

A member of UEM Group

# UNFOLDING HORIZONS

Sustainability Report 2011



# RATIONALE

# UNFOLDING HORIZONS

The cover of our Sustainability Report 2011 showcases the evolution of our operations as we move towards greener pastures. We are in the midst of transforming our business from a successful waste management provider to a high growth environmental enterprise delivering diversified environmental solutions. This is aptly captured in the theme of our 2011 report, "Unfolding Horizons".

We embraced all advancements in other environmental solutions and related areas. We have also expanded our portfolio to include more challenging, yet rewarding opportunities. As we grow, we will continue to emphasise environmental protection to achieve a greener horizon.



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### About UEME

At UEME, we provide complete value chain services for the most efficient and cost effective scheduled waste disposal.



UEME focuses its community efforts on long-term social causes that leverage on its scale and position as a leader in the industry. Workplace

Our hiring policy has been developed in-line with the Government's Tenth Malaysia Plan of promoting local talent.



### Marketplace

We continue to comply with local and international standards on quality.



### Environment

Our environmental conservation initiatives are developed internally and we encourage our employees to be eco-friendly in their daily routines. This is the seventh Sustainability Report (Report) produced by UEM Environment Sdn Bhd (UEME). It covers our responsibilities to our stakeholders and the contributions we have made towards achieving sustainable development.

In this Report, we commissioned comprehensive stakeholder analyses and materiality tests to identify and highlight major issues of interest to our stakeholders and develop an approach to these issues. This Report highlights our strategies, achievements and way forward for sustainability management, particularly in the areas of sustainable environmental management, community, ethics in the marketplace and corporate culture.

# Scope of Report

Reporting Period	1 January to 31 December 2011
Reporting Cycle	Annually
Coverage	UEME and its subsidiaries Kuali

: 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). 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. Reference to "UEME", "the Company", "the Organisation" and "we" refer to UEM Environment Sdn Bhd and/or our affiliates and subsidiaries.

# **Reference and Guidelines**

Principal Guidelines

01 (S) GRI-G3.1 Sustainability Reporting Framework

### Additional Guidelines

- 02 💽 🔹 Bursa Malaysia's Corporate Social Responsibility (CSR) Framework
- 03 💽 Silver Book: The Putrajaya Committee GLC Transformation Manual
- ACCA Malaysia Sustainable Reporting Guidelines for Malaysian Companies
- 04 🕥 ISO 26000:2010 Guidance on Social Responsibility

# **Reliability of Information Disclosed**

We strive to improve the materiality and reliability of the information presented and have adopted an approach aligned with the ISO 26000:2010, Guidance on Social Responsibility. 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 82. It has also been assessed by the Global Reporting Initiative (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 86.

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.

More information can be found on our website at <u>www.kualitialam.com</u>. We also welcome your comments. Please e-mail us at: <u>csd@kualitialam.uemnet.com</u>.

Alternatively, you may contact:

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01 www.globalreporting.org/reporting/latest-guidelines/g3-1-guidelines/Pagesvzdefault.aspx 02 www.bursamalaysia.com/website/bm/about\_us/the\_organisation/csr/downloads/csr\_writeup.pdf 03 www.pcg.gov.my/trans\_manual.asp 04 www.iso.org/iso/iso\_catalogue/management\_and\_leadership\_standards/social\_responsibility/ sr\_discovering\_iso26000.htm

# ABOUT UEME

At UEME, we provide complete value chain services for the most efficient and cost effective scheduled waste disposal. The proper handling, identification, recycling and disposal of scheduled wastes are some of the most complex issues facing the industry today.

### **Our Vision Our Mission Our Core Values** The Trusted Partner in To Provide Innovative Services Professional Ethics **Environmental Solutions** and Value-Added Solutions for Teamwork and Togetherness Sustainability of the Environment Technical and Business Acumen Continuous Quality Assurance Safety, Health and **Environmentally Friendly** 100% **Organisation Structure** UEM 100% **UEM Providing Integrated Waste Management Products and Services** 100% 100% 100% **KUALITI ALAM KUALITI KHIDMAT ALAM** Downstream Hazardous Upstream Hazardous Waste Management Waste Management Waste Management involving the Treatment involving the Marketing,



Our licensed scheduled waste treatment facility is 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 deliver up-to-date know-how on environmental regulations and keep abreast with waste legislations updates.

# 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)
- Solid Waste Management
- End-of-Life Vehicle (ELV)
- Clinical Waste Management

# MANAGING DIRECTOR'S STATEMENT

We are privileged to present our Sustainability Report 2011 which highlights our achievements in promoting the sustainable development of our employees, society and the environment with all our stakeholders.

Since its incorporation, UEME has continuously reinforced its commitment to inculcate sustainability into all aspects of its business operations. Our 327 employees live and breathe this commitment year after year. 2011 was a challenging year for UEME and its subsidiaries and this was compounded by the economic slowdown. There was a significant reduction in the total waste treated with intense competition being experienced in the market. Due to various external factors, we decommissioned fewer ELV cars than in previous years. Despite these challenges, we have secured 9 projects worth RM 29 million (in aggregate contract value). All of these projects are still in their early stages. A great deal of emphasis was also placed on acquiring new projects, new innovations and capturing new horizons throughout the year. The results of these projects will be reflected in our next financial review.

Last year, I shared our focus on delivering innovative services and value-added solutions to our customers while managing our risks. We surpassed this commitment and placed a stronger emphasis on utilising sustainable resources and creating a supportive environment for our employees to reach their full potential. 2011 presented us with some challenges. We overcame many of these which was not an easy task. This was only made possible by the core competencies we have acquired over the years.



We had expanded our horizons geographically and increased our areas of focus with potential projects in Qatar pursued by our subsidiary, KASB. Our advisory services focus on sustainable and effective management of hazardous waste. We positioned ourselves as a total solutions provider and effective integrated wastewater management facility for wastewater management strategies.

UEME was also granted a temporary licence to treat clinical waste in 2011. This was the result of the request from the Ministry of Health (MOH) to assist 1 of the concession companies in managing the clinical waste backlog problem which occurred in the middle of the year. Our Incinerator (INC) 4 facility is now fully equipped to deal with this waste which received a total of 4,665 MT between June and December 2011. We see great business potential
oi oi treating clinical waste. This is supported by a Frost & Sullivan survey published in 2010 which estimated that Malaysia's clinical waste may reach 33,000 MT annually by 2020 from the current 16,560 MT.

We have sufficient capacity in our plant to treat clinical waste. This combined with the positive outlook has led to our application for a full licence from the Department of Environment (DOE) to allow us to transport and treat clinical waste.

On 19 September 2011, EISB has secured a 22-year Concession Agreement (CA) with the Federal Government to manage solid waste collection and public cleansing management covering 12 Local
 Authorities in Kedah and 1 in Perlis. The CA came into force on 1 September 2011 in conjunction with the full implementation of the Solid Waste and Public Cleansing Management Act 2007 (Act 672).

Our Continuous Improvement Programme is testament to our commitment in delivering value to our customers. Our Acetylene Gas Processing Plant began full operations in 2011 where gas cylinders were treated with a 42% efficiency rate. 3 of our plants, an Oily Sludge Pre-treatment, a Spent Caustic Pre-treatment and a Sludge Destabilisation System (SDS), received approval by the DOE in 2011. All plants began generating savings and should be fully operational in 2012.

