



A member of **UEM Group**

grow

Sustainability Report **2012**

Rationale

grow

The cover of this Sustainability Report 2012 (Report) depicts a new shoot sprouting from a palm tree. This signifies UEM Environment Sdn Bhd's (UEME) quest for sustainable growth and adaptation to a changing business environment. It represents newly generated business, community and environmental growth in the areas in which we operate.

The coarse texture reflects the challenges we face. The hand signifies a caring Company with a personal touch when doing business to achieve a greener horizon.

As the Trusted Partner in Environmental Solutions, we accommodate the needs of our stakeholders and the community. The environment and our local communities are our business. Over the years, UEME has been sowing the seeds of change. The ever changing business landscape and technology has lifted the Company out of its comfort zone. Our modern-day, green technology initiatives grow in tandem with other societal and environmental aspects.



A member of **UEM Group**



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About This Report

This is the 8th Report to be produced by UEME. This Report provides a clear, comprehensive and transparent representation of the Company's performance in managing the economic, social and environmental aspects of its operations.

In producing our Report, we have collated information on our Corporate Responsibility (CR) practices during the year. This performance is compared to a consistent benchmark which has been set over the years. We have also given consideration to issues affecting our stakeholders, both direct and indirect; including employees, shareholders, the surrounding community and general public. We have endeavoured to present our data in the most accurate manner possible, using quantitative indicators where relevant.

In keeping with international best practice, we have adopted ideas from the ISO 26000 Guidance on Social Responsibility. We have also taken into consideration, feedback from stakeholders, including the Global Reporting Initiative (GRI) and the judging panels of various Corporate Social Responsibility (CSR) awards.

Scope of Report

Reporting period: 1 January to 31 December 2012

Reporting Cycle: Annually

Coverage: UEME and its subsidiaries Kualiti Alam Sdn Bhd (KASB), Kualiti Khidmat Alam Sdn Bhd (KKA), Kualiti Kitar Alam Sdn Bhd (KKI), Special Builders Sdn Bhd (SBSB) and Abu Dhabi Kualiti Alam Environmental Services Limited Liability Company (ADKA). E-Idaman Sdn Bhd (EISB) is a Joint Venture Company (JVC) with the concession business run by its subsidiary, Environment Idaman Sdn Bhd (ENVI). Subsidiaries refer to all companies in which UEME holds a majority stake or has direct managerial control. A JVC refers to a contractual agreement between UEME and a third party company for the purpose of executing a particular business undertaking. References to 'UEME', 'the Company', 'the Organisation' and 'we' refer to UEM Environment Sdn Bhd and/or its affiliates and subsidiaries.

Reference and Guidelines

Principal Guidelines

- GRI-G3.1 Sustainability Reporting Framework

Additional Guidelines

- Bursa Malaysia's CSR Framework
- Silver Book: The Putrajaya Committee Government-Linked Companies (GLC) Transformation Manual
- ACCA Malaysia Sustainable Reporting Guidelines for Malaysian Companies
- ISO 26000:2010 Guidance on Social Responsibility

Reliability of Information Disclosed

The content of this Report has been verified and independently reviewed by Bureau Veritas Certification (M) Sdn Bhd and the assurance statement can be found on page 103. It has also been assessed by the GRI for how comprehensively we have applied the latest GRI-G3.1 guidelines to achieve a top application level of A+. The GRI results statement can be found on page 106.

UEME's approach to sustainability is widely endorsed by its stakeholders. This is reflected in the many awards and certifications it has received from respected, independent organisations in the assessment of UEME's performance as disclosed in the Report.

Feedback

This Report is available to all stakeholders in hard copy (upon request) and can be downloaded from our corporate website at www.kualititalam.com. We also welcome your comments. For further enquiries, please contact:

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About UEME

Our Vision

**The Trusted Partner
in Environmental
Solutions**

Our Mission

**To Provide Innovative
Services and Value-Added
Solutions for Sustainability
of the Environment**

Core Values

- Professional Ethics
- Teamwork and Togetherness
- Technical and Business Acumen
- Continuous Quality Assurance
- Safety, Health and Environmentally Friendly



Organisation Structure



100%



100%



Providing Integrated Waste Management Products and Services

100%	100%	100%	50%	49%	100%
KUALITI ALAM	KUALITI KHIDMAT ALAM	KUALITI KITAR ALAM	E-IDAMAN	ADKA	SPECIAL BUILDERS
Downstream Hazardous Waste Management involving the Treatment and Final Disposal of Hazardous Waste	Upstream Hazardous Waste Management involving the Marketing, Transportation and Packaging of Hazardous Waste	Midstream Hazardous Waste Management involving the Recycling and Recovering of Hazardous Waste	Integrated Solid Waste Management involving the Collection, Cleansing, Treatment, Recovery and Final Disposal of Solid Waste	Integrated Waste Management Products, Services and Systems in the Middle East particularly in Abu Dhabi	Deregistration of End of Life Vehicles under Systematic and Environmentally Friendly Operations

At UEME, we provide a complete value chain service for the most efficient and cost effective scheduled waste disposal. The proper handling, identification, recycling and disposal of scheduled waste are some of the most complex issues facing the industry today. Our licensed scheduled waste treatment facilities are well equipped to handle all types of hazardous and liquid industrial wastes. Through the development of reuse and recycling programmes by our subsidiary, we are able to offer customers environmentally responsible solutions at competitive rates. We also focus on delivering up-to-date know-how on environmental regulations. This helps clients to comply with the ever changing waste legislation.

Our areas of expertise include:

- Hazardous Waste Management
- Waste Recycling and Recovery
- Integrated Logistic Services
- Environmental Management Services (EMS)
- Research and Development in Combustion
- Industrial Cleaning Services (ICS)
- Municipal Solid Waste (MSW) Management
- Clinical Waste (CW) Management

Managing Director's Statement

A man with short dark hair and glasses, wearing a white button-down shirt and dark trousers, stands in an office environment. He is smiling and has his hands on his hips. In the background, other office workers are visible, some wearing hijabs. The office has a modern, open-plan layout with desks and chairs.

≡

The word 'Sustainability' makes me think of a few other words: 'sustain', 'long-term', 'diverse' and 'fair'.

≡

I am very pleased to present to you our 8th Report in succession. As I reflect on the past year and the challenges and opportunities in our businesses, it reinforces the true value of sustainability.

At UEME, sustainability is not merely a public relations exercise. It is the backbone of our business as we have an obligation to our stakeholders and the environment. These relationships are instrumental to our business. This belief is cascaded down throughout the entire organisation as we embrace our internal and external stakeholders in our day-to-day operations. We reiterate our commitment and determination to make a difference to humanity through our concerted sustainable development efforts.

The improvement in our operations and continuous provision of high quality services contribute to the sustainability of our business as a whole. I am pleased with these accomplishments but acknowledge that determination is a key element for the sustainable growth of the Company.

Community

The people within our business environment are fundamental to our success and value. The famous quote, 'Everything Starts at Home', is aptly reflected in our community initiatives.

Our social contribution benefits mainly those surrounding our operations areas. This is evident in our Promoting Intelligence, Nurturing Talent and Advocating Responsibility (PINTAR) programmes; activities with the local communities; ENVI's *gotong-royong*; and our Reduce, Reuse, Recycle (3R) programmes. We continue to listen and provide the necessary feedback to their concerns, within set boundaries.

We also continue to educate our community via various programmes involving our customers and Waste Management Centre (WMC) visitors about the management of scheduled waste. This is in compliance with Environmental Quality (Scheduled Waste) Regulations 2005 (EQ(SW)R 2005), under regulation 15: Conduct of training.

Our engagement with the Government, regulatory bodies and local authorities goes beyond compliance to ensure all planned activities are understood by stakeholders. A proactive approach has helped us address the concerns of various stakeholders. The results of our programmes have been encouraging so far.

Over the years, we have conducted a wide range of activities as good corporate citizens. The Company has helped combat illegal dumping which has become a nuisance in our communities. Bitumen and oil spills have also been cleaned up along North-South Expressway (NSE).



Workplace

Safety remains our number one priority for our employees, customers and community. Minimising workplace related accidents is our aim as we conduct risk assessments of all our workplaces. KASB's Safety, Health, Environmental Management System (SHEMS) complies with the requirements of International Organisation for Standardisation (ISO) 14001:2004, Occupational Health Safety and Health Advisory Services (OHSAS) 18001:2007 and Management System (MS) 1722: Part 1:2005. We are investing heavily in establishing an Integrated Management System (IMS) to streamline all environmental, quality and safety standards, relevant legislation and governance protocols.



In 2012, KASB was recertified for the 3rd time by **SIRIM QAS International Sdn Bhd** for its **ISO 9001, ISO 14001, OHSAS 18001** and a new revision of **MS 1722 Version 2011**.

This achievement reflects the Company's best practices in its Safety, Health and Environment (SHE) and Quality Management System. Our safety management processes are continuously developed and implemented to minimise risks associated with all activities. This forms part of our Safety Policy to employees, contractors and visitors.

Determined to be an Employer of Choice, we are pleased to continue our provision of local employment opportunities in the areas in which we operate. We develop the best employees with skills for the future. Employees are given career growth opportunities and their talents are nurtured by improving skills and relevant knowledge. As part of UEME's commitment to enhancing the technical competencies of our workforce, mandatory in-house scheduled waste management training programmes are conducted periodically for all employees involved in operations.

Marketplace

In a rapidly changing marketplace in which expectations are increasing on a daily basis, working closely with customers and business partners has helped UEME understand their needs. Recognising the need to address issues faced by our stakeholders, an online customer satisfaction survey (eSurvey) is being developed and will be in full operation by the beginning of 2013.

We have also introduced a Contractor Management Programme for our internal and external contractors. This programme is in compliance with Occupational Safety and Health Administration (OSHA) 1994, OHSAS 18001 and MS 1722 and aims to achieve a zero Lost Time Injury (LTI) record. The programme sees our suppliers and contractors being trained on safety and risks while performing their jobs.

Environment

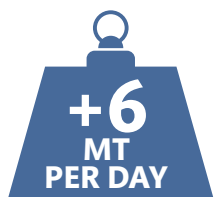
Environmental management is part of our business commitment and we pledge to minimise UEME's environmental impact and footprint. We monitor the environmental impact resulting from each stage of our operations whilst simultaneously conserving and managing resources including materials, water and energy.

This commitment also extends to monitoring and preserving the biodiversity of flora and fauna surrounding our plant. Regular monitoring of emissions at our facilities ensures a sustainable biodiversity and ecosystem.

Passionate Growth

In 2011, we began to unfold our business horizons. It is challenging to retain momentum while continuously improving our performances. Our future priorities include satisfying our customers by increasing shareholder value and return on equity. This is an indicator of success and a driver for our business.

In May 2012, the acetylene cylinders plant received a Certificate of Fitness for the Steam Generator (boiler) from the Department of Occupational, Safety and Health (DOSH). At UEME, we believe in delivering sustainability from within and continue to explore ways of using our expertise to reduce the environmental footprint. Negotiations have been held with a technology partner to convert food waste, organic waste and sewage into biogas fuel, which can be used to generate energy. The combustion of methane produces carbon dioxide (CO₂) which is a less potent Greenhouse Gas (GHG).



Our CW operations expanded significantly in 2012.

The overall total waste incinerated has increased from 19 to 25 Metric Tonnes (MT) per day.

Strengthening our position beyond Malaysian shores, our future operations look promising in the Middle East.

We recently tendered for the operation and maintenance of Mesaieed Industrial City's Integrated WMC. Business relations are also ongoing with Oman Hazardous Waste Management, Makkah Municipality and Qatar's Public Work Authority (PWA). An integrated WMC, Sewage Treatment Plant (STP), transfer station and slaughterhouse waste solution are being proposed. The management of industrial liquid waste in Qatar is also being suggested.

I am also happy to share our initiative following the newly introduced Feed-In-Tariff (FiT) concept by the Sustainable Energy Development Authority (SEDA) on renewable energy production.

2012 was a fruitful year for our JVC, ENVI. Its newly invented Multi-Purpose Arm Roll (MPAR) trucks were introduced in operation for the collection of residential and commercial MSW in Alor Setar and Kangar. Each vehicle is equipped with a side loader robotic arm and Closed-circuit Television (CCTV) to ensure that work is done properly and safely. This initiative has allowed ENVI to expand geographically.



ENVI's Integrated Green Composting Facility (IGCF), located in Kubang Rotan, has commenced operations and has successfully reduced transportation costs to the landfill.

This facility has reduced the environmental impact by increasing



Further improvements will be made at this facility to achieve our target. This is in line with the Government's mission to reach a 22% recycling rate in Alor Setar by 2020.

Moving Forward

As the Trusted Partner in Environmental Solutions, the standards that we have set are high. Even so, we cannot afford to be too complacent as the days ahead promise new challenges.

Our goals in coming years include sustaining the 'relevance' of our current business and ultimately entering into the high growth area of renewable energy.



We will continue to emphasise our focus on waste management, wastewater management and renewable energy. Moving forward, a solar farm is planned on the closed landfill site as part of UEME's renewable energy projects.



Acknowledgement

I believe we are on track to becoming a sustainably growing Company. This would not be possible without the hard work and dedication of our employees and support from the Management. On behalf of the Board of Directors (the Board), I would like to express my deepest appreciation to the Management and employees for their dedication, commitment and contributions. I would also like to extend a sincere thank you to all other stakeholders for your continuous support. As UEME faces new challenges in every changing business environment, we will continue to 'grow' our sustainability practices.

Knowing you need to make a change isn't good enough. You've got to find the guts to do it.

Robert Kiyosaki

Azmanuddin Haq Ahmad
Managing Director

Stakeholder Engagement

Stakeholder engagement is a key component of our sustainable development. We obtain stakeholders' input when formulating our business plan. We acknowledge a direct correlation between sustainability and innovation. In 2012, we continued engaging with our internal and external stakeholders to understand their concerns and interests. This has helped us address their expectations which are beneficial in shaping our business.

Department of Environment (DOE)

Method(s) of Engagement

- Meetings
- Progress updates
- Compliance reports

Frequency

- Regularly

Areas of Interest

- Compliance with relevant rules and regulations
- Assistance to the Government in resolving environmental issues

Government

Method(s) of Engagement

- Seminars and forums
- Monthly meetings
- Collaborations

Frequency

- Regularly
- Ad hoc
- Quarterly

Areas of Interest

- Compliance with relevant rules and regulations
- Assistance to the Government in resolving environmental issues

Suppliers and Contractors

Method(s) of Engagement

- Meetings with the SHE and Purchasing Departments
- Contractors Management Programme

Frequency

- Quarterly

Areas of Interest

- Fair procurement practices
- Informative tendering process
- Updates on UEME's business standing
- Vehicle training for ENVI contractors

Customers

Method(s) of Engagement

- Customer Satisfaction Survey
- Customer Hotline

Frequency

- Annually
- ENVI Active Hotline 8am-8pm/7 days a week

Areas of Interest

- Fair pricing
- Quality of service
- Credibility of UEME
- Level of assurance when dealing with UEME

Visitors to WMC

Method(s) of Engagement

- Safety Briefing

Frequency

- Each visit

Areas of Interest

- UEME's nature of business
- Responsible operations by UEME



UEM 
ENVIRO

Perbadanan Pengurusan Sisa Pepejal dan Pembersihan Awam (PPSPPA)

Method(s) of Engagement

- Regular meetings
- Events and collaboration

Frequency

- Monthly
- Ad hoc

Areas of Interest

- The Company's active support in greening the Environment
- Effectiveness and efficiency of ENVI in serving the public

Business Associations and Government Agencies

Method(s) of Engagement

- Committee and members meetings

Frequency

- Regularly

Areas of Interest

- Responsible operations by UEME
- UEME's current business standing

UEM Group Berhad (Group)

Method(s) of Engagement

- Joint activities and engagement

Frequency

- Regularly

Areas of Interest

- Alignment of UEME's activities with the Group's strategy
- Active involvement in the Group's CR activities

Employees

Method(s) of Engagement

- Safety Briefing
- Employee Engagement activities
- *Kelab Sukan dan Kebajikan Kualiti Alam (KESUKA)*

Frequency

- Regularly

Areas of Interest

- Employees benefits and rights
- Career development opportunities
- Work-life balance

Local Community

Method(s) of Engagement

- Dialogue Sessions
- Local community visits by KASB officers
- Kualiti Alam InTouch
- *Buletin* Kualiti Alam
- Activities with local communities

Frequency

- Regularly
- Quarterly

Areas of Interest

- Impact of UEME's operations on the local surroundings
- Responsible operations by UEME
- Activities and events which are open to the local community
- ENVI's reach out in its community programmes

The Public

Method(s) of Engagement

- Awareness sessions

Frequency

- Upon request

Areas of Interest

- UEME's nature of business
- Responsible operations by UEME

Materiality Mapping

Key issues and our stakeholders' areas of interest are identified. A materiality matrix is employed to map these issues against the level of impact on our business. The results of this mapping exercise are summarised below.



High Materiality / Critical

UEME Conducting Responsible Business Operations

Stakeholder Interest

"Our stakeholders insist that UEME operates in a responsible manner"

UEME's Response

UEME's stakeholders are assured that sustainability is embedded in each stage of its life-cycle process. This includes safe operations, responsible packaging, labelling, proper storage, responsible transporting and fair pricing.

Compliance with Local and International Standards

Stakeholder Interest

"Stakeholders expect UEME's deliverables to comply with local and international standards"

UEME's Response

UEME is proud of its achievements and stakeholders are continually updated on certifications and awards received from various recognised bodies. These include ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, MS 1722:Part 1:2005 and ISO/IEC 17025. In 2012, we received the Prime Minister's Hibiscus Award (PMHA), Royal Society for the Prevention of Accidents (ROSPA) Gold Award and Malaysian Society for Occupational Safety and Health (MSOSH) Award.

Impact from Operations

Stakeholder Interest

"Being the Trusted Partner in Environmental Solutions, it is expected that UEME's operations do not adversely affect the environment"

UEME's Response

The impact from operations is regularly monitored and reported including waste generated, water usage, energy consumed and emissions released from activities.

NOTE:

Areas identified as 'High Materiality' consist of those of high importance to stakeholders and impose a high level of impact on business operations. These issues are reported extensively in this Report.

Medium Materiality / Substantial

Stakeholders' Rights

Stakeholder Interest

"Each of our stakeholders expects UEME to always uphold their rights"

UEME's Response

UEME believes that stakeholder engagement is an effective platform to understand the needs of each stakeholder group. We review the contributions extended to each stakeholder group regularly. These include employees' benefits; engagement activities in the workplace; suppliers and contractors training; on-time delivery of compliance reports to the DOE and active participation in the Group's CR plan.

Corporate Citizenship

Stakeholder Interest

"Stakeholders expect UEME to contribute to society and the nation as well as focusing on financial performance"

UEME's Response

CR has always been part of UEME. Our CR activities go beyond philanthropy. UEME actively strives to embed sustainability measures and methods in all its activities. We continue to protect the welfare of the community surrounding our WMC.

NOTE:

Issues which are identified as 'Medium Materiality' consist of those important to our stakeholders and relevant to the nature of our business.

Low Materiality / Important

Anti-Competition and Monopolistic Behaviour

Stakeholder Interest

"Anti-competition and monopoly is not significant in UEME's industry"

UEME's Response

UEME practices fair competition in the market. Certain areas have already been allocated by the Government. We will continue to innovate ourselves as we unfold our business lines for better shareholders' return.

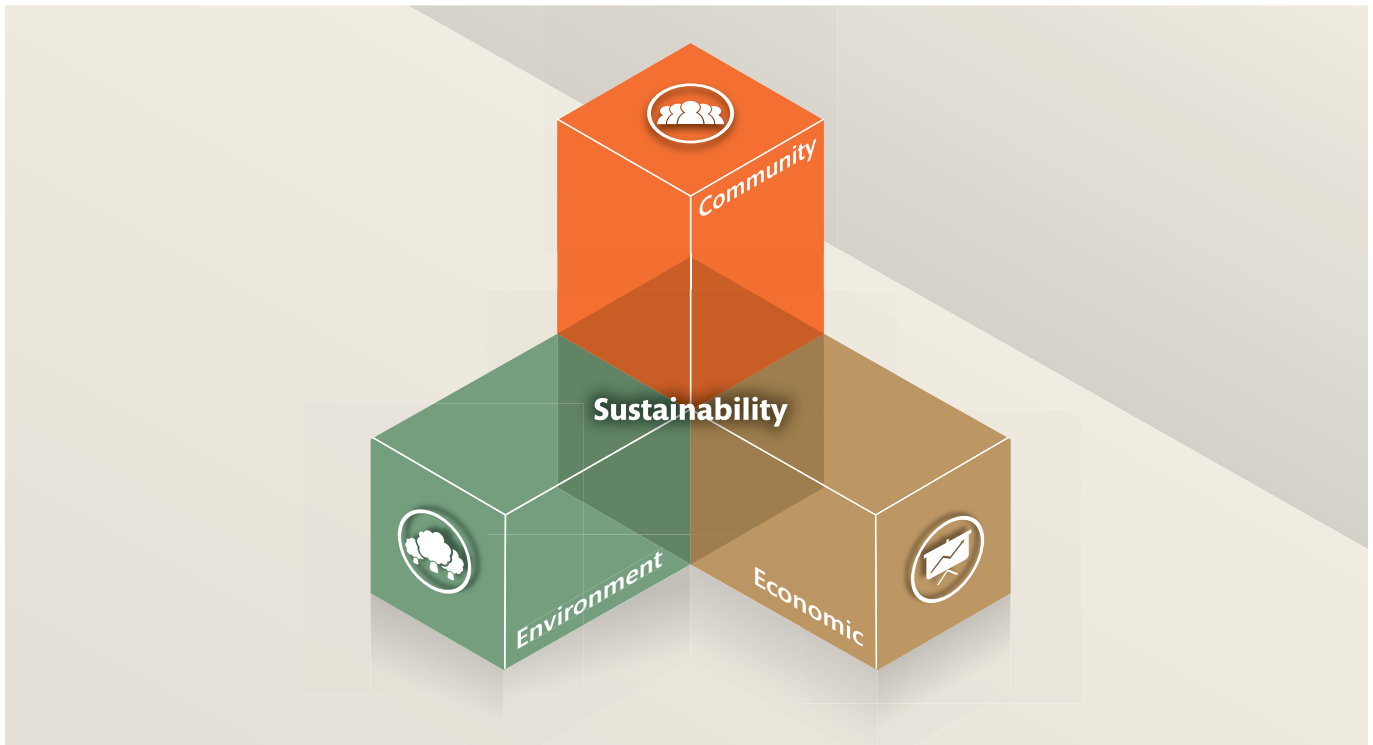
NOTE:

'Low Materiality' issues are neither applicable nor directly relevant to our nature of business. The disclosure of these issues is minimal.

Sustainability Focus

In fostering a sustainable future, our business strategy includes the concept of the triple-bottom-line: Community, Economic and Environment. We develop a positive relationship with the community; pioneer green production technologies to minimise the environmental impact; and work towards a sustainable financial and non-financial future.

We deliver real and measurable value to our stakeholders by concentrating on the following 3 key areas:



Triple-bottom-line Areas	Key Focus	How the Area Creates Value for the Business
Community 	- Managing the needs of employees, the surrounding communities and our impact on them - Fostering clear communication and strong relationships	By sustaining long-term relationships with employees and the community in which we operate, the Company continues to benefit from internal and external stakeholder support. This is crucial for the continuity of the business.
Economic 	Continuous business growth for the benefit of our stakeholders	Innovation is crucial to our business. We continue to enter new markets and areas of expertise. This will bring a higher shareholder return, good branding and better investment opportunities for the Company.
Environment 	- Reducing environmental impact through waste management, energy efficiency, life-cycle analysis, managing recyclable material and process development - Adopting clean technology principles - The use of sustainable technologies	As the Trusted Partner in Environmental Solutions, it is our pride and responsibility to ensure that our operations have a minimal impact on the environment. Green technologies are more cost effective for the Company in the long term and impose minimum negative environmental externalities.

Sustainability Milestones

UEME has a solid commitment to each area of sustainability. It is important that progress is continually tracked and future plans mapped. This helps deliver set goals effectively in the near future.



Sustainability Cost at a Glance

At UEME, we incorporate sustainability into the Company's business planning. We allocate a budget to each area of sustainability and monitor our expenses. Sustainability costs for the past 3 years are presented in the table below. Cost reductions at the Plant and Operations and Engineering Departments were mainly due to less waste received in 2012 than 2011. This has directly resulted in lower maintenance expenses. Various cost saving initiatives also contributed to reduced sustainability costs in 2012.

Department	Activity/Scope	Expenditure (RM '000)		
		2010	2011	2012
Plant and Operations	• Raw Materials • Fuel	19,761	9,431	6,893
Engineering	• Plant Repairs and Maintenance • Plant Upgrading • Landscaping • Motor Vehicle Maintenance	8,258	8,975	6,060
EMS	• Lab Facilities Maintenance and Management • Pollution Prevention • Research and Development • Consultancy	1,425	1,017	1,334
Corporate Communications	• Social Contribution • Information Disclosure • Outreach and Awareness Programmes	607	312*	391**
HRAS	• Employee Welfare • Employee Uniform • Personnel Development • Employee Amenities	1,709	1,808*	1,989**
Total		31,760	21,543	16,667

Note:

* As per Audited Financial Account for the year ended 31 December 2011

** As per Audited Financial Account for the year ended 31 December 2012



Corporate Governance

As a subsidiary of the Group, we adhere to its corporate governance practices which outline ethical conduct and business behaviour. We believe that good corporate governance is fundamental to achieving the Group's objectives. We continue to play an active role to ensure that the best interests of shareholders and other stakeholders are effectively served.

Board of Directors

UEME's Board is committed to ensuring that the highest standards of corporate governance are practiced throughout UEME and its subsidiaries. An effective corporate governance structure lies at the core of the Company's pursuit to realise its vision of becoming The Trusted Partner in Environmental Solutions.

This is achieved by balancing financial performance and long-term sustainability. Throughout the years, the Board has made a concerted effort to ensure that our corporate governance practices remain robust and relevant. Applicable regulatory requirements are abided by. Appropriate risk management and internal controls have been implemented.

There were changes to the Board composition on 1 March 2012. Dato' Seri Ismail Shahudin was appointed Director and Chairman of UEME and KASB to replace Tan Sri Nuraizah Abdul Hamid who resigned on 20 February 2012. Shahazwan Mohd Harris and Azmir Merican Azmi Merican were also appointed as Directors to the Board on 2 July and 3 December 2012 respectively.

As at 1 March 2013, the Board has a composition of 7 members comprising 2 non-independent non-executive directors and 5 non-independent executive directors. The Board is balanced in its decision-making powers. It possesses a diverse range of experiences, skills, attributes and responsibilities for the benefit of the stakeholders where the corporate values can be enhanced.

Dato' Seri Ismail Shahudin, 61

Chairman (Appointed on 1 March 2012)

Status: **Non-Independent Non-Executive Director**
2012 Meeting Attendance: **4/4 meetings after his appointment date**

Harman Faiz Habib Muhamad, 39

Director

Status: **Non-Independent Executive Director**
2012 Meeting Attendance: **5/6**

Azmanuddin Haq Ahmad, 43

Managing Director

Status: **Non-Independent Executive Director**
2012 Meeting Attendance: **6/6**

Shahazwan Mohd Harris, 39

Director (Appointed on 2 July 2012)

Status: **Non-Independent Non-Executive Director**
2012 Meeting Attendance: **3/3 meetings after his appointment date**

Suhaimi Halim, 56

Director

Status: **Non-Independent Executive Director**
2012 Meeting Attendance: **6/6**

Azmir Merican Azmi Merican, 41

Director (Appointed on 3 December 2012)

Status: **Non-Independent Executive Director**
2012 Meeting Attendance: **Not Applicable**

Annuar Marzuki Abdul Aziz, 42

Director

Status: **Non-Independent Executive Director**
2012 Meeting Attendance: **6/6**

Board meetings are scheduled at least once every quarter. Special Board meetings are also held to discuss urgent issues as and when necessary.

In 2012, the Board held

6 MEETINGS

with an average attendance of

96.77%

Board of Directors

**Annuar Marzuki
Abdul Aziz**
Director

Suhaimi Halim
Director

**Dato' Seri Ismail
Shahudin**
Chairman



Note: To learn more about our Board of Directors, visit www.kualititalam.com

Shahazwan
Mohd Harris
Director

Harman Faiz
Habib Muhamad
Director

Azmanuddin Haq Ahmad
Managing Director

Azmir Merican
Azmi Merican
Director



Management Team

Our Management Team consists of a visionary team of talented and experienced leaders possessing a unique combination of knowledge, skills and expertise. Team members fully utilise their specialised skills to ensure the success of the Company.



* UEME Management Team

- | | | |
|---|---|--|
| <p>A Siti Nadzriah Abd Hamid
Deputy General Manager
<i>Environmental Management Services</i></p> | <p>C Azmanuddin Haq Ahmad
Managing Director (MD)</p> | <p>E Jefri Mohd Din
Manager
<i>Plant and Operations (Recycling)</i></p> |
| <p>B Rosman Shaari
Senior Manager
<i>KAMI, Engineering and Project</i></p> | <p>D Mohd Norsuradi Man
General Manager /
Head of Operations
<i>Operations</i></p> | <p>F Abd Halim Nor
Senior Manager
<i>Plant and Operations (Hazardous Waste)</i></p> |



** EISB Management Team

- | | | |
|---|--|---|
| <p>A Mhd Saiful Anuar Zainal
Chief Executive Officer</p> | <p>D Bun Yin a/I Ai An
Manager
<i>Quality Improvement and
Technical Audit</i></p> | <p>G Azrai Mohd Zain
Assistant Manager
<i>Human Resources and
Administration</i></p> |
| <p>B Mohd Raffizal Mohd Yusof
Assistant Manager
<i>Corporate Communication</i></p> | <p>E Azmi Amin Sarji
Senior Manager
<i>Operations</i></p> | <p>H Kamarulzaman Yahya
Assistant Manager
<i>Operations and Planning</i></p> |
| <p>C Watin Salwani Abd Wahid
Assistant Manager
<i>Strategic Planning and
Risk Management</i></p> | <p>F Zamzuri Awang
Manager
<i>Contract and Procurement</i></p> | <p>I Norhalim Sulaiman
Manager
<i>Management Information System</i></p> |



*** UEME Management Team**

A Sathish Kurup
Deputy General Manager
Sales and Marketing

B Nick Chong
General Manager
Environmental Support
Services and Logistics



*** UEME Management Team**

A Bakhtiar Bahak Udin
Senior Manager
HR, Administration
and Security

B Wong Mee Kim
General Manager
Finance

C Mohd Zaidi Zakaria
Senior Manager
Management Information
System

D Zaki Abdul Aziz
Senior General Manager
Business Development/Project
and Technical Development

E Khalil Shamsuri
Deputy Senior Manager
Purchasing

F Nurulhuda Faisol
Manager
Legal

Note:

* UEME Management Team as at March 2013, to learn more visit www.kualitalam.com

** EISB Management Team as at March 2013, to learn more visit www.e-idaman.com

Risk Management

The risk management process is a logical and systematic method of identifying, analysing, assessing, treating, monitoring and communicating risks associated with any activity, function or process. This minimises losses and maximises opportunities within an organisation.

Our risk management policy introduces adequate and effective risk management processes. These mechanisms help manage risks to achieve business objectives more effectively. Reasonable assurance on the position of the Company's internal controls is provided to the Board and other stakeholders to increase shareholders' value and confidence.

UEME has adopted the Group Risk Management Framework. These guidelines provide a structured framework approach to risk management for an adequate and standardised level of risk reporting.

The risk management process works on the basis of developing a corporate wide Consolidated Risk Profile for UEME. This can then be filtered down to the respective subsidiaries, departments or projects. Significant and high risks for subsidiaries and associates are consolidated on a risk register where applicable.

