



SUSTAINABILITY REPORT 2012

PAGE NO.	CHAPTER	SUMMARY
02	The Forward Strategy	Synopsis of the year and our vision for sustainability
03	Scope of This Report	Report Parameters (Reporting Cycle and Contact Information) and Content Overview
06	Chairman's Message	Overall Vision and Strategy for the Short, Medium and Long-term, Broader Trends Influencing Sustainability Priorities, Key Events and Achievements with respect to Economic, Environmental and Social Performance and Main Challenges and Goals for the next 1-5 years
10	Stakeholder Engagement	Our 2021 Vision, Key Stakeholder Groups, Frequency and Method of Engagement and Action taken on Key Stakeholder Concerns
16	Sustainability Framework and Policies	Our Sustainability Philosophy and Objectives, Sustainability Framework and Values and Policies of the Company
22	Sustainability: Trends, Risks and Opportunities	Trends in the Industry and Economy, Risks and Opportunities categorised under Economic, Competitive, Financial, Environmental, Human Resources, Supply-Chain, Operational and Seasonal Aspects
26	Governance	Organisation Profile, Composition of Board of Directors, Organisation Structure, Governance Structure and Governance-Driven Sustainability Achievements in 2011/12
34	Economic Responsibility	Management Approach, Maximising Value Addition, Economic Value Generated and its Impact, Sustainable Construction Practices, Supply Chain and Subcontractor Development, Assistance Received from Public Agencies, Research and Development
42	Social Responsibility	Message from the Chief Executive Director, Management Approach, Indirect Economic and Social Impacts of Our Activities, Social Development Projects carried out in 2011/12
48	Human Resources Development	Management Approach, Employee Analysis, Performance Management, Staff Turnover, Training & Development, Equal Employment & Affirmative Action
56	Enhancing Compliance	Message from the Director Engineering, Management Approach, Health Safety and Environment, Workplace Accountability
66	Environmental Performance	Management Approach, Energy Efficiency, Biodiversity, Emissions, Waste Management & Recycling, Efficient Use of Materials, Water-Use Efficiency
78	Sustainability Performance Against Targets	Sustainability Performance against Economic, Social and Health, Safety & Environmental Performance Indicators
79	Future Plans	A brief outline of Our Future Plans for 2012/13
80	GRI Index	Table identifying the location of the Standard Disclosures in the report as per GRI G3 Sustainability Reporting Guidelines

The largest and most trusted construction firm in Sri Lanka, Mäga Engineering has completed over 350 multidisciplinary projects in the country and overseas.

Within the lasting social infrastructure we construct, is a continuous quest to listen, learn and lead – and uphold the untiring spirit of sustainable development.

# The Forward Strategy

2012 was an exciting year. Developments in the global and local economies presented significant opportunities and challenges. At times, the combination of a volatile global supply chain and an overstrained local resource base seemed to overwhelm the industry. Meanwhile, the infrastructure needs of a growing national economy offered noteworthy opportunities. Some of these arose naturally in the market; others were challenging situations that we transformed into opportunities. The latter arose mainly in the fields of environmental protection, community development and northern infrastructure development.

Our financial strength grew, our machinery base expanded and our technology matured, but Mäga's focus on sustainability was directed and driven by its human capital - The Mäga team. Our commitment to the triple bottom line did not waver as the performance of the organisation was assessed across the board against our 2015 goals.

Accordingly, our 'forward strategy' is essentially focused on our present. It is focused not only on our direction and destination, but also on the operational and ethical integrity of our conveyance

- the wheels, so to speak, which carry us forward. Supporting and strengthening these wheels are the 'spokes' - namely, our ties with stakeholders.

This report will show that our efforts to strengthen stakeholder relationships remained vibrant. Yet, given the demands and challenges of the future, we had to look inward as well as outward in order to develop, within the Mäga community, the knowledge and skills required to sustain and strengthen these wheels. We committed more resources to training and development than ever before and continued to improve our performance-management system. We partnered industry regulators in key development programmes. To develop and propagate the technology that will support our sustainability focus into the future, we strengthened the Mäga Research & Development Wing. All these efforts mould our 2021 vision of 'creating an intelligent organisation which addresses the future needs of our nation, society and environment' - with scientific foresight rather than in reaction.

# Scope of This Report

“This report is formulated to address the most critical sustainability concerns of the company and its stakeholders”

Several key strategies govern our management approach to sustainability. The indicators presented herein measure the efficiency of these strategies, which are complemented by Mäga's policy framework relating to each subject in question and the company's future goals and targets connected with these strategies. All data measurement techniques, bases of calculation, assumptions, techniques and underlying estimations applied to the compilation of information and indicators are in accordance with GRI principles, indicator protocols, guidance on defining report content, etc.

This report is formulated to address the most critical sustainability concerns of the Company and its stakeholders. These were identified through a materiality analysis, carried out in accordance with GRI and AA1000 guidelines. The analysis considered situations and conditions with the greatest potential to generate significant impacts or influences on the Company and its stakeholders.

## Parameters

This report follows our annual sustainability reporting cycle, covering activities from 1 July 2011 to 30 June 2012, as well as strategies to be followed over the next reporting period, 2012/13. The most recent previous report was published on 30 September 2011.

Please direct all queries and requests concerning this report or its contents to Sustainability Division, Mäga Engineering (Pvt) Ltd., on +9411 2808835 or our Manager Sustainability & Stakeholder Engagement at [sustainability@maga.lk](mailto:sustainability@maga.lk)

This report is available online at <http://www.maga.lk/sustainability/>

## Content Overview

This report describes in detail our sustainability framework, goals, policies and performance under five key areas: economic responsibility, human resources, compliance enhancement, environmental management and stakeholder engagement. It expands on the content of last year's report, quantifying performance in terms of measurable indicators as recommended in the guidelines of the Global Reporting Initiative (GRI), and is further strengthened by the addition of several new indicators. We believe it attains Disclosure Level B of the Construction and Real Estate Sector Supplement (CRESS) of GRI in terms of both content and performance indicators.





Construction underway at the 32-Storey Fairway Skygarden Complex at Rajagiriya

“The report uses an assemblage of policy coverage, action plans and performance indicators grouped to highlight Mäga’s holistic approach to sustainability”

Issues covered in the materiality analysis consisted of:

- Matters raised by stakeholders, interested groups and the media (stakeholders were canvassed in order to identify issues of importance to them).
- Matters raised at internal risk assessments and recommendations of the Sustainability Committee
- Various requirements of voluntary and regulatory initiatives
- Sustainability concerns of the industry in general



The importance of each of these issues to Mäga and its various stakeholders was determined through the application of materiality tests and by rating the level of awareness and importance to each party.

All stakeholder groups were identified as part of the process of mutual impact evaluation (this is explained in Stakeholder Engagement Section). The concerns of greatest significance to stakeholders, and the way in which we have addressed these concerns, are explored further herein.

## Scope & Boundary

This report covers all divisions and departments of Mäga Engineering (Pvt) Ltd. and all activities within the Company over which it has substantial control and influence. It deals with both our main and supporting business processes. Thus there are no specific limitations on its scope or boundary.

Financial and economic performance data have been derived from our Audited Financial Statements for the year under review. Data relating

to information and performance indicators on human resources, safety compliance and environmental performance have been compiled by the relevant business units. Data measurements and calculations were based on GRI (G3) compilation guidelines pertaining to Construction and Real Estate Supplement (CRESS) as given under the relevant indicator protocols.

During the reporting period, Mäga carried out two projects as joint ventures with other firms. The full scope of these projects is considered in the report. The operations and contributions of subcontractors in respect of Mäga projects are also covered herein.

This report is complete in itself, carrying the narrative forward from the point in time at which the previous year's Sustainability Report concluded.

## Structure

The report uses an assemblage of policy coverage, action plans and performance indicators grouped to highlight Mäga's holistic approach to sustainability while maintaining the structure and readability of our previous reports. As such, it does not strictly adhere to the structure of indicators as found in the GRI G3 Sustainability Reporting Guidelines.



## Chairman's Message



The economic factors pertaining to the construction industry have been characterised by volatility in the global supply market, increased government investment in local infrastructure development and the surge in development activities in the North and East of Sri Lanka. There has also been increased focus on safety and environmental standards, green building practices and accountability. During the year,

the construction sector emerged as one of the highest growing segments in the national economy, primarily as a result of the post-war infrastructural development activities.

From an economic perspective, year 2011/12 was a successful year for Mäga Engineering. In 2011/12, we carried out work on building projects with a total floor area

of 1,325,000 sqft, road networks spanning over 620 km and water supply schemes serving over 270,000 residents. Despite a volatile global economy, we consolidated revenue growth by a further 45%. The year was equally rewarding from the point of view of long-term business viability. While the road sector grew considerably, our foray into water supply, sustainable buildings, marine work,



"In 2011/12, we carried out work on building projects with a total floor area of 1,325,000 sqft, road networks spanning over 620 km and water supply schemes serving over 270,000 residents"

conflict-area rehabilitation and intermediary construction products helped balance our business portfolio and pave the way for future growth.

This report will further endorse the success of this year in terms of promoting and ensuring human resources development. Our direct employee strength grew to over 7000 and our subcontract employee base expanded to over 3000.

We implemented a renewed approach to employee management in the form of a comprehensive performance management system and provided employment to 1,825 persons from formerly conflict-affected regions - a number that represents 26% of our direct workforce. Continuing emphasis on professional and career development for our workforce saw a 13% increase in the number of training hours per employee.

During the year, we completed several building and infrastructural facilities, such as the state-of-the-art headquarters of Sri Lanka Customs, Greater Kandy Water Supply Scheme (Stage 2), Jaffna Teaching Hospital, vital segments of the A-9 and A-35 roads and five roads under the Northern Road Connectivity Project. These projects were complemented by a number of social and community initiatives to benefit people in project areas as well as other parts of the country. In our ongoing effort to reduce our environmental footprint, we took several measures to optimise resources usage and minimise waste. The company also executed a number of environmental protection projects, most notably a multifaceted conservation and biodiversity protection programme in the environs of the A-12 highway project and a campaign to protect the Peak Wilderness Area around Sri Pada (Adam's Peak) from pollution. In recognition of our environmental initiatives, we were pleased to receive Sri Lanka's first National Green Award in the public and private sector, awarded by the Central Environmental Authority.

Within the context of a resurgent local economy, Māga has created capacity for future growth through our substantial investments in training and development, performance management, lean production and plant and machinery. Our R&D wing was reinforced during the year in view of the



Newly built headquarters for Sri Lanka Customs at Charmers Quarry, Colombo

growing technological and ICT demands. Future plans call for the implementation of an integrated resource management system for greater efficiency and collaborations with leading universities and institutions on development programmes which will anchor our long-term growth.

Mäga has always revolved around sustainable development. In the pursuit of this objective, we were the first construction company and one of the first private companies in Sri Lanka to report our economic, social and environmental performance according to the guidelines of the Global Reporting Initiatives and be accredited

under international standards for both health and safety and environmental management. This intent has also translated into action in constructing the world's first purpose-built LEED platinum-certified apparel factory for MAS Holdings and helping found the Green Building Council of Sri Lanka. Our holistic approach to sustainability enabled us to achieve the number three rank and Platinum rating in the country's Corporate Accountability Index.

Our strategic priorities are embodied in the '2015 Goals' and '2021 Vision', which highlight the short, medium and long-term vision of the company. Our 2015 Goals focus on realising our developmental needs, while our 2021 Vision focuses on adapting a holistic, forethought approach to creating sustainable infrastructure which is embedded right across the DNA of the company.

**M.G. Kularatne**  
*Chairman and Managing Director*

## Organisation Profile

Mäga Engineering (Pvt) Ltd (Mäga), a limited liability company is one of the premier engineering and construction companies in Sri Lanka. In the delivery of large-scale infrastructure projects, it is the national leader in terms of both volume and industry recognition. Founded in 1983, the company's unwavering commitment to quality and timely delivery has garnered the company the National Business Excellence Award in the Construction Sector for the past 6 years, the Sri Lankan Institution of Engineers' (IESL) first ever Engineering Excellence Award in 2008 and a record 57 ICTAD National Construction Awards (highest award in Sri Lankan construction) across three decades. Mäga is the first and the only construction company to achieve Business Superbrands Status in Sri Lanka.

## Head Office and Regional Offices

Our Head Office is at 200, Nawala Road, Narahenpita, Colombo 05, Sri Lanka. The company has regional offices in the Southern (Hambantota), Central (Kandy), North-Central (Anuradhapura) and Northern (Pallai) Provinces.

## Markets

Our management and growth strategy is based on broad basing our organisation by serving a diverse customer base across several markets. They include education, healthcare, trade, information technology, real estate (residential & commercial) industrial, transport, agriculture, ports & harbours and water supply & drainage sectors.

The company serves customers in the public, private and non-governmental sectors and operates in all 9 provinces of the country. Its customer base comprises investors, developers, Government and public institutions, healthcare and educational institutions and the public at large who are the end-users of the buildings and infrastructure facilities.

## Awards Won

### National Business Excellence Awards by National Chamber of Commerce

- Construction Sector, Winner

### National Business Excellence Awards by National Chamber of Commerce

- Extra Large Category, Merit Award

### National Green Awards by CEA

- Gold Award, Private & Public Sector

### National Construction Excellence Awards by ICTAD

- Head Office of People's Leasing Company Ltd.

### National Construction Performance Awards by ICTAD

- Kirindi Oya Water Supply Project
- Improvements to Udawalawa-Tanamalwila Road
- Rehabilitation of Siyabalanduwa - Pottuvil-Akkaraipattu Road

## Significant Changes during the Reporting Period

Given the nature of our business, there have been several changes in the geography of our production and activity centres. Aside from this, there have been no significant changes with respect to the company's overall scope and location of operations. Furthermore, no corporate restructuring, acquisitions, maintenance and alteration operations have taken place. Share capital structure or capital formations have not changed significantly.

# Stakeholder Engagement



In-house training workshop for newly recruited surveyors

“The concerns of greatest significance to our stakeholders have been addressed through several methods of engagement”





## Company Mission

We are excellence driven and committed to satisfy the needs of stakeholders by constantly providing quality products and services at affordable prices, thus creating fair and growing returns to our organisation, an inspirational working environment and a continued sense of security in our employees, enabling us to contribute to society by elevating the quality of people's lives.

## 2021 Vision

To engineer Mäga's growth through a feed-forward stakeholder engagement process which assesses, in advance, the future needs of our stakeholders and enables us to develop and implement holistic design-build-operate-maintain solutions for a sustainable built environment.

## Who is a Stakeholder?

Stakeholders are defined as persons, groups or organisations who affect or can be affected by our operations. A comprehensive impact assessment has identified eight key stakeholder groups as significant according to this definition:

1. Customers
2. Employees
3. Shareholders
4. Government and regulatory agencies
5. Local communities and society (end-users of infrastructure)
6. Suppliers and subcontractors
7. Investors and financing institutions
8. Non-Governmental Organisations (NGOs), pressure groups and the media

Customers, employees, Government and regulatory agencies, local communities, society, suppliers, subcontractors, NGOs, pressure groups and the media are engaged at both organisation and project levels. Financing institutions, investors and shareholders are primarily engaged at organisation level.