At UEME, *sustainability* is not just a catchword but a platform for us to create new value streams for the future. It is a key element of our growth strategy encompassing operations, employees, partners and customers. We believe this strong focus and commitment will support the long-term growth aspirations of UEME.

 01 www.frost.com/prod/servlet/press-release.pag?docid=209446374
 02 www.malaysiandigest.com/news/31561-muhyiddin-privatization-of-solid-wastemanagement-will-raise-standard-of-service.html
 03 www.kpkt.gov.my/jpspn/main.php?Content=articles&ArticleID=57&IID=
 04 www2.accaglobal.com/pubs/malaysia/general/sustainability/archive/my10\_jud.pdf The diversity of our people serves as an engine for innovation. In 2011, we invested an additional 20% to train and develop our employees which resulted in an average of 7 additional training hours per employee. We always aim to be an employer of choice and grow symbiotically with them. Our commitment to our employees will not waver. We will continue to provide them with various talent development platforms and opportunities.

In the marketplace, we closely engaged with our suppliers and customers to deliver quality services and efficient supply chain management. We aim to fully migrate and implement an Electronic Integrated Waste Information System (EIWIS) by January 2012 which provides valuable benefits for UEME and its customers. This new centralised web-based tracking system platform provides comprehensive modules and a systematic approach providing greater efficiency and improved accessibility.

UEME is never complacent as we strive for greater achievements and improve our innovations. In reporting, we have made our metrics clearer and our data more transparent. The level of disclosure in this Report has resulted in a more holistic representation of our sustainability efforts and operations. Delivering integrated sustainability reporting is just one of the many initiatives we are undertaking to increase our transparency.

UEME will continue in its efforts and move closer in becoming Malaysia's leading environmental solutions provider. We will continue to create value through sustainable business practices with an emphasis on mutual growth, compliance, environmental management, customers and social responsibility.

On behalf of the Board, I would like to thank all our stakeholders for their continuous dedication, commitment and contributions to making our business and country more sustainable. As always, we hope you find our report useful and informative. We appreciate your feedback for words are vital for the development of our future.

Azmanuedin Haq Ahmad Managing Director

# BOARD OF DIRECTORS

Our Board of Directors (Board) committee ensures that the composition, qualifications and expertise of the members of the Board is balanced including skills, attributes and work responsibilities.

At the beginning of 2011, the Company had 5 members on its Board of which its Chairman was an Independent Non-Executive Director.

There were changes to the Board membership in 2012 when Tan Sri Nuraizah Abdul Hamid resigned as the Company's Director and Chairman on 20 February 2012. Effective from 1 March 2012, Dato' Seri Ismail Shahudin has been appointed as the Director and Chairman of UEME and KASB to replace Tan Sri Nuraizah Abdul Hamid.

As at 1 March 2012, the Board has 5 members comprising 2 Non-Independent Executive Directors and 3 Non-Independent Non-Executive Directors.

In 2011, the Board held 4 meetings with an average attendance of 95%.

01 🕥 Directors' profiles can be found on the website.

# 01

Dato' Seri Ismail Shahudin\* Chairman

Status: Non-Independent Non-Executive Director \* Appointed on 1 March 2012

# 02

Azmanuddin Haq Ahmad Managing Director

Status: Non-Independent Executive Director

### 03

Suhaimi Halim Director

Status: Non-Independent Executive Director

### 04

Annuar Marzuki Abdul Aziz Director

Status: Non-Independent Non-Executive Director

# 05

Harman Faiz Habib Muhamad Director

Status: Non-Independent Non-Executive Director

01 www.kualitialam.com/index.php?page\_id=17



#### MANAGEMENT TEAM

The team has a good mix of skills and experience which adds value to governing the strategic direction and performance of UEME. Our current team, which changed on 1 April 2012, is presented below.

"To contribute towards achieving the Prime Minister's vision on reducing carbon emissions by 40% by year 2020."

#### Azmanuddin Haq Ahmad Managing Director

"Yes, it is true that stakeholders want us to make profit, but not at the expense of our people and the communities we work with."

> Nurulhuda Faisol Legal Manager

"Over the years, we have managed to integrate sustainability into our business operations and it has become part of our DNA. We like to think of ourselves as a leader, still pushing the boundaries of possibilities."

> Mohd Norsuradi Man Waste Management Centre (WMC) Head of WMC

The way I see it, successful companies of the future are those that are able to integrate both business and employees personal values. Best employees would want to work with organisations that give back to the environment and the community.

Bakhtiar Bahak Udin HR, Administration & Security Deputy Senior Manager

"In business, the profitable growth of the company depends on the economic, environmental and social sustainability of the communities we work with."

> Wong Mee Kim Finance General Manager

"It's a challenge, and yet very

"It is amazing how more and more companies are actively embracing and acting responsibly towards environmental, social and governance issues."

> Sathish Kurup Marketing Deputy General Manager

Reducing carbon emissions from our operations remains our priority while meeting environmentally sustainable economic growth."

> Nick Chong Environment Support Services & Logistics General Manager

> > inspiring, to address how our environmental services should evolve whilst balancing the community, economics and environment needs.

Zaki Abdul Aziz Business Development / Project & Technical Development Senior General Manager

"To move ahead with time, we must shift our emphasis from economic efficiency and materialism towards a sustainable quality of life for our people, the environment we work in and the society as a whole."

Siti Nadzriah Abd Hamid Environmental Management Services Senior Manager "Finding new technologies and integrating them with our current business will be the key to survival in the global environment."

Rosman Shaari KAMI & Engineering Senior Manager

We are committed towards being a responsible corporate citizen; delivering our full commitment that is driven by goals, strategies and accountabilities that characterise every part of our business."

Abd Halim Nor Plant & Operations Senior Manager "Safety, environmental and social performances have always been part of our business plan and decisions."

> Hamdan Osman Safety, Health & Environment Senior Manager

"Our day-to-day operations are conducted with integrity and transparency, which build credibility amongst our stakeholders."

Jefri Mohd Din Production & Operations Manager "We believe by integrating sustainability elements into every aspect of the business, we are creating a better future for the Company and the communities we work with "

Mohd Zaidi Zakaria Management Information System Senior Manager

> "It is necessary for us to continue building trust amongst our customers and stakeholders."

> > Abd Halim Sharif Customer Account Management Deputy Senior Manager

"Transparency in our procurement system will ensure long-term success and sustainability model."

> Khalil Shamsuri Purchasing Deputy Senior Manager

# STAKEHOLDERS ENGAGEMENT

**Engagement with our stakeholders is important to understand their needs and concerns especially on our services and operations.** This understanding allows us to manage their expectations more effectively thereby establishing robust and sustainable relationships. Our core stakeholders we engaged with during the year is summarised below.