Risk Management Framework



STEP 01

Determine Policy, Objectives and Define Risk

- Corporate risk management policy
- Key objectives for risk management
- Define risk
- Acceptable risk appetite

STEP 02

Risk Identification

- Identify internal and external sources of risk
- Recognise risk areas
- Types of risks

STEP 03

Risk Assessment

- Likelihood
- Impact
- Overall risk rating matrix

STEP 04

Risk Evaluation and Prioritisation

- Identify acceptable or unacceptable risks
- Prioritise risks for treatment

STEP 05

Risk Management or Treatment

- Accept
- Avoid
- Transfer
- Reduce likelihood and/or impact

STEP 06

Monitor and Review Risks

- Frequent reviews
- Environment and organisation
- Strategy

Our Risk Management Committee comprises 5 members and is assisted by a Secretariat. The Committee is chaired by the MD and the structure remains unchanged. 3 Risk Management meetings were held in 2012 on 5 April, 5 July and 18 October. During these meetings, the company-wide risk profile was reviewed and updated.

UEME's Risk Assessment Report is submitted to the Group Risk Management Department quarterly. This report discloses a list of high and significant risks together with:

- Impact of risk occurrence on costs, schedules and margins.
- Risk mitigation strategies including required changes and revisions.
- High-level milestones completed during current reporting period.
- Key milestones planned for next reporting period. Sequential list of milestones to be achieved in the next reporting period.
- Issues and Recommendations.

As at 31 December 2012, UEME has identified 67 risks, of which 4 were rated as high and 8 significant. This represents 17.90% of the total risks which is 1.53% fewer than in 2011.

Conflict of Interest

It is a breach of the Company's policy for any employee to engage in any other business or occupation whether as a principal, agent, servant or broker. Employees are also prevented from engaging in any activity that can be detrimental to the interests of the Company.

Employees may acquire or hold shares in any quoted public listed company. They must seek prior Management approval if they intend to acquire a substantial stake, as defined in the Companies Act, 1965, and/or hold a directorship in that company. Employees are always prevented from participating in or influencing the purchase of goods and services from any company or person to obtain an interest or benefit.

Whistle-blowing is an early warning system to avert possible risks to the organisation. Our whistle-blowing policy encourages open communication, integrity and transparency so that preventive or corrective action can be taken. It provides a mechanism for employees to report instances of unethical behaviour, actual or suspected fraud, dishonesty or violation of the Company's Code of Conduct or Ethics Policy.

The UEME Employee Sustainability Survey 2012 (Sustainability Survey) was conducted to gauge our employees' perception of various sustainability aspects in the workplace.



ERRATA (Sustainability Report 2011 Page 73)

In 2007, KASB entered Qatar through a tender invitation for the Operation and Maintenance of an Integrated Waste Management Centre in Mesaieed Industry City. Subsequently, we have held a series of negotiation sessions with the Ministry of Environment on a feasibility study for solid waste management and an Electric Integrated Waste Information System (EIWIS) for waste tracking.

In 2009, we undertook a detailed feasibility study for a sustainable and effective wastewater management in Doha Industrial Area, Qatar under the PWA. The study, which was completed in 2010, concluded that development of the proposed integrated wastewater management facility was urgently required in Doha to help manage its industrial liquid waste more effectively and sustainably. We are now providing consultancy services to this authority for the identification of waste producers in the whole of Qatar.

Performance Review

We continue to monitor our progress against set targets. This helps in the formulation of a future action plan. The scorecard below summarises the progress made in meeting Key Performance Indicators (KPI) in 2012. These performance indicators help set short, medium and long-term targets.

Strategic Objective	KPI Objective	Percentage (%)		2012 Achievements	Status	2013 Moving Forward
		Weightage	Actual Score			
Grow Business	Revenue	30	0	Achieved a lower revenue of RM151.10 million compared to a target of RM238.20 million.	✗	Increase revenue to at least RM211 million
Improve Profitability	Earnings Before Interest, Taxes, Depreciation and Amortisation (EBITDA)	20	6	Achieved a lower EBITDA of RM49.91 million compared to a target of RM65.80 million.	✗	KPI changed from EBITDA to PATAMI to achieve RM33 million
Shareholders Return	Return on Invested Capital (ROIC)	10	4	ROIC as at 31 December 2012 was 7.70%. KPI of 12% was not met.	✗	Increase ROIC to at least 15%
Business Sustainability	Secured Awards/ New Business (Contract Amount)	20	9	Secured 19 projects worth RM22.70 million compared to a target of RM26 million.	» (some of 2012 initiatives will realise in 2013)	Secure new business worth RM72 million
Operational Excellence	Cost Savings / Operational Excellence Initiatives	10	10	Achieved 9% in total of value creation/cost savings under Operational Cost Reduction and Improvement Programme, surpassing initial target of 6%.	○	KPI measurement changed from % to RM to achieve RM2 million
Operational Excellence	EBITDA / Employee Cost	10	7	Achieved 2.10% EBITDA/ employee cost as at 31 December 2012.	●	KPI changed to Improvement over Individual Development Plan with target of 50%

○ KPI Exceeded ● KPI Met » KPI in Progress ✗ KPI Not Met

We only scored 36% in the scorecard above. 3 KPI areas were above the threshold but below base and we managed to meet or exceed the KPI in 2 areas. These consist of value creation or cost savings and increasing operational excellence. The overall performance was influenced by:

- Lower revenue of RM151.10 million compared to targeted revenue of RM238.20 million, mainly due to less waste treated, lower revenue from all segments and non-materialisation of overseas projects.
- Lower EBITDA which was in line with the lower revenue from all segments. Low waste treated while fixed costs remained static also contributed to the low EBITDA reported.

We aim to improve the financial performance and our rating in 2013.

Financial Performance

Sustainable management need not come at the expense of financial performance. Our ultimate aim is to achieve sustainable services which will generate a good profit stream for years to come.

UEME Group revenue recorded a 2.60% reduction from RM155.10 million in 2011 to RM151.10 million in 2012. There was a significant reduction in the total waste treated caused by intense competition in the market. Notwithstanding the challenges in the prevailing tough operating environment, proactive steps were taken to mitigate the adverse effects. Cost management initiatives had been implemented to ensure better financial performance for 2012.

Despite the challenging times faced by UEME, we still prove to be a caring employer. We gave our employees bonuses coupled with an average salary increment of 5% in-line with the market. We present our financial performance for the past 3 years in the table below. We are also exploring potential business opportunities to ensure sustainable financial growth for the benefit of all our stakeholders.

Value Added	RM '000		
	2010	2011	2012
Revenue	234,836	155,079	151,093
Purchase of goods and services	(87,025)	(65,067)	(63,647)
Specific (provision) / reversal for doubtful debts	(1,427)	20	(72)
Other income	2,742	3,929	4,583
Admin and sales and marketing	(13,784)	(18,272)	(16,069)
Share of profit / (loss) of joint venture	755	(2,685)	746
Value distributed:			
To employees			
Salaries and other employee costs	23,380	28,123	23,919
To Government			
Income tax (including deferred tax)	15,537	11,245	9,006
To Communities and others			
Corporate donations and sponsorships	130	115	91
To providers of capital			
Ordinary dividend to shareholders of the Company	-	8,250	-
Dividend to preference shareholders of the Company	-	-	2,215
Finance costs	3,710	3,743	1,482
Retained for future reinvestment & growth			
Depreciation and amortisation	52,009	41,899	33,586
Retained profits / (Accumulated losses)	41,348	(20,371)	6,333
Minority interests	(18)	-	-

Divestment of SBSB

In 2012, SBSB remained inoperative as the Government has yet to implement the End-of-Life Vehicle (ELV) through the National Automotive Policy. Although SBSB's agreement with PROTON is still effective, no used cars have been delivered. Consequently, the revenue of the Company has reduced from its peak in 2010. The Company has made many efforts to secure other business sources such as obtaining Bumiputera status from the Ministry of Finance and participating in various scrap tenders. SBSB is currently in the process of divestment.

Good Corporate Citizenship

In UEME, corporate citizenship is the extent to which businesses are socially responsible for meeting legal, ethical and economic responsibilities placed on them by stakeholders. It is hoped that the Company can create higher standards of living and quality of life in the communities in which it operates. This can be done while still preserving profitability for shareholders.

For UEME, being collectively responsible for the local community and environment is an integral part of its core business. Corporate citizenship concerns the contribution made to society through core business activities and social investment programmes. Some examples of initiatives undertaken to assist the Government and surrounding communities are highlighted on the following pages.

Did You Know?

ENVI perform the following public cleaning activities:

- Protocol roads, pedestrian bridges, flyovers and tunnels are cleaned daily.
- Main and commercial roads are cleaned 6 times a week.
- Industrial roads are cleaned once a month.
- Residential roads are cleaned twice a month.
- Public places including any open areas, parking areas, parks and recreational places are cleaned daily.
- Public toilets are cleaned daily.
- Drains in service areas of public places or along public road are cleaned monthly.
- Public markets and hawker centres are cleaned at the end of operations.
- Illegally dumped waste is removed from public places such as streets, illegal landfills or private land on request.
- Public beaches are cleaned daily.
- Grass at the edge of public roads and in public places is cut twice a month.
- Animal carcasses weighing 20 kg or more, which are found within the service area are removed on request.



Tn Hj Abd Hapiz bin A. Samad - Pengarah Jabatan Alam Sekitar Negeri Melaka



The state of Melaka was granted Developed State Status by the Organisation of Economic Co-operation and Development (OECD) in 2010. Environmental Management was one of the evaluated scopes. The DOE played a key role in this initiative. I would like to acknowledge UEME's contributions in providing sound environmental management.

UEME works very closely with us and discusses current and future projects. It is very useful for us to be able to understand the challenges and opportunities they face. UEME actively consults with the DOE to ensure its activities conform to our guidelines. I am also happy with the continuous support provided by UEME to assist the Government in solving environmental issues. These include properly managing the treatment and disposal of hazardous waste, cleaning spilled chemicals and combating illegal dumping.

After 2015

WASTE

will become a commodity as handlers will only take

VALUABLE WASTE

This makes it difficult and expensive to treat waste. I foresee this as a challenge for the Government. I hope UEME will continue to support us by providing their expertise as the Trusted Partner in Environmental Solutions.

CASE STUDY

#01

Spillage Clean Up Works at KM 64.80 North Bound NSE

On 14 November 2012, a bitumen tanker skidded after a collision at KM 64.80, Simpang Renggam, Machap Highway (North Bound). Massive bitumen spills resulted and the areas were identified as Earth Drain, Concrete Drain and Embankment.

KASB cleaned the spillage and the bitumen was transported and disposed of safely. The job took 6 days to complete which included:

— **Identification of spillage area**

— **Clean-up process:**



THE WASTE
WAS DIRECTLY
PACKED INTO
1 MT PP
BAGS AND
50 KG
GUNNY SACKS.



i) Manual removal at Earth Drain

A backhoe was used to remove solidified bitumen that had stuck to the soil surface. The waste was packed into 50 kg gunny sacks.



ii) Backhoe excavation of Embankment and Earth Drain

Solidified bitumen, which had stuck to the surface soil, was excavated using a backhoe due to its weight and thickness.



iii) Removal by water jetting activities at Concrete Drain

5000 PSI water jets were used on areas which could not be cleaned manually or by machine. The semi-solid bitumen had become hardened and attached to the concrete drain. A strainer was placed at the end of the drain to trap small pieces of bitumen. The waste was packed into 1 MT PP bags.



36.43 MT
OF RECOVERED
WASTE WAS
TRANSPORTED
TO THE
WMC
AND
INCINERATED.

— **Packaging of bitumen waste after removal and excavation works**

— **Temporary storage at site**



The job followed the highest standards of safety and health and no incidents were reported during the whole working period.

Spilled bitumen solidified on the surface and had not seeped deep into the soil. In wet areas, bitumen also solidified and had not become diluted with water. The solidified bitumen attached itself to the concrete in the drainage area. This caused the water to flow to the drain without diluting the bitumen.

Preventive measures were followed while temporarily storing and transporting the waste. A plastic canvas was placed under and over the waste.

CASE STUDY

#02

Spillage Clean Up Works at KM 66 North Bound NSE

On 4 December 2012, a cooking oil tanker skidded after a collision at KM 66, Simpang Renggam, Machap Highway (North Bound). Massive cooking oil spills resulted along the stretch and the area was identified as a flat area.

KASB's scope of work was to clean-up, transport and dispose of the spilled cooking oil. This work took 3 days to complete and KASB's roles included:



OIL
CONTAMINATION
WAS REDUCED BY
97%
AT THE AFFECTED
SITE FROM
3.20% - 0.10%.



- **Identification of spillage area** - 20 meter (L) x 5 meter (W)
- **Clean-up process** - Excavation Works. Soil contaminated with cooking oil was excavated using a backhoe.
- **Packaging of contaminated soil** - wastes were packed into 1 MT PP Bags.
- **Temporary storage at site** - 50 PP Bags (secured with Polyethylene sheets as bottom layer).
- **Collection of packed wastes** - using 3 DOE approved tipper trucks.
- **Disposal at the WMC following incineration.**

The job followed the highest standards of safety and health and no incidents were reported during the whole working period.

A study was conducted to determine the concentration of cooking oil in the soil at the affected area. A sample was obtained before and after the clean-up activities and submitted to an accredited laboratory for analysis.

Concentration of Oil and Grease (mg/kg)

32,398

Soil before clean-up

06/12/2012

Concentration of Oil and Grease (mg/kg)

913

Soil after clean-up

11/12/2012

The laboratory analysis shows that the oil contamination was reduced by 97% at the affected site from 3.20% to 0.10%. The waste was transported using 3 DOE licensed tipper trucks. The total weight of the whole collection was 48.24 MT. The waste was incinerated.



Community

In historical times palms have been symbols for victory, peace and fertility. At UEME, these concepts are achieved through building strong, positive relationships and trust within our society. Enhancing the quality of life in local communities has become a major focus. The palm tree also represents an oasis, which is a source of living. The welfare of our community is a true reflection of our success.

Community

At UEME, we believe in helping our neighbours and giving back to the society, communities and the nation. Our Company supports programmes and services that build strong communities by creating economic vitality. Communities are enriched through our Community Outreach Programmes and Education.

Community Outreach Programmes



The distribution of cows to communities



Festive gifts and duit raya distribution

While our community programmes are diverse, all focus on building strong relationships in the local communities where we operate. This important stakeholder group and operations are mutually affected by each other. These communities are situated in the areas of *Kampung (Kg) Felda Sendayan*, *Kg Jimah Baru*, *Kg Jimah Lama*, *Taman Gadong Jaya* and *Ladang (Ldg) Tanah Merah*. We aim to add value to significant community initiatives, while enhancing our own understanding of the people and places we serve. A sustainable approach to community support results in benefits for all involved.

Hari Raya Aidilfitri is an auspicious occasion celebrated by Muslims worldwide that marks the end of *Ramadan*. Every year, RM10,000 is donated to villages surrounding our operations. These communities received an additional RM30,000 for various development programmes. These contributions fund extra tuition for orphans and have helped refurbish a mosque. We provide other non-monetary assistance to these villages to increase their standards of living.

Our vision is to transform these residents into highly capable members of society by developing their skills. Support is extended to community members who run their own enterprises. In 2012, contributions to the local community included:

Date	Beneficiaries	Details of Contributions	Amount (RM)
4 January 2012	Masjid Qariah Kg Gadong Lama, Labu	Refurbishment of mosque	500
13 January 2012	Sekolah Kebangsaan (SK) Jimah Baru	Extra preparation classes for the <i>Ujian Penilaian Sekolah Rendah (UPSR) 2011</i>	1,300
1 February 2012	YB Dato' V.S. Mogan	Contributions in conjunction with the <i>Anugerah Pelajar Cemerlang 2011</i>	1,000
1 February 2012	SK Sendayan	Extra preparation classes for the UPSR 2011	1,300
29 February 2012	Persatuan Pengikut-Pengikut Kuil Sri Maha Mariamman	<i>Tanah Merah Estate Temple Annual Chitrapaurnami Festival</i>	500
28 May 2012	Masjid Qariah Kg Jangling	Contribution for the upkeep of <i>Masjid Qariah Kg Jangling</i>	500
25 June 2012	Pertubuhan Kebajikan Anak-anak Yatim dan Miskin Darul Khusus (PEYAKIN)	School necessities for the orphans	500
11 July 2012	SK Gadong Jaya	Extra preparation classes for the UPSR 2011	1,000

Remembering the Less Fortunate during Ramadan

Ramadan is a blessed and significant month in which the Holy Qur'an was revealed to Nabi Muhammad S.A.W. It is also a month of charity and a time to share the joy of the holy month with the less fortunate. On 10 August 2012, UEME brought the joy of Ramadan to its employees and the local communities surrounding the WMC during its Ramadan Programme. 50 underprivileged people were brought together at the Ramadan celebration, where festive goodies were distributed. The group consisted of single mothers, single fathers and elders chosen from 5 villages: Kg Felda Sendayan, Kg Jimah Baru, Kg Jimah Lama, Taman Gadong Jaya and Ldg Tanah Merah. 50 Malaysian flags were also distributed at the event to commemorate Malaysia's 55th Merdeka celebration.

In a separate event, 41 employees celebrated a small Raya gathering at the KESUKA Clubhouse on 15 August 2012. Festive goodies and *duit raya* were distributed by the Management.



Festive goodies distribution during Ramadan celebration

UEME Open House

Eid Mubarak has been celebrated at UEME since the beginning of KASB's operation at Bukit Nanas, Negeri Sembilan. It has been the Company's way of showing gratitude and sharing the joy of the holy month of Syawal with employees, customers, suppliers, local authorities, neighbours and other stakeholders. This year, the Eid Mubarak celebration and UEME Open House was held on 12 September 2012 at the WMC. Scrumptious meals such as *kambing golek*, *ayam golek*, *nasi minyak*, *cucur udang* and *cendol* were prepared for guests at this joyful event. Stalls also served *fried mee*, *fried kway teow*, *soto*, *lemang*, *rendang*, fruits and drinks. Orphans and the elders from the 5 surrounding villages were also invited to join in the merriment. Our MD handed out donations to each *Jawatankusa Kemajuan dan Keselamatan Kampung* (JKKK). Festive gifts and *duit raya* were also distributed to the children. A special performance, *Caklempong* and a live performance by a local band enlivened the event. Employees were also invited to showcase their vocal talents at a special karaoke session.

Majlis Qurban in conjunction with Hari Raya Aidiladha Celebrations

On 24 October 2012,

KASB Contributed



to villages surrounding the WMC, in conjunction with the celebration of Hari Raya Aidiladha.

The cows were delivered personally to the communities by Mohd Norsuradi Man, Head of WMC, who was accompanied by the President of KESUKA. The 4 communities that received the contribution were Kg Felda Sendayan, Kg Jimah Baru, Kg Jimah Lama and Taman Gadong Jaya.

On 28 October 2012, ENVI hosted Majlis Qurban with residents of DUN Pauh, Guring Pauh, at Masjid Al Mursyid. The ceremony was officiated by Perlis Exco, Yang Berhormat Mulia Dato' Seri Diraja Syed Razlan Ibni Almarhum Tuanku Syed Putra Jamalullail. 2 cows were sacrificed for Qurban and the meat was packed and distributed to the poor and needy. A subcontractor of ENVI, also shared the spirit of Qurban by donating 1 cow to Taman Sri Permai, Alor Setar, on 27 October 2012.

On 29 October 2012, UEME celebrated Hari Raya Aidiladha at the WMC. KASB contributed 2 cows to this year's celebration. 30 employees volunteered for the event which was run by Abdullah bin Hj Omar, the Imam of the Masjid Kg Sendayan.

180 kg of beef was distributed to employees, volunteers and the Management. A special dish, *sup tulang* was served to all as part of lunch.



Hari Raya Qurban celebration

Education

We believe that children today are tomorrow's leaders and innovators. They are a national resource to be treasured, inspired and championed. Our contribution to education embraces each child's individuality and nurtures their gifts. They are empowered by self-knowledge, self-organisation and problem-solving skills.

Promoting Intelligence, Nuruturing Talent and Advocating Responsibility (PINTAR)

PINTAR is a collaborative social responsibility initiative by the PINTAR Foundation. This foundation works with GLCs and private Malaysian corporations to foster academic and non-academic excellence through its school adoption programme. PINTAR programmes target underserved nationwide students and schools in particular.

In 2012, UEME allocated RM12,710 to this programme at *SK Sendayan*, *SK Jimah*, *SK Jimah Baru*, *SK Gadong Jaya* and *Sekolah Jenis Kebangsaan Tamil (SJKT) Ldg Tanah Merah*. Educational support was provided to these schools in the form of tuition, extra classes, teaching, learning materials, facility upgrades and the enhancement of resource centres.

The average pass rates for *SK Gadong Jaya* and *SK Jimah* have significantly increased by 12.98% and 5.58% respectively compared to 2011. *SJKT Ldg Tanah Merah* has recorded a slight improvement of 0.63% in 2012.

SK Jimah Baru average pass rate reduced by 1.82% after a significant improvement of 5.58% in 2011. *SK Sendayan* also reduced slightly by 1.08%.

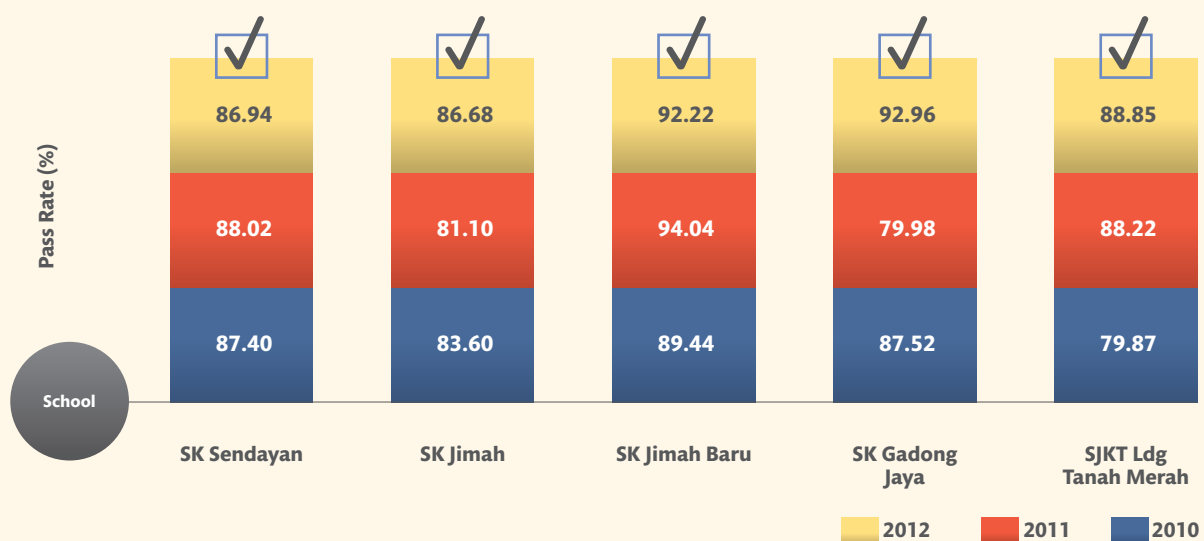
Field Trip to Shah Alam Agriculture Park

In conjunction with Earth Day, KASB organised an educational trip for 30 Form 4 students of *Sekolah Menengah (SM) Seri Sendayan* to the Shah Alam Agriculture Park. The trip took place on 24 April 2012. It formed part of KASB's Environmental Awareness Programme by rewarding students for achieving good academic results. It also allowed them to gain a better understanding, experience and appreciation of nature.

Students also became familiar with rare and endangered native plant conservation in our tropical forest. It is hoped that this exposure will raise students' awareness of the role of plants within the ecosystem.



Educational trip in conjunction with Earth Day



Community Initiatives by ENVI

3R Programme

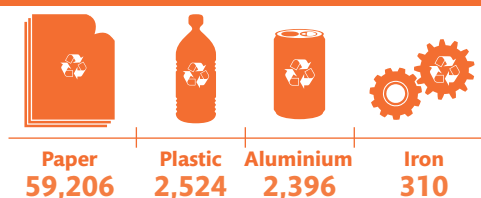
ENVI aims to contribute to the Government initiative of achieving 22% recycling by 2020 from the current 5% baseline. The Government has introduced various programmes and activities to promote and inform the public of 3R activities. Current programmes include *Hari Kitar Semula*, no plastic bag on Saturday and other initiatives through electronic media and pamphlets.



School 3R Programme

In 2012, we contributed to these Government initiatives through our 3R activities and internal waste recycling programmes in schools, Government offices and public institutions such as universities. Our 3R activities are ongoing and we aim to increase the total amount of waste collected. A summary of the waste collected and recycled in 2012 is summarised below.

3R Collection Material



Amount of Waste (kg)

ENVI actively engages with the local community through our 3R Programme. We continuously seek new innovative ways to educate and engage the local community. We encourage them to recycle and reuse more and plan green events. The reduction of waste and toxicity and the use of compost yards for food waste were also promoted. 3 schools were adopted in 2012 as model schools for ENVI in pledging the 3R initiatives. These schools were *SM Ibrahim*, Sungai (Sg) Petani; *SR Seri Gedong*, Sg Petani; and *SRK Langkasuka*, Yan.

ENVI delivered regular recycling talks and seminars at these schools starting from April 2012. ENVI also collaborated with *Portal Rasmi PPSPPA* in a recycling drive at the Giant supermarket in *Sg Petani*. This campaign ran during the 1st and 4th week of each month.

Gotong-royong Activities

In 2012, ENVI embarked on its *gotong-royong* activity to promote clean and healthy living in the community. The activity gains respect from community members for a common good. In 2012, 142 *gotong-royong* activities were delivered to residential areas in Kedah and Perlis. ENVI sponsored the cleaning of equipment and vehicles at these areas. On occasions, participants were also invited for a 3R talk by ENVI to increase their awareness of green living.



Gotong-royong activity with the local community

Larian Jom Kitar Semula dan Habitat 2012

ENVI, led by its Chief Executive Officer, Mhd Saiful Anuar Zainal participated in *Larian Jom Kitar Semula dan Habitat* 2012 on 17 November 2012 in Putrajaya.

This annual event has been organised by the PPSPPA since 2011. The event was held in conjunction with *Hari Kitar Semula Kebangsaan*. ENVI supports this event which promotes and creates recycling awareness in the urban and suburban communities. More than 25,000 participants took part in the run.

PPSPPA had imposed a unique payment method on participants. They were required to 'pay' a registration fee of recyclable items such as newspapers, plastic bottles or aluminium tins. This is part of PPSPA's campaign to promote recycling awareness.



The participation of ENVI in Hari Kitar Semula Kebangsaan

Free Mobile Garbage Bin (MGB) and Toll Free Hotline

ENVI gave a proportion of the 3 million free MGBs provided to households in 7 states. The Company was 1 of the 3 concessionaires appointed by the Federal Government.

50,076  and **6,436** 

bins were distributed in **Alor Setar**.

19,803  and **1,263** 

bins were distributed in **Kangar**.

1,547  and **324** 

bins were distributed in **Langkawi**.

The free MGBs and a Toll Free Hotline, 1-800-88-7472, formed part of the *Aduan Sisa* initiative. This initiative was launched in November 2011 and has been fully operational throughout 2012. The hotline is operated by PPSPPA, which monitors the 3 MSW concessions ENVI, Alam Flora Sdn Bhd and Southern Waste Management Sdn Bhd. In 2012, the *Aduan Sisa* received and managed 46% of all complaints channels.

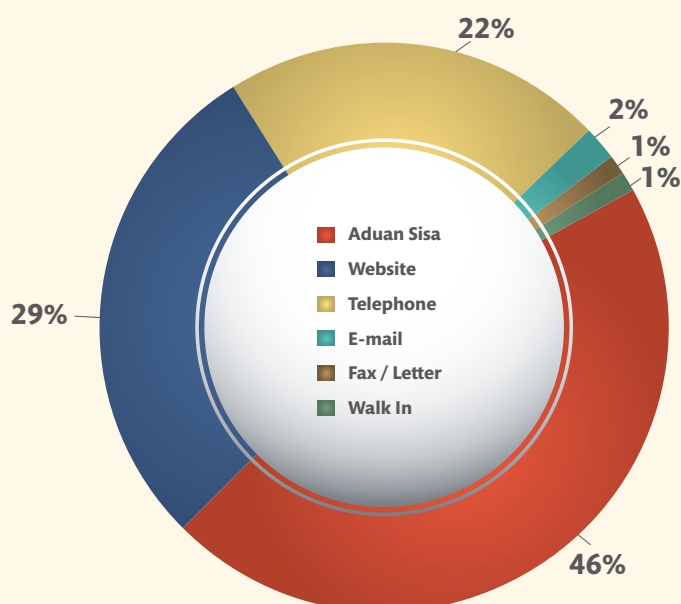


Distribution of MGBs in Langkawi

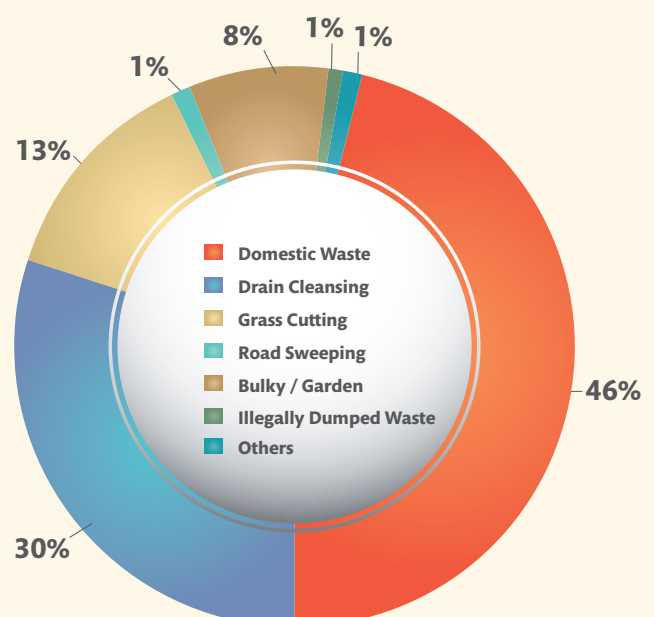


Receipt of a 120L MGB in Alor Setar

Percentage of Complaints Received by Channel



Percentage of Complaints Received by Type



UEME in Supporting the Group's CR Plan

We continue to support the Group in fostering a sustainable future by taking part in its CR activities.



Participation of volunteers in UELP

UEM Group Berhad English Literacy Programme (UELP)

The English Literacy Programme strengthens the teaching of English. The programme enhances students' understanding of the language. It develops their reading, writing and oral skills over 3 years.

The PINTAR Foundation and the British Council were engaged to steward the Group's CR educational and national flagship programme. The programme is organised, coordinated and monitored by the PINTAR Foundation with the British Council as the appointed Programme Partner.

The cost of the entire 3-year programme is RM3 million of which RM180,000 was shared by UEME. 50 underperforming schools within Peninsular Malaysia were selected to participate. This initiative is to run from April 2012 until March 2015 in 3 zones: Central, North and South. It is hoped that a cadre of 100 primary English teachers will be developed within 3 years of the project's implementation. Teachers will be equipped with the necessary skills to effectively deliver the new primary curriculum.

UEME has supported this education programme since 2012, by adopting 3 of the 50 schools identified by the Ministry of Education (MOE). These schools are SK Senawang, SK Gadong Jaya and SK Sg Buloh in Negeri Sembilan.

The Group also directly engages in community service via its volunteers. Representatives from the Group and its 9 subsidiaries are participating in the Learn English Family (LEF) and Reading Circle (RC) programmes. Group subsidiaries are PLUS, UEM Land, UEM Builders, Faber, CIMA, UEME, OPUS and PROPEL.

A total of 7 UEME volunteers are participating in the LEF and RC programme in 3 schools. LEF encourages parental involvement in the early stages of their children's education. Our volunteers have 6 hours engagement sessions with parents. They attended a 1-day training course by the British Council prior to the implementation of the LEF and RC programmes. Subsequent to LEF, they conduct the RC with the parents. This reading event allows parents to demonstrate their new parental involvement skills. The 1st LEF session is scheduled to begin on 13 April 2013 at SK Senawang.