## Frequency and Methods of Engagement with Stakeholders

Stakeholder	Frequency of Engagement	Methods of Engagement
Customer	Very high	<ul style="list-style-type: none"> <li>Regular progress review meetings to ensure fitness for purpose of products.</li> <li>Use of up-to-date construction and building standards.</li> <li>Routine review of buildability, durability and workmanship-related concerns with the aid of the above processes.</li> <li>Customer privacy remained the highest priority with no complaints of breaches on same during the period.</li> </ul>
Employees	Very high	<ul style="list-style-type: none"> <li>Weekly and monthly meetings, biannual performance appraisals, periodic surveys, training programmes and publication of <i>Māga Puwath</i>, the employee newsletter.</li> <li>Open Communication Policy enables employees to meet senior management at any time.</li> <li>Code of Conduct and regular induction programmes aim to familiarise new employees with the organisation culture.</li> </ul>
Shareholders	High	<ul style="list-style-type: none"> <li>Regular Board meetings to promote structured dialogue with shareholders based on mutual understanding of objectives.</li> <li>Dissemination of performance reports and internal and external audit reviews.</li> </ul>
Government and regulatory agencies	High	<ul style="list-style-type: none"> <li>Communications at organisation and project level enable Māga to maintain active relations with Government and industry bodies that regulate and invest in infrastructure development, and ensure conformity with necessary standards.</li> <li>Major stakeholders in this sector include the Road Development Authority (RDA), National Water Supply &amp; Drainage Board (NWSDB), Ministry of Ports and Highways, Ministry of Finance &amp; Planning, Institute for Construction, Training and Development (ICTAD), Sri Lanka Standards Institution (SLSI), Institution of Engineers Sri Lanka (IESL), National Contractors' Association of Sri Lanka (NCASL), Central Environmental Authority (CEA), Geological Survey and Mines Bureau (GSMB), the Department of Labour etc.</li> </ul>
Local Communities and Society (End-Users)	High	<ul style="list-style-type: none"> <li>Project-level teams to identify community concerns and bring them to the attention of senior management for evaluation and action.</li> <li>Working with regional communities on specific programmes contributing to local infrastructure, health and safety awareness and disease prevention.</li> <li>Local recruitment and sourcing of materials and machinery enabling communities to gain direct benefits.</li> </ul>

## Frequency and Method of Engagement with Stakeholders (Contd.)

Stakeholder	Frequency of Engagement	Methods of Engagement
Suppliers and Subcontractors	High	<ul style="list-style-type: none"> <li>Evaluation and pre-qualification of specialist contractors and suppliers on the basis of compliance prior to entering into formal agreements which incorporate applicable standards on quality, health, safety and environmental sustainability.</li> <li>Regular progress review meetings to monitor and manage supplier and subcontractor performance and product conformity.</li> </ul>
Investors and Financial Institutions	Moderate to High	<ul style="list-style-type: none"> <li>Conducting feasibility studies, project/financial proposals and pre-proposals.</li> </ul> <p>Projects review meetings.</p>
NGOs, pressure groups and Media Institutions	Regular	<ul style="list-style-type: none"> <li>Regular meetings with community-based organisations, religious dignitaries, NGOs, other non-profit organisations and the media.</li> <li>Releasing media cover reports on critical issues and major upcoming activities.</li> </ul>

## Actions taken on Stakeholder Concerns

Stakeholder	Concern	Action Taken	Status
Clients, developers, consultants and regulatory authorities	Product quality	Lean production initiatives at all projects	Ongoing
	Optimal expenditure of time, money, materials and resources		
	Sustaining quality through the value chain of subcontractors and suppliers	<p>Comprehensive pre-qualification processes to assess subcontractors and suppliers.</p> <p>Stringent monitoring of their production processes</p> <p>Programmes to promote Sri Lankan subcontractors and suppliers</p>	Ongoing

## Action on Main Stakeholder Concerns (Contd.)

Stakeholder	Concern	Action Taken	Status
Funding agencies and other investors	Health and safety of construction workers	Final phase of OHSAS 16001 Health and Safety Action Plan for Excellence, which began in 2008	Completed
	Environmental impact	Innovative techniques for impact reduction (e.g. at asphalt/concrete plants and crusher plants)	Ongoing
	Energy use and Waste	Actions and gains communicated to relevant stakeholders.	
		Implementation of ISO14001:2004	Completed
Employees	Support for career path progression	Training Academy programmes	Ongoing
		External training programmes	Ongoing
Board of Directors and Senior Management	Acquiring knowledge base and skills to meet future demands	New Performance Management Systems	Completed
	Effectiveness of performance evaluation system		
All	Ethical conduct	Reinforced Code of Conduct	Completed
		Newly structured induction programmes	Completed
Pressure groups, NGOs	Indirect economic impact of Mäga activities, positive and negative	Assessment of indirect economic impact across all projects	Ongoing
Local communities, environmental authorities, NGOs, shareholders, Board of Directors	Welfare of local communities	Health, HIV prevention and welfare programmes	Ongoing
		Development of local social infrastructure	Ongoing



## Case Study: Construct 2011 Exhibition



Mäga Engineering was the principal sponsor of the Construct 2011 exhibition organised by the National Contractors' Association of Sri Lanka (NCASL), held in August 2011 at the Bandaranaike Memorial International Exhibition Centre in Colombo. It was the eleventh consecutive year in which this exhibition, the largest and most influential of its kind in the Sri Lankan construction calendar, was held.

The Construct 2011 exhibition aimed to foster links among local contractors, architects, designers, suppliers, government agencies and the public. It presented an opportunity for key stakeholders in the industry to share ideas, innovations and concerns. At Construct, industry representatives met developers and investors interested in current and future projects, while

general and specialist contractors showcased their products and services.

Mäga, which has excelled in the timely delivery of large-scale infrastructure projects and set industry benchmarks in corporate accountability through its sustainability initiatives, saw Construct 2011 as a forum at which the growing need for sustainable development in construction could be conveyed to industry stakeholders as well as to the public at large. Emphasis was given to important recent initiatives, such as the forming of the Sri Lanka Green Building Council, the introduction of a new Green Building Rating, advances in cost-effective construction technology, the training and development of craftspeople and the implementation of international standards for health, safety and environmental management within the industry.

## Membership of Professional Bodies

Mäga is currently member of the following external organisations:

- International Federation of Asian and Western Pacific Contractor's Association
- Institute for Construction Training & Development, Sri Lanka (SL)
- National Construction Association, SL
- Major & Specialist Contractors, SL
- Sri Lanka Standards Institution, SL
- Chamber of Construction Industry, SL
- Ceylon Institute of Builders, SL
- Institution of Engineers, SL
- National Chamber of Commerce, SL
- Lanka Readymix Concrete Association, SL
- Ceylon Chamber of Commerce, SL

# Sustainability Framework & Policies



125m-long bridge at Periamohottuwaram on Siyambalanduwa-Pottuvil-Akkaraipattu road

“The primary object of our sustainability framework is the heightening of our responsiveness to an ever-evolving social and operational environment”

## Objectives

Mäga's corporate sustainability framework relies on nurturing long-term shareholder value by seizing opportunities and managing risks stemming from economic, environmental and social developments. At its heart, this approach is all about *responsiveness* - not defined solely according to the traditional benchmarks of speed and efficiency, but also in terms of being genuinely responsible in our actions while taking advantage of such development and managing the associated risks.



The most basic demands, expectations and struggles of society are reflected in what people build and how they build. Thus, while fair conduct and conformity with best practice are crucial to our industry, they are not sufficient. To meet the social and economic needs of humanity locally and globally, a detailed understanding of these basic expectations and needs is vital.

The primary object of our sustainability framework is, therefore the heightening of our

responsiveness to an ever-evolving social and operational environment. Our aim is to remain an organisation that not only cares, but has the necessary tools and resources to make a difference.

## A Philosophy of Sustainability

Our corporate sustainability framework outlined on page combines elements of three philosophies: Corporate Accountability, Stakeholder Theory and Sustainable Development.

- **Corporate Accountability**

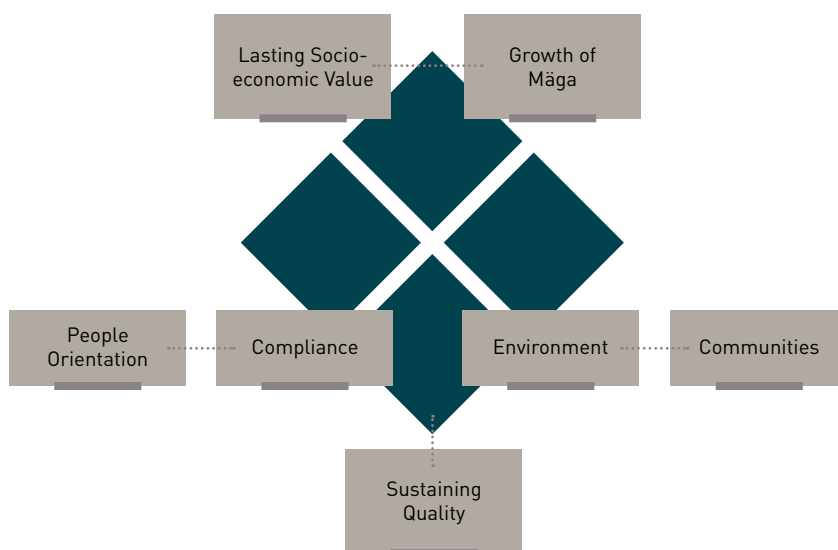
consists of being willingly held accountable for the ethical and regulatory implications of all our activities. We recognise our duty to abide by the prevailing standards of compliance in carrying out corporate activities, and to explain, justify and report how we do so.

- **Stakeholder Theory** holds that there are corporate obligations beyond those related to shareholder value; all stakeholders must be identified and their needs considered. It is the duty of management to conduct business operations so that all stakeholders enjoy optimum returns with respect to freedom from exploitation, fair economic return, environmental protection and social benefit.

- **Sustainable Development**

encompasses these philosophies in a broader framework, stressing the need for development that caters to those living today without compromising the ability of future generations to meet their own needs. Thus, it involves the sustainable use of the world's dwindling resources through investment and technological development and examines ways to streamline, integrate and harmonise such processes in order to balance the demands of the present and the future.

## Our Corporate Sustainability Framework



### A Symbol of What We Aspire To

The four diamond-shaped elements in the Company logo symbolise the four key attributes – Creation, Challenge, Sacrifice and Excellence – on which the Company is founded. These internal corporate attributes describe the culture of our workforce and the struggles and triumphs of our history. They lie at the heart of Mäga’s operational philosophy and form an ideal to which every employee is encouraged and expected to aspire to.

Mäga’s corporate sustainability framework expands this model into a holistic philosophy that anchors the four key attributes in five parallel sustainability approaches,

thus arriving at the overall corporate sustainability objective: ‘Sustaining quality’ is the most fundamental concept, while the four approaches above link this to the Company’s operating philosophy. Hence, all quality processes incorporate sustainability ideals into everyday operations, fostering corporate sustainability.

### Principles

A construction company that builds public infrastructure – and builds to last – must possess strong professional ethics. The trust of customers and users can only be earned through unwavering commitment to quality. Mäga focuses on the fundamental

principles of quality, cost, timely delivery, safety and environmental protection (which are embodied in our corporate sustainability framework) in order to justify the trust placed in us.

## Values & Policies

### Belief System

We passionately believe in what we do, and do it to the best of our ability with the utmost care, despatch and accuracy. We never compromise our standards and values for temporary gains. We take care of our clients, the members of our team, and society at large. Our ethics are reflected in everything we do; we regard this as the high road to individual and organisational success.

### Quality Policy

Mäga is dedicated to providing quality products and services that satisfy the needs and expectations of every customer. We accomplish this through the activities of our creative, self-motivated and dedicated people, who enjoy healthy, professionally and personally rewarding working conditions that encourage continual improvement. Our quality policy is devised to deliver lasting social, economic and environmental sustainability.

### Environmental Policy

Mäga is committed to total compliance with all environmental laws, specifications, standards, and guidelines. This is an important





Employees at our readymix concrete batching plant at Ambatale

“Our aim is to remain an organisation that not only cares, but has the necessary tools and resources to make a difference”

aspect of our approach to corporate sustainability.

We are equally committed to ensuring that the environmental impact of our energy and materials usage is minimised. In this regard, we consider it essential that every employee whose work is connected with air emissions, wastewater, sewage and hazardous materials knows and complies with all applicable environmental laws and guidelines. No employee of Mäga shall be a party to concealing the improper discharge, disposal, or storage of hazardous materials or pollutants.

### Social Policy

We recognise that we must integrate our business values and operations to meet the expectations of our stakeholders and that our social, economic and environmental responsibilities to them are integral to our business; and we aim to demonstrate these responsibilities through our corporate policies and actions. We respond positively to all feedback received from stakeholders and, where possible, maintain an open dialogue to ensure that we fulfil the requirements outlined within this policy. We aim to be open and honest in communicating our strategies, targets, performance and governance to our stakeholders in an ongoing commitment to sustainable development.



The new head office of People's Leasing Company at Colombo, Sri Lanka

“We believe in ethical and transparent financial conduct based on sound accounting practices, implemented in accordance with universally accepted accounting principles”

## Financial Policy

We believe in ethical and transparent financial conduct based on sound accounting practices, implemented in accordance with universally accepted accounting principles. We maintain true and accurate financial records of our transactions, assets and liabilities, while facilitating sound monitoring and consistent reporting of financial performance. We have zero tolerance for unethical and unlawful actions, such as illegal disbursements, procurements, manipulation and bribery.

## Human Rights Policy

Mäga is committed to maintaining an organisational culture that upholds internationally-recognised human rights while actively engaging in the prevention of human rights abuses and violations. The company strives to identify, evaluate and manage human rights impacts on all its stakeholders, and to play an active role in the protection of human rights within our direct spheres of influence.

In particular, we are committed to:

- uphold the human rights of our employees, including non-discrimination, prohibition of child and enforced labour and freedom of association;
- establish and maintain fair and appropriate procedures to evaluate and select suppliers and subcontractors, and to review their performance at regular intervals;

- maintain open discourse with stakeholders and engage in community activities;
- respect the values, customs and culture of the communities among whom we operate;
- contribute to the promotion of human rights by improving socio economic and environmental conditions;
- value and uphold ethical conduct and integrity in all aspects of our business, and
- support the governing authorities, where necessary, in the enforcement of high ethical standards for businesses.

## Workplace Policy

Mäga strives to maintain a socially and culturally diverse workplace in which mutual respect and professionalism thrive and from which all forms of intimidation, harassment and violence are kept away. Through this policy, we aim to exert a positive influence on employee creativity, satisfaction, motivation and performance.

The Mäga Code of Ethical Conduct and our Workplace Diversity Initiative set out standards for providing equal opportunities and fair treatment to employees in the areas of recruitment, compensation and contribution to the company's progress, conduct, professional development and career progression.

Mäga strives to achieve constancy of purpose in the workplace through unrelenting and unwavering

adherence to company objectives. company culture privileges continuous quality improvement in all aspects and at all stages of construction, as well as collective decision-making, ethical but fair treatment of employees, and employee welfare. We foster an informal organisational environment as against a rigid hierarchical framework.

## Equal Employment Opportunity and Affirmative Action Policy

All decisions affecting employees are in line with company principles, policies and procedures and are devoid of discrimination, giving all employees equal access to opportunities within the company based on individual merit. Equal opportunity is given to qualified individuals from all backgrounds during selection, recruitment, assignment, training and development, remuneration, promotion, transfer, reinstatement and termination.

We actively prohibit discrimination based on an individual's age, sex, colour, race, religion, marital status, nationality, medical condition, disability or other legally protected characteristics or conduct. We believe in treating all our employees fairly and actively engage in developing and utilising their full potential.

We trust that our human resource practices, equitable access to employment opportunities and

continuous training will bolster employee motivation, confidence and morale.

We believe in the creation and propagation of income-generation opportunities for all segments of society within our developing economy. For that reason, we are committed to taking affirmative action in the workplace to promote social equity, and strive to employ and develop qualified individuals from disadvantaged sections of the society.

## Human Resources Policy

Mäga is committed to the training and development of current and future employees; developing the capacity of in-house trainers; and developing the infrastructure needed to meet the growing human resource needs of the organisation so as to reinforce its position as the most competitive construction company in Sri Lanka.

## Internal Communication Policy

We cherish our culture of teamwork, in which all employees work together for the attainment of common goals. Hence, we promote open and honest communication through vertical and horizontal channels, foster the sharing of new ideas and success stories, invite employee suggestions and criticisms, and encourage open discourse in search of recommendations for continual improvement.

# Sustainability: Trends, Risks and Opportunities



Construction underway at the 300m Kallady bridge at Batticaloa

“The sector has seen a welcome increase in the importance given to accountability, the environment, sustainable construction and improved standards of health and safety”

## Trends

The construction industry in Sri Lanka has grown slowly but steadily over the past few years - as has its contribution to GDP, which reached 7% in 2011 which is approximately LKR 511 billion. Recent growth has been due to State investment in infrastructure development, most evident in the highways and ports sectors and in development activities in regions formerly affected by the recently concluded war. There has also been





increased foreign investment in infrastructure development.

However, skills shortages, rising oil and food prices, and sluggish economic growth in the West all stand as threats to the Sri Lankan economy and thus to the growth of the construction sector.

The sector has seen a welcome increase in the importance given to accountability, the environment, sustainable construction and improved standards of health and safety.

## Risks and Opportunities

### Economic Risk

Economic uncertainty is likely to affect the company's ability to win contracts and deliver forecasted returns. Diminishing business and political confidence makes potential customers hesitant to invest in building and construction, with potential negative impact on business development opportunities, and ultimately, the company's bottom line.

The company regularly reviews the potential of new markets and customers, and is currently exploring the potential of Government projects calling for BOT or turnkey solutions, since such projects enable us to share the risks arising from financial uncertainty.

### Competitive Risk

Following the recent growth in construction related to national development, there is currently heavy competition for new contracts. Self-funded Asian contractors often propose projects that are parallel or supersede those on the national development agenda, effectively bypassing the competitive tender process. The company responds to competitive risk by making its own project proposals as competitive as possible and by conducting regular reviews of tender and procurement strategy to ensure they are optimally effective.

### Financial Risk

A strict audit policy helps us accurately evaluate risks arising from inflation, exchange- and interest-rate fluctuations, refinancing and threats to liquidity and cash flow. Project income and expenditure are normally denominated in the funding currency so as to limit exchange-range risk.



MAS 'Thurulie', the world's first purpose-built LEED platinum-certified apparel factory

“Our EMS helps us identify and evaluate adverse impacts, minimise our environmental footprint and undertake environmental rehabilitation programmes on a project-by-project basis”

## Environmental Risk

Environmental risks fall into three broad categories: threats to natural resources, risks of environmental impact of company activities and threats related to climate change.

Raw materials, water and fossil fuels are non-renewable resources under threat from economic and population growth. To make better use of these resources, Mäga has implemented an ISO14001-based Environmental-Management System (EMS), now in its second year.

We measure usage of materials and waste generated across the organisation, implements lean construction methods and apply R&D to create innovative methods for limiting the use of materials.

Accelerated economic development frequently results in unavoidable environmental impacts. As prominent partners in Sri Lanka's development, we are responsible for our share of these impacts, particularly those relating to deforestation, excavation and quarrying. Our EMS helps us identify and evaluate these impacts, minimise our environmental footprint and undertake environmental rehabilitation initiatives on a project-by-project basis.

We strive to minimise our use of fossil fuels and explore opportunities in alternative energy use and carbon-offsetting.

### Human-Resources Risk

Failure to recruit and retain appropriately skilled and motivated personnel will adversely impact future growth and performance. Mäga constantly reviews the role, competence, performance and potential of all its employees by means of a performance-management system and offers attractive remuneration and incentives to attract and retain employees.

Other HR risks are related to operational systems and procedures and to employee health and safety. With the recently-implemented ISO14001 and OHSAS (health and safety) systems, we have established short and long-term goals for accident and injury rate reduction. Meanwhile, our sustainability team constantly maintains, monitors and evaluates compliance with all relevant regulations.