# DOE

Method of Engagement

- Meetings
- Progress updates
- Compliance reports

### Frequency

Regularly

#### Progress in 2011

- Environmental Monitoring Programme (EMP) results from the WMC vicinity are regularly monitored by the DOE including its secured landfill
- Compliance reports
- Dialogue with the DOE

### Perbadanan Pengurusan Sisa Pepejal dan Pembersihan Awam (PPSPPA)

#### Method of Engagement

- Meetings
- Events and collaboration

#### Frequency

- Monthly
- Ad hoc

#### Progress in 2011

- Regular meetings in various areas involving management levels up to CEO
- Various joint events held including briefing on Solid Waste and Public Cleansing Management Act 2007 (Act 672) and CA requirements

# Government

#### Method of Engagement

- Seminars and forums
- Monthly meetings
- Collaboration

#### Frequency

- Regularly
- Ad hoc
- Quarterly

#### Progress in 2011

- 3 Scheduled Waste Management seminars were conducted from April to September 2011 with approximately 200 participants attending each session
  - UEME participated in *Enviro Explorace* in conjunction with the World Environment Day on 11 June 2011
  - Various monthly improvement meetings held between EISB and 12 Local Authorities in Kedah and 1 in Perlis
  - EISB's participated in *'Biro Pengaduan Awam Kedah dan Perlis'* exhibition
- CA Signing Ceremony on 19 September 2011 at Putrajaya
- Larian Kitar Semula at Putrajaya on 18 December 2011
- Bin Launching at Taman Golf, Alor Setar on 19 November 2011
- Reuse, Reduce, Recycle (3R) and Full Privatisation of Solid Waste Management and Public Cleansing Road Tour from 18 to 23 December 2011
- Various 3R talks given in primary and secondary schools

### Business Associations and Government Agencies

Method of Engagement

• Committee and members meeting

### Frequency

Regularly

Progress in 2011 Active participation in various organisations including:

- Association of Environmental Consultants and Companies of Malaysia (AECCOM)
- Business Council for Sustainability & Responsibility Malaysia (BCSRM)
- Chemical Industries Council of Malaysia (CICM)
- Environmental Management and Research Association of Malaysia (ENSEARCH)

# The Public

Method of Engagement

Awareness sessions

#### Frequency

• By request

#### Progress in 2011

 Members of the public interested in learning about our operations are encouraged to submit a request in writing. In 2011, UEME hosted a total of 952 visitors: 73.74% were students, 7.46% from government agencies, 13.97% were customers, 4.20% from Non-Governmental Organisations (NGOs) and 0.63% from other organisations

- Malaysian International Chamber of Commerce and Industry (MICCI)
- Malaysian Society for Occupational Safety and Health (MSOSH)
- The Association of Scheduled Waste Recyclers Malaysia (ANSWERS)
- The Waste Management Association of Malaysia (WMAM)
- Malaysian Danish Business Council (MDBC)
- American Malaysian Chamber of Commerce (AMCHAM)
- Malaysian Occupational Safety and Health Professional's Association (MOSHPA)

# **Local Community**

Method of Engagement

- Dialogue sessions
- Visits to the local community by KASB officers
- Quarterly newsletters
- Bulletin KASB
- Monthly teh tarik sessions

#### Frequency

- Regularly
- Quarterly

#### Progress in 2011

- The local community was informed of activities, risks and issues through dialogue sessions by an appointed KASB officer visiting the local community and a quarterly community newsletter. Community involvement and an environmental quality report were also highlighted in the Bulletin KASB
- 253 gotong-royong activities were held by EISB. Local community members were educated on waste handling processes and 3R initiatives

# **UEM Group Berhad (Group)**

#### Method of Engagement

• Joint activities and engagement

#### Frequency

Regularly

#### Progress in 2011

- Living Green Day on 23 April 2011
- GLC Open Day from 24 to 26 June 2011
- Sustainable Health, Safety and Living Green Awareness Campaign on 26 July 2011
- Knowledge Sharing Seminar on 6 October 2011 where the Group of companies shared their accomplishments, experiences and best practices

# **Employees**

Method of Engagement

- Safety Briefing
- Employees Engagement
- Kelab Sukan dan Kebajikan Kualiti Alam (KESUKA)

Frequency

Regularly

Progress in 2011

- Safety briefings held on the evacuation process, Personal Protective Equipment (PPE) requirements, the Permit to Work (PTW) process and the Incident notification process
- KESUKA holds activities throughout the year to strengthen solidarity among employees
- SHE activities and campaign
- EISB's blood donation campaign

# Visitors to WMC

### Method of Engagement

• Safety Briefing

#### Frequency

Each visit

#### Progress in 2011

- Safety Briefing is delivered by the Safety Health Officer (SHO) upon visitors
- arrival at the WMC. Emphasis is given to the evacuation plan in case of emergencies
- A more detailed safety briefing is given by security personnel for contractors who will perform their job in the plant

# **Suppliers and Contractors**

Method of Engagement

- Meeting with the Safety, Health and Environment (SHE) and Purchasing Departments
- Frequency
- Quarterly
- Progress in 2011
- Meetings were attended by a representative from each contracting company and the work area personnel in the WMC where the contractor was serving

# Customers

- Method of Engagement
- Customer Satisfaction Survey
- Customer Hotline

#### Frequency • Annually

- Active Hotline 24/7
- Progress in 2011
- UEME's customer survey results show an overall increase in performance in each area

## Waste Management Centre, Negeri Sembilan

One of the most comprehensive scheduled waste management facilities in South East Asia

• Ar

# INTEGRATING SUSTAINABILITY INTO BUSINESS

We continue to integrate our sustainability efforts into our business strategy. Stakeholders' sustainability concerns were mapped according to the level of impact they have on our business and on themselves.

The Materiality Map represents the interaction between risk management and stakeholder engagement processes. These outcomes are scaled according to their individual and collective influences on our daily business delivery. This exercise graphically displays the reporting strategy and the ranking of business risks:

- The high materiality and critical elements are a top priority for key stakeholder interactions and are expressed in this Report. These issues and interests assert the most influence on the delivery of our strategy
- The medium materiality and substantial elements include stakeholder issues which are captured in our online reporting exercise. These elements reflect the non-critical but highly important business risks and engagement performance outcomes
- The low materiality and important elements capture those influences on performance that are important but can be managed at the departmental level

Results obtained from this mapping exercise were used to decide our sustainability focus and milestones as reported in the following sections.



# SUSTAINABILITY FOCUS

Our triple-bottom-line sustainability strategy focuses on 3 core areas. We believe that a balanced community, economic and environment commitment can add value for our stakeholders and to our Company. The rationale under each focus is highlighted below.



# OUR SUSTAINABILITY MILESTONES

Our sustainability journey reflects our past commitments, present performance and future targets. We regularly monitor our performance and formulate our action plans in each area in order to meet these targets.