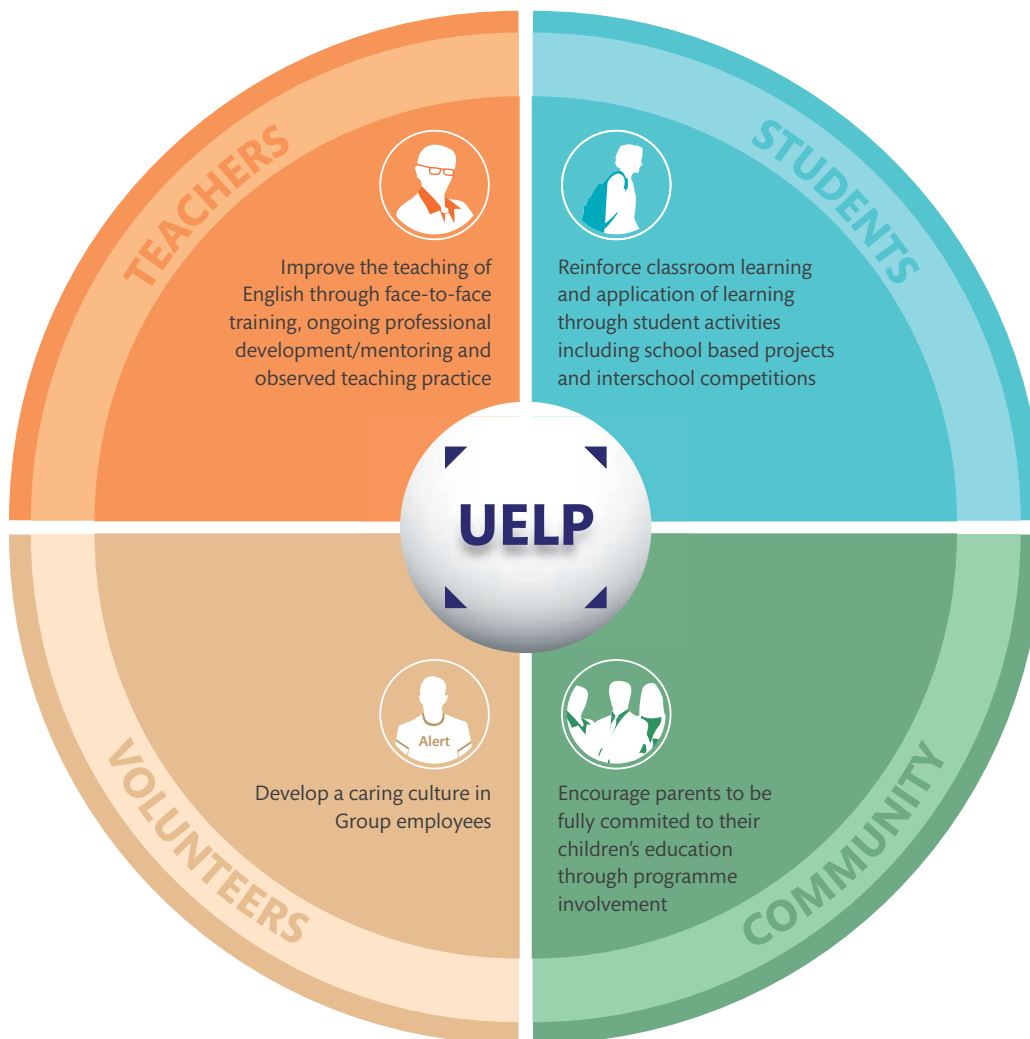
Did You Know?

Why is the UELP?

- Malaysian students' English literacy and proficiency are declining.
- Low English literacy and proficiency in our current young generation may have an impact on Malaysia's human capital and capacity to compete globally in the future.
- We play a significant role in helping the nation's young generation to be better equipped in the English language. This is in line with the Group's positioning as the nation's building partner.



UELP Target Groups



Norzalina Masom - Head, Programme Development and Management, PINTAR Foundation

The Group is positioned as the nation's building partner. UEME supports the Group's UELP by strengthening English teaching and learning through capacity building. A variety of methods are employed including quality delivery structures, supportive intervention, student activities and community involvement. These would enhance and develop students' English reading, writing, comprehension and oral skills. This programme has set a trend for CSR in Malaysian Education for underserved and non-performing schools, a segment often neglected. UEME's participation shows a strong dedication and commitment by Malaysian corporations to improve education and develop high calibre human capital.

UEME's involvement has helped enhance the growth of the PINTAR Foundation. It has increased programming coverage and the value of programmes offered to its beneficiaries, mainly the school communities.

UEME's continuous support contributes to our UELP training and coaching sessions. Teachers have progressively shown positive results since the adoption. I hope that UEME will maintain a strong community engagement with schools. This will help develop a caring culture among UEME employees and promote volunteerism in addition to other Company CSR activities.



Producing a Knowledgeable Community

We participate in various seminars and events to increase our stakeholders' awareness of our expertise. The table below outlines the seminars and events attended during 2012.

Date	Description	Venue
9 April 2012	Exhibition at Titan Petchem (M) Sdn Bhd HSE, Johor	Titan Petchem (M) Sdn Bhd, Johor
20 June 2012	Felda-Johore Bulkiers Sdn Bhd SHE Exhibition	Felda-Johore Bulkiers Sdn Bhd, Johor
20 July 2012	<i>Pameran Keselamatan, Kesihatan dan Alam Sekitar</i>	<i>Tanjung Langsat Port Sdn Bhd, Johor</i>
11 September 2012	<i>Pameran Di Centralised Utility Facilities (CUF) Gebeng, Petronas Gas Berhad</i>	CUF Gebeng, Kuantan, Pahang
18 September 2012	Cibavision Exhibition @ HSE Awareness Month	Cibavision Johor
4 - 6 December 2012	Petronas Carigali organised SHE Day	<i>Kompleks Operasi, Kertih, Terengganu</i>

Johor Skills Development Centre (Puspatri) Exhibition

This exhibition was held on 13 December 2012 and attended by 80 participants from the Johor Industrial. KASB employees managed a booth, responded to Waste Generators (WGs) queries and promoted our new services such as ICS and the WWTP. A representative spoke at this event alongside speakers from UTM, SIRIM and the DOE.

Scheduled Waste Management Seminar

Date	Event	Location
18 - 19 July 2012	<i>Jabatan Kesihatan Kelantan EHS Seminar and Exhibition</i>	Kelantan
21 October 2012	<i>Pameran Mesra Alam Sempena Minggu Alam Sekitar Malaysia (MASM) 2012</i>	Kuala Lumpur
3 November 2012	<i>Pameran sempena Balok River Care Programme 2012</i>	Pahang

KASB and the DOE organised 3 Scheduled Waste Management Seminars and hands-on training sessions for the handling of scheduled waste. The seminar also covered the monitoring and management of scheduled waste through e-consignment notes. The details of the 3 seminars are listed above.



Co-organised Scheduled Waste Management Seminars with the DOE

Scheduled Waste Management Training and Audit Modules

KASB has been organising the Scheduled Waste Management Training for waste handlers. This was the first of 3 planned training modules scheduled to be delivered. This pioneering programme provides a better understanding of the EQ(SW)R 2005 the WG must adhere to. It applies to those involved in the identification, packaging, storage, labelling, transfer and disposal of scheduled wastes.

Training sessions are delivered in *Bahasa Malaysia* and English over a period of 2 or 3 days. The 3-day course features a site visit to the WMC. To date, KASB has conducted over 100 man-days of training for corporations such as PETRONAS Berhad, Sime Darby Berhad, Kumpulan Perubatan Johor, Ministry of Health (MOH), Genting Berhad, Propel, Scomi, The New Straits Times Press Berhad (NSTP), The Star Publications and FFM Berhad.

Surinjeet Singh - Managing Partner, Topesh Consultancy and Training Services

This jointly organised Scheduled Wastes Management Training Programme between KASB and Topesh is mutually beneficial for KASB and the WG. This programme is conducted by trained professionals to provide WGs systematic and comprehensive education. Participants' technical skills improved as a result of this programme. An improvement in compliance with packaging and labelling requirements was also visible. Our drivers have a greater understanding of the hazards of waste. This has resulted in closer adherence to waste card requirements.



Having KASB as a programme partner adds value. KASB has been managing scheduled wastes for over 15 years. It operates one of the largest integrated waste disposal, treatment and recovery facilities of its kind in the region. This facility uses state-of-the-art technology to dispose of, treat and recover 76 of the possible 77 types of scheduled wastes defined by the EQ(SWR)R2005. This vast technological experience allows us to provide detailed information of waste handling, disposal, treatment and recovery.

Awareness of Theft and Vandalism of Garbage Bins

ENVI is facing a serious issue of having its bins stolen and vandalised. In 2012, 76 units were vandalised or burnt and 191 units were stolen. ENVI incurred total losses of RM362,410.

We are considering changing to hot dip galvanised bins to reduce such cases. Hot dip galvanising protects iron and steel from rust. A thick metallic zinc envelope completely covers the steel surface and seals it from the corrosive action of its environment. The galvanising reaction between zinc and steel occurs in liquid zinc at between 445 and 460°C. At this temperature, iron and zinc react quickly. We hope that this will also reduce the likelihood of our bins being stolen or burnt as they are stronger and heavier. This initiative also forms part of ENVI's sustainability strategy as this type of bin has a longer life span.

ENVI delivers awareness sessions on this topic in schools during its *gotong-royong* and 3R activities. We explain the loss to society and consequences resulting from such anti-social behaviour to younger generations.



Vandalism of a garbage bin



Public awareness about garbage bin vandalism



Workplace

We continue to promote a diverse and inclusive workforce as we retain top talents in the workplace. This unique blend of expertise shares a common goal as we continue to grow. This has helped us to strengthen our foundation and achieve successes in various key areas.

Workplace

We believe in providing our employees with opportunities to develop their talent and contribute to their specialised fields. We support them by investing in their safety and upholding their statutory rights. An ethical and supportive environment is created in which they are treated fairly and with respect. Our priorities are talent development, succession planning and safety management.

At UEME, we believe that attracting a talented and diverse workforce is instrumental to our success. We strive to create an employee environment which offers professional and intellectual challenges; encourages innovation and creativity; and rewards success and effective teamwork.

Competitive Benefits

We benchmark our salaries against market rates to remain competitive. There is no discrimination in position and pay between male and female employees at UEME. Comparative salary between them does not exceed the range of between -10% and 10% to comply with a ratio of 1:1. The comparative salary by category is highlighted below.



Our employees are the cornerstone of our success. We strive to offer highly competitive benefits and rewards packages to attract the best people and encourage their hard work. The benefits provided to our full-time employees are as follows:



Leave

- Annual Leave
- Medical Leave
- Hospitalisation Leave
- Prolonged Illness Medical Leave
- Maternity Leave
- Marriage Leave
- Haj Leave
- Compassionate Leave
- Paternity Leave
- Mandatory Rest Days



Insurance and Coverage

- Clinical Benefits
- Group Personal Accident
- Term Life Insurance Schemes
- Competitive Employees Provident Fund (EPF)
- Social Security Organisation (SOC SO)



Company Uniform



Allowances

- Outstation Allowances
- Accommodation
- Laundry Expenses
- Mileage Claims
- Handphone Allowances
- Monthly Parking
- Relocation Allowances
- Moving Expenses
- Fuel Card or Fuel Allowances
- Vehicle Maintenance Allowance
- Interest Subsidy for Car Loans
- Study Loans
- Computer Loans
- Subsistence Allowance



Retirement Plan

- Full-time employees may enjoy retirement savings with CIMB PRS

During 2012, UEME extended its benefit to recognise achievements by employees' family members. The UEME Children Excellence Award recognises employees' children who excel in their examinations. The award is scheduled for presentation in 2013 for achievements in 2012.

We extended our appreciation to a retiring employee with gifts worth between RM1,500 and RM2,500 depending on their grade. In 2012, 3 retirees received this award during the Hari Raya Gathering at the WMC on 12 September 2012.

At ENVI, a standard allowance rate is currently being developed for our drivers and will be implemented in 2013. This will encourage them to take greater care of their trucks and conduct their duties with more diligence. The new allowance system is linked to their performance, which includes the cost of vehicle maintenance and the number of accidents caused. We have also enforced a minimum wage of RM900 per month for our employees as directed by the Government.



Employee Payroll

In 2012, average salary increments of 5% across UEME were allocated to performing employees. We continue to improve our benefits so that they at least meet the industry average.

Diversity at the Workplace

UEME is committed to ensuring equal opportunity, diversity and inclusion in the workplace. It promotes a working environment that respects and includes differences. The unique contributions that individuals from all backgrounds are recognised. We hope that this will maximise the potential of all employees. The following Human Resources data excludes our ENVI operations.

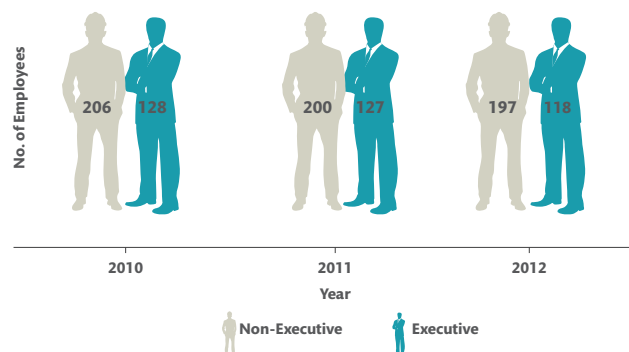
Workforce Breakdown by Gender

Although we do not practice any discrimination in the workplace, the number of male employees will always be higher than females due to the nature of our business. In 2012, the ratio between female and male employees was 1:2.8.



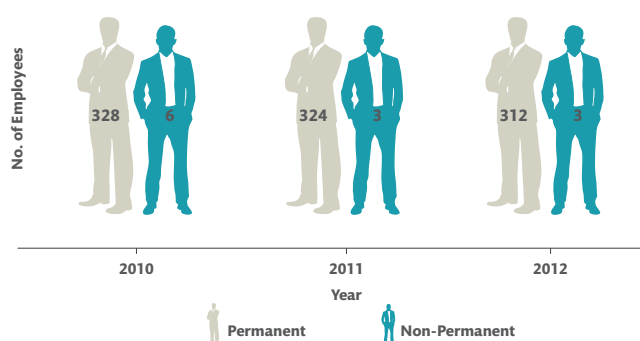
Workforce Breakdown by Designation

In 2012, the ratio of executive to non-executive employees remained stable at 62.54% non-executive and 37.46% executive which included managers.



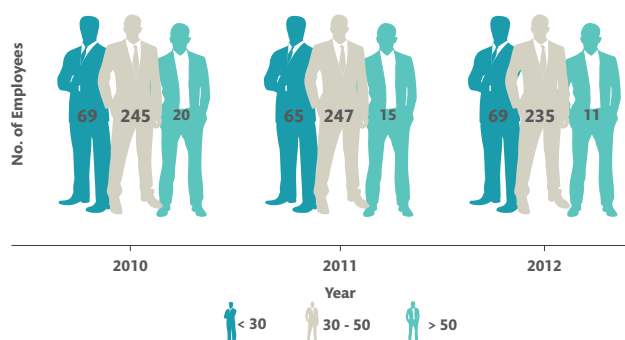
Workforce Breakdown by Category

Only 0.95% of our employees were non-permanent in 2012 and the remainder permanent.



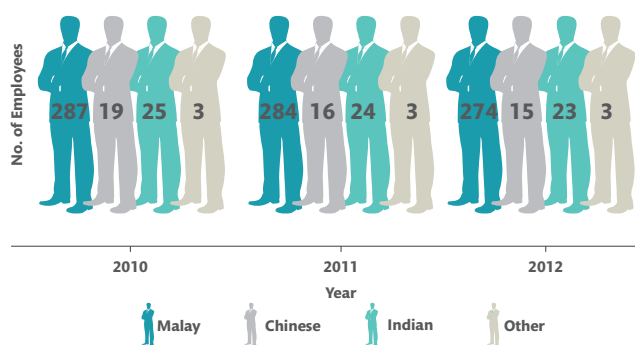
Workforce Breakdown by Age Group

The majority of our workforce falls in the age group of 30 to 50 years old (74.60%). Only 3.49% of employees are aged above 50 years and 21.90% aged below 30 years. Our retirement age is 55 years old and 3 employees retired in 2012.



Workforce Breakdown by Ethnicity

The population of our workforce is diverse. We have a good representation from each culture and race. The majority is Malay (86.98%) which is the highest population in Malaysia. The remainder consists of Indian (7.30%), Chinese (4.76%) and other races (0.95%).



Workforce Female Breakdown by Designation

We believe in empowering our female employees by developing their career opportunities and providing equal growth in the workplace. The percentages of women in management and top management levels in 2012 have increased by 0.47% and 0.37% respectively. Management includes managers and executive level. Top management consists of senior managers, Heads of Department (HOD) and above.



Diversity and Inclusivity



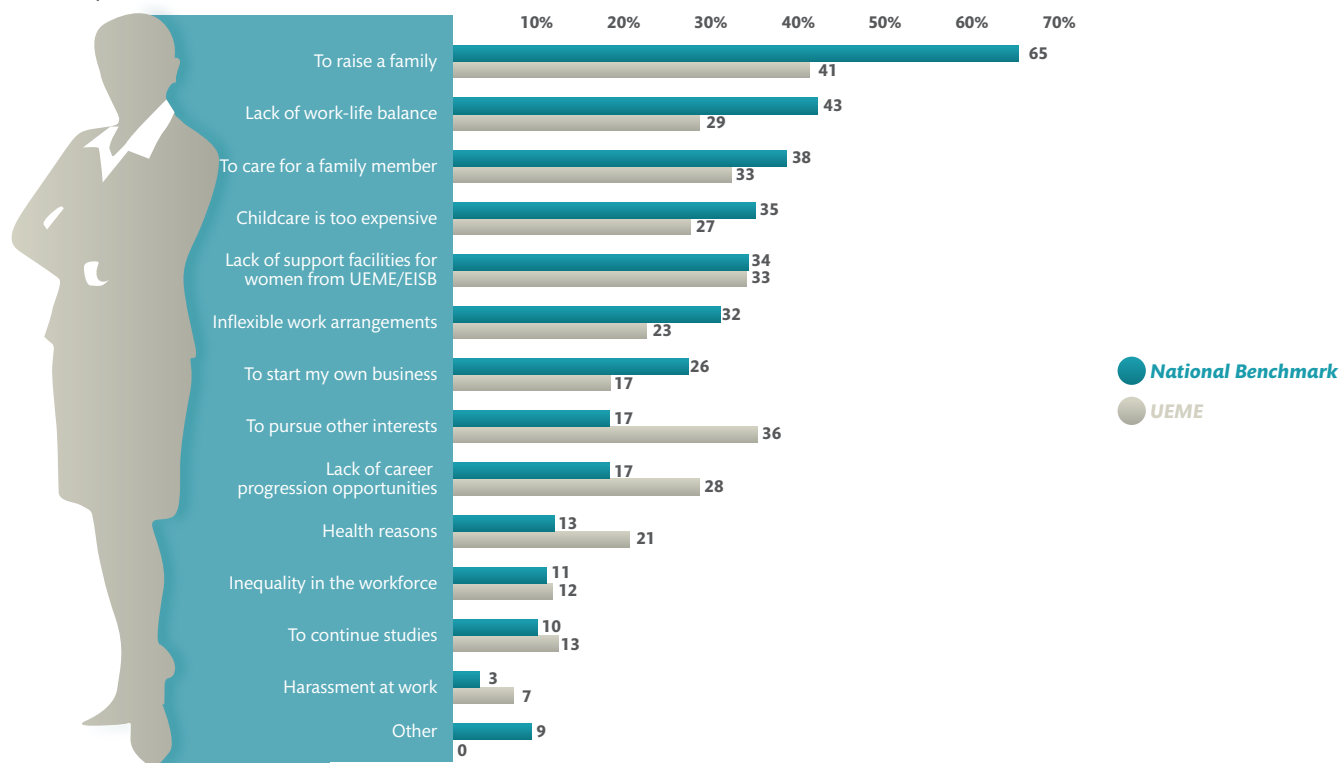
We encourage diversity and inclusivity in the workplace. All employees are provided with equal opportunities regardless of gender. Our industry is seen to be male-dominated. However, we respect our female employees and provide equal career growth opportunities.

3 MPA's vehicles in Kedah are being manned by women as they treat the trucks' sensitive equipment with care. These trucks are smaller in size and are able to manoeuvre along the back alleys of housing areas and shops.

As part of our responsibility to our employees, our Sustainability Survey also gauges our employees' perception of women in the workplace. This survey was conducted anonymously by independent consultants during early 2013. 206 employees responded to the survey which represents 65.40% of our workforce. This survey was conducted online and in hard copy.

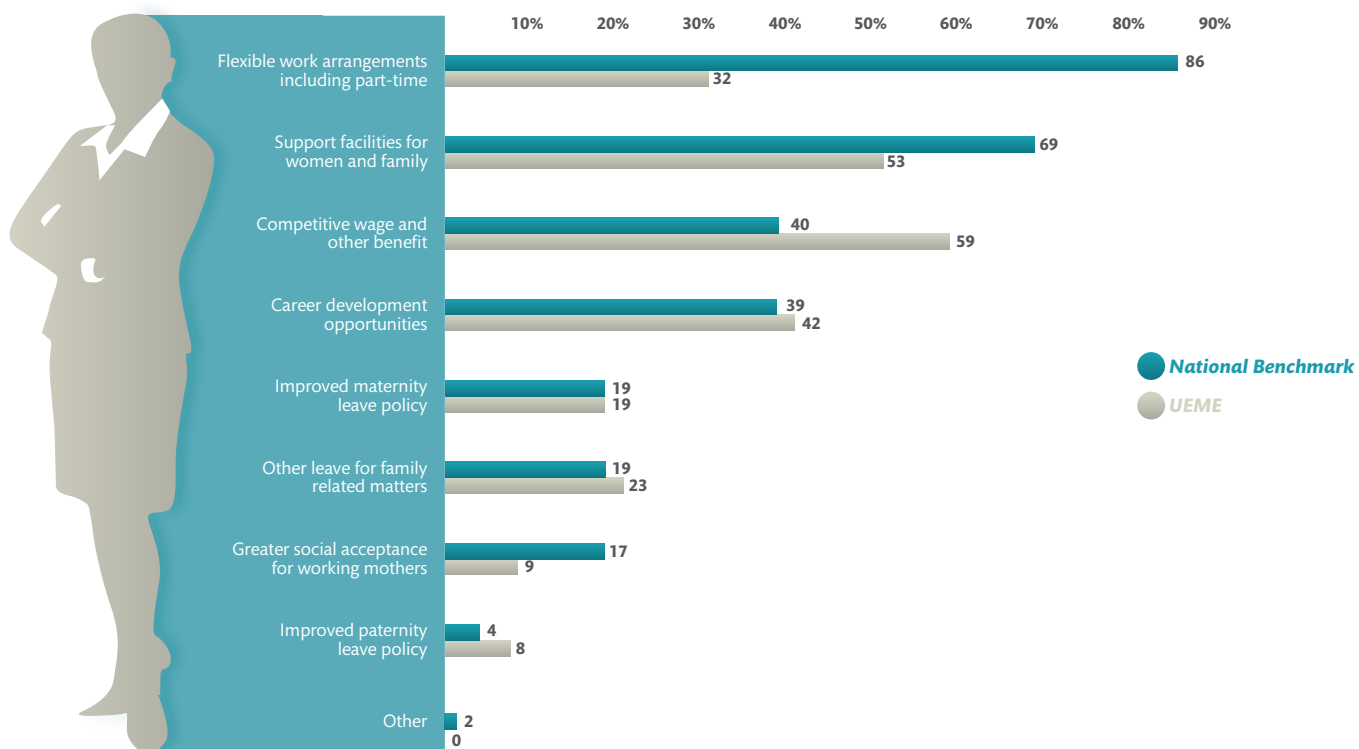
The questions were based on the recent TalentCorp-ACCA Malaysia Report on Retaining Women in the Workforce. This allowed easy comparison of UEME with the national benchmark.

1. What would be the main reasons for you, your female friends, colleagues or female family members leaving UEME/ENVI?



The main reason UEME and ENVI employees would leave the company is to raise a family. These findings appear to be in-line with the national survey results.

2. What do you think are the 3 most important measures UEME/ENVI should put in place to help retain women in the workforce?



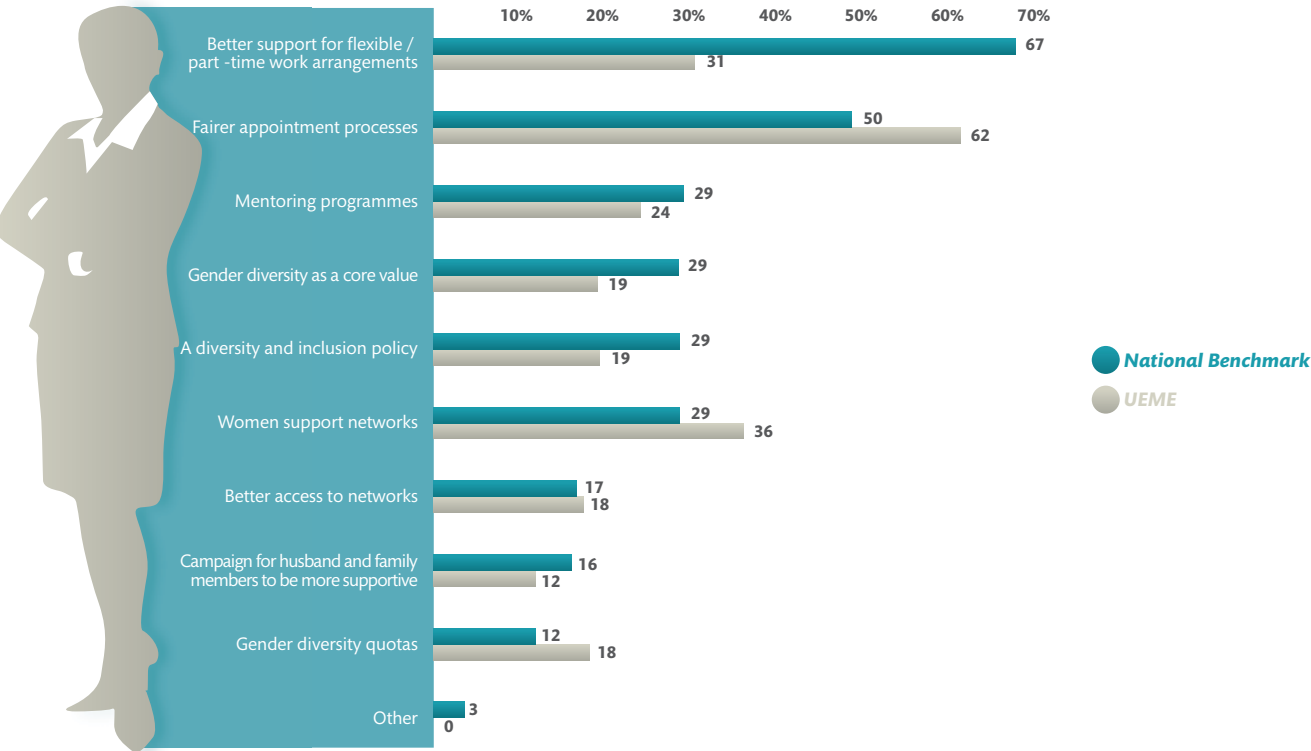
3 most important measures for UEME and ENVI to retain their female employees are competitive benefits wage and other benefits. Support facilities are extended to their families and career development opportunities are provided. The national benchmark results indicate that flexible work arrangement is the main determinant for retaining an employee. This is not the case for UEME and ENVI as we have yet to implement a flexible work policy.

3. In your opinion, does your organisation practice a culture where women and men have equal opportunity in career progression?



More than half of the respondents agree that UEME and ENVI are practicing equal opportunity regardless of gender in career progression. Even more attention is required as the percentage falls below the national benchmark.

4. What 3 measures do you think companies should put in place to enable more women to occupy senior decision-making positions?



3 measures have been prioritised to encourage more female employees to hold senior decision making positions: a fairer appointment process, the introduction of support networks and a flexible work arrangement.

Siti Nadzriah - Deputy General Manager, EMS

I joined KASB in 1998. My background is in science which is very relevant to my current nature of work. Many people wonder how I have survived in KASB for 14 years. The answer is simple – I love what I am doing. I enjoy learning new things and challenging myself with new tasks or projects.

I am pleased with the achievement of expanding my department from a cost centre to a revenue generating unit. I have been involved in developing many areas of the Company including gas, sewage and industrial wastewater management.

I am happy to be with a Company that provides equal treatment to all employees regardless of gender. I am unaware of an instance in this organisation where a female employee has been denied the right to excel in her career. A classic example for me is my assignment as the Project Director for Qatar's PWA project. My department alone comprised 5 female executives and 4 female non-executives; all experts in their own fields.

The total number of female employees in management has also increased over the last 2 years. Training and promotions are offered for qualified employees regardless of their gender. During my tenure as the HOD, 5 female employees have been promoted. One executive has been sent for an 18-month Emerging Leadership Programme (ELP) within the Group in 2011. She has been transferred to KKI to replicate her success with the recycling subsidiary company.

The real challenge for me is balancing my work and personal life. I am involved in local and overseas projects. I manage

74 employees

in my department,

I find it difficult to end my working hours on time. I am fortunate to have a very understanding family. Perhaps they are well trained as I left my son for a 2-week overseas assignment when he was aged 3. Even though I normally reach home after sunset, I always spend quality time with them by cooking a simple dinner or eating at local mamak stalls together. Weekends are totally devoted to family matters, unless I travel outstation or overseas.

To all ladies out there, I wish to share a few inspirational quotes:

Women are leaders everywhere you look, from CEO to the housewife that holds together a home – Denise Clark

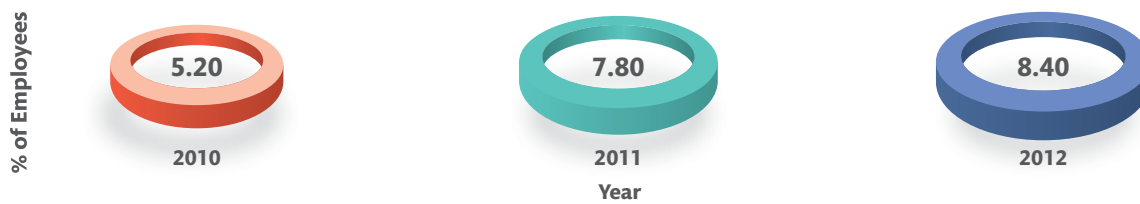
It doesn't matter who you are or where you came from. The ability to triumph begins with you. Always. – Oprah Winfrey

I wish all female friends out there all the very best. Let us turn our Can'ts into Cans and our dreams into plans. Yes, we can!



Employee Turnover and Hired Rate

Our employee turnover rate in 2012 has increased slightly to 8.40%, compared to the previous year of 7.80%. Although it is slightly higher than the previous year, we continue to be committed to providing a good workplace and retain good talents.



Hired rate is calculated by measuring total successful candidates over total number of applications received. The hired rate for 2012 was 80%.

Training and Development

We are committed to hiring, developing and retaining employees of the highest possible calibre. Our employees are undoubtedly our greatest asset. The Company is committed to nurturing talent and developing skills while realising its potential. At UEME, development occurs across all levels of the organisation.