### Supply-Chain Risk

The failure of a subcontractor to perform to the appropriate standards could result in project delays and compromise our ability to meet contractual obligations. To avoid such failures, we seek to develop long-term relationships with key subcontractors and suppliers through training and development. We have also begun, through our stakeholder management initiative, to devise sustainable-development programmes for some of our key subcontractors and suppliers.

### Operational Risk in Construction

Strict financial and physical progress reviews help mitigate operational risks. We conduct contractual risk evaluations prior to making any commitment. Aspects evaluated include minimum payment periods, labour and materials price escalation, and other ambiguous contractual concerns. Wherever possible we attempt to transfer or share risks with parties best suited to carrying or mitigating them.

### Project Technical Risk

Mäga constantly engages and educates its technical staff on current technologies and trends in construction. Our Training Academy disseminates technical knowledge via external and internal training programmes, seminars, workshops, product presentations, manufacturers' product literature, etc.

### Seasonal Risk

Seasonal variations in the weather comprise a risk that must be managed with regard to the allocation of revenue and earnings. Mäga assesses all such risks at the preliminary project planning stage and reviews physical and financial progress of each project accordingly.

# Governance



The Board of Directors and Senior Managers at a forum for reviewing project management strategies

“Through a framework both firm and robust, we systematically manage risk and aim to achieve both organisational and socio economic development”

Good governance contributes to better results for all our stakeholders. Through a framework both firm and robust, we systematically manage risk and achieve both organisational and socio economic development. Through this framework of governance, we formulate and implement internal controls for compliance and devise strategies to improve our performance.

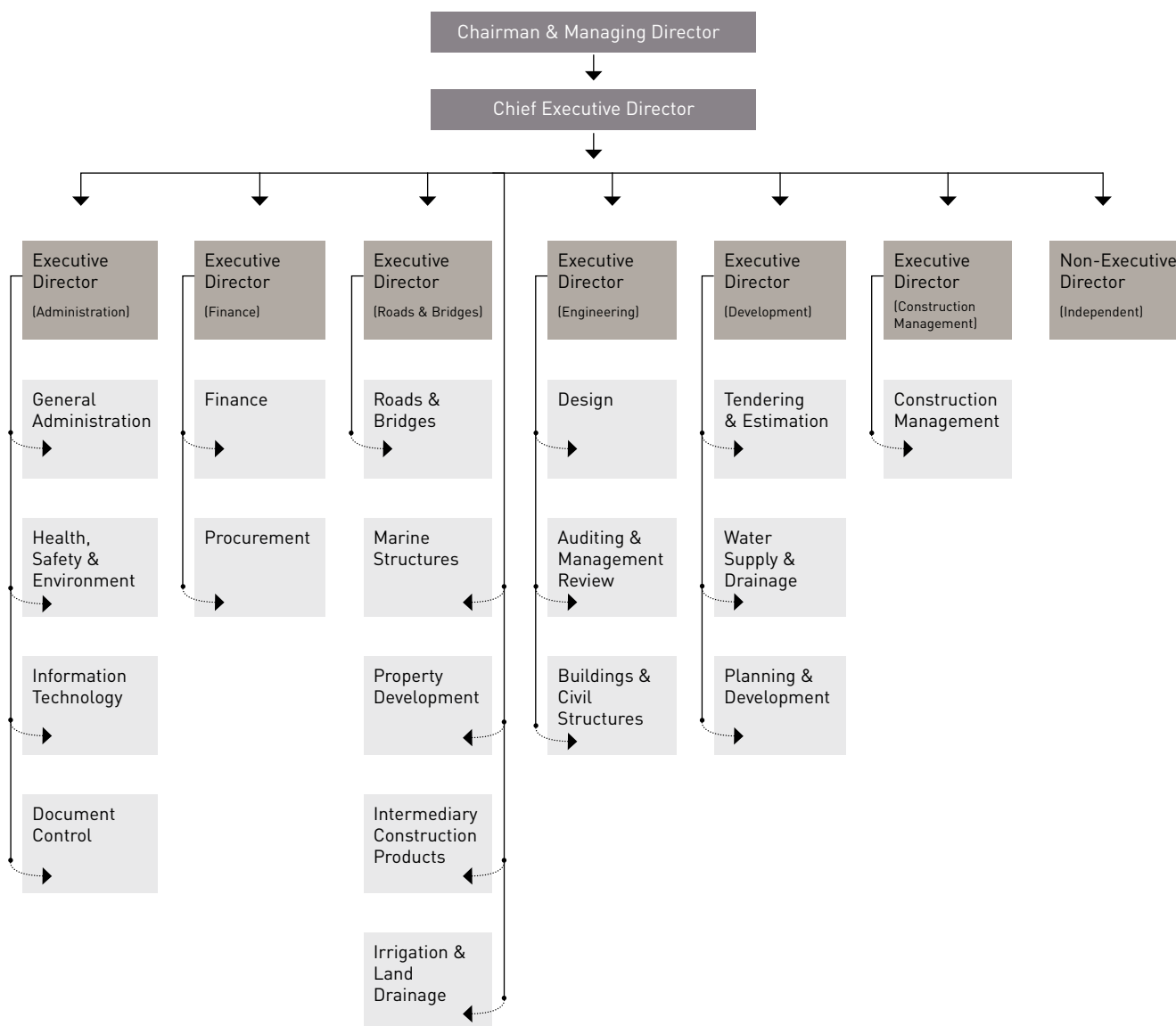
Our objective is to maintain corporate governance principles, policies and practices that support the accountability of the Board and Senior management and which promote the interest of shareholders, consistent with our purpose, values and principles.

## Organisational Profile

Māga's organisational structure is one that allows a comprehensive division of work among all departments and divisions. Each division or department has its own ambit of responsibility and competence, its own staff and is headed by its own Director/Manager. This ensures clear delegation of responsibility and authority.

Risk analysis is conducted at divisional level and the results are reported to the Board prior to embarking on any projects or activities. The structure of the risk-management process is based on geographic location, nature and size of business.

## Organisation Chart



### Composition of the Board of Directors

Members of the Board of Directors are professionals held in high regard in their sphere of expertise. Dynamic in outlook and extensively experienced in their respective fields, they complement the multidisciplinary nature and scale of our operations.

Presently, the Board is constituted as follows:

**M.G. Kularatne**

*Chairman and Managing Director*

**M. Piyadasa**

*Chief Executive Director*

**M.G. Chandrasekera**

*Executive Director (Finance)*

**Derrick de Silva**

*Executive Director (Administration)*

**C.A. de Silva**

*Executive Director (Engineering)*

**Mega Kularatne**

*Executive Director (Development)*

**G.V.S.K. Kumarasiri**

*Executive Director (Roads & Bridges)*

**A. Thiruvalluvar**

*Executive Director (Construction Management)*

**W.M.S.L.B. Ratnayake**

*Independent, Non-Executive Director*





A snapshot from a monthly progress review meeting at Head Office

“The Board of Directors regularly discusses business strategy, management policies, critical risks and opportunities”

## Organisation Structure

### Major Business Divisions and Departments

- Buildings & Structures
- Roads & Bridges
- Water Supply & Drainage
- Marine Structures
- Property Development
- Irrigation
- Sale of Intermediary Construction Products

### Support Divisions and Departments

- General Administration
- Finance
- Tendering & Estimation
- Procurement
- Information Technology
- Quality Assurance
- Human Resource Management
- Health & Safety Management
- Training & Development
- Research & Development
- Plant & Machinery
- Stores Management
- Environment Management
- Auditing and Management Review
- Planning & Monitoring

## Governance Structure

### Board of Directors

Mäga's primary governing body is a Board comprising one Independent Non-Executive Director and eight Executive Directors. This nine-member Board takes all authoritative decisions with regard to corporate strategy, investment and major business projects. It also administers organisational structure and proceedings with regard to compliance and conduct. During its monthly meetings, the Board discusses business strategy, management policies, critical risks and opportunities, any of which may also require Board resolutions. The monitoring and management of business activity as well as the formulation of management plans, sustainability initiatives and growth strategies are all administered by the Board via senior management designated to individual business units.

### Role of the Chairman/CEO (Managing Director)

At Mäga, the roles of Chairman of the Board and Chief Executive are held by one individual. This has enabled the Company to achieve remarkable integration in terms of vision, organisational structure and shareholder aspirations.

The Chairman presides over the Board and is responsible, in collaboration with them, for both corporate governance and business performance. Other members of the Board of Directors and senior managers oversee specific company sectors, reporting to the Chairman/CEO.

With the Board and senior management charged with the authority to make independent decisions within specified ambits, Mäga benefits from good governance while avoiding any conflict of interest in decision-making and implementation.

### Special Committees

Four special committees enjoy the Board's mandate to make decisions in their respective areas of responsibility: these are the Audit & Compliance, Sustainability Review, Project Review and Remuneration Committees. Each comprises selected Board members, senior managers and key resource persons from relevant functional divisions or departments.

These committees are also tasked with achieving specific targets within their assigned arenas and reporting periodically to the Board throughout the course of the year.

- The **Audit and Compliance Committee** is assigned to oversee the Company's accounting, financial reporting, quality management and health, safety and environmental management systems. These systems are monitored against internal and external regulations to ensure full compliance at all times. This Committee also evaluates the efficiency of internal controls, appoints internal and External Auditors and reviews their performance in terms of objectivity, autonomy and corporate best practice.
- The **Remuneration Committee** is charged with making recommendations to the Board on salary structures and incentive schemes of senior managers, as well as with setting applicable levels of remuneration for all grades of employees with the help of market surveys and performance-based increments.
- The **Sustainability Review Committee** administers the implementation of our sustainability strategies. It identifies relevant risks, opportunities and trends in the sustainability arena while formulating performance indicators for sustainability

reporting. The Committee comprises individuals from diverse backgrounds and positions within the organisational hierarchy who are capable of proposing practical solutions to sustainability concerns.

- The **Risk Management Committee** assesses the quality of investments, evaluates various risks and partakes in the formulation of risk-management strategies. Its work also entails conducting reviews of major infrastructure development projects and evaluating project proposals in terms of their feasibility and potential to move forward towards our strategic goals and targets.

### Competence, Performance and Compensation

Executive Directors are remunerated with both fixed and variable elements of compensation. Performance-related compensation is calculated by formulae that take into account the interests of the company, its stakeholders and the individual. Superior performance is encouraged through a system of incentives.

Senior managers undergo bi-annual reviews. The review process, run by the Board, ensures

that our managers possess the necessary skills to implement the company's business strategies successfully. When the process uncovers lacunae in an individual's professional development, acquisition of the requisite qualifications and skills via training and development is advised and greatly encouraged.

Performance-based compensation assures the well-being of employees in both the short and the long term. Compensation elements include salary, incentives, healthcare, emergency aid and support for continuous career and personal development. Post-employment benefits are also provided to those who complete their tenure with Mäga successfully.

### Appointment of Senior Management

The senior management plays a critical role in the success of our operations and sustainability initiatives. The Board designates individuals to management positions based on their accumulated knowledge, expertise and skill. Orientation and external training programmes familiarise our managers with the nature of our business, industry, company culture, and all laws, regulations and standards that apply to our line of business.

### Objectivity and Conflicts of Interest

Active involvement in and contribution to our business is expected from all Directors. The Chairman/CEO ensures that the Board is provided with ample opportunity to present views, ideas and criticisms on all matters affecting the Company and its operations. The Board holds complete control of Company affairs and its decisions are implemented accordingly.

### Risk Management

Monthly progress review meetings, chaired by members of the Board, are conducted to identify major risks with regard to our operations, projects and prospective ventures. At these meetings, strategies of risk management are deliberated via open discourse and the most appropriate mitigatory measures are instituted. These meetings also provide members of our senior management with a forum where tactical risk management measures can be presented and discussed.

The Audit & Compliance and Project Review Committees complement the risk management process and provide direction in order to prevent, and in some cases mitigate, potential risks related to their particular areas of concern.

## Code of Conduct

An explicitly-formulated Code of Conduct is distributed amongst all our employees. It details the company's stance on conflicts of interest, confidentiality, fair dealing, the protection and use of assets, and compliance with laws, rules and regulations. The Code is an important risk management tool, clearly demarcating all unethical and illegal conduct as malpractice and encouraging employees to report any instance of such malpractice.

## Performance of the Board of Directors

Board performance also undergoes regular appraisal by the Non-Executive Director. Criteria of appraisal include extent and quality of engagement with stakeholders on critical issues, and the development of corporate strategy based on such engagement. Also appraised are the involvement of the Board in the implementation of the aforementioned strategies, as well as its efforts to direct, monitor and develop senior management, the effectiveness of corporate governance strategy and the overall performance of the Company.

## Governance-Driven Sustainability Achievements in 2011/12

### Generation of Economic Value

Our 2015 economic goals are to increase revenue by 50% and the percentage of revenue drawn from new market segments to 15%. A dynamic growth strategy in key segments, predominantly infrastructure development, helped us achieve intermediate gains of 44% in economic value generated and a percentage of revenue of 7 from new markets, mostly via the water supply sector

Our Managing Director and Chief Executive Director, with the support of Director (Engineering), Director (Construction), Director (Roads & Bridges) and Director (Development), ensured that growth momentum remained steady in the roads, bridges and water supply sectors while initiating new project opportunities for the next five years. Director (Engineering) and Director (Administration) focused on developing the Company's engineering and administrative

capacity and experience in order to sustain this growth. A team headed by the General Manager (Construction), supported by Deputy General Managers, Assistant General Managers, Project Manager and Activity Centre Managers, followed through with the tasks designated to them in relation to the above.

## Human Resources and Workplace

Within the human resources sector, our goal for 2012 is to attain international standard in social accountability. Under the direction of the Director (Development), assisted by the General Manager (Administration) and the Senior Manager (Quality & Training), we completed all documentation relevant to policy coverage, organisational processes and goals under SA8000. Our aim is to accomplish the implementation of these standards over the course of 2012.



IT training workshop at head office

“Our 2015 goal is to increase company-wide training and development by 30%”

Investing in Training and Development

Investment in training and development within the human resources sector was overseen by our Director (Administration), with the aid of our Human Resources Manager, Senior Manager (Quality & Training), and Training Co-ordinator. Current levels of workforce knowledge, experience and skill were evaluated via an organisation-wide Training Needs Assessment. The results guided the drafting of a training and development plan for the rest of the year, one which envisions a definite increase in investment in order to attain our 2015 goal of a 30% increase in company-wide training and development.

Social Performance

The year also saw an increase in project-based social development activities. Social performance directives were carried out by departmental, project and activity -centre managers, who conducted project-based community development activities with the Board approval.

Compliance Enhancement

Various initiatives in compliance Enhancement were carried out over the course of the year. These included project-objectives-based HSE systems (OHSAS 18001 and ISO14001) as well as compliance initiatives with respect to anti-corruption and supplier



and subcontractor performance. Our Director (Engineering), supported by the General Manager (Administration), Assistant General Manager (Contract Administration) and Manager (Quality Assurance), played a key role in these achievements.

### Improving Environmental Performance and Responsibility

Led by the Director (Development), supported by the Assistant General Manager (Contracts), Assistant Manager (Health, Safety and Environment), and various departments, project and activity centre managers, we made considerable strides in this area. Achievements included the streamlining of our carbon monitoring and waste management programmes and the implementation of key development programmes in partnership with the Central Environmental Authority and the Sri Lanka Nature Group. In August 2011, Mäga was awarded the first National Green Award for the private and public sector, a major indicator of our commitment towards environmental stewardship.

### Activities of the Sustainable Review Committee

The Committee met every month to discuss intermediate progress against set annual goals. Five subcommittees managed key

initiatives in each sector.

The subcommittees' respective remits were -

- Economic performance
- Human resources development
- Compliance
- Environmental performance
- Community development

Each subcommittee was headed by a Director or senior manager representing the overall governance body of the Company.

### Management Role in Promoting Sustainability

At Mäga, sustainable growth has never been considered a peripheral function but is instead the long-term goal of the organisation. Management commitment to this goal was reflected in our core business strategy in the following key areas: economic performance, human resources development, social engagement and environmental performance as described further under the relevant sections.

## Achieving Sustainability through Governance



# Economic Responsibility



Newly built 4-lane highway at Hambantota

“We strive to generate sustainable new value and fuel the growth and development of our industry”

## Management Approach

Economic responsibility is embedded in our management approach and manifested in our stance on -

- economic performance
- quality management
- ethical conduct
- financial discipline
- economy (price/ value ratio) of production
- product functionality
- sustainable production technologies



- minimisation of use of materials and resource wastage
- sound supplier relations
- supply chain management
- technology transfer and
- transparent reporting.

Direct and indirect economic performance is constantly reviewed with respect to the above parameters. The life cycles of in-house and external products are analysed to ensure that they fulfil their intended purpose and cause no harm, directly or indirectly, to

their end-users. Our products meet relevant domestic and international industry standards. Their quality is assured through independent assessment of product design and continuous dialogue with designers and architects.

All our projects are executed in compliance with the relevant Sri Lankan, British, Australian, European and US Codes of practice. We also comply with globally-recognised standards of Conditions of Contract formulated by International Federation of

Consulting Engineers (FIDIC), the standards of the Institute of Construction, Training and Development, Sri Lanka (ICTAD), and the Procurement, Safety and Environment Management Guidelines of the World Bank and the Asian Development Bank.

Over the course of year, Mäga has not reported any incidents of non-compliance or been penalised in respect of laws and regulations governing the provision and use of our products and services. No instances of non-compliance with regulations were recorded in relation to product and service information, labelling or marketing communications.