# Community

Sustainability Policy Commitments We are committed to continue developing the nation focusing on making a positive impact on local communities surrounding our operations in particular

#### Achievements in 2011

- Active engagement with the local community
- Wider scope of contributions to local villages on education, infrastructure development, greening activities, religious causes and other welfare development

#### Way Forward

- To be directly involved in Promoting Intelligence, Nurturing Talent and Advocating Responsibility (PINTAR) programme activities namely the English Literacy Programme sponsored by UEM Group Berhad (UELP)
- To increase the number of engagement sessions with the local community
- To promote the usage of UEME's hotline
- Adoption of mosques

# Workplace

Sustainability Policy Commitments We value the contribution of our employees and continue to strive to be an employer of choice. Employees' rights, welfare, career growth, health and safety are closely monitored

#### Achievements in 2011

- A more active role played by KESUKA in enhancing employees' welfare
- Non-discrimination and fair treatment at work
- Advanced career development for employees
- Changing Habits towards Living Green

#### Way Forward

- To plan more employee engagement programmes to nurture the spirit of teamwork
- To continue upgrading safety measures at work for employees, contractors and visitors especially at our plants

# Marketplace

Sustainability Policy Commitments We value our relationships with our supply chain partners including suppliers and customers. We encourage two-way engagement with these stakeholders to ensure a smooth delivery process

#### Achievements in 2011

- Innovation of various technologies in upgrading our services - unfolding horizons
- Active engagement with customers and suppliers
- Improved overall customer satisfaction survey results
- Advanced safety measures for KKA drivers and employees in high risk employment
- Stringent processes to ensure a quality service

#### Way Forward

- Full operations on our newly introduced technologies
- Extending our service coverage to international markets
- Continuous stringent monitoring of each stage of our life-cycle

# Environment

Sustainability Policy Commitments We continue to work towards a cleaner, greener tomorrow by ensuring our operations have a minimal impact on the environment

Achievements in 2011

- Detailed environmental monitoring
- Monitoring of environmental impact at each stage of operation life-cycle
- Biodiversity and conservation
   programmes

#### Way Forward

- To plan more biodiversity and conservation programmes
- Continuous monitoring of
   environmental impact from all
   subsidiaries' operations

# **Corporate Governance**

Sustainability Policy Commitments We uphold good Corporate Governance practices which reflect integrity in-line with the Malaysian Code on Corporate Governance

Achievements in 2011

The development of a more stringent risk management system which maps causes, consequences and existing controls against an action plan and timing

#### Way Forward

To review and update existing systems to keep abreast with the latest international best practices

te Governance htegrity in-line on Corporate

# OUR SUSTAINABILITY COST AT A GLANCE

We allocated some percentage of our financial budgeting for sustainability as it is integrated into our businesses. The sustainability costs incurred in the past 3 years are summarised below.

DEPARTMENT	ACTIVITY/SCOPE	EXPENDITURE (RM '000) 2009 2010 2011		
Plant and Operations	<ul> <li>Raw Materials</li> <li>Fuel</li> <li>Equipment</li> <li>Plant Upgrading</li> </ul>	19,059	19,761	9,431
Support Services and Facilities Management	<ul> <li>Plant Repairs and Maintenance</li> <li>Motor Vehicle Maintenance</li> <li>Landscaping</li> <li>Plant Upgrading</li> <li>Plant and Machinery</li> </ul>	11,447	8,258	8,975
Environmental Management Services	<ul> <li>Lab Facilities Maintenance and Management</li> <li>Pollution Prevention</li> <li>Research and Development</li> <li>Consultancy</li> </ul>	5,815	1,425	1,017
Corporate Communications	<ul> <li>Social Contribution</li> <li>Information Disclosure</li> <li>Outreach and Awareness Programmes</li> </ul>	246	607	312*
Human Resources, Administration and Security	<ul> <li>Employee Welfare</li> <li>Employee Uniform</li> <li>Personnel Development</li> <li>Employee Amenities</li> </ul>	1,506	1,709	1,808*
Total		38,073	31,760	21,543

\* Note: as per Audited Financial Account for the year ended 31 December 2011

# CORPORATE GOVERNANCE

As a subsidiary of the Group, we adhere to its Corporate Governance practices which outline ethical conduct and business behaviour. It balances sound and safe business operations and compliance with the relevant laws and regulations. We are committed to the highest level of governance and strive to foster a culture that values and rewards exemplary ethical standards and integrity.

# **Risk Management**

O1 SAt UEME, the process of risk management involves the identification, assessment and prioritisation of risk which is aligned with ISO 31000:2009. Our risk management practices follow a coordinated and economical application of resources to minimise, monitor and control the probability and impact of risks identified in order to maximise the realisation of opportunities.

Key objectives for risk management identified by UEME are:

- To enhance the decision making process within UEME in order to:
  - Fulfil the Company's strategic objectives
  - Optimise the return to shareholders while considering the interests of other stakeholders
- To ensure appropriate and timely responses to changes in the environment that will affect the Company's ability to achieve its objectives
- To improve the Company's operating performance
- To reduce risks of material misstatement in official announcements and financial statements
- To create a risk-attuned environment to safeguard the Company's assets (property and investments) and maintain its reputation
- To improve compliance with Corporate Governance and relevant laws including the Listing Requirements if applicable

Our Risk Management Committee (RMC) is chaired by the Managing Director (MD) and it comprises 5 members and is assisted by a Secretariat.



The risk profile by category in 2011 is mapped below. Risk management is a vital part of Corporate Governance which is integrated into the planning and implementation of UEME's business strategies.

> As of 31 December 2011, 72 risks were identified. 14 of these were rated significant which represented 19.44% of the total risks, similar to the previous year. Our Risk Register for UEME was reviewed and discussed at Risk Management Meetings held on 22 April and 18 November 2011. This was also presented and discussed in the Board Meeting held on 30 November 2011.

> Our risk management policy provides adequate and effective management processes to achieve business objectives. Effective risk mapping and good internal control also help us retain stakeholders' trust. The following parameters are measured through our risk profile:

- Likelihood and probability: the expected frequency of a risk occurring
- Impact: the expected level of effect on the Company if such risk occurs
- Effectiveness of the Management Action Plan established to manage risks
- The mapping of risks by causes and consequences
- Action plan and preventive control timing mapping
- Budget involved in preventive control measures

# **Conflict of Interest**

Employees are forbidden from engaging in any other business or occupation whether as a principal, agent, servant or broker. Employees are also prohibited from engaging in any activity which can be detrimental to the interests of the Company.

Employees may acquire or hold shares in any quoted Public Listed Company provided they seek prior approval from the Management 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 prevented from participating in or influencing the purchase of goods and services from any company or person to obtain an interest or benefit.

We respect our employees' rights to voice their concerns. UEME's Whistleblower Policy 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.



# GOOD CORPORATE CITIZENSHIP

We recognise our responsibilities towards the society, especially the communities which are directly involved with our nature of business. As Malaysia's trusted environmental solution provider, we continue to assist the nation in achieving environmentally balanced surroundings.

## **Illegal Dumping**

<sup>01</sup> <sup>(1)</sup> "The act of illegal dumping could be punished under Section 34 (b) of the Environmental Quality Act 1974 (EQA 1974) which
 <sup>02</sup> <sup>(2)</sup> carries a maximum fine of RM 500,000 or 5 years' jail, or both. This irresponsible and reckless act is a serious threat to public health, particularly to residents in the vicinity." - The Star, 5 December 2003

### **UEME in Mitigating Risks of Illegal Dumping**

In 2011, UEME aggressively tackled illegal dumping in Malaysia and advanced its approach in accordance with the EQA 1974.