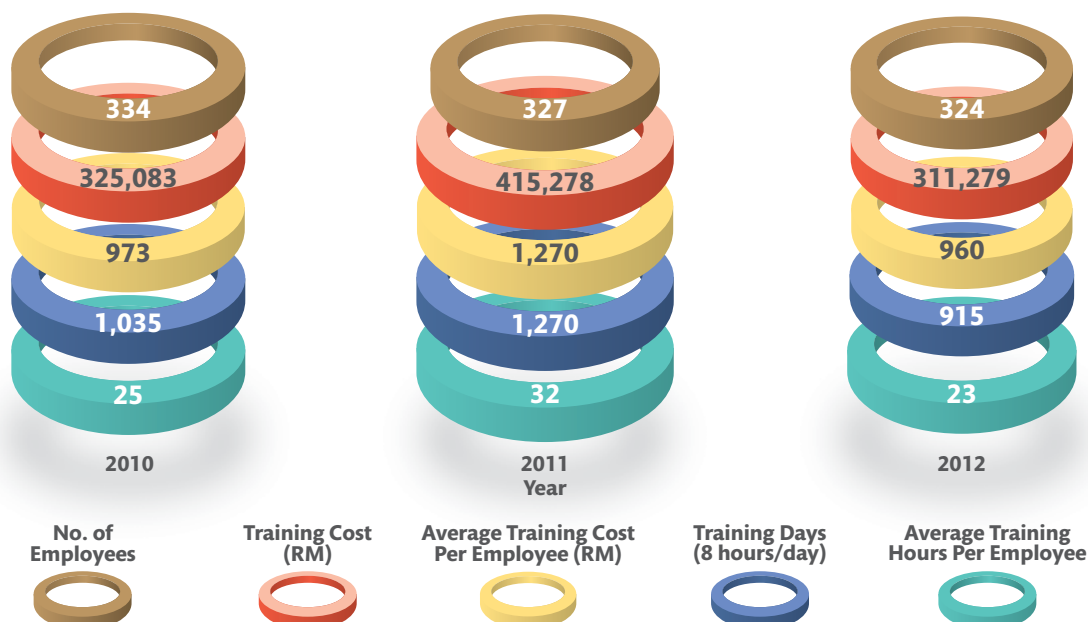
Scheduled waste management training has been conducted for employees at the Logistics Department since 2011. The training complies fully with the EQ(SW)R 2005:Conduct of Training. This training is mandatory for all employees involved in the identification, handling, labelling, transportation, storage, spillage and discharge of waste.

All employees attend an orientation programme as part of the Company's induction programme. On average, 2 working days per employee are devoted to management or technical training as recommended by the HOD.

At ENVI, we are currently formulating a training agenda for our unit managers which we hope to introduce in 2013. Currently, unit managers are equipped with functional knowledge. Less attention is given to technical expertise such as understanding the features and main components of a Compactor Unit (CU).

Employees Training Programmes

The Company spent RM311,279 on training in 2012 compared to RM415,278 in 2011. This represents a decrease of 25% which resulted in an average of 9 fewer training hours per employee. Following the Company's cost savings initiative, only selected training was conducted in 2012. Priority was given to technical competencies training.



Breakdown of Employees Training Sessions by Type

The breakdown of employees' training sessions by type is presented below. Technical training accounted for almost half of all training. Over a quarter consisted of functional training.



As part of our commitment to enhancing the skills of our marketing and transportation personnel, we conducted a number of in-house training sessions.

Date	Training Programme	No. of Participants
16 - 17 February 2012	IMS Refresher Training	28
28 - 29 March 2012	First Aid and Cardiopulmonary Resuscitation (CPR) Training	19
25 July 2012	Ergonomics Training	15
2 - 3 August 2012	Schedule Waste Management Training	20
2 November 2012	Occupational, Safety and Health (OSH) Legal Requirement	15

At ENVI, we regularly conduct training programmes for our truck drivers. We constantly reiterate the importance of safe driving and equip them with CU skills. The training sessions conducted for our truck drivers in 2012 are as follows.

Date	Training Programme	No. of Participants
11 October 2012	Pemanduan Berhemah	26
At every induction session	Operating of MPAR	15

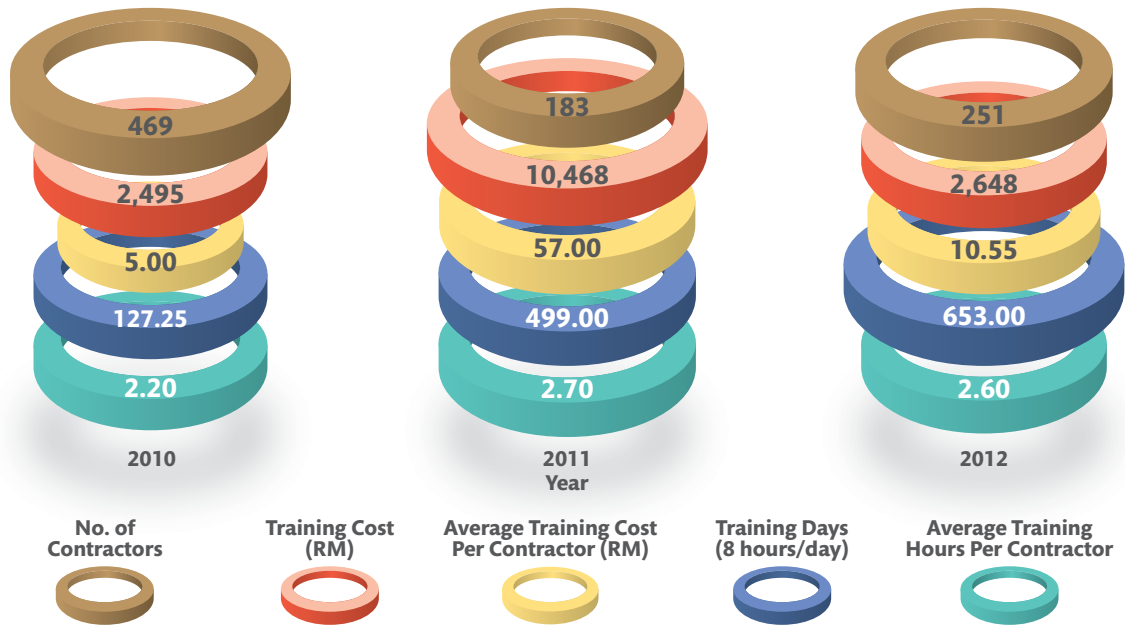
Maziyana Bt Azmi - MPAR Truck Driver



I am very happy with my job as it helps me discover my talent and sets standards to perform better. I have become the centre of attraction when people see a woman driving such a large truck. This motivates me to perform my job even better. One of the challenges I face is the teasing I get from guys. I need to draw on physical and mental strength when I leave for work each day. The MPAR's automatic gear system makes it easy for me to operate the vehicle. All in all, I am proud of my job and happy to be part of the Company. I feel happy to serve the local community and be part of community services.

Contractors Training Programmes

Specialised mandatory training programmes are delivered to contractors who operate forklift trucks, work at heights or in confined spaces. All KKA drivers must attend annual training so they stay abreast of the latest safety requirements. Safety areas consist of KASB Operation Procedures; Defensive Driving Training; Emergency Response Training; Mock Drill on fire, spillage and accident procedures; First Aid Training; Driver Safety Talks; and Fatigue Management.



In 2012, the majority of contractor training programmes were delivered by our experienced internal employees. This accounts for the 74.70% reduction in training costs despite the number of contractors increasing by 37.20%. This was caused by reduced number of contractors, new regulations (OHSAS, IMS, EMS, DOSH) and turnover of lorry drivers

Breakdown of Contractor Training by Type

There are 3 major types of training undertaken by our contractors:

Functional Training

- This focuses on the classified skills and knowledge required for personnel to perform their daily duties.

Technical Training

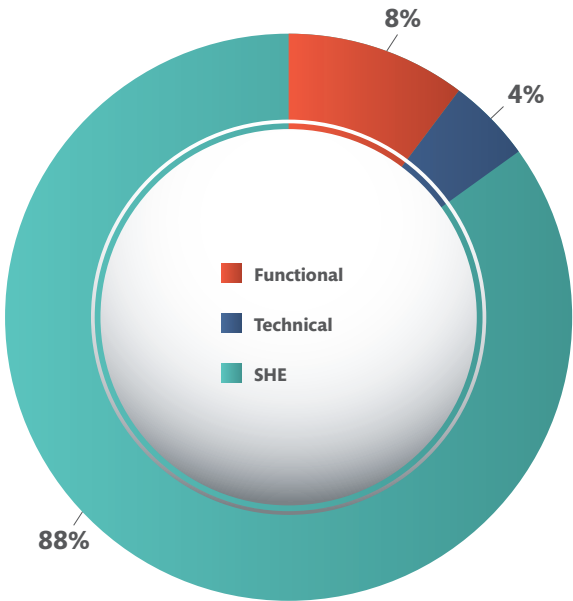
- This is required for the accomplishment of a specific task.

SHE Training

- This set of skills and knowledge promotes the SHE of people engaged in work or employment to foster a safe and healthy work environment.

It is our responsibility to ensure that work within our premises is conducted with the highest level of safety. We are responsible for the safety of people on our premises including contractors.

Composition of Training



Training in SHE areas formed the majority of

contractors' training in 2012

67% → 88%
In 2011 In 2012

UEME Supporting the Government's Initiatives

In 2012, UEME continued its support for the Government's initiative of producing knowledgeable individuals. The High-End Industry Graduate Internship Programme (HEIGIP) is an initiative by the *Kementerian Pengajian Tinggi*. HEIGIP aims to develop a quality Malaysian workforce that is capable of delivering an inclusive and sustainable high-income economy. It involves graduates who work in positions that allow them to undergo on-the-job training rather than being simply employed without job enhancement opportunities.

This internship programme develops the educational and professional competencies of students in high-end industries. On-the-job training, in a supervised work setting, incorporates the following elements:

- Experiential learning strategy in areas of specialisation
- Special emphasis on professional development
- Reflections and acknowledgement

Beginning 2013, 20 students from the faculties of Civil Engineering, Accounting, Chemical Engineering and Mechanical Engineering of Universiti Teknologi Mara (UiTM) will participate in this structured internship programme.

Participants will perform on-the-job training at various Group subsidiaries. This provides valuable work experience and knowledge to support their future career growth. Practical work experience will be related to their field of studies, other organisation adaptability and work relevance skills.

UEME in Collaboration with Other Organisations

In 2012, we negotiated a possible programme with army retirees. We are proposing to provide continuous support to these retirees by employing them to train and equip our security team. This helps protect the perimeter of our approximately 140 acre site.

Enriching Socially through Human Capital Development

Our CR is integrated into the management of our workforce. We ensure that our workplace practices are mutually beneficial for both employees and the Company.

Employment Value Proposition (EVP)

We strive to be an employer of choice and support the Group's EVP. The EVP focuses on 2 talent management strategies: Talent Attraction and Employee Retention. There is a positive correlation between benefits and performance. Our career development programmes are designed to allow them to have meaningful input in the organisation and feel valued.

Manpower Rationalisation Programme

KASB continues with its Manpower Rationalisation programme. This ongoing exercise was introduced to reduce our dependency on subcontractor labour at Production 1, Production 2 and Logistics areas. This programme reduces contract labour and improves employee productivity by maximising our manpower. This initiative has helped reduce the Company's overtime costs by over RM1 million from October 2011 to December 2012.



Employee Engagement and Communications

UEME acknowledges that employees are instrumental in the organisation's success and a great deal can be achieved by their engagement. It is understood that more information must be provided on business activities and specific aspects of employees' work to engage with them at all levels across the organisation. Everyone is invited to identify and improve the way business is conducted through active cooperation.

Open and transparent communication with our workforce is important. Employees were invited to attend MD meet the staff sessions as part of our commitment to encourage ongoing 2-way communication. In 2012, the session was held on 17 January 2012 at the WMC's canteen. The MD updated employees on the latest company developments. Employees raised their concerns and provided feedback.



2-way engagement with the MD

In 2012, a Joint Consultancy Committee was formed and is represented by 14 employees. A breakdown of employees represented on the Committee is listed below.

Male		Female	
	Executive 5		Executive 2
	Non-Executive 3		Non-Executive 4

The Joint Consultancy Committee helps our HRAS obtain feedback from employees on work-related aspects such as benefits, work flexibility and employee rights. The first Joint Consultancy Committee meeting is scheduled for 2013.

Beginning 2013, ENVI will arrange a family day at each of its service units. We continue to promote work-life balance in the workplace. It is our goal to maintain ENVI as a happy workplace for our employees and their family members.

Engagement with the Group

In 2012, the Group held Family Day celebrations at various locations. UEME participated in the celebration held at *Majlis Perbandaran* Petaling Jaya, Selangor on 1 December 2012. The event was attended by employees from all Group subsidiaries. A total of 383 people from UEME (including spouses and children) joined this fun celebration. It was a good platform to encourage Group employees to become acquainted.

For the first time, the Group hosted a series of *Hari Raya* Open Houses for all employees. Held in 6 different locations nationwide, the initiative truly reflects the spirit of 1UEM.



Hari Raya gathering at Mercu UEM

Performance Appraisal

UEME measures KPIs which are one of the elements in the Balance Scorecard. This helps to measure employees' progress towards meeting their targets. The KPI quantifies both financial and non-financial performance targets. HODs monitor the KPIs periodically and any variances are addressed. This process is important as employees' achievements affect the Company's aggregate KPI. Biannual performance appraisals are conducted in the middle and end of each year. 100% of our employees were formally appraised in 2012.

ENVI adopted a similar matrix system in 2011. Employee performance is mapped against an initial KPI set resulting in higher employee motivation levels and improved performance. In 2012, ENVI conducted a trial run of its KPI matrix system for each of its grass cutters. Each employee's land allocation is being marked and this has encouraged workers to outperform. The KPI matrix system has shown to be effective. Each worker now spends 2.5 days to complete each allocated area in comparison with 4 days previously. Beginning 2013, the KPI matrix system will be conducted annually. It will form a basis for measuring performance and remuneration.

The Alor Setar Service Unit and Kangar Service Unit underwent a staggered full KPI implementation on 1 November 2012 which was scheduled to commence on 1 September 2012. The date was postponed due to a technical problem and availability by both concessionaires and the Government.

Occupational Safety and Health (OSH)

The safety of our employees is important for UEME. Our occupational safety procedures focus on prevention and aim to minimise workplace related accidents. KASB's SHEMS complies with the requirements of ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, MS 1722:Part 1:2005 and ISO/IEC 17025 certifications. 1 major aspect of these requirements is to conduct a workplace-related risk assessment of all workplaces. It also stipulates the documenting and evaluating of all potential risks. UEME constantly strives to find ways to minimise potential risks.

Several initiatives have been introduced to create safety risk awareness and precautionary measures amongst employees. Each operating unit conducted safety and health training programmes. Hazard risk training programmes were introduced including a Chemical Health Risk Assessment (CHRA). The effectiveness of these programmes was evaluated regularly. A Hazard Identification, Risk Assessment and Determine Control (HIRADC) identifies hazards, assesses risks and determines the control process for each work activity.

Our SHE Team inspects the workplace based on the department's HIRADC. This encourages the SHE team to discuss further improvements by assessing the hazards and risks associated with their activities. We also conduct PPE, Lorry and Forklift Inspections as part of our Workplace Inspection Programme.

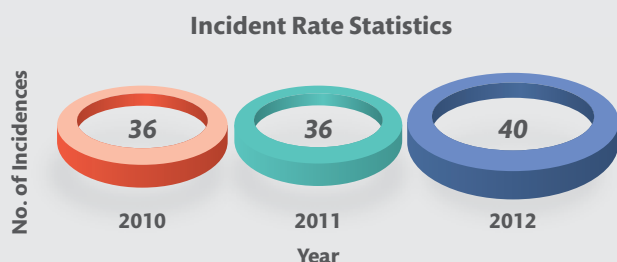
An emergency response drill covering spillage, Hazmat, Fire and First Aid was conducted on 22 March 2012. The Drill was attended by only 13 of more than 90 Emergency Response Team (ERT) members. Future drills will be made compulsory for ERT members.

A Fire Drill exercise was also conducted by the OSH, Security and Property Department at our corporate office in Mercu UEM. This exercise trained our employees to perform an orderly evacuation of the building during an emergency. A total of 486 employees at our headquarters participated in this exercise.

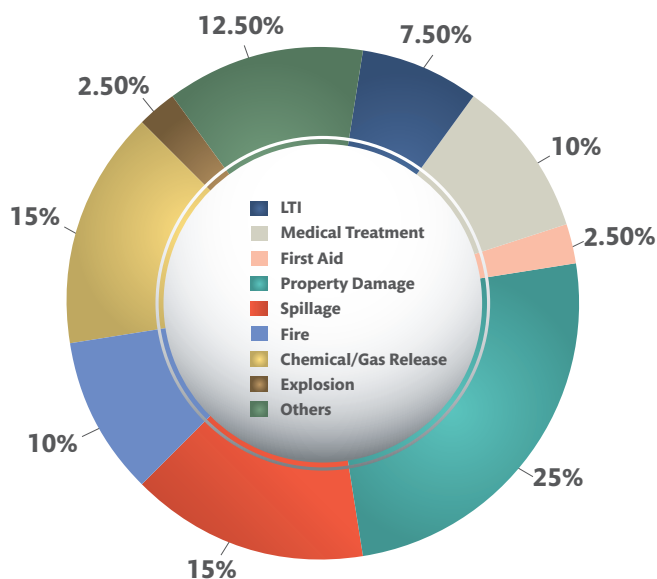
The OSH Committee

Our Safety and Health Committee (SHC) consists of 1 chairman, 1 alternate chairman, 1 secretary, 10 executives and 9 non-executive representatives. It is chaired by the Head of the WMC. SHC members represent and communicate the safety concerns of both management and employees. It is responsible for the continuous improvement of SHE Quality performance. This is achieved by extending Safety, Health, Environment and Quality (SHEQ) management systems to all employees, contractors and vendors.

The SHC meets quarterly. In 2012, SHC meetings were held on 14 February, 8 May and 30 November. The average attendance at these meetings was 63% which promoted consistency and continuous learning in all OSH matters.



Incident Breakdown by Type



The number of incidents reported increased from 36 in 2011 to 40 in 2012. We are pleased that most of these incidents are property damage rather than physical damage suffered by our workforce. However, we are examining the structure and layout of where the damages occurred to determine the causes of the incidents. We are also establishing if they resulted from reckless behaviour or the layout of the premises.

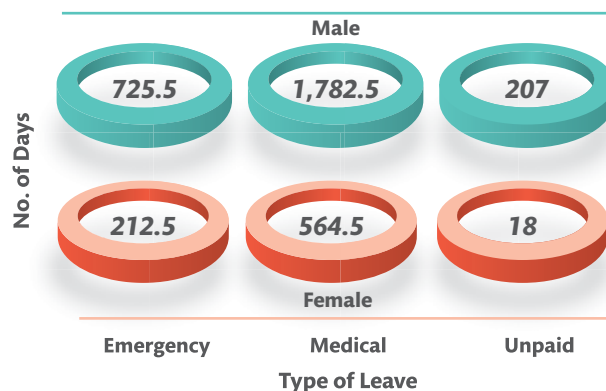
Spillage and chemical gas release form the second highest incident category accounting for 15% each. The majority of these incidents resulted from the improper handling and lack of care when carrying out jobs. Incidents included a worker adding sulphuric acid to other mixed wastes which produced fumes. Waste drums also fell due to uneven stacking and waste leaked from containers. The estimated volume of spillage was 4.15m³ for incident cases in 2012. We will consider conducting retraining programmes for employees who have been involved in multiple incidences.

Other Safety Performance Summary

The Company relies on variety of metrics to monitor its safety performance. Indicators which reflect our safety record in 2012 include:

- 12 injuries were recorded in 2012. These consist of 7 KASB employees, 1 KKI employee, 3 ENVI employees and 1 contractor. 11 of the injured personnel were males and 1 female
- 1 occupational disease was recorded by 1 male employee of KASB
- 3 lost days were recorded which consisted of 2 male and 1 female employees

Leave Breakdown by Gender



OSH-Related Initiatives

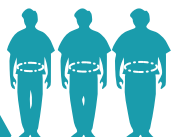
Safety is a priority to us. A simple slip can cause a major injury. We conduct basic training and awareness sessions for our employees on topics which are often neglected but can cause serious injuries if we are not careful. Some of these initiatives are highlighted below.

1. Hand Safety



In 2012, KASB implemented a Safe Hand and Finger Policy as part of its awareness programme. This policy covers best practices to ensure hand safety while carrying out jobs. These practices stipulate:

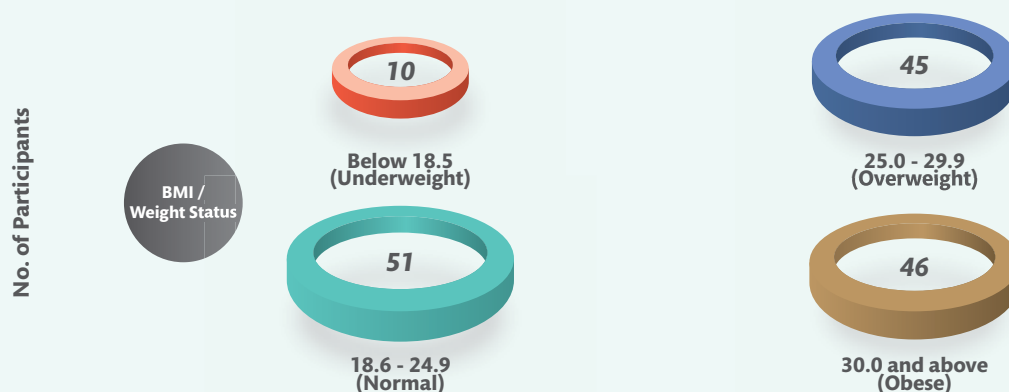
- No jewellery can be worn while performing tasks.
- The everyday use of impact-resistant gloves. Brightly coloured gloves are encouraged to increase employees' attention spans.
- The correct tools must be used for the job.
- Pinch points which must be clearly marked. This can be done by painting hazards and pinch points with different colours or by placing stickers at each potential pinch point to alert workers.
- Review of hand safety must include the identification of cut, pinching and puncture risk, chemical exposure and any other type of identified hazard during risk assessments and job safety analysis.



2. Obesity

At UEME, we encourage our employees to remain fit. The health condition of workers was surveyed from 25 June to 11 July 2012 to address obesity which is a serious concern among Malaysians. A total of 152 employees participated of which 149 were male and 3 female. The findings of the health surveillance are presented below. Only 34% of the total participants fall under the category of Normal. 60% of participants have moderate to severe health risks as they are categorised as overweight and obese.

Breakdown of Participant by BMI



The Management recognises the importance of keeping our employees healthy. It decided to run this programme annually for employees in operations and biannually for employees in non-operational fields. Several other health programmes have been introduced to keep our employees active:

- Badminton every Tuesday to promote healthy competition.
- Continuous health awareness through communication channels such as emails and notice boards.
- OSH doctor consultation every 2 months for the early detection of medical problems.
- SHEQ day to improve employee relationships.
- Aerobics on a monthly basis to improve employees' cardiovascular fitness.

3. Staircase Safety

On 18 December 2012, the SHE Department implemented a staircase safety awareness programme. The awareness programme was a follow-up to *Arahan Kerja: Panduan Keselamatan dan Kesihatan* which was introduced in 2000. It is common that people misjudge the distance of stairs which can lead to sprained ankles. The following recommendations were presented to the Management and all employees to reduce the risk of falling:

- Illumination should be at the minimum of 50 lux.
- Angular lighting and colour contrast should be used to improve depth perception.
- Matt finishes on the treads to avoid glare.
- Patterned carpeting should be avoided as it may visually hide differences in depth.
- Bifocal glasses wearers should apply particular caution on stairs.
- Persons should avoid carrying objects with both hands and ask for help.
- Persons should not carry bulky objects that block their vision.
- The area should be kept tidy at all times.
- Persons should refrain from reading when using stairs or walking around.
- A firm grip should be maintained when carrying items on a staircase.
- No obstacles should protrude from stairs, handrails or banisters that could cause a fall such as nails and splinters.
- Spills, wet spots, or any debris should be cleaned up immediately.
- Broken or malfunctioning lighting should be repaired or replaced.



LTI

The number of LTIs has increased slightly from 2 to 3 in 2012. A summary of LTI incidents occurring in 2012 is presented below.



Date Occurred:
16 March
2012

Location:
Bunker
Incinerator
(INC)1

Incident Summary

A worker's right foot was injured by a forklift truck when caught between a concrete structure and bags containing scheduled waste. It occurred during special needs disposal activities where the disposal needed to be escorted and witnessed by Security personnel.

Corrective Action Taken

1. HIRADC for INC1 was reviewed to address bunker activity and ensure risk assessment is done accordingly.
2. KA-WI-INC-005-004: "Pengendalian Sisa Buangan di Bunker" was revised to include additional activities such as excavator and wastes to be disposed of in the module.
3. To restrict worker's movement at the bunker area during disposal activity, allowing only designated personnel on site.
4. Forklift Inspection by SHE personnel to improve forklift condition.
5. Forklift Driver was sent for Defensive Forklift Driving Technique Training.



Date Occurred:
2 April 2012

Location:
Main Post
Guard
Walkway

Incident Summary

An employee was passing through the main guard post when she suddenly felt dizzy and almost fainted. She tried to prevent herself from falling by holding the guardrail with her left hand. As a result, she suffered a broken left hand.

Corrective Action Taken

1. Monitoring of personal health.
2. Good diet and rest were recommended.
3. Participating SHE Department activities such as biggest loser, aerobics, healthy food, indoor and outdoor games proposed.



Date Occurred:
8 November
2012

Location:
INC1, Feeding
Chute System
Walkway

Incident Summary

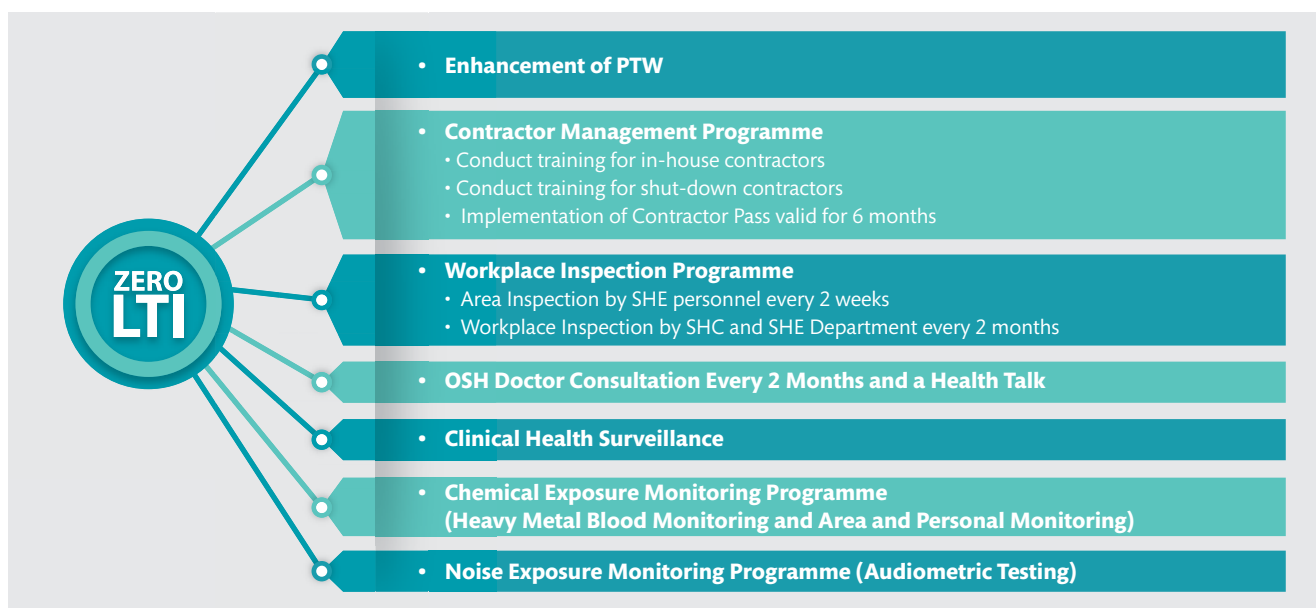
An employee accidentally slipped on the staircase from the 3rd to 2nd floor. The accident caused the employee a painful lower back injury.

Corrective Action Taken

1. Elimination
 - To eliminate waste from spills outside the feeding system by checking gaps between movable mechanisms such as a slide gate and hydraulic piston.
 - To ensure that sealant material or feeding system screw is properly tightened.
2. Engineering control
 - Packing system shall be provided to maintenance/operation personnel so tools can be carried more conveniently.
3. Administrative control
 - Train and retrain staff on risk assessment, Plant Treatment Waste (PTW), maintenance and operation work instruction.
 - Safety ladder/stairway signage on site.
 - Conduct and increase total housekeeping frequency at feeding system.
 - Toolbox talks prior to commencing work.
 - PPE
 - Safety shoes that stick with sludge waste must be cleaned prior to leaving the work area.

Million Man Hours with Zero LTI

Since the last LTI incident in 2 April 2012, our man-hour calculations were up to 357,920. This was reset due to LTI incidents recorded on 8 November 2012 and started again on 8 December 2012. As of 31 December 2012, it was recorded at 55,434. As part of our efforts in sustaining a zero LTI incident rate in the future, we continue to adopt the following approaches in our IMS:



We installed a new incident statistics display board at the WMC main entrance in 2012. This reminds our employees of the importance of safety performance.

Ensuring the Safety of our Drivers

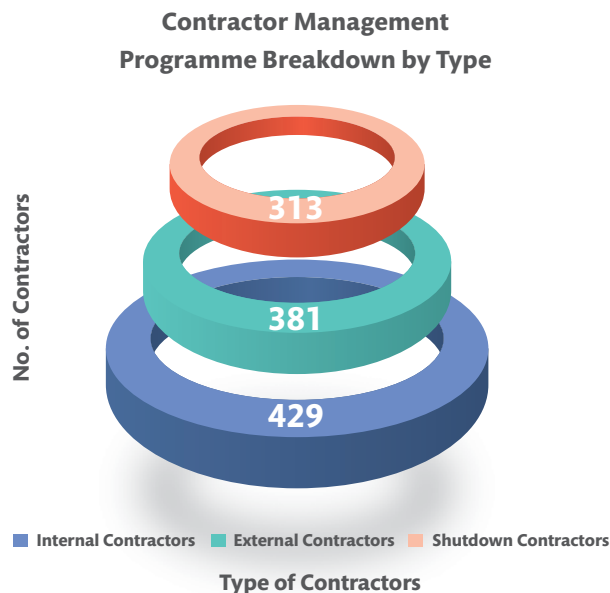
Since 2011, Global Positioning System (GPS) units have been installed in all KASB trucks to monitor the safety of our drivers through:

- **Speed Violation** – The allowable speed limit is set not to exceed 90 km/h. The first warning buzzer alerts the driver when the truck's speed reaches 80 km/h. A continuous buzzer sounds when the speed exceeds 85 km/h. This violation incident will also trigger the operation team's mobile phones for further action.
- **Permitted Driving Hours** – Drivers can only travel between 5.30 am and midnight. Driving outside these hours will trigger the respective operation team's mobile phones and immediate action will be taken.

Ensuring Safety of our Contractors

In 2012, we introduced a Contractor Management Programme which includes our internal and external contractors. The programme covers certifications such as OSHA 1994, Factories and Machinery Act 1967, OHSAS 18001:2007 and MS 1722:Part 1:2005. It also includes SHE structure; working at heights; working in confined spaces; permit to work; hazard identification, risk assessment and control; traffic control; drugs and alcohol; PPE; accident root cause and prevention; incident reporting; waste segregation; and emergency response.

Contractors are required to comply with local legislation and our safety programme requirements. 1,123 contractors were trained under this programme in 2012. The breakdown of these contractors is shown on the adjacent chart:



SHEQ Day 2012

UEME's SHEQ Day is an annual 1-day event which was held on 23 May 2012 at the WMC. The event strengthens employee relationships by hosting various activities such as a *Poco-poco* dance, health checks, an SHEQ quiz, a recycling booth and a slow bicycle competition. A lucky draw was also held along with indoor games such as *congkak*, *batu seremban*, *carom* and chess. A small cake cutting ceremony commemorated the event.



SHEQ Day tree planting

KESUKA for Employees' Welfare

KESUKA is KASB's Sports and Charity Club. Its objective is to encourage a healthy lifestyle through sports, welfare and recreation activities. KESUKA strengthens ties between employees and the club recorded a membership of 315 on 31 December 2012.