### QMS: Maximising Value Addition

A company-wide Quality-Management System (QMS) is dedicated to the elimination of waste in materials and processes. A primary object of the system is the minimisation of unused economic value. Covering all our primary business processes, QMS is designed to assure quality and maximise value-addition. Its correct implementation is the responsibility of the Audit & Compliance and Project Review Committees, and complement our risk management regime.

Developed and now implemented by Mäga in accordance with ISO9001:2008 standards, QMS is continually being modified to



New head office building of People's Leasing Company, Colombo, Sri Lanka

“A substantial percentage of profits earned has been reinvested to anchor our future growth”

improve its effectiveness. Areas covered include understanding of the primacy and determinants of customer satisfaction by our employees, the analysis of technical issues potentially arising from QMS implementation, the availability of resources for implementation, the formulation and revision of quality policies and objectives, periodic review of the structure of the company and the efficiency of QMS, and compliance with relevant statutory and regulatory requirements.

One of our main guiding principles has been to reduce waste and optimise efficiency through regular investment while maintaining the true value of assets through accurate depreciation. In keeping with the nature of our business operations, we make large-scale capital investments in land, plant, machinery and equipment, therefore we strive to inculcate sustainable consumption and production patterns.

Our management approach to economic responsibility with respect to regulatory and strategic risk management, social policy coverage, legacy of infrastructure, indirect economic impacts and strategic market presence are further highlighted under the respective sections in this report.



## Economic Value Generated and Its Impact

### Direct Economic Value Generated and Distributed

Our contribution to the development of the Sri Lankan economy is reflected in the financial benefits we generate for our employees, shareholders, suppliers and subcontractors, the Sri Lankan Government and society at large, all of whom share the value we create. We strive to generate sustainable new value and fuel the growth and development of our industry through sound management, best practice and solid economic performance.

In the year under review, Mäga generated LKR 17,178.36 million in economic value, of which LKR 14,992.59 million has been distributed. This represents a 45% increase in value generated and a 48.4% increase in value distributed over the corresponding figures for the previous financial year.

### Direct Economic Impact

The economic objectives of the Company are delineated in our 2015 goals, as follows:

- Achieve zero waste through lean production, optimising all production processes based on measurable quality objectives for optimum value generation.

- Increase direct economic value generated by 50% against 2011 performance.
- Increase revenue from new market segments by 15% against 2011 performance.

The pursuit of these objectives results in direct economic impacts on several stakeholders as specified in the following table. A discussion of these impacts by each stakeholder group appears below:

### Economic Impact of Our Operations

Component	2011/12 LKR million	2010/11 LKR million	2009/10 LKR million
Direct Economic Value Generated	17,178.36	11,846.20	9,281.79
Economic Value Distributed			
• Employee wages and benefits	2,166.99	1,436.36	1,101.70
• Payments to capital providers	402.38	175.79	212.57
• Payments to Government	412.77	420.26	384.40
• Community investment	21.85	19.86	17.91
<b>Total Economic Value Distributed</b>	<b>14,992.59</b>	<b>10,101.71</b>	<b>7,688.99</b>

### Shareholders

Distributable profits increased by 18% during the year under review, largely due to the lean production initiatives we adopted in every area of our operations. Above 10% of distributable profits were disbursed as dividends among our shareholders, in line with inland revenue regulations. A substantial percentage of profits earned has been reinvested to anchor future growth.

### Employees

Mäga provides employment opportunities to a wide cross-section of society. Our recruitment process is designed to eliminate any form of discrimination.

In 2012, wages and benefits distributed among our employees increased 50.87% over the previous year. In terms of wages and benefits, Mäga is committed to full compliance with all pertinent laws





New headquarters of Sri Lanka Customs at Charmers Quay, Colombo

“Its new headquarters with 430,000 sqft spanning 13 floors, allows Sri Lanka Customs to bring together all its administrative divisions”

and regulations. All dues were paid within a specified period of payment.

Employees’ Provident Fund (EPF)

All employees are eligible to participate in the Employees’ Provident Fund, which demands a contribution of 8% of gross pay from the employee, together with a contribution of 12% by the employer. Mäga makes these payments on behalf of all employees, in line with the provisions of the Employees’ Provident Fund Act No. 15 of 1958 and its subsequent amendments.

Employees’ Trust Fund (ETF)

According to the terms of the Employees’ Trust Fund Act No. 46 of 1980 and its subsequent amendments, employees are also eligible for ETF contributions. The Company contributes 3% of salary to ETF on behalf of all employees.

Gratuities and Ex-Gratia Payments

As per the Payment of Gratuity Act No. 12 of 1983, our employees are entitled to a retirement gratuity. Employees who have completed more than five years’ service receive half a month’s salary for every year of service on retirement or termination. The management also makes ex-gratia payments to employees at its discretion, based on duration and quality of service.

## Case Study: Sri Lanka Customs Headquarters

In May 2012, we completed the construction of a new headquarters building for Sri Lanka Customs. This was a large-scale project, the main civil works of which cost LKR 4 billion. Mäga Engineering was the lead contractor on the project, partnered by the State Engineering Corporation of Sri Lanka, who provided the state-of-the-art design. Some of the premier constructors in the country were employed to perform specialised building work and services under our supervision.

The new Customs HQ, with its 430,000 sqft floor area spanning 13 floors, allows this vital Government institution to bring together its administrative divisions and human resources base, previously scattered across the city, in one central location, yielding numerous operational benefits. Its proximity to the Port of Colombo, the primary base of Customs operations, has resulted in vital cost savings for this reason.

Aside from space for its administrative functions, the building also includes a state-of-the-art auditorium, restaurant and museum, together with comprehensive recreational and car parking facilities. A modern building management system and aluminium façade are key features of this new city landmark.

Built at a time of a relative depression in the building sector, this project also generated opportunities for several specialised constructors.

## Sustainable Construction Practices

### Green Building Council of Sri Lanka (GBCSL)

GBSCL has currently being granted 'emerging member' status by the World Green Building Council. The GREEN<sup>SL</sup>® rating system, developed by the Council, is a voluntary scheme in which developers, designers and constructors work in unanimity towards a set of performance standards for commercial, institutional, high-rise

or residential built environments of all sizes. The aim of the rating system is to promote effective, healthy, durable, affordable and environmentally sound practices for new and existing buildings.

Mäga Engineering is a Founder Member of GBCSL and is designing its new head office building in Colombo to comply with the provisions of GREEN<sup>SL</sup>®. More information on the GREEN<sup>SL</sup>® rating system is available at [www.srilankagbc.org](http://www.srilankagbc.org)

## Environmental Management Action Plans (EMAP)

All our projects strive to minimise our environment footprint and, we implement Environmental Management Action Plans (EMAPs) for each of them. An EMAP sets out environmental policy and objectives for the project concerned and proposes a plan of action for organising, directing and controlling environmental issues related to the project. In 2011-12, we prepared EMAPs for all our projects and implemented them successfully.

## Case Study: Preservation of Native Orchids of Sri Lanka



Mäga launched a publication on the Native Orchids of Sri Lanka by the Sri Lanka

Nature Group in collaboration with True Nature Conservation, an NGO. The publication and

launch were components of an awareness programme conducted by Mäga in connection with National Environment Day 2012. The publication features thirty photographs of orchid species native to Sri Lanka, many of them endangered due to habitat loss, together with informative captions. The photographers were Ajantha Paliawadana and Vimukthi Weerathunge. The launch ceremony was held at the auditorium in Sri Lanka Library Board on 12 June 2012 with the participation of senior representatives of Sri Lanka Customs and the senior environmental lawyer, Mr. Jagath Gunawardane.

### Supply Chain and Subcontractor Development

#### Suppliers and Subcontractors

Suppliers and sub contractors are selected through a process that takes into account the magnitude and technical complexity of the work in question, the standards expected by the client, and the supplier or

subcontractor’s past performance, reliability, experience and financial resources. Through this process, Mäga ensures that its suppliers and subcontractors fully comprehend the nature of their remit and accept their responsibility for protecting the environment. Our suppliers and sub contractors are also expected to address the needs of their employees and local communities. We have currently screened 43% of

our suppliers on human rights and sustainability issues.

#### Local Sourcing

Whenever possible, Mäga sources suppliers and subcontractors locally. This enables us to maintain a reliable chain of supply at all times. It also enables us to support and invest in the community, generating employment opportunities for local contractors and creating

market openings for suppliers of local materials and components, especially when executing projects at remote locations.

On all projects implemented outside the Western Province in the year under review, around 60% of materials and machinery were procured from local communities including the Western Province, where resources are concentrated, Mäga sourced 65% - 70% of its material, machinery and intermediary requirements from local suppliers in 2011-12.

## Assistance received from Public Agencies

Mäga has always worked in collaboration with both public- and private sector organisations.

We strictly adhered to all our statutory tax obligations, making a contribution of 14.65% of gross operating profit as revenue to the Government in the period under review.

Government policy focused on the economic revival of the Northern and Eastern Provinces and the construction sector led to considerable state investment in these areas. The government also facilitated the building of several new roads and the upgrading of others in collaboration with some of Sri Lanka's leading banks thereby providing indirect financial assistance.

## Research and Development

Over the reporting period, the following R&D initiatives were pursued and promoted by us:

- Internal R&D on lean production, performance management, training needs
- Industry-wide research on the effectiveness of Enterprise Resource Planning (ERP) for the local construction industry
- Enterprise Resource Planning (ERP) system: pre-feasibility study and vendor evaluation
- Research on native orchids by the Sri Lanka Nature Group
- Research on common wildflowers at Udawalawa National Park

## Case Study: ERP Pre-Feasibility Study and Vendor Evaluation

During the first half of 2012, the R&D Division carried out a pre-feasibility study for an ERP system under the guidance of the Planning & Development Department. The study consisted of a literature and technological review of existing ERP solutions and research to identify the specific parameters of a successful ERP implementation in the local construction context.

Its object was to find solutions to common pitfalls encountered by the construction industry in the implementation of such systems. An industry-wide survey was carried out, followed by the evaluation of several model systems designed to address the aforementioned concerns.

Four leading vendors were then evaluated according to the following criteria:

- Fitness for purpose
- System robustness, durability and adaptability
- System user-friendliness (gradient of the learning curve)
- Cost vs. benefit
- Support services available in Sri Lanka
- International Tier/ranking



# Social Responsibility



Greater Kandy Water Supply Project (Stage 2) that provides water to over 270,000 residents

“Our aim is to have a lasting, positive impact on the communities among which we work”





## Message from the Chief Executive Director

Our focus on sustainable development identifies indirect economic impacts as a key aspect of our economic influence. While the value of transactions between Mäga and its stakeholders measures our direct economic impacts, the long-term results of

transactions indicate the scope and effect of indirect impacts. As a major participant in Sri Lanka's growth and development, Mäga values indirect economic impact as an important aspect of the role we play in catalysing change. Creating maximum indirect positive impact, in particular among the underprivileged, has always been a key goal.

We undertake many infrastructure development projects - building roads, bridges, waterworks, schools, hospitals and sporting facilities. All these projects have significant indirect economic impacts. Our pre-feasibility studies for these types of project always consider ways in which the positive economic impact on local communities can be maximised. Dialogue with clients, developers and community representatives help us find the best ways to do so. We also partake in community projects that focus on economic development. We see such initiatives as part of our duty as Sri Lankans who participate in the national development process, and we value this success highly.

**M. Piyadasa**  
*Chief Executive Director*



Tree Planting Programme conducted at the Northern Road Connectivity Project

“We strive to promote awareness on climate change and the environment amongst local communities”

## Management Approach

Our aim is to have a lasting, positive impact on the communities among which we work. To this end, we undertake a wide range of programmes to improve communities’ access to education, sanitation and essential infrastructure.

Our project management teams are strongly encouraged to engage with local community interest groups to identify potential development opportunities. These teams work as standalone units with the authority to initiate such programmes, contingent on the approval of the Sustainability Review Committee and senior management.

In engaging local communities, infrastructure development and education are the two prime areas of focus. The Sustainability Review Committee plays the lead role in maintaining equity and transparency in all social development projects through a process of continuous review.

## Indirect Economic and Social Impacts of Our Activities

Since we are one of the leading infrastructure builders in the nation, our operations, will have indirect economic and social consequences. The following case study exemplifies these impacts and is typical of many of our projects.

## Case Study: Greater Kandy Water Supply Project

Kandy, the 'hill capital', and its fifteen major suburbs form one of Sri Lanka's chief centres of population. A major cultural and political centre since mediaeval times, Kandy today is home to many important national institutions, such as the University of Peradeniya, the Co-Operative Training School at Polgolla, the Police Training School at Balagolla, the Open University of Sri Lanka at Polgolla, a Naval Training Base at Haragama, and advanced healthcare facilities such as teaching hospitals, an eye hospital and a proposed cancer hospital, as well as the Government institutions such as Ministry of Animal Production & Health and the Department of Agriculture.

Recently, it was proposed to expand the city area by shifting leading Government

and commercial institutions beyond city limits to minimise urban congestion and allow room for new settlement and development. A domestic airport and an extension of the Colombo-Kandy highway to Kundasale are other developments planned for the near future.

Urban growth on this scale will tax the city's water supply beyond its present capacity. The National Water Supply and Drainage Board and the Kandy Municipal Council are therefore currently in the process of augmenting current supply to the Greater Kandy Area. Stage Two of the Greater Kandy Water Supply Project has increased the existing water supply, provided new extensions and supplied hitherto unserved locations within the Greater Kandy Area. Mäga was the main contractor on this project, in partnership with

the National Water Supply and Drainage Board and the project financiers, Japan International Co-operation Agency (JICA) and the Government of Sri Lanka. Construction commenced in November 2009, and the project was commissioned in June 2012, providing water to over 200,000 residents.

Benefits from the project to residents and businesses in the Greater Kandy Area are not confined to the availability of clean running water but include employment generation, the improvement of access roads within communities, the engagement of local suppliers and subcontractors and upgrading of local educational infrastructure.

## Community Development Projects Carried Out in 2011/12

### Infrastructure Improvements for Local Communities

- **Sinharagama, Anuradhapura: Rehabilitation of Gravel Road**

A 1km gravel road leading to the village of Sinharagama in the Anuradhapura District was rehabilitated in August 2011.

- **Sinharagama, Anuradhapura: Land Improvement**

In August 2011, land belonging to the Chandrasekararamaya Buddhist Temple at Sinharagama was improved, creating additional space for temple activities. The work was carried out by the Puttalam-Anuradhapura Road Project Team.

- **Andarawewa, Anuradhapura: Land Improvement**

During the following month, the same project team supported the process of improving the grounds of Andarawewa Buddhist Temple. This paved the way for further development of the site by the local community.

- **Jayanthi Mawatha, Anuradhapura: Construction of Access Road**

As of March 2012, residents of Jayanthi Mawatha, Anuradhapura and visitors to the adjacent Vajirarama Buddhist Temple have enjoyed improved access, due to the construction of a new road by the Project Team.

- **Ananda Shastralaya, Sri Jayawardenapura, Kotte: Improvements to Cricket Ground**

In May 2012, we constructed a retaining wall, chain-link fence and entrance gate enclosing the cricket grounds at Ananda Shastralaya, a school in Sri Jayawardenapura, Kotte, in collaboration with the its Old Boys' Association. Refurbishments and repairs to the existing buildings, including the pavilion and toilets, were also carried out. These improvements have had a positive impact on the lives of around 5,000 pupils of the school.

### Infrastructure Improvements for Education

- **New Buildings at Methodist Central College, Hakmana**

A two-storey building with classroom accommodation for more than 300 students was constructed at Methodist Central College, Hakmana in April 2012.

This LKR 18 million project was funded by Mäga Engineering and implemented in collaboration with the Presidential Secretariat and the Ministry of Education. With this new facility, Methodist Central can now be developed into a full-fledged secondary school. Mäga also carried out the construction of the new building, replacing a century-old single-storey building that housed only 12 classrooms.

- **Manipay: Tree Planting Programme**

Helping promote awareness on climate change and the environment among the younger generation, we conducted a tree planting campaign in May 2012 at Uduvil Girl's College, Manipay. More than 4,000 schoolchildren took part in this project, with enthusiastic support and participation from parents, teachers and the school principal. Numerous trees were planted on the school grounds, with the pupils advised to safeguard them.

- **Nochchiyagama: Expansion of School Playground**

In November 2012, the students of Central College, Nochchciyagama welcomed the extension of their previously inadequately-sized playground.





New buildings at Methodist Central College, Hakmana to accommodate over 300 students

“We carried out several development projects for local communities and the education sector”

New ground was levelled and developed to provide the school with more space to carry out physical education activities, annual functions and sports meets. The current body of almost 2,000 pupils and future students will benefit from this project.

### Healthcare for Rural Communities

- **Galahagama: Village Medical Camp**

In December 2012, Mäga organised a full-day medical camp at the village of Galahagama in Badulla District. Medical professionals provided local residents with full medical examinations. More than 1,500 villagers received examination and treatment. Educational lectures and materials were also provided. The project was organised by the Hakgala-Fort McDonald Road Project Team.



# Human Resources Development



A Staff gathering at the Head Office

“Mäga strives to source and retain the most knowledgeable and skilful employees”

Our workforce, the Mäga community, is our most valuable resource, and we are committed to its ongoing development. This commitment is complemented by a strong organisational culture developed over the years, which has comprised an uncompromising emphasis on quality, safety and environmental performance. Employee attitudes and behaviour are shaped and positively influenced by this culture.



## Management Approach

Human resources management policies are based on achieving predetermined HR goals derived from the overarching strategic goals of the organisation. Primary among these policies is the continuous development of employees' skills and abilities. Mäga strives to source and retain the most knowledgeable and skilful employees and to reward and recognise them based on their performance.