Our illegal dumping clean-up project at Ulu Temiang, Seremban, Negeri Sembilan was awarded by the DOE on 12 September 2011. The processes involved are illustrated below.

### Preliminary Site Visit

A preliminary assessment was conducted on 15 December 2010 which found that the illegally dumped waste was still in containers and the dumping area seemed undisturbed. Personnel from the DOE, KASB laboratory and KKA visited the area.



A waste sample of at least 1 kg or 2 litres was collected in a container, sealed and sent to KASB for lab analysis to determine actual treatment type needed.

The area was cordoned off pending the results of the laboratory tests and a review by the Head of Environment Support Services and Logistics and the DOE.

3

### **Clean Up Work**



1

Clean-up work commenced on 12 September 2011. The dumping site was covered with bushes and most containers were broken. This led to the soil and surrounding areas becoming contaminated. The work was performed by 9 KASB personnel and 2 from the DOE. A back hoe was used to excavate the containers and contaminated soil. Containers with hardened waste and soil contaminated with paint waste were packed into Poly Propylene (PP) bags. Containers of all conditions were packed into 200 litre plastic drums before being palletised with the PP bags and transported to the WMC for final disposal.



#### **ILLEGAL DUMPING WASTE COLLECTION**

WASTE TYPE	NO. OF DRUMS	NO. OF PP BAGS	NO. OF PALLETS	TOTAL COLLECTED (MT)
Paint Waste	12	-	3	2.59
Contaminated Soil	-	28	28	15.86
Total	12	28	31	18.45

18.45 MT of paint waste and contaminated soil were collected during the whole period. Paint waste was incinerated while contaminated soil was disposed of directly into secured landfill.

01 www.ecologyasia.com/news-archives/2003/dec-03/thestar\_20031205\_1.htm 02 www.doe.gov.my/portal/legislation-actsregulation-order/

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# PERFORMANCE REVIEW

We continue to set targets and monitor our progress to deliver the highest quality of performance. The scorecard below summarises the progress made in meeting our Key Performance Indicators (KPIs) for 2011. It also shows the targets set for 2012.

Weightage : 15% Actual Score : 4% Status : KPI not met

#### 2011 Achievements

Achieved a lower revenue of RM 155 million compared to target of RM 279 million

#### 2012 Moving forward

Increase revenue to at least RM 238 million



Weightage : 20% Actual Score : 10% Status : KPI not met

2011 Achievements Achieved a lower EBITDA margin of 31.39%

2012 Moving forward Achieve EBITDA of at least RM 66 million

### GEOGRAPHICAL EXPANSION / DIVERSIFICATION

### REVENUE GROWTH / DIVERSIFICATION

Weightage : 10% Actual Score : 3% Status : KPI in progress (some of 2011 initiatives will be realised in 2012)

#### 2011 Achievements

Secured 9 projects worth of RM 29 million (in aggregate contract value) compared to target of RM 46 million

#### 2012 Moving forward

Secure awards/new business (contract amount) of RM 26 million Weightage : 10% Actual Score : 10% Status : KPI exceeded

#### 2011 Achievements

Increased the active customer base to 81.42%, surpassing initial target of 10%

#### 2012 Moving forward

Strategic Objective changed to Shareholders return with KPI identified Return on Invested Capital (ROIC) of 12% Weightage : 10% Actual Score : 10% Status : KPI exceeded

#### **2011 Achievements**

Achieved 7.28% in total value creation / cost savings under Operational Cost Reduction and Improvement Programme, surpassing initial target of 3%

#### 2012 Moving forward

Achieve a minimum of 6% in total value creation / cost savings

### VALUE CREATION / COST SAVINGS

PLANT EFFICIENCY Weightage : 10% Actual Score : 3% Status : KPI not met

#### **2011 Achievements**

Achieved only 53.31% of targeted waste treated at 57,100 MT

2012 Moving forward N/A



Achieved 68% of targeted 80% for the 15 identified strategic milestones

**2012 Moving forward** N/A

Note : as per Audited Financial Account for the year ended 31 December 2011

identified EBITDA/Staff Cost of 2%

We only scored 53% in the scorecard above. Despite this low score, we managed to meet or exceed the KPI in 3 areas. These consist of increasing the active customer base, value creation or cost savings and increasing capability of staff competency. The overall performance was influenced by:

- Lower revenue of RM 155 million compared to targeted revenue of RM 279 million, mainly due to less waste treated and lower revenue from other segments
- Lower EBITDA due to less waste treated while fixed costs remain static; low ELV contribution; low EBITDA margin from KKI; higher personnel costs and depreciation over the year

We aim to improve on our rating in 2012.

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# COMMUNITY

At UEME, we acknowledge that Corporate Responsibility (CR) extends beyond corporate philanthropy. UEME focuses its community efforts on long-term social causes that leverage on its scale and position as a leader in the industry.

"It was a valuable opportunity for me to visit the only scheduled waste treatment and disposal facility in Malaysia with the most systematic waste management that goes beyond standard compliance. Apart from the advanced technology, KASB's employees and staff were very dedicated and optimistic in conveying good environmental practices to visitors."



Mohammad Adam bin Adman Visitor from UNISEL

We will continue to build a positive relationship, provide economic benefit and improve the quality of life of **our local communities.** We maximise the positive impact we have on society through our social engagements which in return will improve our long-term business accountability.

Throughout 2011, we were actively involved in community programmes across 2 core themes: community outreach and education.

# **Community Outreach**

As a good corporate citizen, we continue our outreach programmes by focusing on the socio-economic development of areas surrounding our operations including Kampung (Kg) Jimah Lama, Kg Jimah Baru, Taman Gadong Jaya, Kg Felda Sendayan and Ladang (Ldg) Tanah Merah.

Every year, we contribute RM 10,000 for Hari Raya Aidilfitri and 4 cows for Hari Raya Qurban to these villages. Over RM 30,000 was also donated to these communities for various development programmes which provide school materials, classes for examination preparation, Hari Raya celebrations and other community or sporting activities. Other monetary and in-kind contributions were also donated to these villages to increase the standards of living. We also engage with local communities to improve their livelihoods and listen to their concerns. Our aim is to help these residents become highly capable members of society by nurturing their skills and competencies. Employment is provided to some residents and we support their own enterprises.

Two-way communications with local communities are encouraged. Various community engagement sessions including monthly *teh tarik* sessions, dialogues and visits took place during 2011. Our quarterly newsletter, *Bulletin KASB*, was also distributed to keep the residents abreast with Company updates and developments.



Visitors at WMC



Hari Raya Qurban celebration at WMC

### **Community Dialogue Session**

At UEME, we value feedback from the local communities surrounding our plants to ensure our operations do not have an adverse effect on them. A Community Dialogue session was held on 28 July 2011 at SK Sendayan hall. The session was attended by 15 representatives from KASB and 44 residents from Kg Jimah Lama, Kg Jimah Baru, Taman Gadong Jaya, Kg Felda Sendayan and Ldg Tanah Merah.

### **Concerns Raised by Community Members**

Concerns raised by the local community during the session are summarised below. All concerns have been addressed and the progress monitored.