KESUKA Engagement with the Local Community

KESUKA received invitations from Masjid Sendayan on 17 February 2012 and Masjid Kg Gadong on 22 February 2012 to celebrate the *Maulidur Rasul*. As part of KASB's employees engagement programme, KESUKA organised a *Majlis Tazkirah* on 25 June 2012 at the WMC to commemorate *Isra' Mikraj* 1433 Hijrah. The guest speaker was Tuan Haji Salehudin Perwira bin Haji Marzuki, Imam 2 Masjid Kariah Kg Jimah Baru. He shared the history of *Israk Mikraj* with an estimated 40 Muslim employees. The special *Tazkirah* marked the beginning of all preparations leading up to Ramadan. Guests were invited to join the mass *Asar* prayer held at the Surau WMC before enjoying light refreshments.



KESUKA organised activities



Other activities held by KESUKA include:



Date	Activity
9 February 2012	An aerobic session was held at KASB futsal court.
10 March 2012	A bowling competition was run at U-Bowl Jaya Jusco, Seremban. 60 participants attended including employees from the WMC and other subsidiaries.
13 March 2012	An aerobic session was attended by employees and members of the <i>Kg Sendayan</i> community.
30 March 2012	The Enviro Challenge 2012 was organised by the DOE Perak.
31 March 2012	The MPPD Treasure Hunt 2012 was organised by <i>Majlis Perbandaran Port Dickson</i> .
31 March 2012	In conjunction with the 205 th Anniversary of the Malaysian Police Force for Seremban and NSTP, a fishing competition was hosted in Port Dickson. 2,000 participants including 5 representatives from UEME attended. We are pleased that our 2 best representatives won 44 th and 85 th place.
8 April 2012	A bowling competition was organised by the DOE Penang. Our team finished in 13 th place out of 45 teams.

Date	Activity
20 May 2012	A run for charity was organised by Columbia Hospital Seremban.
16 June 2012	Green Cycling was organised by the DOE Melaka in conjunction with World Environmental Day.
17 June 2012	A run in support of the London Olympics was held at Dataran Merdeka, Kuala Lumpur. 2 employees from the WMC represented the Company in this event.
14 July 2012	A badminton competition was run in the Summer Sport Centre Oakland, Seremban.
15 July 2012	UEME volunteers participated in the UEM Alert organised by the Group. Activities included <i>gotong-royong</i> in the cleaning surrounding areas of <i>Orang Asli</i> village at Lembah Klang.
12 October 2012	A bowling competition was organised by the DOE Melaka. A total of 50 teams participated in the event. 2 of the 4 teams representing UEME came in 4 th and 8 th place.
20 October 2012	Unit Kembara KESUKA organised a hiking session to Gunung Datuk, Rembau. The event was attended by employees, students of Politeknik Port Dickson, members from the <i>Jabatan Bomba</i> and the local community.
8 December 2012	A bowling competition was organised by the DOE Negeri Sembilan. 5 teams representing the Company finished 4 th out of 48 teams.
15 December 2012	The Karnival Sukan Kualiti Alam/DOE featured futsal and badminton. 450 employees participated from the DOE, KASB and ENVI.
16 December 2012	A bowling competition was organised by DOSH Negeri Sembilan. Our team won 2 nd place in this competition, a slight drop in performance from winning the championship the previous year.

Notice Period for Operational Change

Any business faces times when operational change is required. UEME aims to manage this process with as little disruption to employees as possible. The HRAS informs the relevant personnel affected by the change and manages the necessary training and induction programmes. The notice period varies according to the job scope and is subject to top management's decision.

The current SHE Risk Assessment Procedure and Management of Change Procedure is employed to manage the introduction of new business, new machinery or different machinery. Other changes are discussed collectively and action plans are devised by the IMS Committee once it has convened. Meetings and subsequent action taken are communicated and eventually implemented across the organisation through various IMS Committee representatives.

Employees' Rights at Work

An essential part of all of our services is our profound commitment to human rights and workplace rights. Respecting these rights is fundamental to our culture and imperative for a sustainable business.

Our Human Resource Policy outlines our commitment to non-discrimination and ethical practices. Human Rights screening is standard in all supplier and contractor contracts. All employees, including security personnel, are issued with an employee handbook and Code of Conduct. These documents clearly define the scope of our ethical responsibilities.

During 2012, no significant incidents of discrimination occurred. There were also no risks to freedom of association and collective bargaining. The human rights of indigenous people have never been violated since the Company was incorporated. The Children and Young Persons (Employment) Act of Malaysia 1966 prohibits the employment of children under the age of 14. We comply fully with this legislation and there were no occurrences or risks from child, forced or compulsory labour.



Marketplace

Marketplace expectations are constantly changing. We work closely with our partners and supply chain to achieve a competitive edge and support sustainable growth. Our constant evaluation of external influences has increased our awareness and knowledge of the marketplace. Our internal strategy has been refined to enhance our business competencies and practices. This has also helped us benchmark our expertise, technologies, processes and resources against local and international standards.

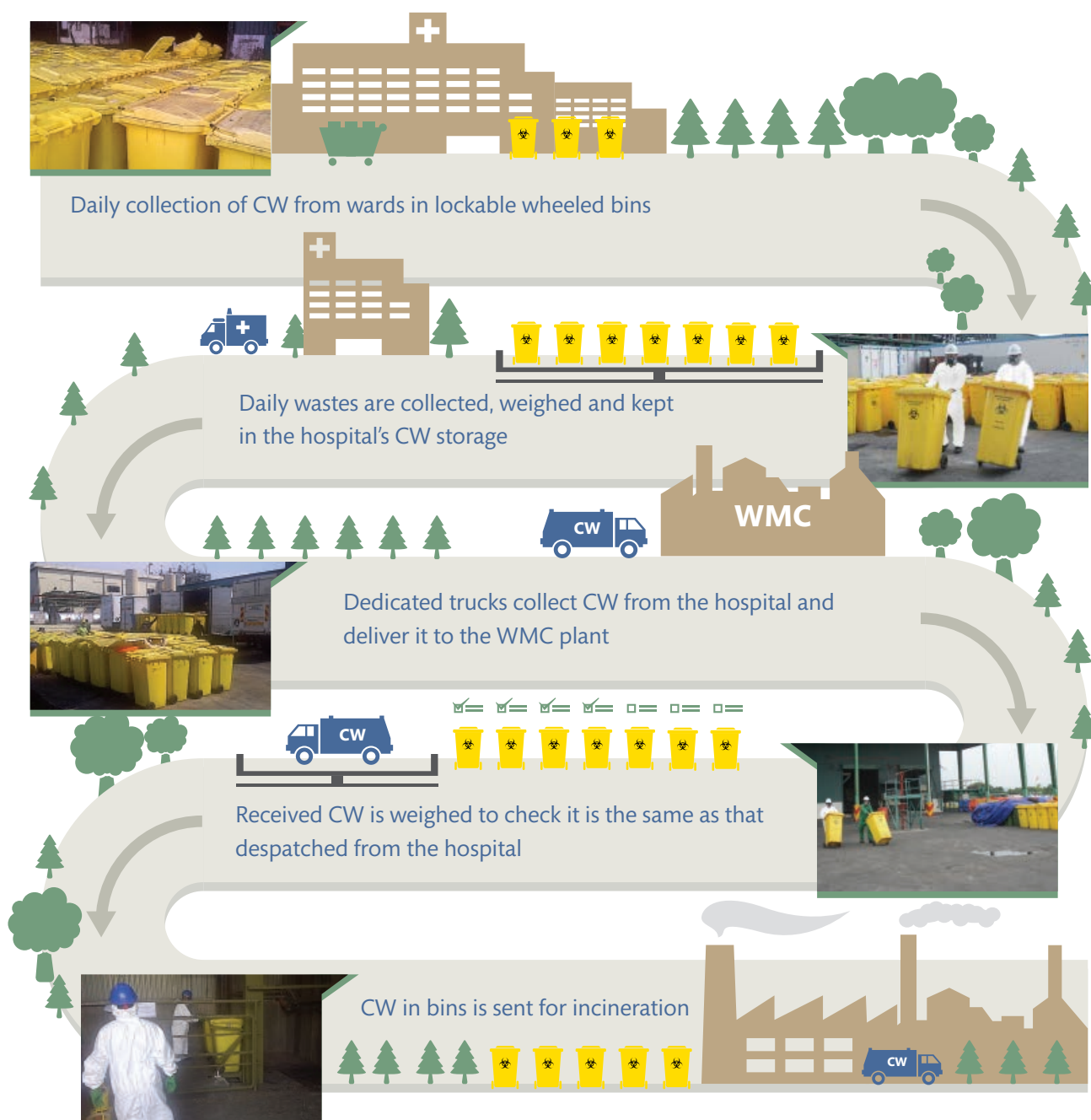
Marketplace

Sustainability in the marketplace requires transparent and fair relationships with suppliers and customers in order to deliver the highest quality products and services. UEME has established various systems and engagement platforms with its suppliers and customers by promoting 2-way communications and win-win situations.

In the recent Sustainability Survey, 206 employees were asked if UEME and EISB are customer oriented and care about the impact its services have on customers. Only 4.85% of employees disagreed with this statement.

Process Life-Cycle of CW

CW arriving at the WMC is weighed before being transferred for disposal. Bins are unloaded into a hopper and cleaned for reuse. The waste is incinerated at over 1000°C, which is gradually reduced to 280°C in the quenching system and 200°C by the APH. The flue gas is passed through a mixture of lime and activated carbon prior to entering the multi-cyclone and filter bag house. The clean flue gas is extracted by an Induced Draft Fan (IDF) and passed through a 15-metre stack. This process is monitored in real time using a Continuous Emission Monitoring System (CEMS) as required by the DOE.



Quality Services

At UEME, an annual internal audit is required and was conducted from 26 June to 5 July 2012. Internal auditors are responsible for monitoring all IMS Procedures and Operation Control Procedures. They attend internal audit training and ensure compliance with the Company's IMS, customer expectations, regulators and guidelines as specified in ISO 14001:2004, OHSAS 18001:2007, ISO 9001:2008 and relevant SHE legal requirements.

Employees' concerns are recorded by the respective HOD before being forwarded to the Company's IMS representative for discussion during Quarterly IMS meetings. New policies, procedures or IMS requirements may also be discussed. On 31 July 2012, the IMS Management Review meeting, chaired by the Head of WMC, recorded a 100% attendance rate. This shows an 8% improvement from last year. The IMS Management Review discussed:

- The suitability, adequacy and effectiveness of the IMS and SHEQ programmes
- EMS and SHE performance results
- An evaluation of compliance with authorities
- Updates on Internal and External Audit Plans

Quality monitoring and assessments are conducted to the highest quality standards with reference to various local and international guidelines.

Adherence to Local and International Standards

The MS 1722 certificate, the latest addition to the IMS, was obtained in 2010. MS 1722 is a Malaysian Standard that contains requirements for an Occupational Safety and Health Management System (OHSMS). It is also a basis for developing a sustainable OSH culture.

In 2012, KASB received its recertification by SIRIM QAS International Sdn Bhd for its ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, MS 1722:Part 1:2005 and ISO/IEC 17025 certifications. This achievement reflected the Company's continuous commitment to maintaining the highest quality and best practices in its SHE and Quality Management System. This is the 3rd time KASB has been recertified by SIRIM. It obtained its ISO 9001:2008 and ISO 14001:2004 certifications in 2000.



Sustainable Procurement

Our procurement practices adhere to the requirements of the Red Book: Procurement Guidelines and Best Practice to be adopted by GLCs. In principle, these guidelines outline 3 key national development objectives related to GLC procurement:

- Promoting the use of competitive local sourcing
- Ensuring Bumiputera equity share in the nation's economic growth, with fair and equitable distribution of national wealth
- Developing Bumiputera vendors' capabilities

During the supplier's evaluation process, purchases are based not only on the minimum purchase price but also on the maximum efficiency and effectiveness of the purchase. We consider the price, terms and conditions, delivery and quality. The Purchasing Department verifies material parameters of suppliers and contractors including financial stability, capability, record of previous projects and shareholding status. Our procurement practices prioritise local suppliers in a bid to support local industry. We require that at least 51% of shares are held by Bumiputera to qualify as a registered supplier or contractor to support local vendors.

In December 2012, our suppliers' breakdown is presented below.

Item	Bumiputera	Bumiputera (Organisation/ Donation)	Non- Bumiputera	Foreigner	Total
No. of Purchase Orders	936	11	1,807	16	2,770
Percentage (%)	33.80	0.40	65.20	0.60	100

An e-Assessment system has been in place from August 2011. This system monitors performance and highlight gaps in the delivery process. This encourages 2-way engagement with our suppliers and contractors. The system was fully functional in 2012 but we are still working on expanding the number of bidders for any particular tender.

There are no specific procurement guidelines which state a mandatory number of engagements with suppliers and contractors should be held. However, we regularly engage with our suppliers and contractors especially when issues are highlighted by end users. At UEME, we have also established the following Supplier Management Programme.

Components of the Supplier Management Programme



Strategic Supplier Programme (SSP)

Long-term supplier relationships are established for strategically important products. Such relationships provide long-term stability of supply and encourage high quality products at superior prices. Strategic suppliers are measured against mutually defined, contractually set performance targets in return for a multi-year contract with penalties for non-performance.



Bumiputera Vendor Development Programme (BVDP)

It is largely in-line with the Group-wide initiatives



Structured Supplier Management Programme (SSMP)

Non-SSMP and non-BVDP products cumulatively comprise the top 80% of total procurement spent. A Preferred Supplier Status is given to suppliers that consistently meet their targets. Non-performers may receive the penalty of having their preferred supplier status revoked or possibly blacklisted.

Performance of Our Suppliers

Supplier Management	Unit	2010	2011	2012
Cost of all goods, materials and services purchased	RM Million/Month	4	5	4
Contracts that were paid in accordance with agreed terms, excluding agreed penalty arrangement	Percentage (%)	23	32.48	38

At ENVI, we conduct monthly meetings with our subcontractors to obtain performance feedback. We also use this opportunity to outline any new applicable regulations and practices introduced by the Company.

Rashdan Baharum - Managing Director, Embrocate Synergy Sdn Bhd

UEME and KASB have been very supportive in providing the right platform for homegrown technology innovations from Small Medium Enterprises (SME) such as Embrocate Synergy Sdn Bhd. The collaboration between Embrocate Synergy Sdn Bhd and UEME has enabled us to deliver innovative technologies to the scheduled waste industry. This is in line with National SME Masterplan 2012 to 2020 to produce globally competitive SMEs.

UEME has adequate engagement with its suppliers and this engagement has facilitated further potential collaboration. Moving forward, the joint marketing of the technology by Embrocate Synergy Sdn Bhd and UEME could help provide greener technology solutions to industries. These provide an additional value chain service for the most efficient and cost effective scheduled waste disposal options.



Socio-Environment in Procurement

Our sustainability commitment is extended to external stakeholders such as suppliers. Vendor evaluation assesses vendors' social and environmental aspects. These may consist of Environment, Health and Safety commitments including an OSH system, certifications, recycling activities and other social compliance.

Environmental Performance of Our Suppliers

Supplier Management	Unit	2010	2011	2012
Performance of suppliers relative to environmental components of programmes and procedures	Rating (%)	72	65.12	67

N.J.Chia - General Manager, Technical Jetway Sdn Bhd

UEME and KASB provide adequate support for invoices and enquiries in most areas. UEME engages with suppliers effectively. I look forward to improved documentation processing and clearer communication especially on work requirements.



EIWIS

In January 2012, we migrated completely to EIWIS, a new centralised web-based platform. It provides comprehensive modules including a customer portal, e-billing, waste tracking and reporting. EIWIS's integrated technology results in a systematic procedure with better efficiency and improved accessibility. This benefits the business and its customers.

Minor system errors were experienced in the initial stages. These errors have been rectified and no major errors or breakdowns have been reported. Some system improvements have been implemented to improve security control. EIWIS is currently being used by our internal users and WGs.

EIWIS has helped to assist them in performing their daily tasks and achieved the following:

- The web-based EIWIS runs at server level and requires minimal resources from the end user's Personal Computer (PC). As a result, system maintenance and updating are much simpler. Client updates can be deployed via the web server with relative ease.
- The users always used the latest software version release. Running obsolete code containing missing features and lost productivity is impossible.
- EIWIS is easily accessible anytime, anywhere, via PCs and mobile devices with an Internet connection. It widens access to our systems, streamlines processes and improves relationships by providing access to more WGs.
- No specific platform is required as it can run on any handheld device with a web browser.
- This web-based system has enabled the MIS Department to establish and meet increasingly aggressive service requirements. It has assured appropriate levels of availability, response time and performance.

Responsible Operations

Packaging

The safe transportation and handling of scheduled waste is dependent on proper packaging. Correct packaging, labelling, transportation and waste specifications as stated in the EQ(SW)R 2005 should be performed by the WG. Our employees or agents visit the WG's site to check the packaging prior to collection.



Proper packaging required from WG

Labelling

A critical step in the safe handling of a scheduled waste is correctly labelling and marking all containers. A hazard symbol must be affixed to the container in accordance to the Third Schedule (Regulation 10) of the EQ(SW)R 2005. The size, colour and orientation of the labels must follow these guidelines. The consignment number; scheduled waste label; name, address and telephone number of WG; generic name of waste and Scheduled Waste Code; the scheduled waste's generation date; and safety precautions, must also be displayed.

Did You Know?

Collection and Transportation Procedure

- The WG packs and labels waste in preparation for collection.
- Upon the WG and KKA agreeing on a collection date, a Collection Transportation Instruction (CTI) is faxed to the WG for acknowledgement. Upon receiving confirmation from the WG, KKA faxes instruction to the WMC. The WG proceeds to prepare an e-consignment note.
- The waste is transported to the WMC. The EIWIS notifies the WG of the treatment or disposal status.



Storing

Scheduled waste is stored at designated areas at the WG's site to prevent exposure. The quantity stored must be less than 20 MT and must not exceed 180 days at the WG's premises. All drums or bags must be fastened securely on a good conditioned pallet to minimise the risk of spillage during transportation.

Precautions are taken to minimise risks resulting from the improper handling of chemical waste. A chemical register, Chemical Safety Data Sheets (CSDS) and area warning signs have been introduced. Chemicals are classified, labelled and relabelled if necessary. Information, instruction and training are provided on the safe handling and storage of chemicals.

Transportation

In 2012, KKA continued to audit all trucks and subjected all drivers to an annual live audit. This 1 hour live audit is performed by an independent auditor on normal roads and expressways for a minimum speed of 80 km/hour for a truck or town road. 2 live audits were conducted in 2012. The first live audit was held from 26 July to 9 August 2012 involving 10 trucks and the second from 13 August to 30 August 2012 involving 19 trucks. The tracked vehicles were followed from a safe distance to avoid being seen by the driver. Objective evidence such as vehicle photographs was gathered and the results discussed during Management meetings. The drivers and vehicles involved are being monitored more closely. 6 violations were recorded as a result of the 2 audits. These violations were:

- The availability and retrieval of data from GPS tracking system
- The physical condition of vehicles including dim rear lights, dim head lights and malfunctioning brake lights
- Traffic violations including crossing double white lines and failing to stop at red lights

The Company is seriously investigating the increasing number of violations over the years. As a result, a number of initiatives were formalised including conducting quarterly road audits, bi-annual road safety awareness and annual driver defensive training. Penalty and point reward systems have also been adopted which directly affect drivers' allowances.

At ENVI, 98 trucks are now equipped with an Automatic Vehicle Locating System (AVLS). This web-based system monitors the daily activity of each CU. Other useful information includes bin location, speed, driving behaviour, route, compactor trip, time in-out of landfill and depot, location and compactor movement. 3 traffic offences were recorded by ENVI trucks which are sub-contracted. These offences involve driving through red lights and exceeding the authorised limit. These fines were settled by the respective drivers.



KKA trucks adherence to transportation standards

Did You Know?



Safe Transportation Initiatives

We utilise a variety of vehicles such as 3 to 20 tonne curtain-side trucks, tipper trucks, skip bins and IMO tanks to transport a variety of waste.

Since 2011, GPS units have been installed in all KKA trucks. The movement and behaviour of each vehicle is closely monitored online.

Logistics personnel are informed immediately of any road violations such as speeding, excessive idling, entering unpermitted roads, driving beyond the band hours and other defined offences. This has enabled us to manage any emergency situation promptly and effectively. Drivers are trained on transport license conditions, packaging, labelling and emergency response plans.



Responsible Marketing Practices

The Ministry of Natural Resources and Environment (MNRE) granted us with exclusive rights to continue working with the Government as a recognised partner in environmental solutions.

Our marketing team met customers in various regions throughout 2012. The MD and Business Development team sought new areas of business. During these visits, we promoted our tank cleaning services, waste disposal and other services offered by KKI. Customers are also exposed to the Integrated Waste Management Systems. They are regularly informed that we treat all types of waste provided they are not radioactive.

During the year, we also had discussions with the Malaysian Corrugated Carton Manufacturers Association and Plant Manufacturing Association. We encouraged them to send their waste to KASB for disposal at a special rate. This is part of our continuous efforts to provide better rates to customers and remain competitive against other recyclers.

Transportation and treatment fees for all wastes have been regulated by the Cabinet since 1996. We always comply with the regulated Government rates to promote transparent and fair trade. However, to encourage our customers to be socially and environmentally aware, we continue to provide a 5% rebate to all customers who are ISO 14001 certified. 68 companies benefitted from this scheme in 2012, 24% less than the previous year. Customers who dispose of larger quantities of waste are also given a reduced rate by the Company.

We will devote special attention to our customers, especially platinum customers, as part of our future marketing strategies. Platinum customers are the top 20 customers identified in each state. Ultimate service excellence is important for our long-term business prospects.

Customer Relationship Management (CRM)

Our CRM covers all interaction we have with our current and future customers. Good CRM creates a better customer experience which positively affects our revenue and profitability.

Producing a Knowledgeable Customers Platform

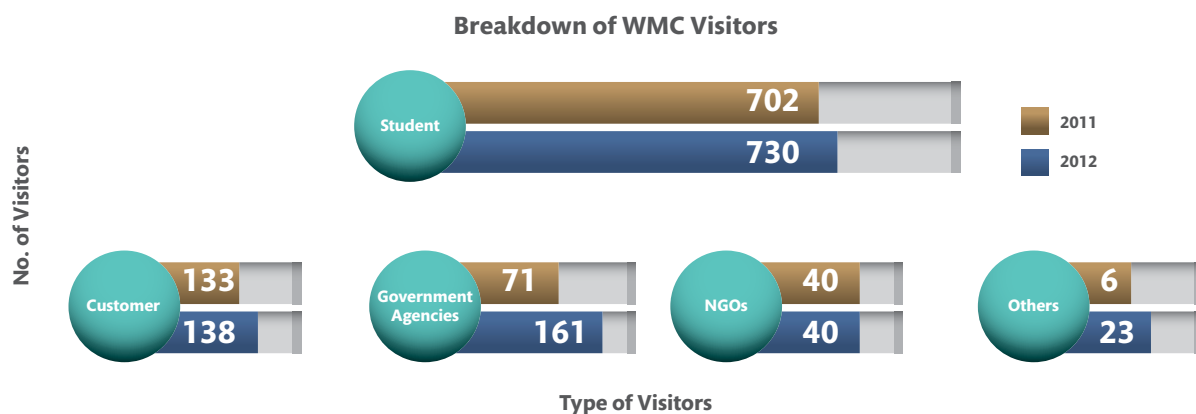
We educate our customers by providing a Competency Training Programme on Scheduled Waste Management. This complies with EQ(SW)R 2005, under regulation 15: Conduct of training. This training highlights all processes involved in scheduled waste management to our customers.

Our mission to educate our customers goes beyond training. It extends to nationwide seminars and dialogue sessions with the DOE. Exhibitions, information on our website, brochures and open dialogue with surrounding communities are also covered. Training session areas consist of waste collection, transportation, packaging, storing, e-waste guidelines, Special Waste Management guidelines, EQ(SW)R 2005 and other relevant laws. An increasing number of training sessions were conducted over the years: 3 in 2010, 8 in 2011 and 11 in 2012.

Training Date	Name of Customers	Venue	No. of Participants
26 - 27 January 2012	Kluang Utama Specialist	KPJ, Kluang Johor	20
29 February 2012	Petronas Gas Bhd	Mambau, Negeri Sembilan	20
27 - 28 February 2012	TMR Urusharta (M) Sdn Bhd	Menara JCorp , Jln Tun Razak, KL	20
31 May - 1 June 2012	Petrotechnical Inspection (M) Sdn Bhd	Kota Permai Golf and Country Club, Kota Kemuning, Selangor	20
3 - 5 September 2012	Kementerian Kesihatan Malaysia, Putrajaya	IKRAM, Bangi, Selangor	24

Training Date	Name of Customers	Venue	No. of Participants
7 - 8 September 2012	Rohm-Wako Electronics (M) Sdn Bhd	Pengkalan Chepa, Kelantan	20
12 - 13 September 2012	KKI and Sub Agent Training	WMC	24
10 - 12 October 2012	Rohm-Wako Electronics (M) Sdn Bhd	Pengkalan Chepa, Kelantan	20
15 October 2012	Negeri Sembilan Cement	CIMA Bahau, Negeri Sembilan	20
30 - 31 October 2012	Jabatan Kesihatan Negeri Perak	Cameron Highland, Pahang	20
5-6 December 2012	Giesecke & Devrient (M) Sdn Bhd	Batu 3, Shah Alam, Selangor	20

Our customer platform goes beyond companies and corporations. We also cater for other groups of stakeholders. In 2012, 1,092 WMC visitors were briefed on our waste life-cycle processes. The visitors comprised students, customers, Government agencies, Non-government Organisations (NGOs) and other groups. The number of visitors increased by 14.71% compared to the previous year. Their breakdown is shown below.



WMC visitors

Customer Satisfaction

Customer service plays a vital role in a business's success. Exceptional customer service helps us set industry standards. Our CRM ensures that customer complaints are logged in the Company's system within 3 days and corrective actions are initiated within a week.

At KASB, a Customer Satisfaction Survey is hand-delivered or mailed to customers in the last quarter of each year. The results are compiled and presented to the Management at the end of the year. Improvement plans are introduced if results are less than satisfactory. Corrective actions and improvements are monitored by HODs based on the comments received. The eSurvey is currently in the development stage and will be in full operation by the beginning of 2013. This method provides our customers with a faster, cost-effective, transparent and flexible approach.

Survey Indicator	Percentage (%)			Our Approaches	Our Commitment
	2010	2011	2012		
Customer Service Executive (CSE)	98	98	95	UEME schedules regular visits and communication with customers.	High levels of customer satisfaction are maintained.
Truck Drivers	97	97.40	98	Regular training on Defensive Driving, Road Safety and First Aid is delivered. Driver refresher courses, Emergency Response and Mock Drills are also conducted.	Drivers movements are closely monitored through GPS and live audits.
Support Services	92.80	94.70	91.50	Emphasis is placed on enquiries and dealing with customer appropriately.	Customer concerns are attended to promptly and accurately.
Ability to Meet Needs and Expectations	95.40	97.90	96	UEME schedules regular communication and visits to understand customers' concerns.	Customer service is improved by learning customers' requirements and developing action plans that feature customer friendly processes.



The table below lists the major complaints received during 2012 and corrective actions taken.

Date	Complainant	Nature of Complaint	Description of Nonconformance	Cause of Nonconformance	Corrective Action	Status
15 February 2012	Dell Asia Pacific Sdn Bhd Penang	CSE	There was a delay in responding to customer's Request for Quotation (RFQ).	CSE has overlooked the customer's request.	All RFQ will be recorded in a log book as a backup	Resolved and closed
5 April 2012	Lekok Paper Sdn Bhd Melaka	Waste Collection	Lekok Paper Sdn Bhd arranged for a collection of sludge. KKA Melaka office has requested a 3-tonne truck. Biogreen Commerce Sdn Bhd unable to provide the truck due to a shortage.	Shortage of 3 tonne trucks.	2 additional trucks were purchased	Resolved and closed
16 August 2012	MV Santa Monica	Waste Collection	KA Petra as KASB's appointed agent failed to arrange all requirements by authorities in Port Klang for sludge removal from MV Santa Monica at West Port, Port Klang.	Internal problem between vessel and local agent in Port Klang.	-	The complaint has been categorised as invalid and no corrective action was taken.

Protection of Privacy

Protecting our stakeholders' privacy has always been important to UEME. This has become crucial with the introduction of the PDPA that soon comes into force. All employees must refrain from discussing confidential Company information with business partners, customers, clients or other stakeholders unless it relates to Company business. Any customer information must be treated with the utmost confidence if it is not in the public domain. It cannot be shared or used by any employee, whether directly or indirectly, to influence an investment decision in connection with the purchase or sale of securities.

The Group Legal Department has begun an exercise to ensure compliance with the PDPA. This pilot exercise commenced in December 2012. A legal firm was appointed in the same month to assist in this matter. This exercise covers departments within the Group of Companies that are most affected by the PDPA. These have been identified as UEME's HRAS in particular.

We have been advised that each company is obliged to conduct compliance work across its entire operation. We will need to arrange our own audit, analysis and compliance. We may conduct in-house awareness training for our employees should the need arise.

In January 2013, a questionnaire will be distributed to all UEME HODs and key personnel. This research will assess if the PDPA also relates to individual departments and the necessary measures for compliance. We will review the responses and prepare recommendations based on the information received. We also hope to produce the *do's* and *don'ts* list pursuant to the PDPA. We shall seek further recommendations and guidance from the Group's Legal Department to decide the next cause of action. In our Sustainability Survey, 82.35% of our employees felt that the Company does everything in its power to protect the personal data of its stakeholders and is fully prepared for the PDPA.

Prevention of Corruption, Gifts and Favours

UEME's Code of Conduct contains guidelines for dealing with gifts and favours. Generally, employees and their immediate family members should refuse any form of gifts or favours from contractors, suppliers, clients or customers. However, employees can accept small gifts of nominal value or favours, provided they are not intended to unduly influence them.

Employees are also expected to refrain from accepting any gratuitous entertainment from external parties which the Company has business dealings, unless the employee is able to reciprocate.

Compliance

In 2012, we did not receive any grants, loans or other forms of financial assistance from the Government. We did not contribute to any political organisation or party.

We believe in competing fairly in the marketplace on the merits of our services. We make no attempt to restrain or limit trade and are unaware of any incidents or penalties for offences involving corruption, public policy development, anti-competition, anti-trust and monopolistic practices at any time during the year.

Representation on the Board of environmental and industrial group committees helps us keep abreast of changes to the regulations and guidelines. These groups, including Business Council for Sustainable Development Malaysia (BCSDM), Environmental Management and Research Association of Malaysia (ENSEARCH), Federation of Malaysian Manufacturers and Malaysian International Chamber of Commerce and Industry, help us understand the global and national issues facing industries and the environment. This is important so we can promote, develop and adapt sustainability within the business.

Regulations Compliance

No significant incidents of noncompliance with regulations or voluntary codes relating to marketing communications including promotion and sponsorship occurred during 2012. There were also no major regulatory incidents concerning the health and safety impacts of our operations. Our comprehensive quality control system is constantly evaluated and improved to comply with the provision of services.





Environment

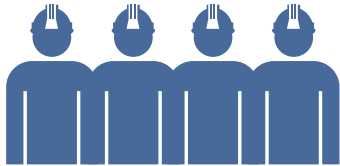
UEME's systematic approach to environmental management goes beyond traditional boundaries. Environmental performance is the root of our business. Our Company's commitment to protecting and enhancing the environment is laid down in our core values and principles. We continue to identify and manage environmental risks, especially those relevant to our operations.

Environment

As the Trusted Partner in Environmental Solutions, environmental management is part of our business commitment. We ensure minimal environmental impact results from our operations. UEME is committed to being a role model for best practice in environmental performance.

We seek ways to achieve sustainable development, reduce the impact our operations have on the environment and maximise environmental improvement. We are committed to helping our stakeholders and ourselves minimise environmental footprints.

In our Sustainability Survey,



69.42%

employees believe

the Company is environmentally responsible and

GREEN

with only 7.77% disagreeing.

Environmental Conservation

Environmental conservation at UEME is a 2-way practice. The Management continues to set a good example of green behaviour and employees are welcome to submit their green ideas to the Management. The following initiatives have been practised throughout the Company:

- We prioritise environmental friendly products when purchasing.
- Copiers are located at a few strategic locations and network scanning is performed to help save printing costs.
- The use of electronic communication media is encouraged. Soft copy documents are used whenever possible to reduce printing.
- Regular checks and immediate rectification of underground water pipes to avoid water loss.
- Posters are displayed throughout the office to create electricity saving awareness.
- Recycling bins are placed at various strategic corners in office buildings.