Employees of the company can be categorised into six major groups:

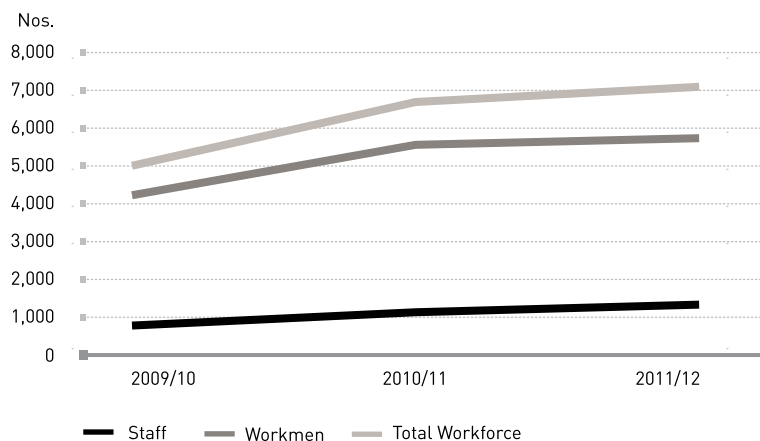
- Managers
- Engineering & technical staff
- Support department staff
- Skilled workmen
- Unskilled workmen
- Security personnel

The first three categories are considered as staff grade employees, while the others are considered as manual-grade employees.

As of 30 June 2012, there were 7,083 employees. Out of this 1,342 were staff grade employees, which is an increase of 196, or 17.3%, compared with last year's data. Additionally, we admitted 52 staff grade employees to the permanent staff roll during the reporting period, an increase of 20% compared to last year. The selection of high performers is decided based on their performance and their contribution to the organisation.

## Staff Strength

Employees Strength during the Last Three Years



Staff grade employees can be further categorised as follows:

### Employee Analysis by Category

Category	Permanent	Contract	Total
Directors	08	–	08
Senior Managers	24	01	25
Managers	55	29	84
Engineers (Non-Managerial)	41	100	141
Technical Staff	104	660	764
Administrative Staff	77	243	320
<b>Total</b>	<b>309</b>	<b>1,033</b>	<b>1,342</b>

There were 5,741 manual grade employees as at 30 June 2012. This is an increase of 178, or 3.19%, compared to last year. All employees are currently engaged in the region of Sri Lanka.

### Recruitment Process

When a vacancy arises in the organisation, internal promotion or transfer from another project or activity centre is the preferred means of filling it. If the vacancy is not filled, suitable candidates will be selected from the database of applications received in response to online or newspaper advertising. A third means of recruitment is through contact with universities and technical colleges. A rigorous but fair selection process ensures that the most suitable applicant is selected.

When hiring project workers, we do our best to select people residing in close proximity to the project areas. This reduces costs and

improves efficiencies with respect to employee accommodation, transport, etc., and also benefits the local community by generating employment and improving social and living conditions for people living in and around the project area. Currently 49% of our Senior Management hail from the local region of respective projects.

### Performance Management

We conduct performance evaluations twice a year, in September and March. At the former, the employee's performance in the first six months of the financial year is considered; at the latter, performance over the entire year is reviewed. Employees are divided into six categories for purposes of evaluation.

Evaluations of employees in the Management, Engineering, Technical and Support Departmental Staff categories are carried out in the employee's presence by the department head, unit or section head, or the manager of the project, site or activity centre where the employee works. The resulting performance evaluation report is reviewed and certified by the evaluator's immediate superior. Currently, the company practices the 180-degree performance evaluation method, where assessments are conducted through open dialogue and discussion between the employee and evaluator. Good performance is recognised and assessments are made through careful evaluation. However, due to practical difficulties, evaluators are compelled to evaluate without the employee being present in certain cases. We aim to avoid such evaluations in the future.

### Remuneration

Remuneration for each category of employee is decided by the Remuneration Committee, which is headed by the Chairman/Managing Director. Remuneration is based on the new recruit's professional or academic qualifications and experience, weighed against market conditions at the time of selection. Thereafter, all increments are based on individual performance. The Remuneration Committee also takes into account market supply and demand, the cost of living, inflation and local conditions.



## Performance-Based Increments in Remuneration

The results of each performance evaluation are used to make decisions on increments, promotions, confirmations, transfers and retrenchments. The increment for each employee is calculated on the basis of his or her present salary and performance at the evaluation.

## Staff Turnover

Turnover in the construction industry is high compared with most other industries. This is particularly so at present in Sri Lanka, where a boom in the industry has created numerous job opportunities for a construction workforce that is constantly on the lookout for new and better opportunities. The aforementioned boom has also resulted in a scarcity of skilled personnel in the industry, another factor influencing the high turnover rates.

## Resignation Process

Whenever an employee resigns, he or she is subjected to an exit interview at which all aspects related to the resignation are discussed. The employee is encouraged to disclose all issues faced during his or her tenure with the organisation. These comments and suggestions are recorded and reviewed with a view to retaining more employees and improving organisational performance and culture. We provide a notice period of 4 weeks or more prior to the implementation of significant operational change that would have a substantial impact.

## Employer Turnover



## Training and Development

Mäga is committed to providing opportunities for continuous learning, personal growth and career development to all our employees. Training and development opportunities are offered on a fair and equitable basis. No employee receives more or less favourable treatment or consideration with regard to training and development on the grounds of race, religion, sex, age, marital status or any other irrelevant criterion or circumstance.

The company's training needs are determined through an annual assessment, based on which the training and development initiatives for the following year are planned.

The formal training and development needs of individual employees are determined through performance and development reviews (see 'Performance Management' above). Numerous formal and informal learning opportunities including on-the-job, professional and management training are made available, while excellent career progression opportunities are available to employees who perform up to or beyond expectations.

Yet, employee development requires much more than training. At Mäga, a wealth of support and guidance is made available to employees by our experienced engineers and managers. We also continuously monitor employees' progress to identify areas in which they need assistance, carried out as a part of our succession planning process.

During the reporting period, training and development efforts focused on seven areas:

1. Induction for new employees
2. Supervisory skills development
3. Apprenticeship
4. Industrial Training
5. Management Training
6. Continuous Professional Development (CPD)
7. Building & roads craftsmanship training

## Induction for New Employees

All new employees go through a formal induction process. This commences with a welcome from the Chairman to all new recruits on the first day of employment, followed by technical sessions with Directors and senior managers. A typical induction programme includes sessions on company culture, corporate values, workplace policies, ethical conduct and 'the way forward'. The programme also includes presentations on occupational health and safety and effective communication.

## Supervisory Skills Development

During the reporting period, our supervisory skills development programme made rapid progress. There was a notable increase in the number of female supervisors. Supervisors were

recruited from higher colleges of technology, technical colleges and apprenticeship training institutes after the completion of a one-year full-time course on construction technology and supervision.

These recruits underwent two weeks of theoretical training and six months of rigorous on-the-job training at different sites. In all, 19 trainees were recruited as supervisors

## Apprenticeship

As a leading employer in its sector, Mäga offers apprenticeships across a broad range of disciplines, including electrical and mechanical engineering, surveying, masonry and steel reinforcement. We also participate in the apprenticeship scheme of the National Apprenticeship & Industrial Training Authority (NAITA), under which we act as guarantor for the

apprentices we train, assuring them of employment if they are unable to find jobs after their apprenticeship.

## Industrial Training

Every year, Mäga provides industrial training to university undergraduates and students from other higher educational institutions. Our three major partners in this programme are the civil engineering departments of the Universities of Moratuwa, Peradeniya and Ruhuna. In addition, the company also provides industrial training opportunities for undergraduates and other students in quantity surveying, mechanical engineering, construction site supervision and draftsmanship. The table below summarises the wide range of industrial training opportunities provided during the reporting period:

In-Plant Trainees 2011/12

Field	<3 months	3-6 months	6-12 months	12-24 months	Total
Quantity Surveying	7	44	8	1	60
Civil Engineering	29	56	6	-	91
Welding	-	5	-	-	5
Mechanical Engineering	-	3	-	-	3
Plumbing	-	-	1	-	1
Draftsmanship	4	5	1	-	10
Masonry Work	-	24	1	-	25
Accountancy	-	-	1	-	1
Motor Mechanic Work	-	13	4	-	17
Surveying	-	-	6	-	6
Electrical Work	-	16	-	-	16
<b>Total</b>	<b>40</b>	<b>166</b>	<b>28</b>	<b>1</b>	<b>235</b>





On the job training provided at one of our water supply projects

“Mäga is committed to providing opportunities for continuous learning, personal growth and career development to all our employees”

### Management Trainee Programme (MTP)

MTP is a corporate training programme for fresh graduates. Commencing in August 2011, this year's programme exposed eight graduates to comprehensive theoretical and practical training, including building construction, road construction and water supply, conducted at project sites and our head office. These trainees were attached to the permanent staff of the company after evaluation.

### Continuing Professional Development (CPD)

The continually-changing technology and knowledge base of the construction industry demands the ongoing professional development of managers, engineers, administrators and technical staff. In the year under review, Mäga provided numerous opportunities for CPD to the relevant employees. In particular -

- The company provides sponsorship and full-pay study leave to employees wishing to follow relevant higher degrees at local and foreign universities. During the reporting year, Mäga provided such sponsorship to seven staff members.

- Engineers at Mäga are encouraged to qualify as Professional Engineers by undergoing the Professional Review conducted by the Institution of Engineers Sri Lanka (IESL) to become Corporate Members of that institution. Two of our engineers obtained this qualification during the year under review, while four others are currently undergoing training to qualify as chartered engineers. Mäga has formally requested IESL to sanction an increase in the number of professional engineering candidates undergoing training by the company at a given time.

CPD activities recognised as appropriate for aspiring Professional Engineers include, on-the-job learning, in-house technical presentations, relevant professional events, mentoring fellow professionals, lecturing, research activities, professional publications in journals, etc. Further, personal learning as well as obtaining validated and accredited qualification via distance and open-learning courses, conferences, seminars and workshops are encouraged.

- All staff are given the opportunity to participate in training workshops, seminars and conferences relevant to their professional or occupational disciplines.
- Skilled employees receive support and funding to obtain National Vocational Qualification (NVQ) from the Tertiary & Vocational Education Commission of Sri Lanka.

The table below summarises CPD opportunities offered by Mäga to different categories of employee:

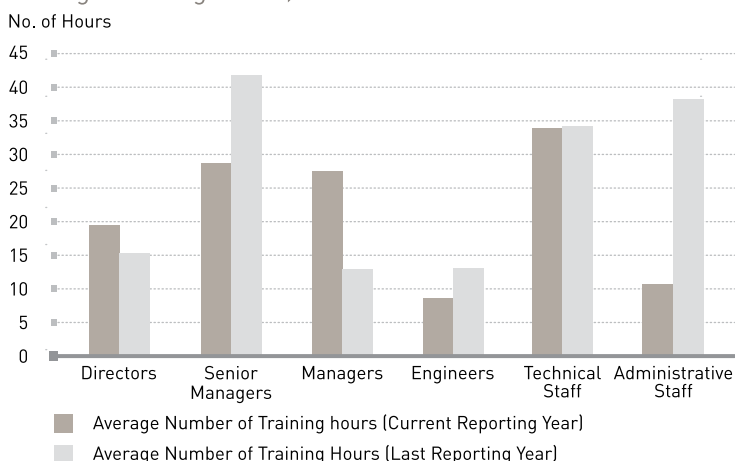
## National Vocational Qualification (NVQ) for Road Construction Workers

Mäga aims to become the first construction firm in the country to obtain NVQ for construction workers in the road sector. A series of discussions was held with the Tertiary & Vocational Education Commission with a view to obtaining this qualification for our employees through 'Recognition of Prior Learning' (RPL). The company will shortly register the first batch of workers for assessment by National Apprentice and Industrial Training Authority (NAITA), which holds the national mandate for RPL assessment.

Training Hours by Employee Category 2011/12

Category	Headcount	Tot. Hrs.	Avg. Hrs.
Directors	8	156	19.5
Senior Managers	25	718	28.7
Managers	84	2,306	27.5
Engineers	141	2,045	14.5
Technical Staff	764	25,862	33.9
Administrative Staff	320	3,396	10.6

Average Training Hours, Year on Year





A skills development programme at Head Office

## Equal Employment Opportunity and Affirmative Action

Mäga is an organisation where -

- All employees are treated with dignity and respect.
- All employees have equal access to jobs, opportunities and careers based on their knowledge, skills and abilities.
- All selection is based on merit.
- Diversity is valued.

All human resources-related decisions are based on firmly established company policies and procedures, with no deviations or discrimination. Thus all employees are offered equal opportunities based on individual merit. This principle applies equally to recruitment, selection, remuneration, benefits, performance evaluation, training and development, promotion, transfers, employee relations, welfare, reinstatement and termination, all of which are based on the principles of equal opportunity and affirmative action. None of our operations

during the reporting period incidents of child labour, forced labour or compulsory labour.

## Grievance Handling

Mäga follows an 'open door' policy. Any employee can meet his or her superior officer to discuss problems of both professional and personal in nature. Employees also have recourse to the Chairman, Board of Directors and Senior Management should they feel their problems have not been properly addressed by their immediate superiors.

All supervisory and managerial staff are trained and mandated to act on employee grievances. The grievances unable to be resolved by superiors may be brought to the attention of higher management.

## Benefits

During the reporting period, the company granted interest-free loans amounting to a total of LKR 20.1 million to employees, a 26.3% increase over the preceding 12 months. Mäga also made *ex gratia* payments to several employees on their resignation or retirement, amounting in total to LKR 4.4 million.

Mäga also provides medical insurance cover, medical coverage in emergencies and donations to the dependents of employees on the death of an employee, employee's parent or close relative. In 2011/12, such payments amounted to LKR 17.2 million.



# Enhancing Compliance



The aluminium and glass facade at new headquarters of Sri Lanka Customs, Colombo

“We manage quality, health & safety and our environment through an integrated management system”



## Message from the Director Engineering

We are now in the process of improving our quality, health & safety and environment management systems in advance of system re-certification in 2013. It is a pleasure to report that we have already achieved clear progress in a number of significant areas. Quality control has been improved through the successful involvement of our Design and Quality Assurance Departments in highrise buildings,

roads, water-supply schemes and flyovers. Further improvements will be yielded from the ongoing professional engineering training now being followed by several of our civil engineers, as well as from an enterprise resource planning system for which a pre-feasibility study is now under way (see 'ERP Pre-Feasibility Study and Vendor Evaluation', on Page 41).

Working with key stakeholders right from the conceptual stages of design - build projects, we have been able to optimise our design solutions while remaining flexible in accommodating stakeholder needs. This has had a positive impact on quality as well as on environmental indicators. Further benefits in the environmental area are expected from staff training courses now being held on design and construction in compliance with the Sri Lanka Green Rating System.

Ongoing research and development activities will bear fruit in the near to medium term. Meanwhile, work continues on the project-based implementation of new health, safety and environmental management systems (ISO 14001 and OHSAS 18001) via internal auditing, external auditing, corrective and preventive actions and management review. We are pleased to announce 100% of the organisation is currently in verified compliance with international standards.

**C.A. de Silva**

*Director - Engineering*



## Roadmap for QMS, H&SMS and EMS at Mäga

Changes and improvements relating to our quality, health-and-safety and environment management systems will be carried out during the upcoming year.

In this context, non-conformance management will be made more effective and practical as continued non-compliance would be detrimental to our vision for the future.

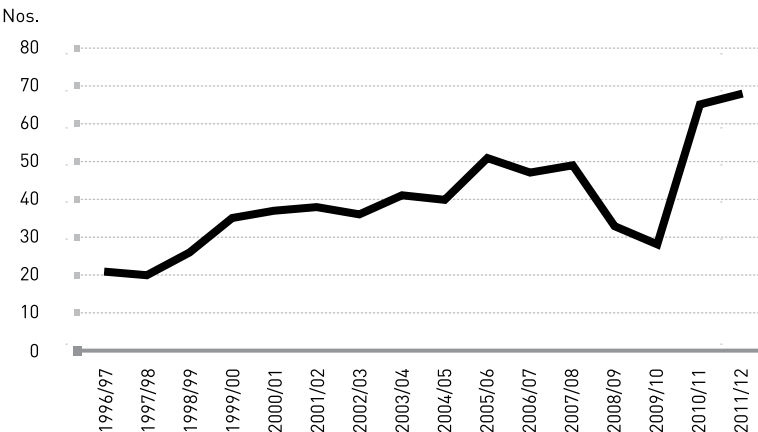
A Quality Roadmap for the upcoming year has been drawn up with the object of enhancing the ‘quality culture’ within the organisation. Quality culture has been defined as ‘an environment which delights the customer with zero or minimal defects and hazard to the natural environment while ensuring the health and safety of all stakeholders involved.’ In our efforts to establish an enhanced quality-management system in 2012-2013, we have undertaken process improvements, set in place mechanisms for continual improvement, and made revisions to our existing systems of documentation.

Continual improvement in a number of areas is a key component of the Roadmap – commencing with process improvements to our asphalt and aggregate concrete production process, which plays a major role in our operations due to the increasing number of road projects in hand.

## Management Approach

Mäga Engineering is now in its twenty-eighth year of operation. It has achieved continued success in terms of quality, profitability and industry recognition. In relation to production, the company has encountered numerous challenges relating to quality, health and safety, and the environment. With continued growth, the need for new systems of quality, health-and-safety (H&S) and environmental management became apparent.

Number of Projects Over Time 1996-2012





Final inspection and commissioning being carried out at a water supply scheme

“In compliance, the involvement of people and leadership is essential”

The implementation of a quality-management system (QMS) with international ISO 9001 certification was the means chosen to overcome this challenge., Mäga obtained ISO 9001:2000 certification for its QMS, covering all activities and departments of the organisation, Continuing the drive for standards, Mäga then proceeded to obtain ISO 14001:2004 and OHSAS 18001:2007 respectively for its environment and H&S management systems.

