissions produced.



We will create more value by transforming waste into resources for our production processes.

CIRCULAR ECONOMY

Sustainable solutions to reduce our dependency on natural resources and fossil fuels

Key Achievements

- Average supply of 400 tons a month achieved in Waste Tyres delivery at our operations in Mombasa.
- Achieved a monthly average substitution rate of 50% using rice husks mixed with tyre dust.
- 30% reduction in Fuel cost index Environmental conservation

CIRCULAR ECONOMY

CIRCULAR BUSINESS MODEL

Enhance a circular and resource-efficient business model

To ensure the long-term success of its businesses, we aim to minimize its environmental impact and maximize its positive contribution. We implement a business model making the best use of water, recovering energy from waste and biomass sources, and enhancing biodiversity preservation.

Our cement, concrete, and aggregates activities and manufacturing processes require natural resources, such as water and energy. But such resources are becoming scarce, and the competition for their use is increasing between domestic purposes, agriculture, and industry. Our quarrying operations can also have an impact on ecosystems.

This is why we constantly work to optimize its use of natural resources by managing its environmental footprint effectively and creating value where possible by using recycled materials or incorporating other actors in the management of common watershed basins.

We implement a circular and resource-optimized business model, which covers:

- Substituting fossil fuels with industrial or municipal waste and biomass to power our cement plants. This allows waste to be recovered safely and in an environment-friendly way, which also provides solutions to waste generators while reducing our consumption of fossil fuels.
- Managing our own water use through best practices such as rainwater harvesting and water recycling. In addition, we influence other actors across the entire basin to promote community access to safe water and sustainability of local water supplies
- Implementing consistent and robust rehabilitation and biodiversity management at all extraction sites, in cooperation with experts and local stakeholders. Our objective is to deliver a net positive change in biodiversity by creating, preserving, and restoring natural habitats and contributing to species conservation.
- In addition to reducing our environmental footprint, our natural resource preservation actions aim to meet our local communities' needs:
  - We provide more water to communities in water-scarce areas by, for example, building check dams and reservoir pits.
  - We create local jobs by developing pre-processing and direct sourcing of waste

CIRCULAR ECONOMY

The "Geocycle" service

In attractive markets with high energy prices, significant quality and quantity of waste, and a favorable regulatory framework, LafargeHolcim develops a business activity called "Geocycle." It offers industries, farming cooperatives and cities a unique and sustainable service that consists of recovering, reprocessing and recycling their waste (chemical waste, foundry sand, other industrial waste, household waste, or rice husks) to turn them into alternative fuels for our kilns and raw materials for the cement production process

CIRCULAR ECONOMY

Alternative energy sources such as used tyres, biofuels and combustible waste have been incorporated into our cement manufacturing process.

Waste tyre and biomass program

Kenya generates more than one million scrap tyres annually and increasing, in addition to a backlog of discarded tyres that has accrued over the past 10 to 15 years. Scrap tyre management (collection and disposal) poses adverse negative environmental, safety and health effects to the general public, more so given there are no established and certified methods of disposal in Kenya and across the East African region. We identified an opportunity from 2010 of working on substituting the fossil fuel with Waste tyres in Kenya. In line with our sustainability ambitions, we approached private partners and the regulatory National Environmental Management Authority (NEMA) to form a strategic alliance to give the country a solution for safe disposal of waste tyres which have been a big challenge to NEMA. To date this project has been a progressive success story with an average supply of 400 tons a month achieved in Waste Tyres delivery at our operations in Mombasa, and with an average monthly substitution rate of 5 to 8% being consistently achieved.

CIRCULAR ECONOMY

In tandem, a cross functional team of Industrial, Supply Chain and Industrial Ecology was constituted to implement the use of Alternative Fuels as a substitute of the expensive Heavy Fuel oil, using readily available alternative fuels from industrial and agricultural wastes such as rice, coffee husks and Tyre dust at our plant operations in Athi River, Kenya. By close of 2015, the plant has achieved a monthly average substitution rate of 50% using rice husks mixed with tyre dust. This represents a minimum of 30% reduction in fuel cost index environmental conservation through utilization of local industrial and agricultural waste and reduced use of imported fossil fuels. In addition with involvement of the communities from which we source the waste has provided a source of income and job creation while providing safe waste management opportunities for mutual benefit to all.