ENVI will introduce an internal recycling competition to its 12 Service Units in 2013. As an incentive, the winning service unit will receive cash prizes. This is also an effective way to establish close relationships with recycling vendors. The Company is also planning to host *Hari Kitar Semula* every 6 months to encourage its employees to recycle.



Display of environmental conservation notices in the office



Adoption of 5S in the workplace

Environmental Impacts Identified from KKA Operations

Certain stages of our marketing and transportation operations also have an impact on the environment. We continue to research all possible methods of mitigating the impacts as highlighted below.



Packaging

Potential Impacts

- Exposure to hazardous chemicals.
- Spillage while packaging drums or containers.

Ways to Mitigate Impact

- Strict guidelines and control on waste labelling and packaging.



Collection

Potential Impacts

- Spillage during collection.

Ways to Mitigate Impact

- All drums or bags must be fastened securely on a good conditioned pallet to minimise the risk of spillage during transportation.



Clean up job during illegal dump cases

Potential Impacts

- Exposure to hazardous chemicals.

Ways to Mitigate Impact

- All contractors must be approved by KKA prior to commencing work and comply with KASB and KKA's safety requirements at all times.



Transportation of scheduled waste to the WMC

Potential Impacts

- Truck breakdown by road side.
- Emission of black smoke.
- Fatigue/long hours driving may cause road accidents resulting in spillage.
- Incompatibility may cause explosions or an uncontrolled reaction resulting in fire.

Ways to Mitigate Impact

- EIWIS cradle-to-grave system includes GPS, barcode labelling and finger printing.
- Drivers fatigue management.



Driving

Potential Impacts

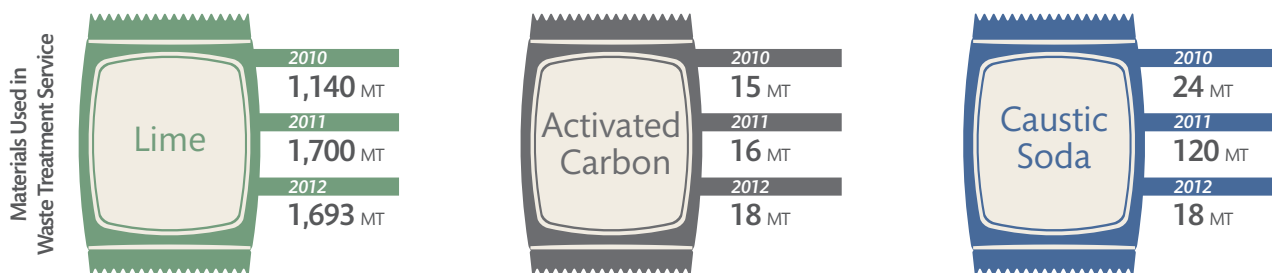
- Smoke emitted from vehicles.

Ways to Mitigate Impact

- Smoke monitoring system.
- Use of Natural Gas Vehicle (NGV) trucks.

Materials Consumption

A large amount of lime, activated carbon, caustic soda and a wide range of other chemicals are used in scheduled waste treatment services in all of our INC plants.



Caustic soda is used in our wet scrubber system when the polluted gas stream is brought into contact with the scrubbing liquid. This occurs either by spraying the gas with the liquid, by forcing the gas through a pool of liquid, or by some other contact method. This process removes the pollutants from a furnace flue gas or from other gas streams. In 2012, caustic soda consumption decreased by 85% as our wet scrubber systems were only operated a few times during the year.

The WMC also consumes a significant amount of diesel mainly as fuel for the INC Plant. Since 2004, options have been explored to replace diesel with waste oil or Recycled Oil (RO). During 2005, we invested RM1.20 million in upgrading the main INC to run on RO. This new burner system can run on 100% diesel; 100% RO; or a combination of the 2. In 2012, we made good progress as 3,287.31 MT of RO were consumed compared to only 660.66 MT of diesel. This ratio of 1:5 is an improvement compared to 1,605 MT of RO and 369 MT of diesel the previous year at a ratio of 1:4. Various factors influence the consumption of RO and diesel including waste characteristics. Low calorific value of waste results in higher consumption of fuel. Low calorific RO increases fuel consumption.

Energy Management

Throughout its operations, KASB's INC plants have used a heat recovery system to provide energy from the combustion.

Alternative Source of Energy

A steam turbine reduces electricity consumption by the motor as it provides power for the IDF. This turbine rotates at approximately 3600 rpm which is reduced to 1500 rpm by a gear connecting directly to the turbine shaft. The incineration motor can run without requiring additional electricity by reducing the speed.



Water Management

Syarikat Air Negeri Sembilan supplies water to the WMC Plant. The summary of our water usage by location is presented below.

Water Consumption by Location

Location	Volume (m ³)		
	2010	2011	2012
ADKA	47	94	26
ENVI and Service Unit Office	3,420	2,555	5,881*
KKA Regional Office and Faber Towers	209	327	195
SBSB	3,519	615	1,455
UEME Corporate HQ	138	170	170**
WMC	114,448	114,875	95,157
Total	121,781	118,636	10,2884

Note:

*Figure includes Head Office and all depots, except Kangar.

** Figure is based on estimation (Total bills for the whole building over number of floors occupied)

Water consumption at our Abu Dhabi office, ADKA, has reduced significantly by 72.34% compared to the previous year. This is following its relocation to a smaller office in April 2012. The amount of water consumed at SBSB in 2012 was more than double the previous year. This was due to pipe leakage problem caused by the landlord. The leak was repaired by the end of 2012.

Biodiversity Report

The terrestrial flora and fauna was studied around the WMC in November and December 2005. The diversity of various species of birds, mammals, snakes and insects was studied. The study also discovered a protected species of butterfly, the Birdwing Butterfly (*Troides Helena Cerberus*) and a Leopard Cat at a monitoring station. We continued our biodiversity study in 2012 as part of our ongoing efforts to preserve this precious flora and fauna.



River Cleaning at Sg Unyai

River Cleaning Programme

On 12 October 2012, we cleaned *Sg Unyai* which is close to the WMC. *Sg Unyai* is a tributary of *Sg Jangling* which is drained to the western part of the WMC. It is a small stream with relatively low average daily flow.

The activity was carried out in conjunction with the annual SHEQ Day. 26 volunteers dedicated their evening to cleaning up sections of the river and adjacent areas. This annual programme enhances the environmental awareness and highlights the importance of preservation and rehabilitation of rivers.



Supporting the World Environment Day

Program Kayuhan Hijau 1Malaysia in Johor

On 16 June 2012, the Johor State DOE, *Majlis Bandaraya Johor Bahru* and Iskandar Regional Development Authority organised *Program Kayuhan Hijau 1Malaysia Peringkat Negeri Johor*. This was held in conjunction with World Environment Day 2012 at *Dataran Bandaraya Johor Bahru, Johor*.

UEME was represented by 3 employees from the Johor regional office. They educated members of the public on the hazards of carbon emissions by motorised carbon emitting vehicles. The event was attended by 300 participants.

Tree Tagging Project

In 2012, a total of 775 trees were inventorised. Estimated CO₂ sequestered was 7750 kg/CO₂/year. 12 trees were planted but the CO₂ sequestration for samplings was not calculated as the levels were insignificant. Our 1-to-1 Tree Replacement Policy is currently a verbal commitment between all departments. The policy will be included in our Tree Management Procedure which is currently being developed.

Tree Planting Project

UEME continue to collaborate with ENSEARCH in the Cyberplant Conservation Network (CPCN) tree planting project to mark its commitment to the environment. A total of 57 fruit trees including *durian*, *rambutan*, *langsar*, *semangkuk*, *bangkong*, *tampoi*, *petai* and *larah* were planted at schools surrounding the WMC. The schools benefitting were SMK Felda Seri Sendayan, SK Sendayan, SK Jimah Baru, SK Jimah, SK Gadong Jaya and SJKT Tanah Merah. UEME also planted a variety of fruit trees in the forest reserve behind KESUKA's clubhouse. There was no deforestation in 2012.

Emissions and Effluents

We constantly measure and monitor our GHG emissions to understand the environmental footprint resulting from our operations.

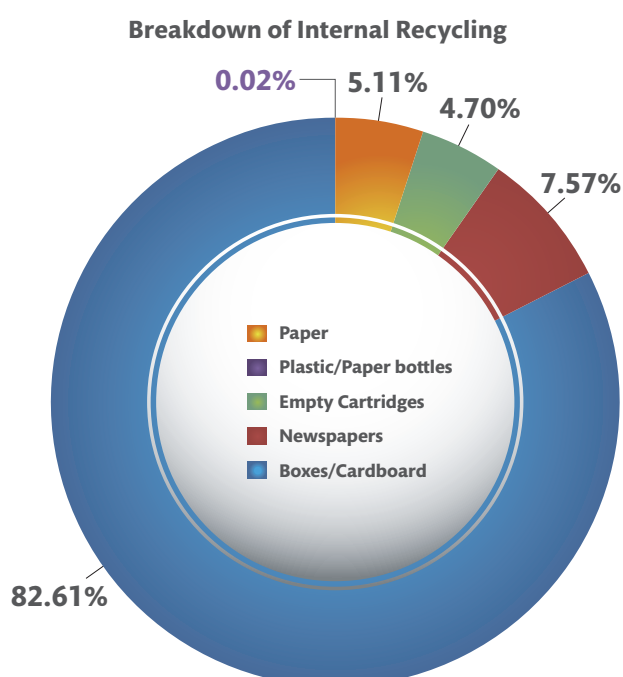
Air Quality

A number of stations have been located to monitor ambient air quality and emissions from our INCs, SOLI, PCT, containerised INCs and the ambient air. Each station monitors total suspended particulates, Volatile Organic Compound (VOC), carbon monoxide (CO), nitrogen oxides (NO_x), sulphur oxides (SO_x) and a number of other parameters. The stack monitoring stations recorded a number of hazardous gaseous substances including dioxin and furans. These gases may have resulted from the incineration of processed scheduled waste.

Domestic Waste Management

At UEME, landfill is the final destination for all non-recyclable and organic domestic waste. Segregated wastes such as paper, carton boxes and plastic bottles are sent to a recycler. Empty cartridges are collected by a third-party vendor.

We continue to implement an internal recycling programme at our offices. In 2012, we collected 6.60 MT of recyclable waste. The detailed breakdown of this waste is presented in the following chart.



Collection of recyclable waste from our employees

Waste Treated and Internal Waste Generated from Operations

Facilities	Quantity of Waste (MT)					
	2010		2011		2012	
	Waste Treated	Internal Waste Generated	Waste Treated	Internal Waste Generated	Waste Treated	Internal Waste Generated
INC1	38,665	7,664	24,158*	6,659	24,316**	10,793.90
INC2	1,993	448	46*	12	-	-
INC3	2,364	468	97*	15	-	-
INC4	6,210	2,705	4,455*	1,677	6,597**	1,184.45
SOLI	17,819	265.89	11,160*	131.41	8,313**	188.35
PCT	14,888	0.01	10,607*	12.77	4,329**	0.06
PCT ETP	3,404	-	1,424*	-	-	37.01
Total	85,343	11,550.90	51,947	8,507.18	43,555	12,203.77

Note:

*As per Audited Financial Account for the year ended 31 December 2011

** As per Audited Financial Account for the year ended 31 December 2012

The reduction in waste treated at INC1 was due to a major shutdown for boiler retubing. The amount of waste treated at INC4 has increased compared to 2011 due to lower plant downtime.

INC2 and INC3 ceased operations in February 2011. This was partly due to a reduction in waste collection. It was also to fully utilise INC1 and INC4 operations. Wastes suitable for INC2 and INC3 are channelled to our Sludge Destabilisation System (SDS) Plant which has lower treatment costs.

In 2012, there was a 40% reduction in total waste treated at SOLI plant compared to the previous year. This was due to lower collection of waste.

The total waste treated at our PCT plant also reduced by 60% for the same period. This is due to the waste characteristics we received during the year. Chromate and HF acid waste take longer time to treat as they must be diluted to reduce the concentration. PCT treatment is integrated with SOLI plant as the slurry from treated waste is used in the solidification process.

The Special Waste Management provision caused less waste to be collected in 2012. Some scheduled wastes need not be treated at prescribed premises. This category of scheduled waste may be sent to normal landfill under the authority of the local council. We have lost approximately 20% of our waste stream due to this. This issue is currently being highlighted to the DOE for their consideration.

We are preparing to offer on-site waste treatment to industries. This would mitigate the impact of Special Waste Management provision and also help reduce the WG's disposal costs. Waste would be treated at their plants before being managed under the special waste management category. Even though this would reduce the amount of waste that is being treated, it would significantly lessen the impact on the environment.

Did You Know?

Type of Solid Wastes



- MSW consists of household waste, construction and demolition debris, sanitation residue and waste from streets. This garbage is generated mainly from residential and commercial complexes.



- Hazardous wastes include industrial and hospital waste. Hazardous wastes are highly toxic to humans, animals and plants. They can be corrosive and highly inflammable. Explosions and reactions occur this waste is exposed to certain chemicals.



- Biomedical waste is generated during the diagnosis, treatment and immunisation of people or animals. It can be a byproduct of research activities or the testing of biologicals. This waste is highly infectious and poses a serious threat to human health if not managed in a scientific and discriminate manner. This waste also falls under scheduled waste regulations.



Impact from Operations

Areas in which we have the greatest impact and control are monitored. The overall footprint is growing in absolute terms as operations expand and the headcount increases. The output is also considered when measuring emissions from each plant.

**12,343 MT
CO₂-eq**

INC1

Types of Raw Material	Quantity (MT)
Caustic Soda 48%	69,000
Lime	1,327
Activated Carbon	9.63
Nitrogen	571,747
NALCO	300
KURITA	600
HCL 33%	7,000
NaOH 25%	7,000

SOLI

Types of Raw Material	Quantity (MT)
Cement	1346.39
Lime	402.81
Sand	4092.29
Waste	1612.30
Fly Ash	2532.44
Cement / Waste	32
Lime / Waste	10
Sand / Waste	99

INC4

Types of Raw Material	Quantity (MT)
Lime	371.5
Activated Carbon	5,000

PCT

Types of Raw Material	Quantity (MT)
Usage of Lime	49.63
Usage of Lime Liquid	118.00
Usage of Ferrous Sulfate	1.950
Usage of Sodium Hypochlorite	23.030
Caustic Soda	79.63

Plant Downtime

In 2012, the overall plant downtime increased compared to previous years as INC2 and INC3 ceased operations. The downtime also increased at INC1 due to boiler maintenance. Other plants remained relatively stable.

Facilities	Downtime (Hours)		
	2010	2011	2012
INC1	1,572	1,249	2,318
INC2	2,374	8,601	-
INC3	1,430	8,483	-
INC4	2,185	2,599	2,148
SOLI	503	349	372
PCT	667	658	542

Compressed Gas Cylinder Management

Toxic, corrosive, flammable and inert gases from unused gas cylinders are removed by a Cylinder Management Device (CMD) and neutralised in a scrubber system. Hydrogen chloride, ammonia, chlorine, hydrogen sulphide and catalysts can be treated. KASB's PCT facilities treats the scrubbing solution and the cylinders are stored for disposal. A cylinder penetration device helps release the contents of cylinders with seized valves.

KASB is fully equipped with scrubbers, reactors, acetylene processing, mobile flare, mobile venting systems, a crane and salvage cylinders at its degassing room. These systems release and treat residual cylinder gas through flaring, incineration or chemical process.



Injection of ODS gas for destruction process

We processed more Ozone Depleting Substances (ODS) in 2012. We disposed of 5.96 MT of ODS gas in 2012; the average cylinder weighed approximately 25 kg. 57.10% were R-22, 21.20% R-410A and R-12 (6.70%). We also disposed of smaller quantities of R-134A, R-404A, R-407C, R-408A and R-417A which have lower ozone depleting potential. These gases are all hydrochlorofluorocarbons (HCFCs) except R-12 which is chlorofluorocarbon (CFC). Our gas cylinder disposal by type is listed below.

Type of Gas	No. of Cylinders		
	2010	2011	2012
Flammable	15	19	4
Corrosive	0	3	36
ODS	10	75	237
Inert	0	17	1
Others	0	1	52
Total	25	115	330

UEME supports the Malaysian Government's commitment to implementing the Montreal Protocol on Substances that Deplete the Ozone Layer. This protocol demands freezing the consumption and production of HCFCs in 2013. The parties also agreed to begin reducing their consumption and production in 2015.

Flammable Gases / ODS

Cylinder gas is usually pressurised otherwise a vacuum pump is required. Gases flow directly to the INC plant through a pipeline. Moisture and debris are removed from the pipeline with mineral oil, nitrogen or both prior to incineration.

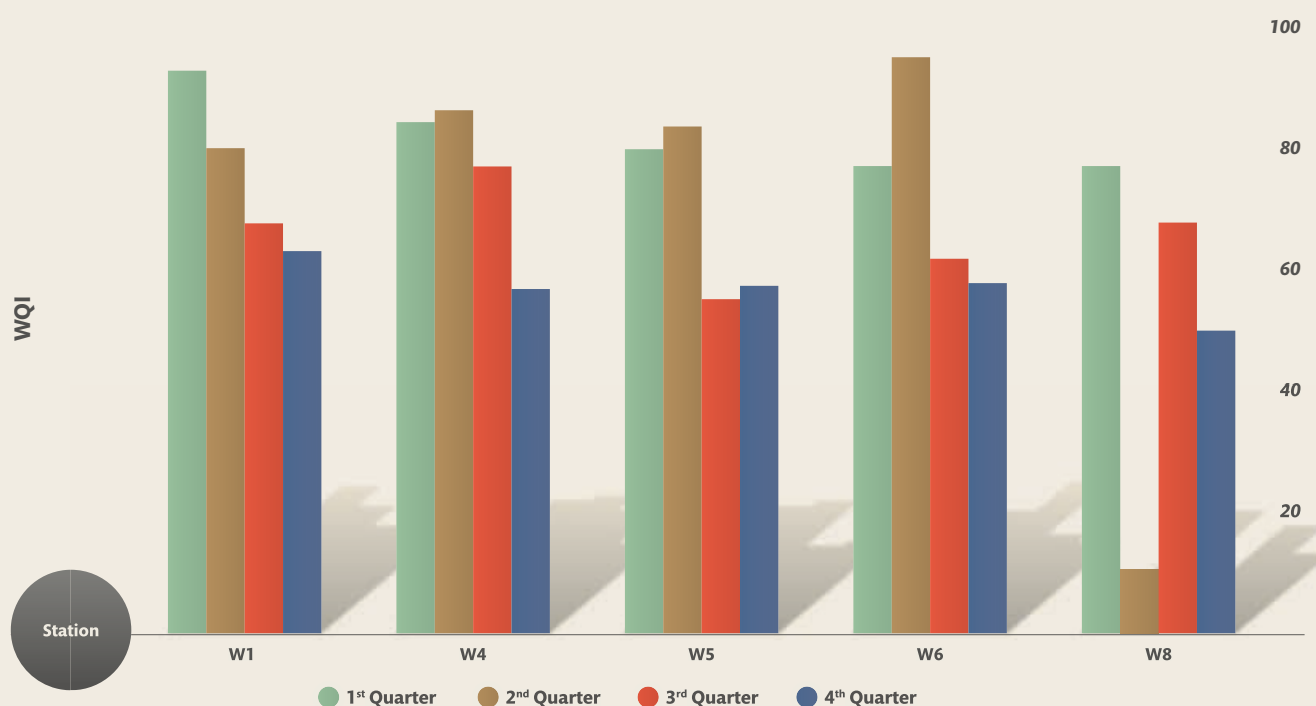
Pre-treatment – Incineration of ODS / GHG

CO₂, HCFCs, CFCs, hydrofluorocarbons (HFCs), nitrous oxide, methane and sulphur hexafluoride are the most common ODSs and GHGs. ODSs deplete the ozone layer; GHGs hold heat in the atmosphere, a phenomenon known as the greenhouse effect. Our INC Plant pipeline is employed to decompose the gas into hydrochloric acid or hydrofluoric acid which is scrubbed during the incineration. This minimises the environmental impact particularly from CFCs or HCFCs being released directly into the air.

Environmental Performance

Surface Water Quality

The DOE assesses the pollution load of river water using the Water Quality Index (WQI). Classes of beneficial uses are categorised under the National Water Quality Standards for Malaysia (NWQS). The WQI at the 5 stations recorded an average of 65, which falls under the DOE category of medium.



Silt Trap Discharge from W2 and W3 is the flow of storm water during raining periods. Comparing W2 and W3 with the WQI is inappropriate since WQI represents readings from the middle stream of the river rather than at the discharge point. Currently, the W2 and W3 are compared with Standard B, Environment Quality (Industrial Effluent) Regulations 2009. This is the best comparison as it takes readings from the discharge point.

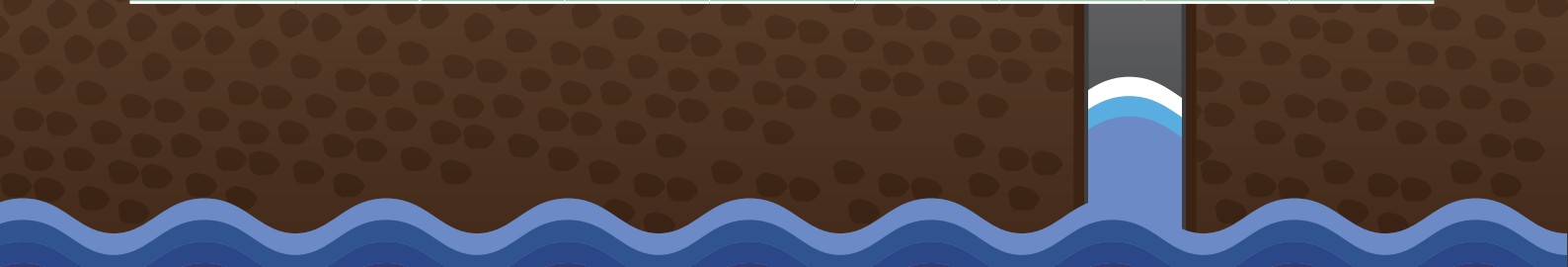
W7 was demolished in 2010 due to river alteration. It was converted into concrete drainage by the developer who purchased the land adjacent to the WMC (Sendayan Tech Valley).

Groundwater Quality

We continued monitoring groundwater at our 7 locations. WW6 and WW7 are located around the WMC and the remaining at *Kg Jimah Lama*. We benchmark our results against the National Guidelines for Raw Drinking Water Quality (NGRDWQ) which is a standard used for groundwater.



Location		Parameter (mg/l)						
		pH	Mercury (Hg)	Lead (Pb)	Copper (Cu)	Zinc (Zn)	Arsenic (As)	Cyanide (CN)
KJL	Min	5.71	<0.001	<0.002	<0.01	0.05	<0.01	<0.01
	Max	6.33	<0.001	<0.002	0.03	0.24	<0.01	<0.01
WW2	Min	4.52	<0.001	0.03	<0.01	<0.02	<0.01	<0.01
	Max	5.62	<0.001	0.11	0.01	0.09	3.91	0.03
WW3	Min	4.52	<0.001	0.03	<0.01	<0.02	<0.01	<0.01
	Max	5.62	<0.001	0.11	0.01	0.09	0.25	<0.01
WW4	Min	5.2	<0.001	<0.01	<0.01	0.02	<0.01	<0.01
	Max	5.94	<0.001	0.09	0.04	0.08	2.71	<0.01
WW5	Min	5.37	<0.001	<0.02	<0.01	0.02	<0.01	<0.01
	Max	5.62	<0.001	<0.02	<0.01	0.03	0.18	<0.01
WW6	Min	5.08	<0.001	<0.02	<0.01	0.02	<0.01	<0.01
	Max	5.84	<0.001	<0.02	<0.01	0.06	16.10	0.04
WW7	Min	5.24	<0.001	<0.02	<0.01	0.03	<0.01	<0.01
	Max	6.41	<0.001	0.32	<0.01	0.97	0.15	<0.01
NGRDWQ Standard			0.001	0.05	1	3	0.01	0.007



Air Quality

We continued monitoring ambient air quality at KASB and KKI. 6 sites were monitored at KASB: 3 within the WMC compound and 3 in the surrounding community. 2 sites were monitored at KKI. We comply with the DOE requirements for all parameters.



KASB

Parameter (mg/Nm ³)	A1		A2		A3		A4		A5		A6		DOE Limit
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
Total Suspended Particulate (TSP)	45	149	26	90	38	39	26	55	53	198	78	123	260
Ozone (O₃)	<0.01	<0.01	None	None	None	None	None	None	<0.01	<0.01	<0.01	<0.01	200
Hydrogen Chloride	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	32
Chlorine	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	None
SO_x	<0.10	<1.0	<0.10	<1.0	<0.1	<1.0	<0.1	<1	<0.1	<1.0	<0.10	<1	350
CO	<1	<1	<1	<1	<1	<1.0	<1	<1	<1	<1	<1	<1	35
NO_x	<1	<1	<0.1	<1	<0.1	<1	<0.1	<1	<0.1	<1	<0.1	<1.0	320
Sulphuric Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	None
Total Hydrocarbons	<0.01	<0.32	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.01	<0.32	<0.01	<0.32	None
Poly Chlorinated	<0.001	<0.001	<0.001	<0.01	<0.001	<0.01	<0.001	<0.01	<0.001	<0.001	<0.001	<0.01	None
Hg	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.01	<0.001	<0.01	None
Cadmium (Cd)	<0.01	0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.001	<0.01	0.001	2
Plumbum	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.002	<0.01	0.002	1.50
Antimony	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.01	<0.001	<0.01	None
As	<0.01	0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.003	<0.01	0.002	0.30
Zn	0.08	0.51	0.48	0.60	0.48	0.51	0.35	0.48	0.06	0.597	0.09	0.60	120
Cu	<0.01	0.024	0.02	0.10	0.02	0.04	<0.01	0.02	0.02	0.07	0.007	0.10	50
Chromium	<0.01	0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.001	<0.01	0.001	1.50
Nickel (Ni)	<0.01	0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.001	<0.01	0.001	320
Iron (Fe)	0.01	0.042	0.01	0.03	0.02	0.08	0.02	0.03	0.01	0.32	0.01	0.15	4
Manganese	<0.01	0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.001	<0.01	0.001	2.50

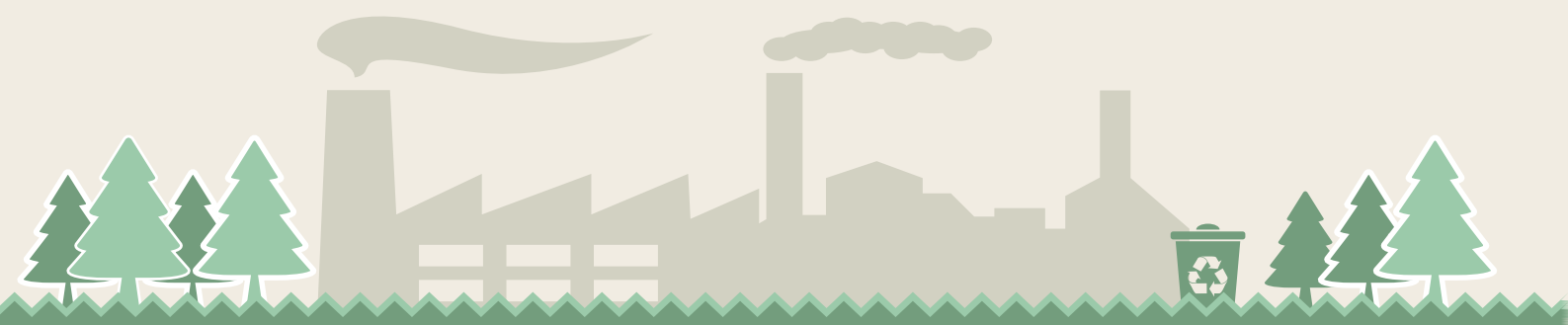
KKI

Parameter / Results (mg/Nm ³)	Average A1	Average A2	DOE Limit
TSP	84.50	83.50	260
Particulate Matter	58	59.50	150
Sulphur Dioxide (SO₂)	1.01	0.46	105
CO	<1	<1	35
Nitrogen Oxides (NO₂)	0.06	0.04	320
O₃	<0.01	<0.01	200
Pb	0.025	0.035	0.50
As	0.01	0.01	0.30
Cd	<0.01	0.02	0.025
Cu	0.30	0.285	50
Sb	<0.01	<0.01	25
Zn	1.98	2.33	120
Hg	<0.01	0.01	2

Stack Emissions Monitoring

Since our INC2 and INC3 ceased operations in February 2011, stack emissions monitoring at these 2 sites did not record any results. We complied with the DOE and EQA limits for all parameters. The results of our emissions monitoring of INC1 and INC4 are presented below.

Parameter (mg/Nm ³)	1 st Quarter		2 nd Quarter		3 rd Quarter		4 th Quarter		DOE Licensing Condition (Unit)
	INC1	INC4	INC1	INC4	INC1	INC4	INC1	INC4	
Smoke Density (Ringelmann)	0	0	0	0	0	0	0	0	1
Total Particulates	28	18	19	22	15	28	14	28	30
NO₂	40.10	310	125	190	75.3	300	56	237	400
SO₂	<3	<3	<3	<3	<3	2	<3	<3	200
CO	17.10	24.20	13.50	5.60	1.30	27	1.30	18	125
Chlorine	0.15	0.11	<0.01	0.28	0.17	0.25	0.08	0.08	200
As and its compounds	0.02	0.03	0.26	0.41	<0.02	0.10	<0.02	<0.02	25.0
Cd and its compounds	0.02	0.11	1.77	0.46	<0.02	0.02	<0.02	0.02	15.0
Chromium and its compounds	0.70	0.10	0.10	0.10	<0.02	0.07	<0.02	0.02	50
Pb and its compounds	0.07	0.11	1.50	0.78	<0.02	0.60	<0.02	0.03	20
Hg and its compounds	0.01	0.00	<0.01	<0.01	<0.02	<0.01	0.01	<0.01	0
Cu and its compounds	0.11	1.60	0.19	0.16	<0.02	0.25	<0.02	0.04	100





100% of our water at the WMC is recycled and used during our operations. The quality and destination of this internally reused water is listed in the tables below.

Leachate Treatment Plant (LTP) Effluent Result – Storm Water (treated)

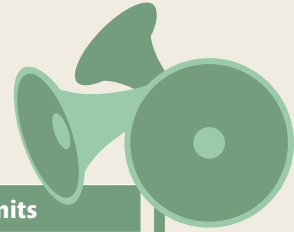
Parameter	1 st Quarter						2 nd Quarter		3 rd Quarter		4 th Quarter		
pH	6.92	7.22	7.42	7.46	7.83	8.36	7.26	7.68	6.99	8.5	8.41	8.77	8.56
	mg/l												
Chemicals Oxygen Demands (COD)	661	627	471	403	439	458	373	119	377	120	209	473	290
As	4.16	3.1	1.3	2.48	2.48	0.91	5.61	5.18	2.78	1.68	1.15	1.79	4.54
Total Chromium	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.07	<0.04	0.02	<0.04	<0.04	<0.04
Cu	0.04	0.02	<0.01	0.02	0.03	<0.01	0.05	0.02	0.03	0.02	< 0.01	0.03	0.01
Pb	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.08	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Ni	1.98	1.74	0.94	1.67	0.79	0.3	3.39	0.09	9.45	0.05	0.29	0.39	0.05
Zn	0.08	0.08	0.12	0.12	0.1	0.05	0.22	0.06	0.27	0.1	0.03	0.11	<0.02
Boron (B)	10.3	8.5	5.2	10.2	9.4	8.1	17.9	6.2	-	1.9	9.02	10.10	1.40
Fe	1.03	0.84	0.69	1.38	3.93	0.54	0.5	5.9	0.72	0.68	< 0.05	0.18	<0.05
Sulphide	<0.30	<0.30	<0.30	<0.30	1.36	0.36	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Ammonical Nitrogen (NH3-N)	614	618	732	456	780	744	776	1,158	269	164	62.6	326	63.70

LTP Effluent Result – Leachate Water (treated)

Parameter	1 st Quarter			2 nd Quarter				3 rd Quarter
pH	8.12	8.21	8.32	8.03	8.2	5.8	7.68	8.5
	mg/l							
COD	790	988	874	621	137	1,284	119	120
As	<0.04	<0.04	<0.04	<0.04	0.12	<0.04	<0.04	0.02
Total Chromium	2.66	5.18	2.26	3.99	11	2.45	5.18	1.68
Cu	<0.02	0.05	<0.02	0.06	0.04	0.05	0.02	<0.02
Pb	0.04	0.04	0.01	0.03	0.07	0.04	0.02	0.02
Ni	0.09	0.65	0.08	0.11	0.18	0.11	0.06	0.1
Zn	8.5	12.7	6.8	16.4	39.3	10.8	6.2	1.9
B	0.21	0.6	0.12	0.16	0.3	0.23	0.09	0.05
Fe	4.6	10.5	6.98	25.4	78.1	21.3	5.9	0.68
Sulphide	<0.30	<0.30	<0.30	<0.30	<0.30	<0.03	<0.30	<0.30
NH3-N	796	890	1,172	1,135	1,371	910	1,158	164

Noise

We monitored the noise levels surrounding the WMC in stations N1 to N4. We are pleased to report that our noise exposure continues to comply with the DOE guidelines.