The management approach to various aspects of quality, H&S and environment management is detailed in the proceeding sections.

### Drive for Re-Certification

Mäga Engineering was certified for ISO 9001:2000 in 2004 and upgraded to ISO 9001:2008 standards in 2010. The company's amalgamated management system for health, safety and environmental management was certified against ISO 14001:2004 and OHSAS 18001:2007 in 2010, making Mäga the first-ever Sri Lankan construction company to receive both certificates.

Since then, further challenges have been identified and are now being addressed in a drive for re-certification. The expanded scope of our quality, health-and-safety and environment management systems will be evident following re-certification in June and November 2013.

## Fact-Based Decision-Making

Streamlining data analysis within the organisation is of great importance for project monitoring and control, as well as for producing tenders and estimates, establishing service and maintenance schedules, etc. The existing post-project monitoring system is soon to be converted to a system of continuous, live process and project monitoring.

## Customer Satisfaction

A re-emphasis on this vital aspect of our operations has seen special focus on the leasing of scaffolding, ready-mix and asphalt production, crusher production and workshop services. In addition, a system has been established to act upon and follow up feedback received from domestic and industrial customers.

## Involving Our People

In compliance, the involvement of people and leadership is essential. Building teams to achieve goals set at this stage is another part of the next year's plan. As a first step, the relevant compliance teams were formed and mandated. This has been followed by the empowerment of teams to promote equal opportunities, a sense of ownership and propagation of the Team Mäga concept.

## Improving Safety

The most important component of our occupational safety programme is awareness. We strive to provide correct and specific instructions on procedures and the use of plant and machinery while consistently monitoring the implementation of health and safety procedures. Hazard identification and risk assessment also play an important role. We have established a consistent flow of data from work sites to our head office which has central control on monitoring. Environmental hazards, too, are identified, monitored and controlled in this way.

## Training and Awareness

The nature of our business, high labour turnover and the employment of workers from project localities – which are often deep rural areas – create practical difficulties in terms of health-and-safety awareness and practice. Mäga addresses these difficulties through training.

### Programme in collaboration with ISO and SLS

The International Organisation for Standardisation (ISO) and the Sri Lanka Standards Institute (SLSI) have selected us as a 'role model company' from the South Asia region and carried out in collaboration with us, a pilot project on the economic benefits

of standards. ISO and SLSI carried out a detailed study of the economic benefits obtained by Mäga through the implementation of standards and have published them under the title Economic Benefits of Standards, which has generated international recognition for Mäga and its efforts in this area.

## Health, Safety and Environment

Mäga has maintained a sound safety record since its inception. Management commitment to safety is strong, and our Health and Safety System process was further enhanced following OHSAS 18001 certification in 2010.

Project- or activity-related health-and-safety hazards and risks are identified as standard operating procedure. Employees are made aware of unsafe acts and the corresponding precautions to be taken.

Emergency preparedness and response plans are filed for every project site and activity centre with each possessing designated first-aid and fire-fighting teams.

Implementation of safety measures is systematic and stringent. Effectiveness of action taken is measured by internal audits, while

follow-up audits ensure that the recommended improvements have been put in place.

The following methods are used to prevent or reduce safety risks:

- Risk assessment and risk management
- Elimination or substitution of hazardous materials
- Engineering controls
- Warning signs and/or administrative restrictions
- Fire-protection procedures
- Regular health-and-safety programmes
- Regular maintenance of plant and machinery
- Safety committees
- 'Good housekeeping' practices
- Use of personal protective equipment (PPE)

In the year under review, we conducted several health and safety awareness sessions during monthly progress review meetings to address topics such as 'lifestyle modifications for a healthy life', 'healthy eating habits' and the health hazards of mobile phone usage.

Up to 25% of our workforce is represented in formal management Worker Health & Safety committees which jointly help monitor and advise on occupational safety programmes at operational level.

With respect to employee health, we held a series of health check-up camps at which employees could have their body-mass indexes, lipid profiles and blood sugar levels measured, and be tested for visual or auditory disabilities. Follow-up surveys were then conducted to evaluate these screening programmes. All participants accepted that lipid-profile and blood-sugar tests are relevant to their health, while 39% reported lifestyle changes after attending these camps.

### Improvements to HSE

As described in last year's report, our Health, Safety and Environmental management (HSE) systems have now been effectively implemented across the organisation. Ten broad categories of hazard have been addressed. These define a framework within which projects can establish their own, relevant HSE objectives. Following initial site investigations, project and site managers have been assigned with implementing these systems.

### Conserving the Environment

We have taken various measures to minimise or mitigate harmful effects on the environment from our activities. New mitigatory measures introduced in the year under review included tree planting campaigns, the relocation of

threatened epiphytic plant species in new but suitable habitats and the rehabilitation of borrow pits.

### Pollution Control

Pollution-control processes were also strengthened with the implementation of the new environment management system. Sound levels at project sites are now measured periodically and action is taken to reduce excessive noise levels. Dust is controlled by sprinklers and by covering up dust generating materials whenever possible. Greater emphasis has been given to erosion control, and silt traps have proved helpful in preventing the contamination of nearby bodies of water. Action has also been taken to prevent soil contamination by oil leaks and spillages from machinery; these measures are continuously monitored by our Internal Auditors, while operators and store personnel receive training on the control of soil contamination by means of better operational practices.

### Waste Management

We invested further time and effort in propagating the 3R (reduce, re-use, recycle) waste-management principle, which has now been implemented at our head office, activity centres and construction sites. Wastes are segregated into



A safety workshop for new recruits

“Management commitment to health and safety is strong, and Mäga has maintained a sound safety record since inception”

three categories: hazardous waste, domestic waste and recyclable waste (such as steel, paper, plastic and polyurethane) prior to appropriate disposal. Waste oil collected during plant and machinery servicing at our central workshop is collected and re-used.

The disposal of waste paper has also been made more environment-friendly; office waste is sent for recycling.

### Stakeholder Involvement in HSE Activities

We have been engaging with stakeholders and local communities with a heightened intensity and frequency, making people aware of environmental hazards, threats to biodiversity, and preventive action to be taken. Consciousness-raising of this kind, together with community involvement in our conservation efforts, have gained the company considerable goodwill.

Health awareness is another key area of involvement. A new initiative in the year under review was a series of awareness programmes on the prevention of HIV/AIDS and other sexually transmitted diseases, conducted in partnership with two NGOs, Sarvodaya Shramadana Sangamaya and Healthy Lanka for You. Programmes were conducted in the locality of all our sites under the Northern Road Connectivity Project.



## HSE Objectives and Performance Indicators

Indicators have been established to monitor the effectiveness of HSE management system. They provide us with scales along which to measure our performance in occupational health and safety, resource use and environmental impact. Operational procedures for water and electricity use are linked to these performance indicators in order to produce tangible results.

Indicator data are regularly collected from all sites and centres and analysed by the relevant departments. Information derived from these analyses informs top-management decision-making.

Given below are some of the performance indicators we monitor on a regular basis:

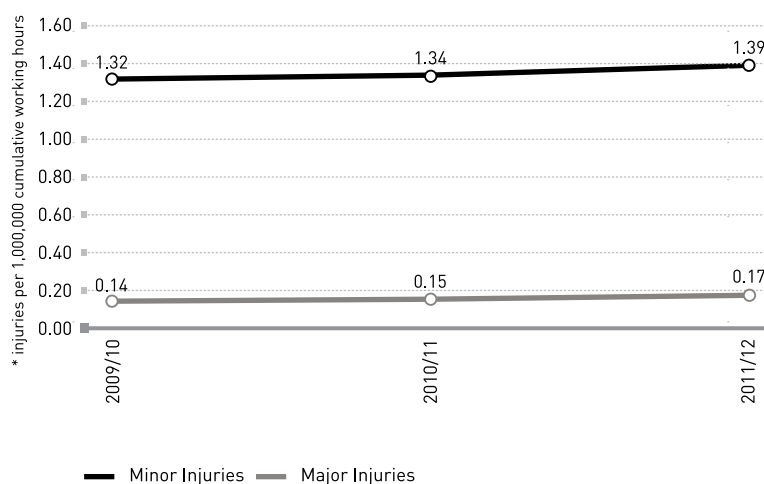
### Work-Related Accidents and Injuries

Mäga defines its injury rate as the number of injuries and accidents per 1,000,000 man-hours of operation. Fatal, major and minor accidents were considered as injuries. Near misses were not taken into account. Data from a sample of 21 sites produced an Annual Injury Rate of 4.

Increasing workload and man-hours on the job, together with insufficient alertness and negligence, are among the causes of increased

accidents.. In all cases, immediate investigations were conducted and precautionary action taken. Stringent control over site safety is a central part of next year's HSE Roadmap.

Safety Record: Injury Frequency Rate 2009-12



### Customer Complaints and Satisfaction

All complaints relating to quality, environment, and the health-and-safety conditions of stakeholders (including end-users) are recorded. Records are monitored on a bi-annual basis during management reviews. We also record and address any complaint pertaining to the quality of our products or service.

In most cases, the number of complaints received was larger than the number resolved during a particular month. Detailed study revealed that all customer complaints were attended to as early as possible and remedial action was taken in good time. However there were instances when, due to contractual requirements, approval from our clients and/or consultants was required in order to proceed with the proposed action. In nearly every instance, such approval

was forthcoming, though both Mäga and the client acknowledged a resulting delay in execution. This has been identified as an area to be improved.

### Customer Satisfaction

Quality of service, and customer satisfaction were monitored and assessed by the during the latter part of the review period. Furthermore, each division was considered as a supplier to another division and ‘customers’ were requested to evaluate the quality of service. Areas needing improvement were identified at the end of the survey. Customer privacy and data is given highest priority and no complaints of breaches concerning the same was recorded during the period.

### Servicing and Maintenance of Plant and Machinery

A considerable increase in the quantity of vehicles and machinery owned, leased or rented by the company necessitated a more effective system for servicing and maintenance. A suitable procedure has now been established, and all vehicles, plant and machinery owned, leased or rented by the company are subject to its

regulations. Company-owned plant, machinery and vehicles are serviced and repaired by competent crews at our central workshop.

### Workplace Accountability

#### Anti-Corruption Measures: Status Quo and Plan for the Future

Mäga trained 65% of all managerial-grade employees on our anti-corruption policies and procedures by the end of the reporting year. There were zero corruption-related incidents or actions taken against same during this period. As was the case during the previous reporting period, the company was not subject to any fines or sanctions for non-compliance with relevant laws and regulations.

It is our target to complete the training of 100% of management-grade employees in these policies and procedures during the next year. The training curriculum will include identification of departments and operations of the organisation, particularly vulnerable to malpractice, means to prevent such malpractices and action to be taken upon discovering an incident.

We plan to address a wide range of anti-corruption-related concerns during the remainder of this year and throughout the 2012/13 reporting period.

### SA 8000 Certification for a Decent Workplace

Its our goal to obtain SA 8000 certification for decent working standards and social accountability in workplace by mid 2013. Certification has demanded several changes to our systems and procedures, which were addressed in stepwise fashion, as follows:

- **2011:** A series of training programmes was conducted for management-grade employees, at which the SA 8000 requirements were presented, discussed and illustrated by case studies.
- **January-March 2012:** Requirements pertaining to SA 8000 were further investigated by the company. ILO conventions and corresponding local statutory requirements were collected. several certification bodies were contacted.



A snapshot of a workshop on compliance enhancement to Senior Management

“A series of training programmes was conducted for management-grade employees on workplace accountability”

- **April-July 2012:**

Discussions were held to decide on the scope and required level of documentation. Appropriate policies and procedures were developed or adopted during this period.

A manual comprising policy level statements, detailed procedures and corresponding forms and formats was developed. The remainder of the month was used to review these procedures and obtain the necessary approvals.

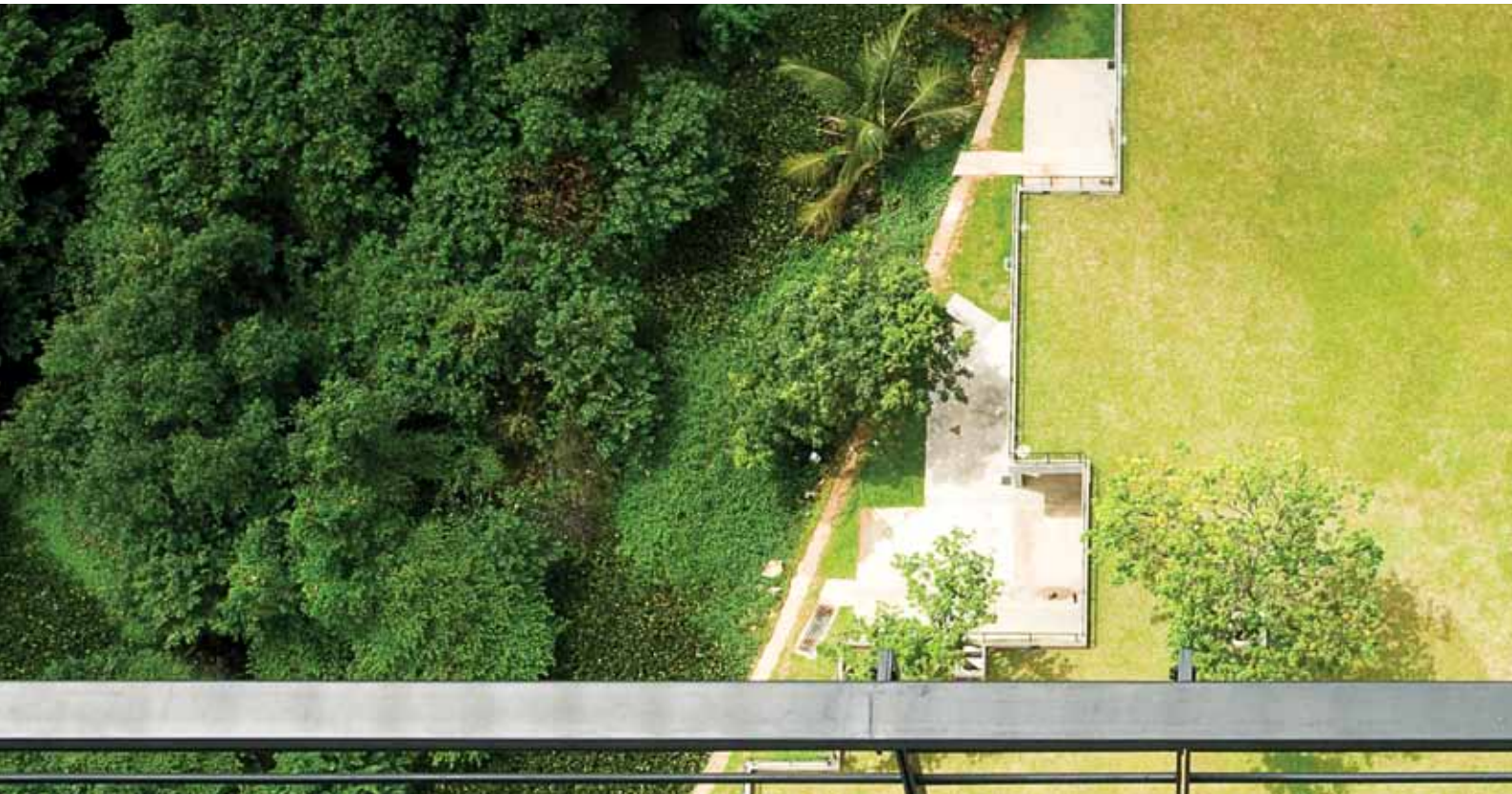
- **August 2012–March 2013:**

During this period, we plan to implement the documented system within the scope initially defined. In order to apply for certification, the Stage I audit will be completed before the end of April 2013.

- **April-July 2013:**

Implementation to continue, followed by audit and certification in July.

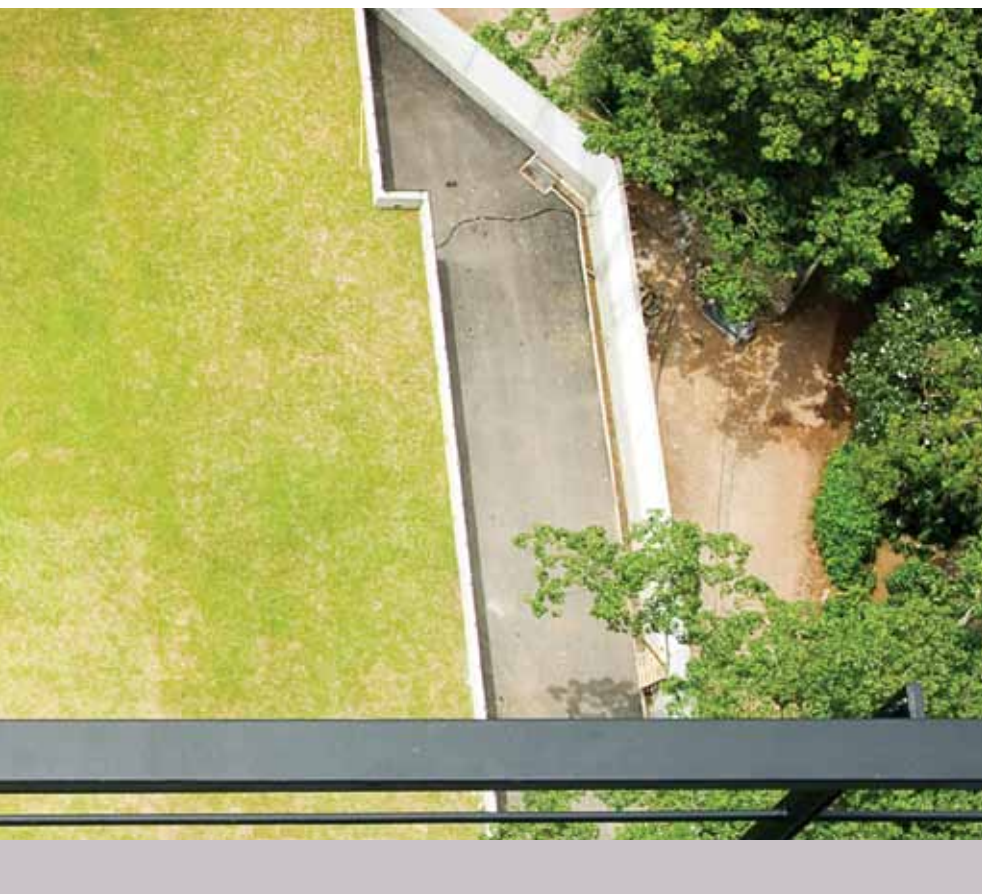
# Environmental Performance



The minimised environmental footprint at Fairmount Residencies, Rajagiriya

“Our environmental management system has enabled us to translate our vision into specific, measurable goals”





indicators with respect to environment-related inputs, outputs and impacts.