Alternative Fuels

Coal, Heavy Fuels and electricity constitute the major energy sources for the plants. Because cement production is a major consumer of energy, Bamburi Cement has made specific and determined efforts to enhance energy efficiency and reduce energy consumption. Energy efficiency efforts have focused on increasing the amount of cement that can be produced with a specific amount of energy thus reducing the amount of energy needed to produce a given amount of cement. We have incorporated alternative energy sources such as used tyres, biofuels and combustible waste into its cement manufacturing process. The Mombasa kiln is currently utilising waste tyres and other combustible waste material such as used cement bags. The ratio of waste fuel used is optimised at 10% of the total fuel utilized so as to ensure that the quality of the cement is maintained. At the Nairobi Grinding Plant (NGP) rice husks and biomass are utilized and currently constitute 65% substitution of fuel consumption. Our target is to move NGP to 100% substitution and consistently increase the substitution at the Mombasa Plant. Our approach in using alternative fuels offers many benefits.

First, it limits greenhouse gas emissions by reducing the use of non-renewable raw materials and fossil fuels such as oil and coal. Secondly, it diversifies energy resources and reduces energy costs by limiting dependence on traditional fuels and finally it serves the community by recycling waste that would otherwise need to be processed and eliminated. The use of waste tyres is of special significance since most tyres end up being burnt to remove wire which is sold to scrap dealers. Open air burning of these tyres leads to emissions into the air and thus pollution. Some of the suppliers working with Bamburi were previously involved in this burning of tyre and are now participating in an alternative income generating activity that is green. Industrial ecology practices are, therefore, beneficial for the community and the environment and also have benefits for Bamburi.

CIRCULAR ECONOMY

Sustainable construction

As urbanization increases, the demand for housing and infrastructures also grows. However, buildings account for important CO_2 emissions and consume huge amounts of energy across a lifecycle that spans production, construction, operation and demolition.

The challenge is to continue to build but to do so in a different way. Bamburi is committed to sustainable construction and works in partnership with other players to develop new construction methods.

Sustainable construction addresses two major global challenges: the significant environmental impact of the construction industry, balanced against the industry's economic and social benefits.

Sustainable construction addresses both challenges by limiting the environmental and human impact of construction while guaranteeing the highest quality in aesthetics, strength and durability. It considers the complete life cycle of a building, from the selection of materials to demolition and recycling.

In practice, sustainable construction means:

- Reducing the negative impact of building sites (noise, dust, repetitive tasks),
- integrating renewable energy sources at the design stage,
- using recyclable materials in construction to preserve natural resources,
- improving the thermal inertia of buildings to reduce heating and air-conditioning costs and CO_2 emissions,
- controlling the aging of structures,
- recycling materials and structures after demolition,
- Designing low-cost housing to improve living conditions for low-income populations.

We are acutely aware of how precious water is, which motivates us to manage water resources efficiently, equitably, and sustainably.

WATER AND NATURE

Improve on our environmental performance and to make a positive contribution to nature

Key Achievements

- Minimized our impact on water bodies
- Quarries rehabilitation/ restoration/ reclamation
- Biodiversity management