Location	Period	LAeq dB(A)	LA10 dB(A)	LA50 dB(A)	LA90 dB(A)	Limits
N1	Day time	54.80	57.70	51.06	49.70	<65 dB(A) for Day time
	Night time	47.35	48.50	47.30	44.05	
N2	Day time	57.20	58.60	51.35	47.45	<55 dB(A) for Night time
	Night time	45.80	49.50	48.80	42.35	
N3	Day time	55.80	55.45	43.20	39.80	
	Night time	45.85	48.60	45.60	42.75	
N4	Day time	53.35	53.15	46.75	44.65	
	Night time	49.10	51.65	45.65	43.05	

Note:

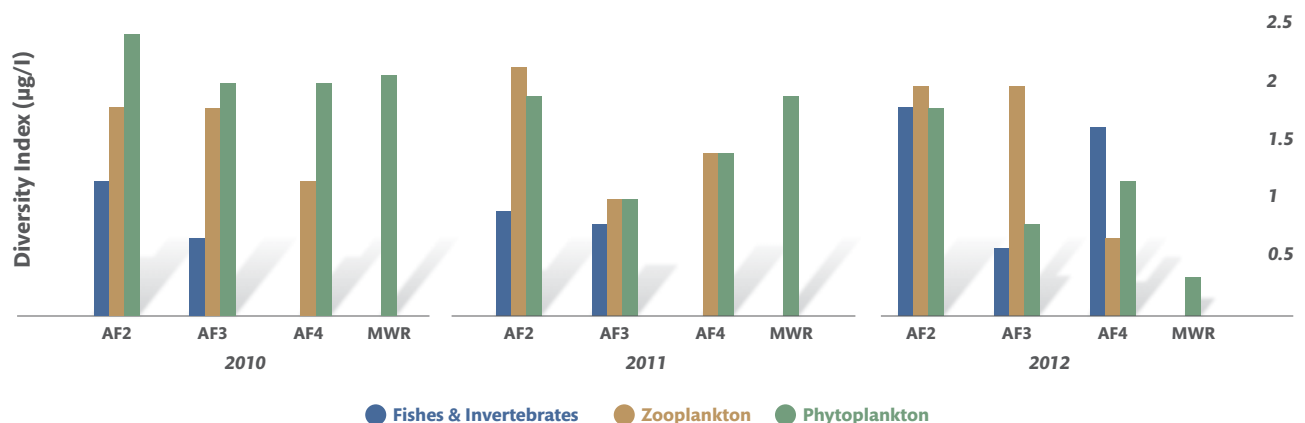
- N1: Western boundary of the WMC (Near to LTP)
- N2: Northern boundary of the WMC (End boundary of Secured Landfill)
- N3: Eastern boundary of the WMC (End boundary of Rubber Sludge Landfill)
- N4: Southern boundary of the WMC (Near to Guard House)

Preserving Biodiversity

In 2012, we continued monitoring biodiversity at the WMC to ensure our activities do not adversely affect biodiversity levels.

Bio-aquatic Monitoring

Bio-aquatic monitoring consists of taking random samples of macro and microorganisms in aquatic areas. Shannon's H and E was employed to develop a Diversity Index. This Index is used to calculate the biological community structure and ascertain the rarity and abundance of a species in a community or area. Station AF2 was the most diverse with species of fish, phytoplankton and zooplankton compared to other stations. The bio-aquatic monitoring summary results as of December 2012 are presented below.



Note:

AF2: Small stream from tributaries of Sg Unyai after main culvert near to Tanah Merah post guard.

AF3: Small stream from tributaries of Sg Kulai near to landfill areas.

AF4: Small stream from tributaries of Sg Unyai after gabion dam near to MWR.

MWR: Inside Main Water Reservoir

Station AF2 was the most diverse area with species of fish, phytoplankton and zooplankton. In 2012, station MWR recorded the highest level of *Chlorophyll a*. The higher the concentration of *Chlorophyll a*, the poorer the water quality as *Chlorophyll a* thrives in a high nutrient environment.

Photoreceptor / Station	Concentration (µg/L)											
	2010				2011				2012			
	AF2	AF3	AF4	MWR	AF2	AF3	AF4	MWR	AF2	AF3	AF4	MWR
<i>Chlorophyll a</i>	8.80	24.20	25.70	12.90	21.52	1.84	3.15	13.35	0.01	0.003	0.005	0.192

Bioassay Testing

Our bioassay testing monitors the mortality rate of various aquatic species in a laboratory setting. 3 main species were used: *Chlorella Vulgaris*, *Tilapia sp.* and *Moina Micrura*.

Chlorella Vulgaris Growth Rate

Chlorella Vulgaris levels at station AF2, AF3 and AF4 have mostly improved in 2012. The reading at AF2 during the 24th hour experienced the most significant drop compared to the previous year. Lower readings were also recorded at AF4 during the 48th hour and 96th hour but not significantly.

Hour	Growth Rate (%)								
	AF2			AF3			AF4		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
0	100	100	100	100	100	100	100	100	100
24 th	115.50	98	95	148.50	92	93.50	118.40	92	92.50
48 th	92.80	88	89	109.80	88	91.50	83.80	81	80.50
72 th	62	89	90	73	79	80.50	69.30	81	81
96 th	53	92	94	59	83	83	45	76	75.50

Tilapia sp. Bioassay 96th Hour Test Result

The number of *Tilapia sp.* deaths is considered consistent during each monitoring hour at 3 stations. This has improved since last year where the number of deaths during the 24th hour was exceptionally high in comparison with other stations (34 deaths).

The total number of *Tilapia sp.* deaths in 2012 was 18. This is 56.10% fewer than 41 deaths in 2011.

Station	Water Sample (%)	No. of Deaths				
		0	24 th	48 th	72 th	96 th
AF2	100	0	1	2	1	2
AF3	100	0	2	1	3	2
AF4	100	0	0	2	0	2

Note:

AF2: Small stream from tributaries of Sg Unyai after main culvert near to Tanah Merah post guard.

AF3: Small stream from tributaries of Sg Kulai near to landfill areas.

AF4: Small stream from tributaries of Sg Unyai after gabion dam near to MWR

Moina Micrura Mortality Rate

Moina Micrura is a species of zooplankton that is commonly used in bioassay testing to gauge toxicity levels. A summary of mortality results in December 2012 is presented below. The mortality rates recorded at all stations have shown an increase compared to the previous year.

Hour	Mortality Rate (%)								
	2010			2011			2012		
	AF2	AF3	AF4	AF2	AF3	AF4	AF2	AF3	AF4
Mean Mortality rate of <i>Moina Micrura</i> on 48 th Hour	64.20	35.80	100.00	40.20	42.00	40.00	50.00	70.00	80.00

Flora and Fauna Survey

We continuously enhance our flora and fauna index. Our flora and fauna surveys conducted in 2012 discovered 86 flora species, which is more than 80 in the previous year. 72 species of fauna were identified which is slightly fewer than 74 in the previous year.

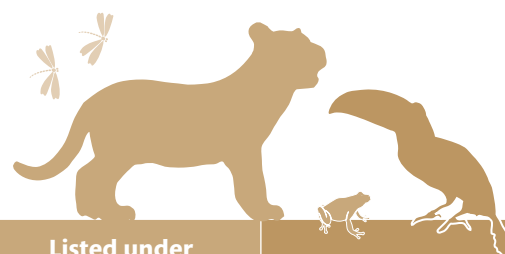


Flora Species

Type of Species	Total Species	Listed under International Union for Conservation of Nature (IUCN) Red List of Threatened Species		Listed under CITES Appendix II (Convention on International Trade in Endangered Species of Wild Fauna and Flora)	Listed under Malaysian Wildlife Protection Act of 1972
		Total Species Listed	Status of Living of IUCN		
Woody Trees Species	27	8	1 sp. Vulnerable, 5 sp. Least Concern, 2 sp. Critically Endangered	-	-
Shrubs and Herbaceous Species	37	8	2 sp. Vulnerable, 5 sp. Least Concern, 1 sp. Endangered	-	-
Ferns and Ferns Allies	19	1	1 sp. Least Concern	-	-
Palms	3	0	None	-	-

Fauna Species

Type of Species	Total Species	Listed under IUCN Red List of Threatened Species		Listed under CITES Appendix II (Convention on International Trade in Endangered Species of Wild Fauna and Flora)	Listed under Malaysian Wildlife Protection Act of 1972
		Total Species Listed	Status of Living of IUCN		
Frogs	8	4	4 sp. Least Concern	-	-
Mammals	6	5	5 sp. Least Concern	2 sp. - Long-tailed Macaque & Common Tree shrew	1 sp. - Musang Tenggalong
Birds	34	26	26 sp. Least Concern	-	-
Reptiles	2	0	None	-	-
Grasshoppers, Dragonflies and Butterflies	22	0	None	-	-



GHG Emissions

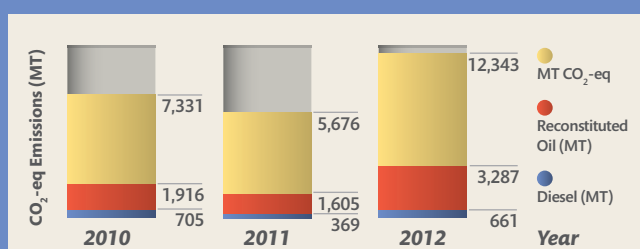
We conducted a company-wide GHG emission study in 2006. We have adopted the internationally-recognised GHG Protocol established by the World Business Council for Sustainable Development (WBCSD) and World Research Institute (WRI). Our emissions accounting is based on the GHG Protocol classification of direct and indirect emissions.

Scope	Category	Indicators Measured
Scope 1	Direct GHG emissions	- Fuel consumption in our incineration process - Company owned vehicles
Scope 2	Indirect GHG emissions	Electricity consumption
Scope 3	Other indirect GHG emissions	- Employee owned vehicles - Contractor owned vehicles - Air travel

Scope 1 Direct GHG Emissions

Plant Operations

The majority of our waste is incinerated and the remaining slag is sent to secured landfill. Running our INCs for extended periods of time consumes large amounts of energy.



Fuel Consumption and CO₂ Emissions from INC Plants

In 2012, our diesel consumption increased by 79.13%, from 369 MT to 661 MT. RO consumption increased by 104.80% from 1,605 MT to 3,287 MT. Overall, our fuel consumption increased by 100% from 1,974 MT in 2011 to 3,948 MT in 2012. In 2012, we had low waste collection and most had a low calorific value which was difficult to mix properly. Higher quantities of fuel were required to incinerate this waste.

As a result of the increase of fuel consumed at our INCs, our GHG emissions increased by 117.46% from 5,676 MT in 2011 to 12,343 MT in 2012.

Company Owned Vehicles

UEME reports GHG emissions from all company owned vehicles. Consumption is calculated from fuel purchases for cars, motorcycles, 4-wheel drives, vans, trucks and other heavy industrial vehicles. The CO₂ emissions for the consumption of fuel were derived from the emission factor published by the IPCC Guidelines for National GHG Inventories.

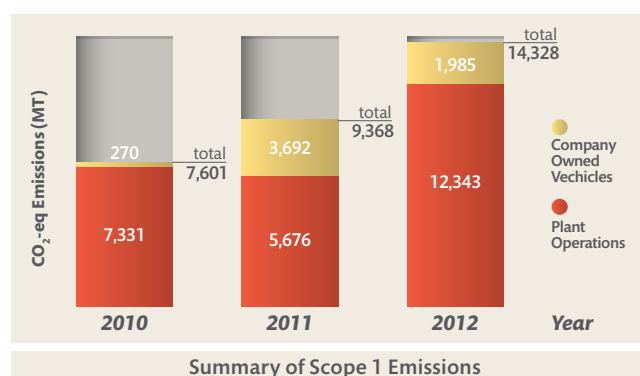
There was a 46.24% reduction of emissions in 2012 compared to 2011. This is mainly due to the use of 24 new fuel-efficient vehicles which were brought into ENVI. In 2012, 1 of ENVI's company vehicles began to run on NGV.



CO₂ Emissions from Company Owned Vehicles

Summary of Scope 1 Emissions

Although the amount of fuel used by our company owned vehicles decreased, the fuel consumed at INCs increased significantly. The overall Scope 1 GHG emissions were 52.95% higher than the figures reported in 2011.

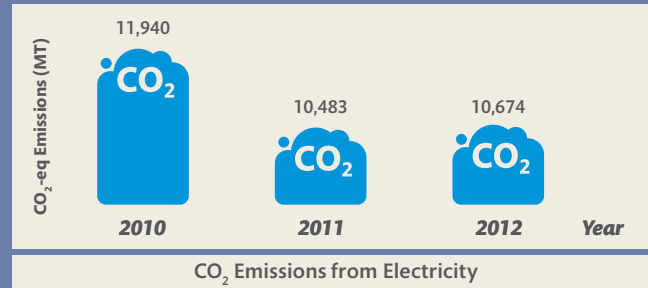


Scope 2 Indirect GHG Emissions

Our indirect GHG emissions are emissions that are a consequence of our activities, but occur at sources owned or controlled by another entity. At UEME, this is in the form of purchased electricity.

CO₂ Emissions from Electricity Use

The CO₂ emissions from the use of electricity were derived using the emission factor published by the Malaysian Green Technology Corporation for the Peninsular grid. In total, we consumed 15,627,907 kWh of electricity with 95.94% being consumed at the WMC. The emissions produced from our electricity consumption increased slightly by 1.82% from 10,483 MT in 2011 to 10,674 MT in 2012. We continually take all possible steps to keep our electricity usage to a minimum.



Scope 3 Other Indirect GHG Emissions

CO₂ emissions from the consumption of fuel for both employee and contractor owned vehicles were derived from the emission factor published by the IPCC Guidelines for National GHG Inventories. All short and long-haul flights were included in the GHG calculation for air travel. Online tools derived from the WRI GHG Protocol have been used to estimate the CO₂ emissions from air travel.

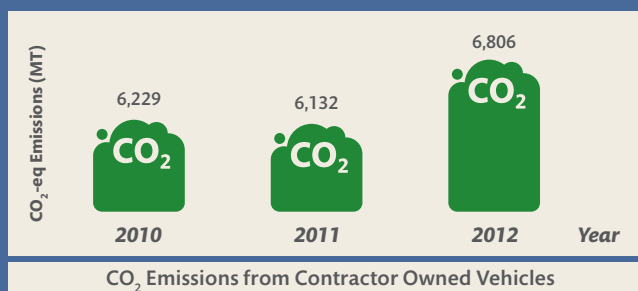
Employee Owned Vehicles

Employee owned vehicles emissions reduced by 7.51% from 493 MT in 2011 to 456 MT in 2012.



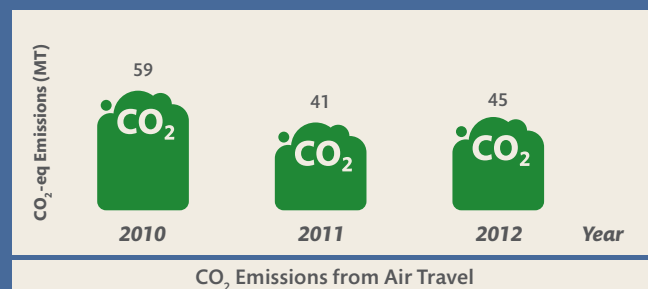
Contractor Owned Vehicles

Contractor owned vehicles consist of heavy industrial transporters, waste collection vehicles and landfill compactors listed under KASB, KKA, KKI and ENVI. In 2012, GHG emissions from contractor owned vehicles increased by 11%. Emissions increased from 6,132 MT in 2011 to 6,806 MT in 2012. This was mainly due to the additional 12 trucks at ENVI which were rented from contractors in 2012.



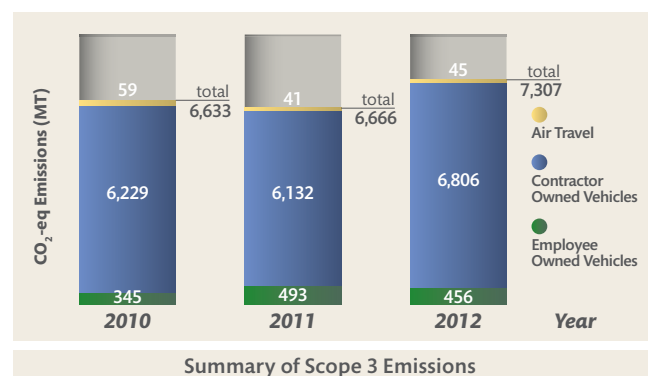
Air Travel

GHG emissions resulting from air travel were measured from origin to destination including the number of employees on board, distance and flight class. All short and long-haul flights were included in the GHG calculation. Emissions from business air travel increased by 9.76% in 2012 from 41 MT in 2011 to 45 MT in 2012.



Summary of Scope 3 Emissions

This diagram summarises our total Scope 3 emissions for the year 2012 which represents an increase of 9.62%.



Total Emissions

The following table provides the full breakdown of our emissions and their sources:

Scope	Emission Source	CO ₂ -eq Emissions (MT)		
		2010	2011	2012
1	Plant Operations	7,331	5,676	12,343
	Company Owned Vehicles	270	3,692	1,985
	Subtotal	7,601	9,368	14,328
2	Electricity Consumption	11,940	10,483	10,674
	Subtotal	11,940	10,483	10,674
3	Employee Owned Vehicles	345	493	456
	Contractor Owned Vehicles	6,229	6,132	6,806
	Air Travel	59	41	45
	Subtotal	6,633	6,666	7,307
Total		26,174	26,517	32,309

Our total GHG emissions in 2012 were 32,309 MT, approximately 21.84% higher than the previous year. This is mainly due to the expansion of ENVI's operations which translated to a larger workforce, more contractors and subcontractors. There was also an increased number of offices and depots.

Year	Total Waste Treated (MT)	Total CO ₂ Emissions (MT CO ₂ -eq)	CO ₂ Emissions per MT of Waste Treated (MT CO ₂ -eq/MT waste treated)
2010	85,343	26,174	0.3067
2011	51,947	26,517	0.5105
2012	43,555	32,309	0.7418

Regulations Compliance

We continue to ensure our compliance with local and international standards on environmental protection. Our achievement of ISO 14001:2004 signifies our performance in this area. There were no non-compliance or monetary sanctions relating to our environmental performance.



A photograph of a young green plant with serrated leaves growing from a mossy log. The log is covered in green moss and several circular patches of light green lichen. The background is a dark, blurred forest scene.

Grow

Various technologies and capabilities have been invested in. The journey continues as cutting-edge innovations are developed and integrated into our business operations. We pioneer solutions for society's pressing issues which cater for the evolving social and environmental demand.

Continuous Improvement Programme

Our continuous improvement programme aims to deliver sustainable, cost saving and profitable growth by seeking to add value through innovations. These programmes are designed to fuel growth and develop new ways to serve our stakeholders.

UEME Environmental Initiatives

Acetylene Gas Processing Plant

In May 2012, the plant obtained a Certificate of Fitness for the Steam Generator (boiler) from DOSH. This is in addition to the DOE's permission to treat and dispose of used acetylene cylinders obtained in August 2010.

**Currently, we have treated
9,304 of the total 20,798** 
**cylinders received since operations
commenced in**

January 2011



Checking an Uninterruptible Power Supply unit

50.73 MT of acetone has also been extracted which represents approximately 5.4 kg per cylinder. The plant's heating chamber removes the acetylene and solvent from the acetylene cylinder. The cylinder still contains asbestos after the removal and is safe for secured landfill disposal.

The acetone is purified and sold for commercial use. KKA and KKI may also sell this acetone to other recyclers for purification.

Oily Sludge Pre-treatment Plant (OSP)

The OSP separates the oily element from the solid residue to reduce the Total Organic Carbon (TOC) content of the waste. The plant pretreats the organic sludge waste by conserving the separated oil rather than incinerating it at the INC Plant. The drying process segregates the oily elements and chemical components, such as VOC, from the sludge waste.

Chemical exposure monitoring was initiated to measure workers' exposure to VOC and hydrogen sulfide (H_2S) during normal operating conditions at the OSP area and INC1 control room. Monitoring was carried out between 15 and 17 May 2012 based on DOSH guidelines. This was in full accordance with the National Institute of Occupational Safety & Health (NIOSH) sampling and analytical methods (NIOSH 2549). A competent Hygiene Technician was engaged for this monitoring exercise.



Hot air as a heating medium for the oily sludge waste

The concentration of the monitored chemicals for personal and area samples were all below the Permissible Exposure Limit (PEL) stipulated in the Malaysian Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations, 2000. It was observed that the intermediate tank from watering vacuum pump at OSP recorded the highest concentration of VOCs. These were mainly from monocyclic aromatic compound compared to other monitored results when the protection factor is neglected. Measures will be taken to safeguard the workers and the environment from exposure to these chemicals.

The total sludge treated in 2012 was 1,617 MT against a target of 3,168 MT. This is due to the modification work carried out by our contractor to suit the new waste characteristics. During this work, only 1 plant line was operating while other lines were being modified and tested. We aim to run the plant at full capacity from 2013 to achieve our previously set target of treating 3,168 MT of sludge.

Spent Caustic Pre-treatment Plant

The DOE issued an operating license to KASB's Spent Caustic Pre-treatment Plant in 2011. This plant did not operate at full capacity in 2012 due to low collection of waste. The Spent Caustic Pre-treatment Plant ran at only 24% capacity for the incoming waste.

This waste shortfall was filled by treating some residual water from KKI. This plant has the potential to produce alkaline by-products similar to caustic. We are looking for other ways to utilise the plant as well as treating spent caustic waste. Industries producing this type of waste, especially oil refining companies, are encouraged to send their waste to this facility.



Separation of sludge and water by the Separator

SDS

In 2012, the SDS plant capacity increased from 150 MT to 180 MT per month following a plant modification. This has resulted in plant capacity increasing from 4 MT to 6 MT per day. The plant can now treat 1,870 MT compared to the target of 1800 MT based on the previous capacity. With the higher capacity, we still managed the Plant On Waste (POW) at the acceptable level of 81%. The residue waste generated from this plant was slightly higher at 64% compared to 61% in 2011 due to the different waste profile.

The actual treatment recorded in 2012 was

1,870 MT, which is 65.05% higher than 1,133 MT in 2011



Reactor and Cooling Tank

Clinical Waste

Demand for CW treatment and disposal is increasing. The concession companies are experiencing a backlog and the MOH has approached us to resolve the issue. KASB started collecting 222 backlog containers from Radicare on 14 June 2011. Following the good performance in processing these wastes, we received more in 2012. The amount of waste received from various concessionaires in 2011 and 2012 is presented below.

Concessionaire	Waste (MT)	
	June - December 2011	January - December 2012
From Radicare - Bin	3,166	2,478
From Radicare - Container	1,549	-
From Pantai Medivest - Bin	-	41
Total Collection	4,715	2,519

KASB has been fully licensed to process CW at the INC4 from 1 May 2012.

CW consists of biomedical waste and plastic containers. Daily deliveries of CW arrive in 40 and 20 foot containers. This frees up storage spaces at hospitals' facilities.

Previously, all CW was incinerated at INC4. The burning capacity was lower due to the high calorific value of CW. This increases the overall daily total waste capacity due to process optimisation of INC4. Previously, approximately 19 MT of CW could be incinerated in INC4; 25 MT of CW and hazardous waste can now be incinerated.

Syed Jalal Syed Shuhaimi - Acting General Manager, Clinical Waste Management Services Radicare (M) Sdn Bhd

UEME has demonstrated a very good CW treatment process which is compatible with serving the nation's clinical waste disposal. The technology is locally-initiated and proven capable of disposing of CW similar to foreign incinerators. Moving forward, UEME may further improve the incineration efficiency to a higher capacity to achieve zero storage at all times.

I can already envision this happening with the increased total daily waste capacity, from

19→25 MT

UEME has been a

**collaborative, supportive,
cooperative and excellent partner.**

Growth Across International Boundaries

Business Ventures in the Middle East

We submitted a proposal to Qatar's PWA in the 3rd quarter of 2012. This proposal concerns the waste producer identification, induction and audit programme for the management of industrial liquid waste in Qatar. WGs must be educated on the proper management of industrial liquid waste once their current status has been assessed. The data would help establish the state's Integrated Drainage Master Plan.

UEME participated in the tender for the operation and maintenance of Mesaieed Industrial City's Integrated WMC. We have previously worked with Mesaieed Industrial City in 2007. The outcome of the tender is still pending and has been extended to April 2013.

In Oman, we are awaiting the proposed development of the Oman Hazardous Waste Management. Options to provide waste management services to the Petroleum Development of Oman (PDO) are also being sought.

MSW Management options are also being discussed with Makkah Municipality, which includes an integrated WMC, STP, transfer station and a slaughterhouse waste solution. This project is also in the development stage. It is hoped that securing these projects will strengthen our position in the Middle East.

We hope to secure a revenue of at least RM20 million for overseas ventures in 2013.



EISB Environmental Initiatives

In 2011, EISB introduced various innovations and new technologies including its Badger and Mini Composting Plant. These technologies have been progressing well and benefiting the local community. In 2012, we focused on enhancing their features after observing areas of improvements following their full operations.



Operation of Badger

Underground Bin System (Badger)

In 2011, 4 badgers were constructed for residential waste storage in Taman Aman, Alor Setar. ENVI now manages 10 functional badgers in Alor Setar as a waste transit station with begin its operation in 2012. We may replace the badger's fibre lid with metal. Metal is stronger and can more easily handle robust operations and waste overflow.

Integrated Green Composting Facilities (IGCF)

In 2011, EISB introduced the IGCF. The IGCF uses a windrow composting method and is strategically located in Kubang Rotan, at the centre of the Alor Setar. This reduces landfill transportation costs. The plant has a daily processing capacity of 10 MT of waste. Materials processed at the Plant include fruit and vegetables from local wet markets; garden waste from landscaping and grass cutting; and manure from neighbouring farms.

The composting plant uses a Cradle to Grave concept to cater for waste from Majlis Bandaraya Alor Setar (MBAS) garden wastes and surrounding areas. This helps the Government achieve its 22% recycling rates in Alor Setar by 2020.



Windrow turner

ENVI produces Indigenous Micro Organism (IMO) from organic wastes using a chemical free solution which accelerates the composting process from 90 to 50 days. Compost samples are analysed by the Malaysian Agriculture Research and Development Institute (MARDI) for nutrients and compost certification.

IGCF also contributes to a lower carbon footprint as it minimises the frequency of travelling. MBAS vehicles now travel half the distance to the landfill; 30 km instead of 60 km per trip. Vehicles divert to an IGCF which is closer. This method saved RM3,088.80 of fuel each month.

The IGCF also increased Alor Setar recycling rates from less than 2% to 5% in 2012.

New Innovations by ENVI

The following innovations were introduced in 2012 that comply with international standards and accommodate local requirements. Integrating this innovation into our operations helps save time and promotes work efficiency.

Multi-Purpose Arm Roll (MPAR)

ENVI and Syarikat Perkhidmatan dan Pembekalan Lezan invented MPAR trucks which lead the way in waste management technology. 11 trucks were in operation in 2012 for MSW waste collection in residential and commercial areas: 6 in Alor Setar, 3 in Sg Petani and 2 in Kangar. These smaller trucks can navigate the back alleys of housing areas and shops more easily. 17 trucks have been ordered and are scheduled to arrive in 2013.

MPAR trucks transport the waste from house-to-house to the Transit Point. A side loader robotic arm reduces manpower requirements from 4 workers to 1. MPAR technology improves the process and efficiency of each task. 3 MT of waste can be

loaded at any 1 time and with twice collection frequency, it can cover approximately 700 houses a day. The 120L MGB is deployed to residential areas while the MGB 240L caters for commercial areas.

The MPAR uses a mechatronic and hydraulic power automation system. It is capable of transforming its mode of operation from a CU to an open Roll-On-Roll-Off (RORO) system depending on the requirement. Fitted CCTV monitors its operations and raw data can be retrieved easily using a USB drive. This ensures that work is done properly and efficiently. ENVI's MPAR is the first of its kind in the market.



MPAR equipped with side loader robotic arm and CCTV

Compactor Units with Bin Lifter

All new waste compactor vehicles are equipped with bin lifters and comply with European Standard EN 1501-1 as stipulated in the Concession Agreement. MGBs with capacities of 120L to 1100L can be lifted. All 32 vehicles in Alor Setar and Kangar will be installed with a bin lifter by February 2013.



Newly installed bin lifter



Dato' Dr Nadzri Yahaya - Director General, Jabatan Pengurusan Sisa Pepejal Negara

When I mention
Sustainability,
I am referring to
**Sustainable
Development.**

Sustainability means improving the quality of life for this generation without compromising the wellbeing of future generations.

ENVI's contributions have been increasing in this area. Their core business is to provide solid waste management services. We now have less uncollected rubbish and fewer unscheduled collections following the introduction of systems such as badger, the mini-composting plant and MPAR. ENVI has gone beyond its core business by promoting green initiatives including the 3R programme in various schools.

ENVI's progress has resulted in a better quality environment. For example, ENVI's composting plant has a great impact by reducing travelling time and GHG emissions. The composting plants also reduce our dependence on inorganic fertiliser which is harmful to the environment.

I am pleased with ENVI's active contributions to reducing GHG emissions. When waste is sent to landfill, its decomposition emits methane. ENVI's composting plant reduces the amount of organic waste sent to landfill. This reduces methane emissions which are significant as methane is 20 times more potent than CO₂ as a GHG. In addition, less travel to and from the transfer station has certainly reduced emissions from transportation. Moving forward, ENVI's challenge will be to expand its services to rural areas.

UEME's Achievements

Various environmental technologies have been introduced prior to 2012. These innovations have started to bring positive results to the Company. These technologies demonstrate UEME's continuous commitment to improving its environmental footprint through technological advancements.

Sewage Treatment Plant

We have entered into the 2nd year of an Operation and Maintenance (O&M) service contract with PLUS for the maintenance of STPs at RSAs along the NSE.

Currently, there are 219 STPs, an additional 3 from the previous year. These are in the Central (83), Northern (60) and Southern (76) Regions. The table below shows compliance of sewage discharge with the Environmental Quality (Sewage) Regulation 2009 of the STPs for Central, Northern and Southern Regions has improved.

Region	Percentage (%)	
	2011	2012
Northern	69	80
Central	85	90
Southern	74	80

The slight non-compliance is mainly due to old STPs that required upgrading or modification. We aim for 100% compliance once STPs are upgraded in accordance with our specifications.

As we undergo the O&M for NSE, we have also proposed upgrading the STPs at Alor Setar Toll Plaza and several others in Johor. We have suggested using the conventional technology of Extended Aeration, Sequential Batch Reactor, bioreactor (MBR), Biogradex and Bioax. We aim to commence operations by June 2013.