Among achievements in this area, we set a national industry benchmark by implementing environmental management plans across a road construction network of over 400 kms; built the world's first purpose-built LEED platinum-certified apparel factory; and helped found the Green Building Council of Sri Lanka (GBCSL), a consensus-based, non-profit organisation with diverse and integrated representation from all sectors of the property industry and academy. The aim of the GBCSL is the Sri Lankan construction industry with green building practices and "fully adopt sustainability as the means by which our environment thrives, economy prospers and society grows to ensure the future well-being of our motherland".

## Management Approach

Having matured over time, Māga management approach to environmental protection is now encompassed in our Environmental Policy. The elements of this policy are:

- Achievement of compliance with all environment-related laws, specifications and standards
- Effective use of materials and energy
- Monitoring of emissions
- Reduction and re-use of waste.

Established in 2008, the policy was amended in February 2010 in compliance with the ISO 14001:2004 environmental management standard and distributed to all projects and activity centres.

Implementation of an ISO 14001:2004-based Environmental Management System (EMS) has enabled us to translate our vision into a set of specific, measurable goals. This is the third consecutive year for which we have published

We are now in the process of signing up to the Environmental Stewardship Strategy component of the UN Global Compact for businesses, which helps businesses develop holistic, comprehensive environmental strategies and recognise the interlinkage among various environmental issues on the one hand, and social and development priorities on the other.



First Green Award for the private and public sector

“Mäga was a recipient at the first-ever National Green Awards organised by the Central Environmental Authority in August 2011”

**CEA National Green Award 2012**

Mäga was a recipient at the first-ever National Green Awards, organised by the Central Environmental Authority in August 2011, winning the Gold Award in the public and private sector category. This, the first and highest national green award, recognises our active efforts to protect the environment, and is an important motivator for our workforce in terms of promoting and enhancing such efforts.

### Environmental Compliance

There were no significant environmental polluting incidents (as defined by ISO 14001 EMS) during the reporting period. Appropriate precautions were taken against the risk of environmental incidents, and compliance with regulatory and legal requirements was maintained throughout. We also achieved several important environment-related outcomes during the period under review. For example, minor spillages of hydraulic oil, a constant danger at our sites and activity centres, were significantly reduced through regular and more stringent EMS audits.

No hazardous materials (as identified under the Basel Convention) were used in our operations. There were no pending legal proceedings relating to environmental laws and regulations,

and no fines or penalties were imposed on the organisation due to non-compliance with such laws and regulations.

To assess the efficiency of our environmental initiatives, we calculated our expenditure on such initiatives in order to undertake a cost-benefit analysis. Expenditure incurred on environmental protection and related investments for this reporting year was LKR 5.18 mn, excluding the cost of precautionary measures taken under EMS.

## Energy Efficiency

The construction sector is responsible for an estimated 30-40% of global greenhouse gas emissions. This includes operational emissions (lighting, air conditioning, etc.), as well as emissions from production, maintenance and demolition.

As a leading Sri Lankan construction firm, Mäga is acutely conscious that it operates in a highly energy and emissions-intensive industry. We are committed to reducing emissions, in part through the more efficient use of energy – a policy that also impacts positively on operating costs.

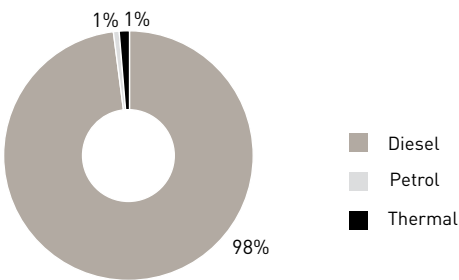
Direct energy sources: For this reporting period our direct energy consumption has primarily risen from non-renewable energy sources.

There was an increase in the consumption of energy for this reporting period, mainly due to increased consumption of diesel fuel arising from a substantial upsurge in road construction (asphalt and crusher plants tend to be more energy-intensive than our other operations). We are now exploring ways to reduce the use of diesel by identifying and implementing optimal plant and equipment configurations and lean production programmes.

## Energy Usage 2009-12

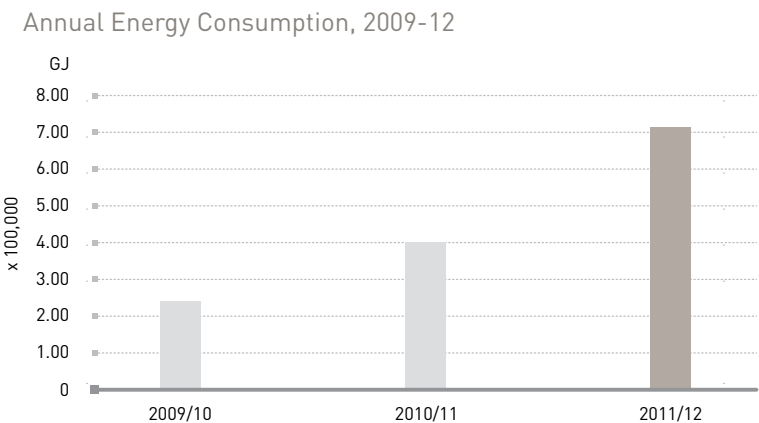
Source	Units	2011/12		2010/11		2009/10	
		Quantity	Energy (GJ)	Quantity	Energy (GJ)	Quantity	Energy (GJ)
Direct Energy - Fossil Fuel							
Diesel	Litres	18,172,079	701,442	10,137,056	391,290	6,064,325	232,870
Petrol	Litres	255,254	8,679	143,336	4,873	133,783	4,575
Indirect Energy - Electricity from National Grid							
Hydro (40%)	kWh	624,701	2,249	662,438	2,385	615,280	1,969
Thermal (60%)	kWh	937,051	3,373	993,657	3,577	918,792	2,940
Total (GJ)			715,743			402,125	242,354
Energy Intensity (GJ/LKR) x 10 <sup>-6</sup>			4.17			3.39	2.61
(i.e: Energy usage per unit of Economic Value Generated)							

Energy Emission 2011/12



In last year’s sustainability report, we set a target of reducing energy use (and hence emissions) per unit of production (economic value generated) by 5%. We have been unable to achieve our interim milestone towards this target in 2011–2012 due to increased operational volumes in highway construction. Nevertheless, we maintain stringent energy use standards and are exploring ways to minimise the use of fossil fuels at our asphalt and crusher plants through mechanical and operational modifications.

Target Status of Energy Consumption per Economic Value Generated



Description	GJ/LKR (x10 <sup>-6</sup> )
Base year (2011) energy intensity (GJ/LKR)	3.39
Energy intensity to be reduced in 2012 (1.25%)	0.04
Targeted energy intensity in 2012	3.35
Recorded energy intensity in 2012	4.17
Increase	0.81
Targeted reduction in 2013 (21%)	0.86
Target energy intensity in 2013	3.31

### Biodiversity

As required under EMS Operational Control Procedure, all our operations and services undergo an Environmental Aspect and Impact Identification (EAI) to determine significant environmental impacts and biodiversity concerns. We strive to protect and restore habitats and species of particular relevance.

During the reporting period, we engaged in two projects aimed at protecting threatened habitats and educating the public on the importance of biodiversity. For this reporting period we have not owned, leased, managed or operated in any areas regarded as of high biodiversity value.



## Case Study: Puttalam-Anuradhapura Road Project



A noteworthy implementation of Mäga's Environment Policy can be observed along the A12 highway from Puttalam to Anuradhapura, where a pilot project involving the management of natural resources, flood mitigation, land rehabilitation and pollution control was implemented in the year under review.

The A12 runs through land that is home to a variety of wildlife, including birds, elephants and numerous reptile species. Mäga took steps to minimise damage to the environment by raising

public awareness of habitat and wildlife protection. Notice boards were installed during the pre-construction, construction and post-construction phases and a poster was produced to publicise the attractions of Tabbowa Nature Reserve.

Of particular note was the relocation of hundreds of samples of a variable orchid species, *Vanda tesellata*, part of whose original habitat was lost to construction work. Flowering plants located along the road shoulders, at a local school and at the Wildlife Park Ranger's Office at Puttalam are evidence of this successful effort.

A tree-planting programme was part of the pilot project undertaken with the support and participation of local communities, government agencies and schools. To overcome the difficulty of supplying water for the newly planted trees, a new water supply system was constructed at A/N/Bandaranayake College, Nochchiyagama.

The rehabilitation of borrow pits was another key component of this project. Trees such as

bulu, kumbuk and mee were planted at some borrow pits, while at others, full-grown trees already present were protected. A considerable number of trees originally threatened with removal were thus saved.

The area through which the A12 runs is regularly subjected to flooding during the rainy season, thus flood control was one of the key objectives of the project. Measures taken included raising the originally low level of road to an elevated position and widening culverts and lead-aways. Erosion control measures were also taken, such as the construction of guard walls, rip-rap walls and turfing. Community ponds were rehabilitated to serve as silt traps and sedimentation tanks.

Other environment protection measures included site-level steps to control fuel leakage, optimise resource use, minimise the use of non-biodegradable materials and create awareness among all stakeholders. Lessons learned at this pilot project will be applied on future projects in order to ensure the continued preservation and improvement of the natural environment.

## Emissions

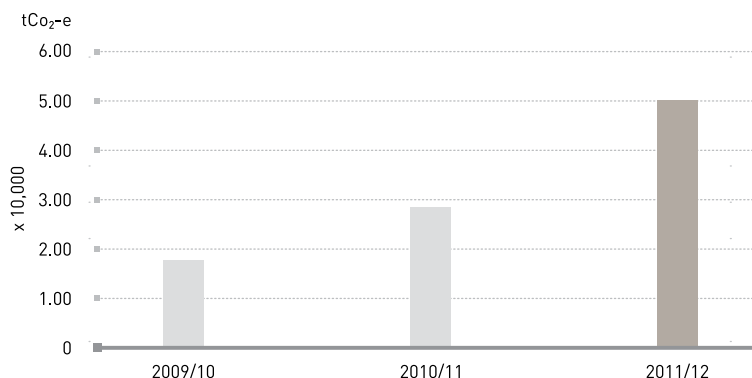
### Greenhouse Gas Audit

According to our greenhouse gas (GHG) audit, carbon dioxide (CO<sub>2</sub>) was the main greenhouse gas produced by our operations in the year under review. There were no emissions of ozone depleting substances such as CFCs, HCFCs, etc., due to our operations. Gases such as NO<sub>x</sub>, SO<sub>x</sub> and atmospheric emissions other than CO<sub>2</sub> were at a level insignificant to be reported.

GHG emissions were estimated at 50,197 tCO<sub>2</sub>-e (units in metric tons of CO<sub>2</sub> equivalent emitted). GHG intensity was 0.29 Co<sub>2</sub> -e/LKR x 10<sup>-6</sup>.

Through our materials recycling policy, we were able to offset the equivalent of 6,097Kg of CO<sub>2</sub> emissions by recycling 6.1 tonnes of used paper (see 'Waste Management'), thereby saving over 100 trees.

Co<sub>2</sub> Emission, 2009-12

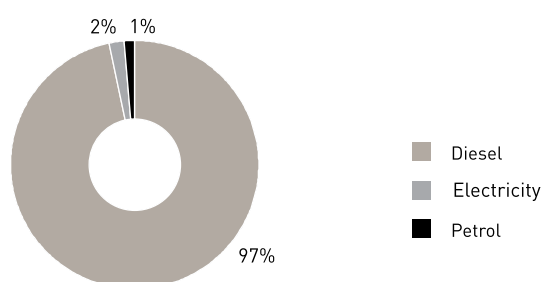


### Greenhouse Gas Emissions, 2009-12

Source	Units	2011/12		2010/11		2009/10	
		Quantity	CO <sub>2</sub> Emissions	Quantity	CO <sub>2</sub> Emissions	Quantity	CO <sub>2</sub> Emissions
Diesel	Litres	18,172,079	48,491	10,137,056	27,050	6,064,325	16,374
Petrol	Litres	255,254	593	143,336	333	133,783	308
Electricity	kWh	1,557,797	1,059	1,581,131	1,075	1,531,320	1,041
Construction Material*			54		38		39
<b>Total</b>			<b>50,197</b>		<b>28,496</b>		<b>17,762</b>
Emission Intensity (tCO <sub>2</sub> -e/LKR) x 10 <sup>-6</sup>			<b>0.29</b>		<b>0.24</b>		<b>0.19</b>

\* Materials include steel, cement, bricks, aggregate and sand only.

## Emissions, 2011/12

Waste Management  
and Recycling

Māga's health, safety and environmental management system (HSE) includes a special operational control procedure, aimed at reducing materials use, controlling and minimising wastage and reusing materials as far as possible. The procedure also applies to all our subcontractors and suppliers. Waste is categorised as follows:

- Biodegradable
- Recyclable
- Non-recyclable
- Hazardous

No cases are pending, and no fines or penalties were imposed upon the Company due to non-compliance with environmental laws and regulations.

## First-Ever Waste Audit

We carried out a comprehensive waste audit during the reporting period, obtaining useful data on the progress of our waste reduction, process efficiency and productivity performance. The survey showed that a substantial amount of our waste is reusable and recyclable.

No hazardous waste was generated during this reporting period. A company-wide paper recycling programme was conducted in collaboration with Neptune Paper Recycling Company (as reported in the adjoining case study).

Waste Management at Our  
Head Office

A number of measures along '3R' (reduce, re use, recycle) lines were taken to reduce waste at our head office. Among these were -

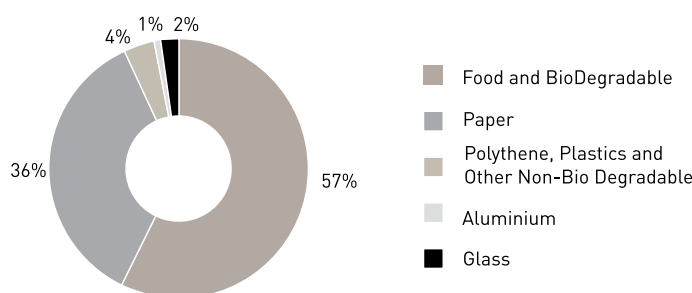
- Awareness programmes to minimise the generation of waste paper.
- Promoting the increased use of already used paper for 'draft' work
- Waste sorting at the generation point, with paper, plastic, non-biodegradable and biodegradable waste collected separately.

Reusable items from archive disposal were collected, cleaned and reused.

## Waste Generation by Type of Operation

Material (Tonne)	Building Projects	Water Supply Projects	Asphalt and Crusher Plants	Batching Plants	Administrative Operations	Road Projects	Total
Paper	0.43	0.15	0.29	0.38	4.89	3.60	9.74
Polythene	0.23	3.13	0.15	0.17	0.46	2.74	6.88
Cotton Waste	1.66	1.33	5.67	0.14	2.40	6.96	18.16
Construction Waste	3,835.03	1,235.56	6,141.62	1,186.90	–	101,157.46	113,556.57
Excavated Soil	1,335.96	3,532.74	523.25	–	–	60,779.52	66,171.47

Composition the Waste Generation at Maga Head Office



### Case Study: Paper Recycling with Neptune Recyclers

We carried out extensive recycling of paper used at our Head Office with the assistance of Neptune Recyclers.

Based on a life-cycle analysis of the paper manufacturing process, the following savings

- were effected and greenhouse gas emissions were offset.
- 6.1 tonnes of paper recycled
  - 103 tress saved 10,705 litres of oil reduced
  - 24,400 kWh of electricity saved
  - 193,857 litres of water saved

- 17.8m³ of land fill avoided
- 6,097 (Kg of CO₂ offset)

Waste Management Analysis: Head Office

Type of Waste (Kg)	Average Waste Collection per day at Head Office
Food	18.48
Paper	11.56
Plastics	1.25
Aluminium	0.30
Glass	0.70

### Efficient Use of Materials

Our commitment to green procurement and the local sourcing of materials is defined by company policy and reflected in our operating and environmental management procedures. In 2011-12, we undertook an organisation-wide materials audit for the third successive year, the data from which has enabled us to carry out a more comprehensive carbon audit.