WATER AND NATURE

MANAGING ENVIRONMENTAL IMPACT

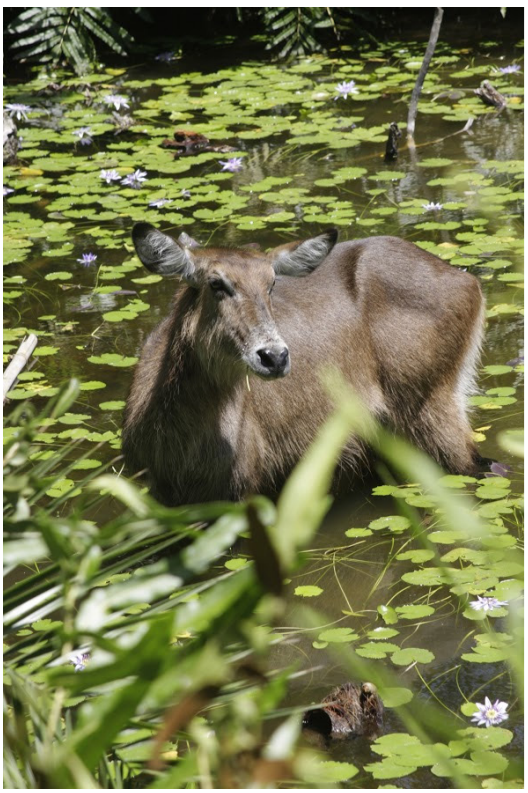
Environmental stewardship is concerned with the direct and indirect impacts of a company on living and non-living natural systems including ecosystems, land, air, bio-diversity and water. It involves a lifecycle approach covering the entire value chain of a product from input to final product.

Managing Environmental Impacts

Bamburi Cement views the natural environment as an integral part of the company's operational concerns. The entire production system seeks to ensure that quality requirements, operational procedures and processes focus as much on the natural environments as they do on other key product indicators. Thus the production process seeks to create the best quality product while being sensitive to the environment. For example, input quality, amounts and combinations are determined with both product quality and environmental impacts in mind. Thus, environmental concerns begin right at the mining level through responsible sourcing, determination of key quarry variables and oversight over raw material quality. It extends to the actual production process and forms a key variable in the distribution logistics.

Environmental Management System (EMS)

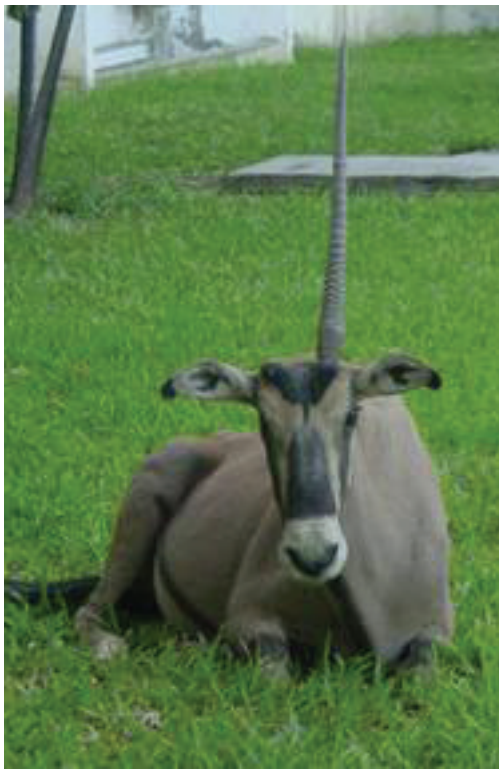
In Kenya, we embarked on the process of developing a comprehensive and effective Environmental Management System (EMS) to manage overall environmental responsibilities and performance with the commitment of obtaining ISO 14001:2004 certification by the end of 2016. To reach this goal we have put in place a program that is managed and coordinated well, guided by our Environmental Policy, and with a roadmap that encompasses the development of operational controls, documentation and manuals. Being a leader effective environment management, we continuously strive to benchmark with and to achieve the highest level of conformance to not only local but Global standard practices developed, a practice we are proud of.



WATER AND NATURE

POSITIVE IMPACT ON WATER RESOURCES

Water consumption is monitored through flow meters across the operations. Water consumption is high with the Nairobi plant consuming approximately 1.8 million litres per month and the Mombasa operation consuming approximately 150 million litres of water per month. Water is mainly sourced from onsite boreholes at the two plants. Potable water is obtained from the Nairobi and Mombasa County supply mains.



BIODIVERSITY

Bamburi Cement through its ecosystems subsidiary is enhancing the co-existence of industry and nature. Through Lafarge Eco Systems, our environmental and rehabilitation arm of the business, we remain strong in our vision to be the centre of excellence in land management, quarry rehabilitation and Bio-diversity management.