# **Education**

### **PINTAR School Adoption Programme**

PINTAR is a collaborative social responsibility initiative by the PINTAR Foundation. It works with Government-Linked Companies (GLCs) and private corporations in Malaysia, to foster academic and non-academic excellence focusing on underserved students nationwide, through its school adoption programme. UEME has been supporting this initiative since 2007. In 2011, a total of RM 12,710 was allocated for the year's adoption programme. We provide educational support to these schools including tuition and extra classes; teaching and learning materials; upgrading of facilities and enhancement of resource centres.

Through the PINTAR programme, we proved our commitment to nurturing education among children and youths in the villages surrounding our plants. Currently, 5 schools have been adopted: SJKT Ldg Tanah Merah, SK Jimah, SK Gadong Jaya, SK Sendayan and SK Jimah Baru.

#### Average UPSR Pass Rates

The average pass rate for SKJT Ldg Tanah Merah has increased by 8.35% compared to the previous years. However, the average pass rates in the remaining 4 schools were lower due to the downgrading students' academic achievements. We are identifying ways to enhance the teaching and learning processes in all schools to improve results. The average UPSR pass rates of these 5 schools for the past 3 years are presented below.



# **Community Initiatives by EISB**

EISB promotes the spirit of social responsibility in its workforce. In March 2011, the HRA Department collaborated with the Blood Bank of Hospital Sultanah Bahiyah to organise a blood donation campaign.

EISB instils environmentally-friendly spirit in society and has conducted *Jom Kitar Semula* recycling activities from 18 to 25 December 2011. This successful programme received a total participation of 50,000 people. **EISB aims to** () or **contribute to the government initiative of achieving 22% recycling by 2020 from the current 5% baseline.** EISB also engaged with 20 schools to promote the 3R Campaign by collecting and selling recycled waste to vendors. Money raised from this activity was returned to respective schools to be utilised for their social causes. To date, EISB has collected 58,882 kg of paper, 2,416 kg of plastic, 2,349 kg of aluminium and 247 kg of iron with a total value of RM 26,082.



Blood Donation Campaign collaboration with Blood Bank of Hospital Sultanah Bahiyah



Jom Kitar Semula activities by EISB

### Gotong-Royong Activities

EISB promotes clean and healthy living in the community. Various gotong-royong activities have been introduced in collaboration with the local communities, government agencies and the private sector. 253 activities were conducted which educated community members on waste handling processes and various 3R initiatives.

EISB collaborated with Politeknik Tuanku Sultanah Bahiyah (PTSB) in organising the Care for Earth programme which was held on 28 and 29 September 2011 in Kulim, Kedah, Several environmental-related programmes were conducted including a seminar and exhibition.

EISB and Yayasan Sultanah Bahiyah (YSB) launched an Environmental Educational Camp which covered beach cleaning, mangrove planting and the cleaning of Sungai Petani River programme from 5 to 7 August 2011.

# Free Garbage Bins and Toll Free Hotline Launching

EISB launched free garbage bins and a Toll Free Hotline, 1-800-88-7472, for Aduan Sisa initiative at a ceremony held at Taman Lumba Kuda, Alor Setar, Kedah in November 2011. The hotline is operated by PPSPPA, a government agency monitoring the 3 municipal waste concessions (EISB, Alam Flora Sdn Bhd and Southern Waste Management Sdn Bhd).

EISB also gave a proportion of the 3 million free bins provided to households in 7 states by the 3 concessionaires appointed by the Federal Government. 48,000 units of 120 litre garbage bins and 3,200 units of 660 litre garbage bins were distributed in Alor Setar and Kangar, Perlis respectively.

# UEME in supporting the Group's CR Plan

### **GLC Open Day**

UEME, the Group and other GLCs and Government-Linked Investment Companies (GLICs) participated in the GLC Open Day 2011 at the Kuala Lumpur Convention Centre. The Open Day ran from 24 to 26 June 2011, with the objective of showcasing the Group's achievements and progress to the public. The event themed 'Nation-Building, Touching Lives', was the first of its kind to inform the public of the mandate and contributions of GLCs and GLICs to the nation's economy. The event also highlighted programmes and initiatives undertaken by the Group of Companies for the benefit of the public and nation.

### Changing Habits towards Living Green

In 2011, the Group launched Changing Habits towards Living Green as part of its sustainability agenda which focuses on electricity consumption, water conservation, waste disposal, reducing paper usage and eliminating plastic. This initiative encourages frequent communication to create awareness, provide education and good environmental habits. Our performance is regularly monitored and managed by the Group.



Housing and Local Government Minister Dato' Seri Chor Chee Heung officiated the launching ceremony



Gotong-royong by EISB in collaboration with local communities





# English Literacy Programme Sponsored by UEM Group Berhad (UELP)

On 28 March 2012, a signing ceremony was held with the Group formally appointing PINTAR Foundation as the organiser and coordinator of the UELP.

PINTAR Foundation, in turn, signed a separate agreement with the British Council, a recognised world leader in English teaching, for the design, execution and implementation of the programme. This programme is in-line with UEME's position as the nation's building partner. UEME will support this programme by adopting 3 of the 50 schools which have been identified by the MOE. UELP aims to develop students' English reading, writing, comprehension and speaking skills over 3 years. The programme is specially designed to improve the teaching and learning of English in primary schools.



### Adoption of mosques

In support of the Group 2012 CR Plan, we will provide assistance and maintenance to the mosques surrounding our plants. We have identified 4 mosques located at Kg Jimah, Kg Jimah Baru, Kg Sendayan and Kg Gadong.

# Producing a Knowledgeable Community

### **UEM Group Knowledge Sharing Seminar**

A knowledge sharing seminar, held on 6 October 2011 at UEM Learning Centre (ULC), was attended by 62 representatives from 9 organisations within the Group. The main objective was to promote knowledge sharing and a learning culture whilst disseminating important Group information.

We shared our competencies, growth, road map, achievements and challenges with the participants. During the seminar, we also presented and demonstrated our Bulb Eater.

### **Bulb Eater**

The Bulb Eater is an efficient way of recycling fluorescent lamps containing mercury vapour and phosphorus. It crushes spent fluorescent lamps into small fragments, filters the hazardous content while recovering glass and metal for recycling. This system was adopted by UEME and can greatly reduce the air space of used fluorescent lamps previously disposed of in secured landfill. It also minimises the handling of the lamps, creates a safer and cleaner environment and reduces recycling costs by up to 50%.

Studies show that this disposal method is safer than boxing the lamps intact because it captures over 99.90% of the mercury vapour released during crushing. This is significantly less than released with accidental breakages.

KASB also demonstrated the Bulb Eater at the Living Green Day 2011 initiative held on 23 April 2011, at Kolej Yayasan UEM (KYUEM), Lembah Beringin. This demonstration was repeated at the *We Care We Share* a Sustainable Health, Safety and Living Green Awareness Campaign held on 26 July 2011, at Mercu UEM.



UEM Group Knowledge Sharing seminar



Demonstration of the Bulb Eater

### Scheduled Waste Management Seminar

KASB jointly organised a Scheduled Waste Management Seminar and hands-on training for the handling of scheduled waste with the DOE of Penang in April and June 2011. The events were held at the Sunway Carnival Convention Centre, Pulau Pinang and attended by 239 participants. The programme provided updates of scheduled waste management and the Environmental Quality (Scheduled Wastes) Regulations 2005 (EQ(SW)R 2005). The seminar also covered the monitoring and management of scheduled waste through e-consignment notes. In addition, there was a seminar held in Melaka on 13 September 2011.