## Materials Used 2011/12

Operations	Steel (Tonnes)	Cement (Tonnes)	Bricks ( '000 Nos.)	Aggregate (m³)	Sand (m³)	Asphalt (MT)	Bitumen (Ltr.)	Petrol (Ltr.)	Diesel (Ltr.)
Building Projects	1,854	1,455	1,629	1,677	5,902	451	5	4,291	206,675
Water Supply Projects	157	192	83	8,711	1,317	2,433	35,600	12,350	44,329
Asphalt and Crusher Plants	9	59	9	1,058,962	113	388,635	17,540,317	2,257	6,582,064
Road Projects	3,060	15,232	13	293	42,603	58,489	2,355,676	157,751	10,355,427
Batching Plants	–	36,107	–	88,858	33,532	–	–	3,983	545,442
Administrative Operations	–	–	–	–	22	–	–	74,622	438,141
<b>Total</b>	<b>5,080</b>	<b>53,045</b>	<b>1,734</b>	<b>1,158,501</b>	<b>83,489</b>	<b>450,008</b>	<b>19,931,598</b>	<b>255,254</b>	<b>18,172,078</b>

We are currently reviewing our supplier and subcontractor database to highlight suppliers who provide sustainable or green-procurement products with third-party certification, particularly timber and paper. We reused 6.0% of our input materials used in construction during the reporting period.

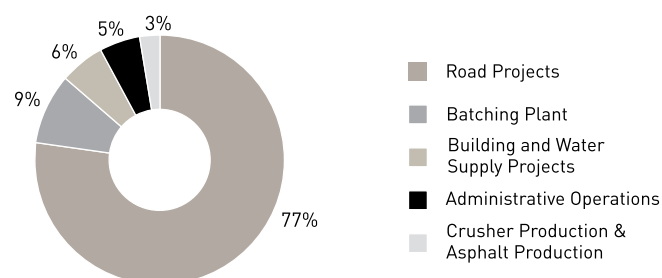
## Water-Use Efficiency

Our EMS prescribes the control and usage of water by minimising waste and optimising efficiency of utilisation. The table below summarises the volume of water used. We are currently in the process of formulating a method to accurately quantify the amount of water recycled and reused at Mäga.

## Water Consumption 2011/12

Operation	Total Consumption (m³)
Building Projects and Water Supply Projects	13,616.00
Crusher Production and Asphalt Production	5,985.34
Batching Plant	21,992.00
Administrative Operations	12,521.01
Road Projects	184,096.35
<b>Total</b>	<b>238,210.69</b>
Water use Intensity (m³/LKR) x 10 <sup>-6</sup>	1.39

## Water Consumption of Different Operations





Treated water transmission at one of our water supply projects

“Our medium-term goal is to reduce water usage intensity by 5% by 2015”

No groundwater, black or grey water, treated waste water or desalinated water was used in our operations. No water sources (groundwater or otherwise) were affected by withdrawal of water for our operations.

Target Status of Water Usage per Economic Value Generated

Our medium-term goal is to reduce water usage intensity by 5% by 2015. However, due to the increased activities the water usage has increased and we have been exploring the possibilities of reducing the usage of water.

## Case Study: Waste Management at Peak Wilderness Sanctuary



The Peak Wilderness Sanctuary consists of 224sqkm of tropical montane rainforest in the central hills of Sri Lanka. A rich reservoir of biodiversity and natural beauty, it is threatened by pollution and environmental degradation,

mainly as a result of pilgrim traffic to and from Sri Pada (Adam's Peak), which stands at the centre of the sanctuary and is held sacred by a number of religious traditions.

Māga, in collaboration with Sabaragamuwa Janatha Foundation, a local NGO, undertook the voluntary collection of polythene bags and other litter deposited by pilgrims, and distributed free cotton bags, printed with a conservation message on the outside, for collection of polythene bags and other items. Collected litter was removed from the sanctuary and disposed of in an environmentally-friendly manner.

This initiative was undertaken during the peak pilgrim season from 15 January to 10 February 2012. Signs displaying our Environmental Policy were displayed along the pilgrim footpath during the programme period.

# Sustainability Performance Against Targets

## Key Performance Indicators (Base Year: 2011)

Performance Area	Indicator	Target Year	Performance (2011-12)
Economic	1. Continually improve lean production and achieve zero waste across the organisation by optimising all production processes based on measurable quality objectives, enabling optimum value generation.	2015	Ongoing lean production initiatives Ongoing waste management and '3R' initiatives New Quality objectives implemented
	2. Increase Direct Economic Value Generated by 50%.	2015	Direct Economic Value Generated increased by 46%. <b>Note:</b> Given the above performance, we have revised our economic value target upward. Our target is now to increase Direct Economic Value Generated by 100% (base year 2011).
	3. Increase the percentage of revenue from new market segments up to 15% revenue.	2015	Percentage of revenue from new market segments accounted for 8.5% of revenue.
Social	4. Obtain SA 8000 certification for decent working standards and social accountability in the workplace.	2012	Target 45% achieved; training programmes conducted, requirements investigated, pre-feasibility study carried out, documentation completed.
	5. Increase the percentage of significant suppliers and subcontractors who have undergone screening on human rights and sustainability issues up to 70% by 2015.	2015	Screening of suppliers and contractors increased to 43%.
	6. Increase the number of training hours per employees by 30% by 2015	2015	Increased by 13%
Health Safety & Environment	7. Reduce major injury rate to <0.1 by 2015		Major injury rate increased to 0.17
	8. Reduce emissions intensity by 5% by 2015		Both rates have seen a substantial increase.
	9. Reduce water use intensity by 5% by 2015		



# Future Plans



1. Consolidate improvements achieved via our new Health, Safety and Environmental Management Systems.
2. Implement Integrated Resource Management System.
3. Undertake R&D programmes in partnership with leading universities.
4. Expand our engineering design wing to undertake large scale design build projects.
5. Carry forward our environmental conservation programmes in consultation with leading environment organisations.
6. Obtaining External Assurance for our sustainability performance.



## Strategic Initiatives Group (Pvt) Ltd

25/13, Cyril de Silva Mawatha, Pepiliyana Road, Nugegoda.  
Tel. No. 4941670 Fax: 4209074  
Company Registration No: PV 9875

The 2012 Sustainability Report of Maga Engineering (Pvt) Ltd. has undergone a third-party level check by STING Consultants, against the requirements of the GRI G3 Guidelines along with the Construction and Real Estate Sector Supplement, at B Level. The Self-Declared B level of this Report is hereby confirmed to be accurate.

The aim of this statement is to confirm to readers the extent to which the GRI G3 Guidelines have been applied in the preparation of this report. This does not represent in any way, an opinion on the value or quality of the report and its content, or of the sustainability performance of the reporting organization.

Tiara Anthonisz  
Head of Strategic Corporate Responsibility  
STING Consultants

25th March 2013

# GRI Index

	FR	PR	NR	Page
<b>1 Strategy and Analysis</b>				
1.1 CEO's Statement				6 - 8
1.2 Description of key impacts, risks and opportunities				22 - 25
<b>2 Organisational Profile</b>				
2.1 Name of the organisation				9
2.2 Primary brands, products and/or services				9
2.3 Operational structure of the organisation				27
2.4 Location of organisation's headquarters				9
2.5 Number and name of countries where the organisation operates				9
2.6 Nature of ownership and legal form				9
2.7 Markets served				9
2.8 Scale of the reporting organisation				85
2.9 Significant changes during the reporting period				9
2.10 Awards received in the reporting period				9
<b>3 Report Parameters - Report Profile</b>				
3.1 Reporting period				3
3.2 Date of most recent previous report				3
3.3 Reporting cycle				3
3.4 Contact point for questions regarding the report				3
<b>Report parameters - Report scope and boundary</b>				
3.5 Process for defining report content				4 - 5
3.6 Boundary of the report				5
3.7 Limitations on the scope or boundary of the report				5
3.8 Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations etc.				5
3.9 Data measurement techniques and the bases of calculation				5
3.10 Explanation of the effect of any re-statements of information provided in earlier reports				None
3.11 Significant changes from previous reporting periods in the scope, boundary, or measurement methods				None
<b>Report parameters - GRI content index</b>				
3.12 Table identifying the location of the Standard disclosures in the report				80 - 84
<b>Report parameters - Assurance</b>				
3.13 Policy and current practice with regard to seeking external assurance for the report				79
<b>4 Governance</b>				
4.1 Governance structure of the organisation				26 - 31
4.2 Indicate whether the Chair of the highest governance body is also an executive officer				29
4.3 Number of members of the highest governance body that are independent and/or non-executive members				29
4.4 Mechanisms for shareholders and employees to provide recommendations or direction				29 - 30
4.5 Linkage between compensation for members of the highest governance body and organisational performance				30
4.6 Processes in place for the highest governance body to ensure conflicts of interest are avoided				31

	FR	PR	NR	Page
4.7 Process for determining the qualifications and expertise of the members of the highest governance body				30
4.8 Internally developed statements of mission or values, codes of conduct, and principles				11, 18 - 21
4.9 Procedures of the top management for overseeing the organisation's identification and management of economic, environmental and social performance				31 - 33
4.10 Processes for evaluating the highest governance body's own performance				31
Commitments to external initiatives				
4.11 Explanation of whether and how the precautionary approach or principle is addressed				30
4.12 Externally-developed economic, environmental, and social charters, principles, or other initiatives				35 - 39
4.13 Memberships in associations and/or national/international advocacy organisations				15
Stakeholder engagement				
4.14 List of stakeholder groups engaged by the organisation				11
4.15 Basis for identification and selection of stakeholders				11
4.16 Approaches and frequency of engagement by type and by stakeholder group				12 - 13
4.17 Key topics and concerns that have been raised through stakeholder engagement				13 - 14
5 Management Approach and Performance Per Category				
Economic performance indicators				
Disclosure on management approach				34 - 35
EC1 Economic value generated and distributed	●			37
EC2 Financial implications and other risks and opportunities for the organisation's activities due to climate change		●		24
EC3 Coverage of the organisation's defined benefit plan obligations	●			37 - 38
EC4 Financial assistance received from Government	●			41
EC6 Practices and proportion of spending on locally-based suppliers at significant locations of operation	●			40 - 41
EC7 Procedures for local hiring and proportion of senior management hired from the local community	●			50
EC8 Development and impact of investments and services provided primarily for public benefit	●			37 - 47
EC9 Understanding and describing significant indirect economic impacts	●			43 - 47
Environmental performance indicators				
Disclosure on management approach	●			67
EN1 Materials used by weight or volume	●			75
EN2 Percentage of materials used that are recycled input materials	●			75
EN3 Direct energy consumption by primary energy source	●			69
EN4 Indirect energy consumption by primary energy source	●			69
EN5 Energy saved due to conservation and efficiency improvement			●	
CRE1 Building Energy Intensity (Not Applicable)			●	
EN6 Initiatives on energy-efficient/renewable energy products & services, and reductions in energy requirement			●	
EN7 Initiatives to reduce indirect energy consumption and reductions achieved			●	
EN8 Total water withdrawal by source	●			75
EN9 Water sources significantly affected by withdrawal of water	●			76

	FR	PR	NR	Page
EN10 Percentage and total volume of water recycled and reused			•	
CRE2 Building water intensity (Not Applicable)			•	
EN11 Location and size of land owned, leased, managed in or adjacent to, protected areas and areas of high biodiversity value outside protected areas	•			70
EN12 Description of significant impacts of activities, products, and services on biodiversity in protected areas	•			70 - 71, 77
EN13 Habitats protected or restored	•			71, 77
EN14 Strategies, current actions and future plans	•			66 - 77
EN15 Number of IUCN Red List and national conservation list species with habitats in areas affected by operations			•	
EN16 Total direct and indirect greenhouse gas emissions by weight	•			72
EN17 Other relevant indirect greenhouse gas emissions by weight	•			72
EN18 Initiatives to reduce GHG	•			72
EN19 Emissions of ozone-depleting substances by weight	•			72
EN20 NO <sub>2</sub> , SO <sub>2</sub> and other significant air emissions by type and weight	•			72
EN21 Total water discharge by quality and destination			•	
EN22 Total weight of waste by type and disposal method		•		73 - 74
EN23 Total number and volume of significant spills	•			68
EN24 Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	•			68
EN25 Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organisation's discharges of water and run off			•	
EN26 Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation		•		67
EN27 Percentage of products sold and their packaging materials that are reclaimed by category (Not Applicable)			•	
EN28 Incidents and fines or non-monetary sanctions for, non-compliance with applicable environmental regulations	•			68 - 69
EN29 Significant environmental impacts of transporting products and other goods and materials used for the organisation's operations, and transporting members of the workforce			•	
EN30 Total environmental protection expenditures and investments by type	•			69
Social performance indicators - Labour practices and decent work				
Disclosure on management approach	•			49
LA1 Breakdown of total workforce by employment type and by region		•		50
LA2 Total number and rate of employee turnover	•			51
LA4 Percentage of employees covered by collective bargaining agreements			•	
LA5 Minimum notice period(s) on significant operational changes, including whether specified in collective agreements	•			51
LA6 Percentage of total workforce represented in formal management-worker health and safety committees that help monitor and advise on occupational health and safety programmes	•			61
LA7 Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities		•		63

		FR	PR	NR	Page
CRE6	Percentage of organisation in compliance with internationally-recognised health/safety management system	●			57
LA8	Education, training, counselling, programmes in place to assist workforce members, their families, or community	●			60 - 61
	Social performance indicators - Labour practices and decent work				
LA09	Health and safety topics covered in formal agreements with trade unions			●	
LA10	Average hours of training per year per employee by employee category	●			54
LA11	Programmes for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings		●		51 - 54
LA12	Percentage of employees receiving regular performance and career development reviews	●			50
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity			●	
LA14	Ratio of basic salary of men to women by employee category			●	
LA15	Return to work and retention rates after parental leave, by gender			●	
	Social performance indicators - Human rights				
	Disclosure on management approach	●			20
HR1	Significant investment agreements that include human rights clauses or have undergone screening			●	
HR2	Percentage of significant suppliers/contractors that have undergone human rights screening/actions taken	●			40, 78
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained			●	
HR4	Total number of incidents of discrimination and actions taken		●		55
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights			●	
HR6	Operations identified as having significant risk for incidents of child labour, and measures taken to eliminate		●		20
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of all forms of forced or compulsory labour		●		20, 25
HR8	Percentage of security personnel trained in the organisation's policies or procedures concerning aspects of human rights that are relevant to operations			●	
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken			●	
HR10	Percentage and total number of operations subject to human rights reviews and/or impact assessments			●	
HR11	Operations identified as having significant risk for incidents of forced or compulsory labour, and measures taken to the elimination of forced and compulsory labour	●			20
	Social performance indicators - Society				
	Disclosure on management approach	●			19
S01	Nature, scope, and effectiveness of any programmes and practices that assesses and manage the impacts of operations on communities, including entering, operating and exiting			●	
S02	Percentage and total number of business units analysed for risks related to corruption	●			64
S03	Percentage of employees trained in organisation's anti-corruption policies and procedures	●			64



		FR	PR	NR	Page
S04	Actions taken in response to incidents of corruption		●		64
S05	Public policy positions and participation in public policy development and lobbying			●	
S06	Value of financial and in-kind contributions to political parties, politicians, and related institutions by country			●	
S07	Total number of legal actions for anti-competitive behaviour, anti-trust, monopoly practices and outcomes			●	
S08	Monetary value of fines and number of non-monetary sanctions for non-compliance with laws/regulations	●			64
S09	Operations with significant potential or actual negative and positive impacts on local communities	●			46
S10	Prevention/mitigation measures in operations with significant negative impacts on local communities			●	
CRE7	Number of persons voluntarily and involuntarily displaced and/or resettled by development (by project)			●	
Social performance indicators - Product responsibility					
	Disclosure on management approach	●			34 - 35
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.		●		60 - 61
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.		●		60 - 61
PR3	Type of product and service information required by procedures, and percentage subject to such information			●	
CRE8	Type and number of sustainability certification, rating and labelling schemes for new construction, management, occupation and redevelopment	●			39
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes	●			35
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction		●		12 - 13
PR6	Programmes for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship			●	
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes	●			35
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	●			13, 64
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	●			35

FR - Fully Reported PR - Partially Reported NR - Not Reported

## Scale of Operations: 2011/12

No. of Employees	: 7,083 (Direct) 3,014 (Indirect)
Revenue	: LKR 16,856 million
Direct Economic Value Generated	: LKR 17,178 million
Direct Economic Value Distributed	: LKR 14,993 million
Total Capitalisation	: LKR 9,031 million
Composition of Capitalisation	: Debt LKR 427 million Equity LKR 8,604 million
Quality Standards	: ISO 9001:2008, Superbrands
Health and Safety Standards	: OHSAS 18001:2007
Environmental Standards	: ISO 14001:2004, Sri Lanka Green Rating System
Quantity of Products and Services	
Construction of Buildings/Civil Structures	: 12 Nos.
Construction/Rehabilitation of Roads	: 620 km
Construction/Rehabilitation of Bridges	: 45 Nos.
Construction of Water Supply Schemes	: 03 Nos. (Population Served: 270,000)
Gross Lettable Area Under Construction	: 1,325,000 sqft
Community Development Projects	: 09 Nos.
Total Training Hours for Staff-Grade Employees	: 34,483
Training Hours Per Staff-Grade Employees	: 25.7
Injury Rate	: 1.4
Total Energy Usage	: 715,743 GJ
Total Carbon Emissions	: 50,197 tCO <sub>2</sub> -e
Total Water Usage	: 238,211 m <sup>3</sup>
Carbon Offsetting	
Paper Recycled	: 6.1 tonnes
CO <sub>2</sub> Offset	: 6,097 kgCO <sub>2</sub> -e
Trees Saved etc.	: 103 Nos.
Awards	
National Business Excellence Awards	: 02 Awards
National Construction Awards	: 04 Awards
National Green Awards	: 01 Award



**MÄGA**  
the saga of quality construction