Haller Park and Forest trails

Haller Park is located South of the Bamburi Cement Plant along the Mombasa /Malindi highway. A product of the company's efforts, since 1971, to convert barren landscape of disused limestone quarries into vibrant and diverse ecosystem of forest, grasslands and ponds. Currently, Haller Park plays host to a variety of wildlife including hippos, giraffes, buffalos, and antelopes as well as smaller mammals and birds. The Park consists of a Game Sanctuary, Reptile Park, small demonstration Fish Farm area, Palm Garden, Crocodile pens and a giraffe viewing platform, offering a variety of attractions at the various points to educate and entertain the over 160,000 visitors who visit the park every year. The diversity of vegetation is considerable, from mangrove palms and majestic indigenous shade trees to coastal forests where several of these plants are rare and endangered. There are 4 nature routes in the Forest Trails for cycling, jogging, walking and fitness enabling the visitor to experience alternating landscapes from empty quarries to lush forest, lakes, streams, palm grooves and plantations of indigenous trees.

Today, this world class nature and environmental park stands as a beacon of successful decentralization of environmental management to regional and local levels and adaptation of social responsibility.

WATER AND NATURE

South Quarry View Point

The South Quarry Viewing Point was developed as an opportunity for Bamburi to showcase a visual and living demonstration of the rehabilitation story and rehabilitation management within its subsidiary Lafarge Eco Systems. This was ensured through offering educational experience to the visitors on how the quarry face develops and the role Lafarge Eco Systems plays in the rehabilitation of the mined quarries by demonstrating the beginnings of rehabilitation, ecological management and showcase development. It is a spectacular demonstration of how the ecosystem is developed from a bare quarry floor to the dynamic relationship of the wetlands, forests and habitats.

Butterfly Pavillion and breeding house

Due to forest destruction as a result of the mining process many butterfly species had been lost and as such there was need to restore degraded ecosystems to promote recovery of displaced butterfly species. The pavilion is home to more than 16 species of butterfly.

Reptile Park

Lafarge Eco Systems boasts one of the most modern Reptile Parks in Eastern Africa. It was initiated around the concept of educating the general public on the importance of snakes to mankind and their role in ecosystems. Visitors are able to view the snakes in their terrariums designed to mimic their natural environments. The snakes are sourced from the surrounding rehabilitated forest as well as pet snakes that were either abandoned after their guardians relocated. It also serves as a safe home for injured snakes and those whose natural habitats had been destroyed or encroached.

WATER AND NATURE

Wildlife Sanctuary

The company works with the Kenya Wildlife Services (KWS) in the management of the biodiversity resources. Haller Park hosts a wildlife sanctuary where we receive wild animals from KWS and at the same time donate wild animals to national parks throughout the country.

Aqua culture

As a result of excavation, small lakes, ponds and swamps are formed and become habitats for fish, birds and reptiles created. Wherever possible, water bodies and swamps are inter-connected by channels for the free movement of aquatic organisms. In a larger lake such as the wildlife sanctuary hippopotami are introduced to keep the water-body healthy and prevent it from silting. The Bamburi Integrated Aquaculture system constitutes of the fish farm, crocodile unit, and a bio-filtration component. The rejected fish are used as part of food items for the crocodiles. The system is run biologically, with no pesticides, artificial fertilizer or chemotherapy for fish, crocodiles and plants being applied. This is to avoid upsetting the delicate balance in the system.

Shamba System

Through the 'Shamba System' local farmers are given a chance to participate in seasonal cultivation contracts to cultivate crops in the plantations where feasible. This is both at the Vipingo and Diani estates. Widows and elderly locals are given priority and staple foods such as maize and beans are the common crops cultivated for sustenance. Locals who participate in the Shamba System applaud the project as it increases the arable land available to them in light of the increased scarcity of arable land in the two regions. The produce is also sold to raise money for other activities such as education, clothing and medical care.