# **Prevention of Corruption, Gifts and Favours**

Our Code of Conduct contains clear and well documented provision for the prevention of corruption and bribery. It is forbidden for any employee or any member of his or her immediate family to accept any form of gifts or favours from contractors, suppliers, clients or customers. It is Company policy that no employee or any member of his or her immediate family can accept any form of gifts or favours. Unaccepted gifts must be returned to the donor or given to charity.

### Compliance

We continue to support the Government's initiatives by adhering to the relevant rules and regulations. We did not receive any financial assistance in the form of grants or loans from the Government, nor did we contribute to any political organisation. We are pleased to report that there were no incidents or penalties for adversely affecting community members. We have not been convicted of any offences involving public policy development, anti-competitive, anti-trust and monopolistic practices at any time during this reporting period. We are also free from any form of penalties for non-compliance with applicable laws and regulations with regards to corruption.

We are also preparing for the Personal Data Protection Act 2010 (PDPA 2010) which will soon be enforced. The PDPA 2010 requires us to protect personal data of all employees, individual vendors and customers in the conduct of everyday business. There may be a need to revamp our contracts, registration forms and other documents which require personal data in order to comply with the PDPA 2010 when it comes into force.

We also have representation on the board of certain environmental and industrial group committees such as BCSRM, ENSEARCH, Federation of Malaysian Manufacturers (FMM) and MICCI. This helps us keep abreast with changes to the guidelines and regulations. Representation from these groups also helps us understand the global and national issues facing industries and the environment, so we can promote, develop and adapt sustainability within the business.

# WORKPLACE

We recognise the value of intellectual capital and encourage its development. We protect our employees' well being and ensure their safety and health while providing equal opportunities in the workplace.

"I joined KASB in 1998 because I was attracted to the great career opportunities. At KASB, the development of human capital is key. As the industry evolves, KASB continues to equip its employees with relevant skills and knowledge training. I am grateful for the opportunities provided by the Company to further my studies. In 2003, I obtained my Bachelor's Degree from the University of Portsmouth, United Kingdom. I was also pleased to pursue a Masters Degree in collaboration with the University of Northumbria at Newcastle and ULC in 2008. I was awarded with more challenging tasks and a promotion upon the completion of my studies. This is testament to the excellent career development opportunities provided to us all at KASB."

Zulkahedder Amat KAMI Department



# **Best Workplace Practices**

Our hiring policy has been developed in-line with the Government's Tenth Malaysia Plan of promoting local talent. The policy does not discriminate on age, disabilities or other aspects of individuals' backgrounds. We prioritise the hiring of local residents near our operations to develop local communities.

Although there is no minimum wage law in Malaysia, we benchmark salaries against the market to remain competitive. There is no discrimination in position and pay between men and women at UEME. The salary ratio between men and women at the Company is 1:1.

# **Competitive Benefits**

As our employees are instrumental to our success, we continue to appreciate their contributions and dedication by providing attractive employment packages. Benefits provided to our full-time employees are as follows:

- Leaves: 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*

Multi-cultural festival celebration

Personal Accident and Term Life Insurance Schemes, competitive EPF and SOCSO

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

### **Employee Payroll**

In 2010, average salary increments of 5% were allocated to performing employees. With the Group directive, 12% has been allocated for UEME salary revision against the general market in 2011.

# **Diversity at Workplace**

At UEME, we respect employees regardless of age, gender, ethnicity, background, religion or other personal traits. We promote diversity by acknowledging that each individual is unique.

### Workforce Breakdown by Gender

Although we do not practice any discrimination in the workplace, the number of male employees will always be higher than female due to the nature of our business. In 2011, the ratio between female and male employees was 1:3.6.



### Workplace Breakdown by Designation

The percentage of executive and non-executive members of employees remained stable at 61.16% non-executive and 38.84% executive. Executive figures included managers which accounted for 9.17% during 2011.



### Workforce Breakdown by Category

In 2011, 0.92% of our employees were non-permanent and the remainder were permanent. The statistics and breakdown for the past 3 years are presented below.



### Workforce Breakdown by Age Group

The majority of our workforce falls in the age group of 30 to 50 years old. Only 4.59% of employees are above 50 years old.



# Workforce Breakdown by Ethnicity

The population of our workforce is very diverse. We have a good representation of each culture and race. The majority is Malay which is highest population in Malaysia, with 7.34% Indians and 4.89% Chinese. The remainder consists of a mixture of other races.



### Percentage of Female in the Management

We continue to develop and provide growth opportunities to our female employees. The percentage of female employees in the management has increased from 11.08% in 2010 to 12.23% in 2011. Management includes managers and executive level whereas top management includes senior managers, Heads of Departments and above.



### **Employee Turnover Rate**

While our turnover rate has increased from 5.20% in 2010 to 7.80% in 2011, it is still considered relatively low. This reflects our ability to retain employees as an employer of choice.





# **Training and Development**

Scheduled waste management training was introduced in 2011 and complies with the EQ(SW)R 2005:Conduct of Training. All employees involved in the identification, handling, labelling, transportation, storage, spillage or discharge of waste are fully trained in these areas.

An average of 2 working days is allocated per employee to attend management or technical training as recommended by the Heads of Department. The HRA Department also ensures that all new employees attend the Orientation Programme as part of the Company's induction programme.

# **Employees Training Programmes**

The Company spent RM 415,278 for training in 2011 compared to RM 325,083 in 2010. This represents an increase of 27.75% which resulted in an average of 7 additional training hours per employee.

YEAR	NO. OF EMPLOYEES	TRAINING COST (RM)	AVERAGE TRAINING COST PER EMPLOYEE (RM)	TRAINING DAYS (8 HOURS/ DAY)	AVERAGE TRAINING HOURS PER EMPLOYEE
2009	324	332,149	1,025	-	25
2010	334	325,083	973	1,035	25
2011	327	415,278	1,270	1,270	32

# Breakdown of Employees Training Sessions by Type

Technical training accounted for the highest percentage in 2011 in comparison with functional training in 2010.





As part of our commitment to enhancing the skills of our marketing and transportation personnel, we conducted inhouse training sessions.