New construction of STP

Waste to Energy (WTE)

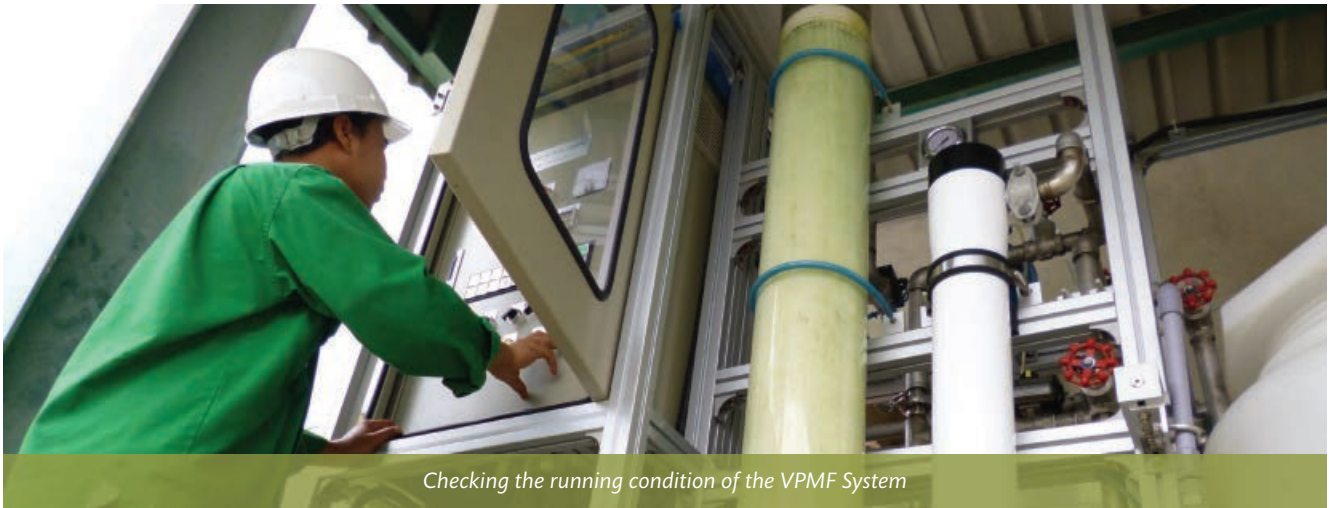
WTE is the process of generating energy in the form of electricity and/or heat from the incineration of waste. This project converts heat energy from our INCs into our own generated electricity.

SEDA has introduced a new FiT renewable energy production concept. KASB aims to capitalise on its INC plant by producing electricity and selling it to the national grid. KASB INC plants power generation capacity is estimated between 1 and 3 MW.

This project commenced in the 4th quarter of 2012 and is scheduled for completion in the 2nd quarter of 2014.

Variable Pore Micro Filter (VPMF) System

KASB had established a complete WWTP system. Wastewater generated from treatment activities or contaminated rainwater can be treated or reused at the treatment plant. The Effluent Treatment Plant (ETP) processes wastewater that has been contaminated by industrial or commercial activities prior to its release into the Process Water Tank. The leachate from Landfill is channelled to an LTP for treatment before being reused at the INC Plant. The storm water is collected through drainage ditches to the old LTP for further treatment. However, none of the WWTPs can treat and produce water that comes with commercial value, or can be used for other industrial usages.



Checking the running condition of the VPMF System

We recently acquired a VPMF to expand the capability of wastewater treatment technology and markets. The working mechanism of the VPMF is different from a traditional filtration system. The micro fibre element is compressed by the raw water in a down-flow filtration pattern. Eventually suspended solids and sediment are trapped in the folds of the micro fibre element. During the backwash, the trapped matter is released from the fibres.

A treatability study on the VPMF system was carried out in December 2012. 3 types of wastewaters collected at WMC were examined: Water from the Retention Pond, Wastewater from the Silt Trap and Wastewater from the LTP office rooftop. Based on the outcome of the study, the system should be capable of purifying wastewater physically and chemically. The system showed good performance for water from the Retention Pond. COD was reduced from 260 mg/L to < 40 mg/L, and Total Dissolved Solids from 5456.50 mg/L to 168.0 mg/L. VPMF is also effective in removing Ammonical Nitrogen and Suspended Solids as shown in Silt Trap wastewater. The VPMF is also capable of significantly reducing some ionic compounds and heavy metals such as Iron, Sulphate and Aluminium.

Commercially, VPMF technology can be utilised in a wide range of applicable fields such as purification treatment; sewage and wastewater treatment; pre-treatment of advanced water treatment; and removal of chlorophyceae.

Environmental Monitoring Programme (EMP) at Temayor Sanitary Landfill, Labis, Johor

On March 2012, KASB was appointed by Warna Generasi Sdn Bhd to conduct an EMP during closure works for sanitary landfill at Temayor, Labis, Johor. This project is under PPSPPA.

The project duration is 8 months and started in March 2012. The EMP is to monitor the quality of surface water and air surrounding the project area. KASB is required to conduct monthly field sampling and analysis for leachate and surface water. We also conduct ambient air monitoring every three months. All samples were analysed by our accredited laboratory in the WMC.



Excavation Works for Installation of Landfill Liner



Leachate Pond

Future Initiatives

UEME and the waste disposal industry in general have undergone a number of changes. UEME responds to these developments to ensure it remains competitive in the market. Operational changes include bringing our services closer to our customers by offering onsite treatment and providing STPs. Technological innovation also helps us streamline and improve our processes. We also contribute positively by creating our own renewable energy and fuel which helps offset our CO₂ emissions.

Renewable Energy

Future renewable energy projects include developing a solar farm on the closed landfill site. Solar radiation will be converted into electricity using photovoltaics. Solar technologies are broadly characterised as either passive solar or active solar depending on the way they capture, convert and distribute solar energy.

Photovoltaics convert solar radiation into direct current electricity using semiconductors that exhibit the photovoltaic effect. Photovoltaic power generation utilises solar panels consisting of a number of solar cells containing a photovoltaic material.

In 2012, KASB secured a 150 kW FIT Photovoltaics project which will be operational in 2014. Photovoltaic panels will be placed on the administration building rooftop at the WMC. As part of our future expansion, a solar farm will be built once KASB's landfill is closed.

Synthesis Gas (Syngas)

First Generation bioethanol can be produced from biological feedstock containing appreciable amounts of sugar or materials that can be broken down into sugar such as starch and cellulose. In most cases, sufficient quantities of bioethanol cannot be produced without threatening food supply and biodiversity. Much of this market relies on subsidies and is not cost competitive with existing fossil fuels.

The production of bioethanol from stack gases is considered a Second Generation biofuel. Larger quantities of fuel can be produced sustainably, affordably and with less impact on the environment.

Fermentation technology of stack gases is an indirect method for producing bioethanol from biomass or waste feedstock. The CO₂ produced from the incineration process is captured and converted to bioethanol through fermentation with selected bacteria.



Energy Induction Unit



Fermentation Unit

KASB has proactively developed a Syngas pilot plant, which produces bioethanol from stack gases released from INC4. The development project commenced in 2011 and a detailed design was completed in December 2011. Pilot plant fabrication and installation works are scheduled for completion in the first quarter of 2013. The pilot plant will be operated for 1.5 years to determine the technical and economic viability of commercial scale production.



On-Site Waste Treatment

We are venturing into other potential business opportunities to minimise the impact of losing waste. One option is offering industries on-site waste treatment to reduce their disposal costs. We will help build WWTPs for our clients. Currently, 1 company is interested in this service for both off-site and on-site treatment. For off-site treatment, the company's wastewater is transported to the WMC for treatment at our WWTP or by PCT. The off-site treatment will last for 18 months from the beginning of April 2013. During this time, we studied the design and building of a new WWTP at their premises located at Tebrau, Johor. We have submitted tenders for the design and building of STPs.

Reducing Emissions from Transportation

UEME held serious discussions with a waste removal company to reduce dependency on trucks for waste removal. A pneumatic waste removal system from Malaysia has been proposed, which has been successfully implemented at several locations. The aim is to introduce this waste removal system on a wider scale and ultimately reduce the carbon footprint of waste removal operations.

Green Material Recovery Facility (GMRF) by ENVI

There are 2 types of GMRF: clean and dirty. A clean GMRF accepts recyclable co-mingled materials that have already been separated at source; dirty GMRF accepts a mixed MSW stream which mechanically and manually separates designated recyclable materials.

The implementation of GMRF is yet to be finalised. The development of a solid WTP is currently awaiting Ministry of Housing and Local Government (MHLG) approval. The implementation is in line with National Strategic Plan for MSW Management. The Plan consists of developing centralised MSW treatment centres in every Peninsular Malaysia state.

ENVI's GMRF operations will accept plastic, paper, metal, glass, office waste and electronic waste. 40% of waste in Kedah is inorganic and recyclable. The minimum capacity for this facility is 100 MT per day.



ENVI aims to reach a **minimum recycling rate of 22%** through this **clean GMRF**.
This is aligned with the target of the

**MSW Management
and Public Cleansing Act (Act 672).**

Labs and Economic Planning Unit (EPU)

The tourism sector has become increasingly important particularly for returning tourists. Langkawi has a strong potential to become a top tourist destination in the world with its rich natural endowments. Recognising these potentials, the EPU had produced the Langkawi Tourism 11 Blueprint in 2011. The Blueprint laid the path for Langkawi to become 1 of the global top 10 islands and eco-destination by 2015. ENVI has been approached to provide the Government with collection and cleaning services. We are currently determining the cleanliness of various islands in Langkawi including *Pulau Beras Basah*, *Pulau Tuba*, *Pulau Payar* and *Pulau Dayang Bunting*. This includes marine rubbish.

Moving Forward

EISB aims to obtain GreenTAG Endorsement by September 2013 as part of its continuous improvement plant. This is the first internationally recognised environmental standard certification, such as Eco-label Certification, for our compost. We also hope to obtain QAS International's Eco-Labeling mark for our product, packaging and promotional materials.

We will conduct aggressive marketing in various retail outlets. In the first quarter of 2013.

EISB aims to market this product at

500 shops in Kedah and Perlis

to reach a target of

50 kg monthly collections per shop.

List of Awards and Recognitions

UEME believes in offering the most sustainable solutions possible as this is positive for the Company and society as a whole. However, the following acknowledgements and achievements were highly appreciated.

20 January 2012

KKI received a Notable Achievement award at the PMHA 2010/2011 for Small and Medium Enterprise category at the PMHA 2010/2011. We have maintained this award for the last 2 cycles of this competition. This prestigious award recognises business and industry's environmental accomplishments and leadership.



15 May 2012

KASB and KKA both won the ROSPA Gold Award 2012. This award is judged on verifiable historical performance data of accidents and the identification of an effective, cohesive corporate road risk management programme. Having being conferred the Gold Medal Award for the 5th consecutive year since 2008, this year also saw KKA winning the Gold Award for the 4th consecutive year since 2009.

KKA was awarded the ROSPA's Gold Award for Managing Occupational Road Risk (MORR) for the 2nd consecutive year. KKA was proud to have its efforts recognised for excellence in managing its work-related road safety programme.



YEAR 2012

JAN

FEB

MAR

APR

MAY

JUN

JUL

AUG

SEP

OCT

NOV

DEC

6 July 2012

KASB and KKA were both recognised for having A Very Good OSH record performance for the year 2011 by the MSOSH. This was the 7th award from MSOSH for KASB since the Company started taking part in 2005 and 5th Award for KKA since its participation from 2007.



13 to 15 August 2012

KASB received its recertification audit by SIRIM QAS International Sdn Bhd for its ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, MS 1722:Part 1:2005 and ISO/IEC 17025.



30 November 2012

KASB received the Institut Kimia Malaysia (IKM) Laboratory Excellence Silver Award 2012 for the 10th consecutive year for providing quality and competent testing services whilst adhering to the requirements of laboratory safety as stipulated in ISO/IEC 17025.



Glossary

3R	Reuse, Reduce, Recycle
ADKA	Abu Dhabi Kualiti Alam Environmental Services Limited Liability Company
AVLS	Automatic Vehicle Locating System
BVDP	Bumiputera Vendor Development Programme
CCTV	Closed-circuit Television
CR	Corporate Responsibility
CRM	Customer Relationship Management
CSR	Corporate Social Responsibility
CU	Compactor Unit
CW	Clinical Waste
DOE	Department of Environment
DOSH	Department of Occupational, Safety and Health
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortization
EISB	E-Idaman Sdn Bhd
EIWIS	Electronic Integrated Waste Information System
ELV	End-of-Life Vehicles
EMS	Environmental Management Services
ENSEARCH	Environmental Management and Research Association of Malaysia
ENVI	Environment Idaman Sdn Bhd
EPF	Employees Provident Fund
EPU	Economic Planning Unit
EQ(SW) R 2005	Environmental Quality (Scheduled Waste) Regulations 2005
ETP	Effluent Treatment Plant
EVP	Employment Value Proposition
FIT	Feed-In-Tariff
GHG	Greenhouse Gas
GLC	Government-Linked Companies
GMRF	Green Material Recovery Facility
GPS	Global Positioning System
GRI	Global Reporting Initiative
Group	UEM Group Berhad
HIRADC	Hazard Identification, Risk Assessment and Determine Control
HOD	Heads of Department
HRAS	Human Resources Administration and Security
ICS	Industrial Cleaning Services
IDF	Induced Draft Fan
IGCF	Integrated Green Composting Facility
IMS	Integrated Management System
INC	Incinerator
ISO	International Organisation for Standardisation
IUCN	International Union for Conservation of Nature
JKKK	Jawatankuasa Kemajuan dan Keselamatan Kampung
JVC	Joint Venture Company
KASB	Kualiti Alam Sdn Bhd
KESUKA	Kelab Sukan dan Kebajikan Kualiti Alam
Kg	Kampung
KKA	Kualiti Khidmat Alam Sdn Bhd

KKI	Kualiti Kitar Alam Sdn Bhd
KPI	Key Performance Indicators
Ldg	Ladang
LEF	Learn English Family
LTI	Lost Time Injury
LTP	Leachate Treatment Plant
MBAS	Majlis Bandaraya Alor Setar
MD	Managing Director
MGB	Mobile Garbage Bin
MIS	Management Information System
MOE	Ministry of Education
MOH	Ministry of Health
MPAR	Multi-Purpose Arm Roll
MS	Management System
MSOSH	Malaysian Society for Occupational Safety and Health
MSW	Municipal Solid Waste
MT	Metric Tonnes
NGO	Non-government Organisation
NGRDWQ	National Guidelines for Raw Drinking Water Quality
NGV	Natural Gas Vehicle
NIOSH	National Institute of Occupational Safety & Health
NSE	North-South Expressway
NSTP	The New Straits Times Press Berhad
NWQS	National Water Quality Standards for Malaysia
ODS	Ozone Depleting Substances
OECD	Organisation of Economic Co-operation and Development
OHSAS	Occupational Health and Safety Advisory Services
OSH	Occupational, Safety and Health
OSHA	Occupational Safety and Health Administration
OSP	Oily Sludge Plant
PC	Personal Computer
PCT	Physical/ Chemical Treatment
PDPA	Personal Data Protection Act
PEL	Permissible Exposure Limit
PINTAR	Promoting Intelligence, Nurturing Talent and Advocating Responsibility
PLUS	PLUS Malaysia Berhad
PMHA	Prime Minister's Hibiscus Award
PPE	Personal Protective Equipment
PPSPPA	Perbadanan Pengurusan Sisa Pepejal dan Pembersihan Awam
PRS	Private Retirement Scheme
PTW	Plant Treatment Waste
PWA	Public Work Authority
RC	Reading Circle
RM	Ringgit Malaysia
RO	Recycled Oil
ROIC	Return on Invested Capital
ROSPA	Royal Society for the Preventive of Accidents
RSAs	Rest and Service Area
SBSB	Special Builders Sdn Bhd
SDS	Sludge Destabilisation System

SEDA	Sustainable Energy Development Authority
Sg	Sungai
SHC	Safety and Health Committee
SHE	Safety, Health and Environment
SHEMS	Safety, Health, Environmental Management System
SHEQ	Safety, Health, Environment and Quality
SJKT	Sekolah Jenis Kebangsaan Tamil
SK	Sekolah Kebangsaan
SSMP	Structured Supplier Management Programme
SSP	Strategic Supplier Programme
STP	Sewage Treatment Plant
SW	Scheduled Waste
Syngas	Synthesis Gas
TOC	Total Organic Carbon
UELP	UEM Group Berhad English Literacy Programme
UPSR	Ujian Penilaian Sekolah Rendah
VPMF	Variable Pore Micro Filter
WBCSD	World Business Council for Sustainable Development
WG	Waste Generator
WMC	Waste Management Centre
WQI	Water Quality Index
WRI	World Research Institute
WTE	Waste to Energy
WWTP	Wastewater Treatment Plants

Assurance Statement



BUREAU VERITAS
Certification

INDEPENDENT VERIFICATION STATEMENT**To: The Stakeholders of UEM Environment Sdn Bhd****Introduction and objectives of work**

Bureau Veritas has been engaged by UEM Environment Sdn Bhd to conduct an independent verification of its Sustainability Report 2012. This Verification Statement applies to the related information included within the scope of work described below.

This information and its presentation in the Sustainability Report 2012 are the sole responsibility of the management of UEM Environment Sdn Bhd. Bureau Veritas was not involved in the drafting of the Report. Our sole responsibility was to provide independent verification on the accuracy and assurance of information included. This is the 5th year in which we have provided verification over UEM Environment Sdn Bhd Sustainability Report.

Scope of work

UEM Environment Sdn Bhd requested Bureau Veritas to verify the accuracy of the following:

Data and information included in the Sustainability Report 2012

Methodology

As part of its independent verification, Bureau Veritas undertook the following activities:

1. Interviews with relevant personnel included the Managing Director and Head of Departments of UEM Environment Sdn Bhd inclusive E-Idaman Sdn Bhd.
2. Review of documentary evidence produced by UEM Environment Sdn Bhd.
3. Audit of performance data, a 100% sample of which back to source
4. Review of UEM Environment Sdn Bhd systems for qualitative and quantitative data aggregation and analysis
5. Our work was conducted against Bureau Veritas' standard procedures and against the Global Reporting Initiative (GRI) G3.1 Sustainability Reporting Guidelines, at the A+ application level for external Verification of Sustainability Reports, based on current best practice in independent assurance.

The work was planned and carried out to provide limited, rather than absolute assurance and we believe it provides an appropriate basis for our conclusions.



BUREAU VERITAS
Certification



Our findings

On the basis of our methodology and the activities described above:

- Nothing has come to our attention to indicate that the reviewed statements within the scope of our verification are inaccurate and the information included therein is not fairly stated.
- It is our opinion that UEM Environment Sdn Bhd has established appropriate systems for the collection, aggregation and analysis of qualitative and quantitative data such as key performance indicators.
- Substantial successes have been made by KESUKA Club which was formed in 1999. It addresses all the positive activities, events, engagement and dialogues of UEM Environment Sdn Bhd to achieve its sustainability practises.
- Improvement on solid waste management in E-Idaman Sdn Bhd. Its Underground Bin System Badger system has proven the cost efficient and saving to the organisation and the customers .
- The Compactor Unit with Bin Lifter in E-Idaman Sdn Bhd has demonstrated the automated carriage of the waste and this has improved the manual technology previously .
- In the next reporting, UEM Environment Sdn Bhd shall extend the boundaries for qualitative and quantitative reporting up to the first tier of its suppliers. Currently not all data was made available to cover the suppliers.
- Stakeholders' engagement shall be made in the next reporting.
- Communication shall be clearly defined before embarking the next Sustainability project.
- Understanding the GRI requirement shall be communicated among the employees.

Limitations and Exclusions

Excluded from the scope of our work is any verification of information relating to:

- Activities outside the defined verification period;
- Positional statements (expressions of opinion, belief, aim or future intention by UEM Environment Sdn Bhd) and statements of future commitment;
- Data identified by the client for non-inclusion, geographical operations/activities excluded, subsidiaries/Joint Ventures, etc.

This independent statement should not be relied upon to detect all errors, omissions or misstatements that may exist.



BUREAU VERITAS
Certification



Statement of independence, impartiality and competence

Bureau Veritas is an independent professional services company that specialises in Quality, Health, Safety, Social and Environmental management with almost 180 years history in providing independent assurance services, and an annual turnover in 2012 of Euros 3.9 billion.

Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day to day business activities. We are particularly vigilant in the prevention of conflicts of interest.

No member of the assurance team has a business relationship with UEM Environment Sdn Bhd, its Directors or Managers beyond that required of this assignment. We have conducted this verification independently, and there has been no conflict of interest.

The assurance team has extensive experience in conducting verification and assurance over environmental, social, ethical and health and safety information, systems and processes, has over 6 years combined experience in this field and an excellent understanding of Bureau Veritas standard methodology for the Assurance of Sustainability Reports.

Bureau Veritas
Kuala Lumpur, MALAYSIA
22nd April 2013

Muzafar Mokti
Lead Verifier





Statement GRI Application Level Check

GRI hereby states that **UEM Environment Sdn Bhd** has presented its report "UEM Environment Sdn Bhd Sustainability Report 2012" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 10 May 2013

A handwritten signature in blue ink, appearing to read "Nelmara Arbex", is written over a faint circular watermark.

Nelmara Arbex
Deputy Chief Executive
Global Reporting Initiative



The "+" has been added to this Application Level because UEM Environment Sdn Bhd has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. www.globalreporting.org

Disclaimer: Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 5 May 2013. GRI explicitly excludes the statement being applied to any later changes to such material.

GRI G3.1 Content Index

Did You Know?

The GRI Reporting Framework promotes transparency especially on economic, environmental, social and governance performance. This transparency and accountability builds stakeholders' trust in organisations. G3.1 is a finalised update of GRI's most recent generation of Sustainability Reporting Guidelines, and is the most comprehensive sustainability reporting guidance currently available.



We recognise the GRI's value in helping increase our disclosure by identifying sustainability indicators and improving the standard of our reporting. The following table provides an overview of how we have achieved the GRI A+ Level of Disclosure. It also defines the report content and integrates the reporting principles for defining quality. We believe that these guidelines offer us the best way to present our most important sustainability information in a fully transparent and reliable way.

● Fully Disclosed ● Partially Disclosed ✕ Not Disclosed

G3.1 Content Index				
STANDARD DISCLOSURES PART : Profile Disclosures				
1. Strategy and Analysis				
Profile Disclosure	Description	Status	Cross-reference	Reason for omission & Explanation
1.1	Statement from the most senior decision-maker of the organisation	●	P6-9	
1.2	Description of key impacts, risks, and opportunities	●	P6-9, P22-23	
2. Organisational Profile				
Profile Disclosure	Description	Status	Cross-reference	Reason for omission & Explanation
2.1	Name of the organisation	●	P3, P5, Front Cover, Back Cover	
2.2	Primary brands, products, and/or services	●	P5	
2.3	Operational structure of the organisation	●	P5	
2.4	Location of organisation's headquarters	●	P3, Back Page	
2.5	Number of countries where the organisation operates	●	P3, P5, Back Page	
2.6	Nature of ownership and legal form	●	P5	
2.7	Markets served	●	P5	
2.8	Scale of the reporting organisation	●	P3	
2.9	Significant changes during the reporting period	●	P3, P6-9, P23	
2.10	Awards received in the reporting period	●	P101	
3. Report Parameters				
Profile Disclosure	Description	Status	Cross-reference	Reason for omission & Explanation
3.1	Reporting period	●	P3	
3.2	Date of most recent previous report	●	P3	
3.3	Reporting cycle	●	P3	
3.4	Contact point for questions regarding the report or its contents	●	P3	
3.5	Process for defining report content	●	P3, P12-15	
3.6	Boundary of the report	●	P3, P12-15	
3.7	Specific limitations on the scope or boundary of the report	●	P3	
3.8	Basis for reporting on joint ventures, subsidiaries, etc	●	P3	
3.9	Data measurement techniques and the bases of calculations	●	P87-89	
3.10	Explanation of the effect of any re-statements of information	●	P6-9, P23	
3.11	Significant changes from previous reporting period	●	P6-9, P23	
3.12	Table identifying the location of the Standard Disclosures	●	GRI G3.1 Content Index	
3.13	Policy and current practice with regard to seeking external assurance for the report	●	Verification Statement by Bureau Veritas	

4. Governance, Commitments, and Engagement				
Profile Disclosure	Description	Status	Cross-reference	Reason for omission & Explanation
4.1	Governance structure of the organisation	●	P17	
4.2	Indicate whether the Chair of the highest governance body is also an executive officer	●	P18	
4.3	Independent and/or non-executive members of the Board	●	P17	
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	●	P17, P50	
4.5	Linkage between compensation and the organisation's performance	●	P40	
4.6	Processes in place to ensure conflicts of interest are avoided	●	P23	
4.7	Qualifications and expertise of the Board	●	P17	
4.8	Internally developed statements of mission or values, codes of conduct, and principles	●	P4	
4.9	Identification and management of economic, environmental, and social performance, conduct, and principles	●	P22	
4.10	Processes for evaluating the highest governance body's own performance	●	P12-14	
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organisation	●	P51	
4.12	Externally developed economic, environmental, and social charters, principles	●	P62	
4.13	Memberships in associations	●	P29, P65, P69	
4.14	List of stakeholder groups engaged by the organisation	●	P10-11	
4.15	Basis for identification and selection of stakeholders with whom to engage	●	P10	
4.16	Approaches to stakeholder engagement	●	P10-11	
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics	●	P10-11	

STANDARD DISCLOSURES: Performance Indicators					
Economic					
Performance Indicator	Description	Status	Cross-reference	Reason for omission & Explanation	To be reported in
Economic performance					
EC1	Direct economic value generated and distributed	●	P15, P25		
EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	●	P22		
EC3	Coverage of the organisation's defined benefit plan obligations	●	P14, P17, P30, P40		
EC4	Significant financial assistance received from government	●	P69	Not Applicable	
Market presence					
EC5	Standard entry level wage vs. local minimum wage	●	P40		
EC6	Policy, practices, and proportion of spending on locally-based suppliers	●	P60-61		
EC7	Procedures for local hiring	●	P46, P49		
Indirect economic impacts					
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit	●	P30, P68		
EC9	Understanding and describing significant indirect economic impacts	●	P68		
Environmental					
Performance Indicator	Description	Status	Cross-reference	Reason for omission & Explanation	To be reported in
Materials					
EN1	Materials used by weight or volume	●	P73		
EN2	Percentage of materials used that are recycled input materials	●	P73		
Energy					
EN3	Direct energy consumption by primary energy source	●	P73-74		
EN4	Indirect energy consumption by primary source	●	P73		
EN5	Energy saved due to conservation and efficiency improvements	○	P96	This indicator is explained in narrative through engagement of new contracts and usage of equipments	2013
EN6	Initiatives to provide energy-efficient or renewable energy	●	P96, P98		
EN7	Initiatives to reduce indirect energy consumption and reductions achieved	●	P96, P98		

Water					
EN8	Total water withdrawal by source	●	P28, P71, P74		
EN9	Significant impact of withdrawal of water	●	P74		
EN10	Percentage and total volume of water recycled and reused	●	P74, P83	All water at our operations is 100% recycled	
Biodiversity					
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas	●	P84-86		
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas	●	P84-86		
EN13	Habitats protected or restored	●	P84-86		
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	●	P84-86		
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations	●	P86		
Emissions, effluents and waste					
EN16	Total direct and indirect greenhouse gas emissions by weight	●	P75, P87-89		
EN17	Other relevant indirect greenhouse gas emissions by weight	●	P87-89		
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	●	P87-89		
EN19	Emissions of ozone-depleting substances by weight	●	P78-79		
EN20	NOx, SOx, and other significant air emissions by type and weight	●	P81, P83		
EN21	Total water discharge by quality and destination	●	P74, P80-83		
EN22	Total weight of waste by type and disposal method	●	P76		
EN23	Total number and volume of significant spills	●	P51		
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous	×		Not Applicable	
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 runoff	●	P74, P87-89		
Products and services					
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	●	P14-15		
EN27	Percentage of products sold and their packaging materials that are reclaimed by category	×		Our packaging includes plastic drums and steel drums which are being recycled by respective vendors	
Compliance					
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	●	P69		
Transport					
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organisation's operations, and transporting members of the workforce	●	P63, P99		
Overall					
EN30	Total environmental protection expenditures and investments by type	●	P16		
Social: Labour Practices and Decent Work					
Performance Indicator	Description	Status	Cross-reference	Reason for omission & Explanation	To be reported in
Employment					
LA1	Total workforce by employment type, employment contract, and region	●	P41		
LA2	Total number and rate of employee turnover by age group, gender, and region	●	P46		
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations	●	P40		
LA15	Return to work and retention rates after parental leave, by gender	●		Our workforce history has recorded a full retention	
Labour / management relations					
LA4	Percentage of employees covered by collective bargaining agreements	×		Not Applicable	
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements	●	P57		

Occupational health and safety

LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	●	P50-51		
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region	●	P52		
LA8	Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	●	P32, P38, P46-47		
LA9	Health and safety topics covered in formal agreements with trade unions	×		Not Applicable	

Training and education

LA10	Average hours of training per year per employee by employee category	●	P46-47		
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	●	P49		
LA12	Percentage of employees receiving regular performance and career development reviews	●	P50		

Diversity and equal opportunity

LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	●	P17		
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Equal remuneration for women and men

LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	●	P40-41		
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Social: Human Rights

Performance Indicator	Description	Status	Cross-reference	Reason for omission & Explanation	To be reported in
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Diversity and equal opportunity

HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening	●	P57, P60		
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	●	P57, P60		
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	○	P51	Employees are educated on human rights topic through our Code of Ethics. There is no specific training programmes designed on this topic.	2014

Non-discrimination

HR4	Total number of incidents of discrimination and actions taken	●	P51, P52, P54		
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Freedom of association and collective bargaining

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	×			2013
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Child labour

HR6	Operations identified as having significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour	×			2013
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Forced and compulsory labour

HR7	Operations identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of forced or compulsory labour	×			2013
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Security practices

HR8	Percentage of security personnel trained in the organisation's policies or procedures concerning aspects of human rights that are relevant to operations	●	P47, P57		
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Indigenous rights

HR9	Total number of incidents of violations involving rights of indigenous people and actions taken	●	P57		
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Assessment

HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments	●	P41		
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Remediation

HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms	●		There has been no record of grievances related to violations of human rights at the workplace	
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Social: Society					
Performance Indicator	Description	Status	Cross-reference	Reason for omission & Explanation	To be reported in
Community					
SO1	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting	●	P32-37		
SO9	Operations with significant potential or actual negative impacts on local communities	●	P10-13		
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities	●	P10-13, P14, P15, P30, P33, P35		
Corruption					
SO2	Percentage and total number of business units analysed for risks related to corruption	○	P69	There is no activity pertaining to this indicator. Somehow, an action will be taken prior to any misconduct or suspicious report by any parties	2013
SO3	Percentage of employees trained in organisation's anti-corruption policies and procedures	●	P48, P69		
SO4	Actions taken in response to incidents of corruption	○	P69	There is no activity pertaining to this indicator. Somehow, an action will be taken prior to any misconduct or suspicious report by any parties	2013
Public policy					
SO5	Public policy positions and participation in public policy development and lobbying	●	P68		
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country	●	P68		
Anti-competitive behaviour					
SO7	Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes	●	P12, P68		
Compliance					
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	●	P89		
Social: Product Responsibility					
Performance Indicator	Description	Status	Cross-reference	Reason for omission & Explanation	To be reported in
Customer health and safety					
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	●	P12-14, P59		
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	●	P51		
Product and service labelling					
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	●	P59		
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes	●	P52		
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	●	P10-11, P67-68		
Marketing communications					
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	●	P37-38, P65-66. P69		
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	●	P52, P54		
Customer privacy					
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	●	P34		
Compliance					
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	●	P89		



Thank You

Sustainability Report 2012

The Report Team would like to thank all individuals from the organisation who provided information and data to this Report. Special thanks go to the core contributors and the Management Team listed on pages 20 and 21. These individuals have been particularly helpful in making this publication possible.

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