WATER AND NATURE

Tree Plantations

This is part of Bamburi's rehabilitation efforts where already mined areas and reserve lands at Vipingo and Diani estates are utilized to establish tree plantations. The plantations include the use of specified indigenous plants vegetation to diversify vegetation and create a coastal indigenous forest as well as produce wood as fuel for the cement kilns to substitute fossil fuels & reduce fuel costs and green-house gas emissions. Bamburi partners with neighbouring communities in seedling production through establishment of community nurseries and training in nursery management. This in turn creates employment opportunities and raising awareness of environmental conservation.

Bamburi participates in a number of projects including the greening within our operations in Mombasa aimed at creating an ecosystem rich in bio-diversity through the planting of indigenous trees and shrubs and fruit trees. The company works with other agencies including The National Environmental Management Authority (NEMA), the Mombasa County government and the Kenya Wildlife Services (KWS) in the management of the biodiversity resources. Bamburi also champions the World Environmental Day as part of raising awareness on biodiversity conservation.

WATER AND NATURE

The Green Initiative Challenge (GIC)- Phase II

Our commitment on sustainable environmental management also extends to development of partnerships with organization with similar ambitions. Our partnership with KenGen Foundation and Better Globe Forestry Foundation for the second phase of the Green Initiative Challenge (GIC) Program, a schools' afforestation project that targets schools in Embu, Machakos and Kitui counties in Kenya was launched in 2015. The Green Initiative Challenge (GIC) program is designed to encourage and enable schools to participate in environmental activities by developing small forests and woodlots within their compound for multiple benefits. Under the 10-year program, the target is to plant a total of 460 acres with 300,000 commercial and wood fuel trees and 113,956 fruits trees in 919 new schools over that period.

The objective is boost awareness and participation of school children in environmental conservation via sustainable management and harvesting of tree seedlings, provide schools with renewable source of wood fuel thereby reducing pressure on surrounding forest resources, contribute to reduction green house gases through carbon sequestration by growing woodlots, and with the aim of securing the catchment area around the hydro generation dams.

One Million Tree Project

Climate change has become a major challenge in this world. Communities are experiencing the significant impacts of climate change which include changing weather pattern, rising sea level and more extreme weather events. Green house gas emissions from human activities are driving climate change and continue to rise. Without action, world average surface temperatures are projected to rise with the poorest and most vulnerable people being affected the most.

Tree planting is one way of ensuring a clean and secure environment because trees act as a sink to carbon monoxide of the greenhouse gases which causes global warming resulting to climate change. The one million tree project aims to increase tree cover in schools thereby promote the 10% tree cover in the country by 2030. Launched in Kilifi and Kwale counties, with an ambitious target of achieving one million trees in 5years, to date 298,400 tree seedlings have been planted across 150 schools in Kilifi and so far we have reached 6 schools in Kwale with over 1000 seedlings distributed. Participation of communities and county administration has been a key lever.

Direct Impacts

Schools and Students

- The trees are grown in schools and institutions of higher learning.
- The students are encouraged to tend the trees so that from an early age they appreciate the value of environmental awareness.
- Trees will provide shade for the children.
- Timber can be sold as an alternative income source for schools.
- Program can be used as part of learning especially in subjects that revolve around the environment and nature.

Company

- Reduction in carbon footprint.
- Opens up new avenues for partnerships with the community and county.
- Builds sustainable and mutually beneficial relationships with the community.
- Provides a platform for members of staff to engage with students and school leadership, participate in the tree planting and mentorship.
- Securing in the mid and long term the catchment area of hydro dams - a cheaper and renewable sourceof energy

Social Impact

- Creates a conducive environment for students and society that promotes better standard living.
- Improves community sensitization and awareness in matters relation to the environment.

Financial Impact

- Monetary value received upon sale of the mature trees (Makao)
- Source of food (Fruit trees)

Environmental Impact

- Climate amelioration.
- Soil erosion control.
- Aesthetic value.
- Carbon footprint reduction.

CONTACT US AT BAMBURI CEMENT
CORPORATE OFFICE
6th floor, Kenya Re Towers,
Off Ragati Road, UpperHill,
P.O Box 10921-00100, Nairobi.
Landline:+254 20 2893000
Office Mobiles: 0722 205001/ 0733 633333
Email: corp.info@lafargeholcim.com
Website: www.lafarge.co.ke