торіс	ATTENDEES	DURATION	NO. OF PARTICIPANTS
Safety Permit To Work	Safety Committee Members, Supervisors, Leaders and all employees	2 days	128
Defensive Forklift Driving Technique	Supervisors, Forklift Drivers and Contract workers	2 days	20
Briefing on Whistle Blower Policy	Heads of Departments, Managers and all employees	1 day	62
First Aid & CPR Training	All employees	2 days	40
Accident Prevention & Investigation	Senior Manager, Safety Committee and Safety, Health and Environment (SHE) personnel	2 days	19
Scheduled Waste Management – In Compliance With (EQ(SW)R 2005)	SHE Committee Members, Waste Collectors and Supervisors	2 days	20
Introduction to the Restriction of Hazardous Substances (RoHS) Directive <i>A Corporate Environmental</i> <i>Responsibility Module</i>	Top Management, Senior Managers, Middle Management, Heads of Departments and SHE Committee Members	1 day	20
Chemical Hazard Communication (HAZCOM)	SHE Committee Members, Supervisors and Line Leaders	2 days	20
Gas and Chemical Safety Management	SHE Committee Members, Supervisors, Line Leaders and Canteen Management	1 day	20
Malaysia SHE Legal and Other Requirements	Top Management, Senior Managers, Middle Management, Heads of Departments and SHE Committee Members	3 days	20
Environmental Reporting	Top Management, Senior Managers, Middle Management, Heads of Departments and SHE Committee Members	1 day	20
ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007	Supervisors, Leaders and all employees	1 day	20
Introduction to the ISO 9001:2008 Quality Management System Requirements	Steering Committee Members, Middle Management, Top Management and all other interested parties	1 day	20
Introduction to the ISO 14001:2004 Environmental Management System Requirements	SHE Committee Members, Middle Management and Senior Management	1 day	20
Environmental Aspect and Impact Assessment	Middle Management, SHE Committee Members and Supervisors	2 days	20
Hazards Identification, Risk Assessment and Risk Control	Middle Management, SHE Committee Members and Supervisors	2 days	20
Introduction to 5S at Workplace	All employees, SHE Committee Members and Supervisors	2 days	20
Contractor Management	Senior Managers, Middle Management, Heads of Departments and SHE Committee Members	2 days	20
Spill Control	SHE Committee Members, Chemical Handlers and Pollution Prevention Committee	2 days	20

Contractors are also required to attend specialist training programmes particularly when operating forklifts, working at heights or in confined spaces. It is compulsory for all KKA drivers to attend yearly training to keep them fully conversant with the safety requirements. This includes 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.

YEAR	NO. OF CONTRACTORS	TRAINING COST (RM)	AVERAGE TRAINING COST PER CONTRACTOR (RM)	TRAINING DAYS (8 HOURS/ DAY)	AVERAGE TRAINING HOURS PER CONTRACTOR
2009	443	0	0	2,628	47.50
2010	469	2,495	5	127.25	2.20
2011	183	10,468	57	499	2.70

### **Contractors' Training Programmes**

# Breakdown of Contractors' Trainings by Type

There are 3 major types of training being attended by our contractors. These include:

- Functional training, a classified skill and knowledge required for personnel to perform their daily duties
- Technical training which is required for the accomplishment of a specific task
- SHE training, a set of skills and knowledge which promote the safety, health and environment of people engaged in work or employment to foster a safe and healthy work environment







# **Enriching Socially through Human Capital Development**

# **Employment Value Proposition (EVP)**

UEME supports the EVP initiative by the Group which focuses on 2 Talent Management Strategies namely Talent Attraction and Employee Retention. We believe that delivering more attractive benefits to employees will result in a highperforming work culture. We also continue to help employees develop and progress through various career development programmes.

# Employee Engagement Survey (EES)

The EES was conducted to measure employees' engagement levels within the Company. The EES focuses on retaining employees and understanding their concerns more effectively.

### Long Service Awards

We acknowledge our employees' contributions and reward them for their dedication. Long Service Awards are granted to employees in recognition of 10 years of service with the Company. Tokens of appreciation consist of a watch or voucher. 146 employees had received this award by 31 December 2011.

### Manpower Rationalisation Programme

In February 2011, KASB began its Manpower Rationalisation Programme by reducing sub-contract labour at respective areas namely Production 1, Production 2 and Logistics. In September 2011, we also changed the shift pattern from 3 to 4 in order to meet the required manpower. In doing so, we have reduced the manpower required for each shift. This on-going exercise aims to maximise our manpower and increase employee productivity while reducing our dependency on contract labour.

# **Performance Appraisal**

A KPI matrix is adopted to quantify financial and non-financial performance targets. This matrix measures employees' achievements in meeting set targets. The KPIs are monitored periodically by Heads of Departments and identified variances are addressed. This structured approach is important as employees' achievements directly affect the Company's scorecard as a whole. At UEME, performance appraisal is conducted biannually, in the middle and end of each year. In 2011, all employees (100%) were formally appraised through this system.

In 2011, EISB introduced a matrix system which maps employees performance against an initial KPI set. This resulted in a higher level of performance being recorded as employees experienced increased motivation which led to improved performance.

# **Occupational Safety and Health (OSH)**

Excellence in SHE is instrumental to UEME's success and a fundamental part of the Company vision. KASB's Safety, Health, Environmental Management System (SHEMS) complies with the requirements of ISO 14001:2004, OHSAS 18001:2007 and MS 1722:Part 1:2005. This SHE policy clearly defines the safety management system which covers the structure of the operating unit, planning activities and safety procedures. It also outlines the allocation of resources for the development and implementation of the SHE policy.

KASB received the 2011 National Council for Occupational Safety and Health (NCOSH) Excellence Award for the category of Utility Cleanliness. This award was received on 21 December 2011 at a ceremony held at the Putrajaya Marriott Hotel, Putrajaya. In addition, the Company won



Emergency Response Plan mock drill

the MOSHPA OSH Gold Star Award 2011 for its outstanding achievement in OSH management for the second time. KASB is certified with the Occupational Health and Safety Assessment Series, OHSAS 18001:2007 and has aligned all internal occupational safety and health standards with these requirements. In September 2010, we were also certified with Malaysian Standard MS 1722:Part 1:2005 which is endorsed by our Government National Safety Council. This Malaysian standard provides requirements for OSH management system and a basis for the development of a sustainable safety and health culture in the organisation.



Each operating unit conducted safety and health training programmes to create safety risk awareness and precautionary measures amongst its employees. Hazard risk training programmes, including a Chemical Health Risk Assessment (CHRA), were also introduced and their effectiveness regularly evaluated. A Hazard Identification. Risk Assessment and Determine Control (HIRADC) was established for each work activity in order to identify hazards, assess the risks and determine the control process.

### **Emergency Preparedness**

The following emergencies have been identified and registered with the KASB's SHE Department. Various emergency facilities have been located around the plant to reduce the risk of emergencies occurring.

### Type of Risk

- Fire or explosion
- Uncontrolled released of hazardous fumes
- Medical related emergencies
- Spilage of Technically Enhanced Naturally Occurence Radioactive Material (TENORM) Waste

#### **Approaches**

- A sprinkler system in the plant
- Fire extinguishers (dry powder/ CO,/Foam)
- A hose reel system
- An argonite spray system
- An automatic foam sprav system
- An automatic calling mechanism to Bomba through CMS

An evacuation drill was successfully performed at the WMC on 12 September 2011. A fire drill was also conducted at Mercu UEM on 14 December 2011.

# The OSH Committee

Our Safety and Health Committee (SHC) is chaired by the Chief Operating Officer (COO). The total committee consists of 26 members: 1 chairman, 1 alternate chairman, 1 secretary, 12 management executive level and 11 non-management non-executive representatives. The SHC members consist of 50% management and 50% non-management who are responsible for workplace inspections throughout the year to ensure high safety standards are adopted at all times.

The SHC is committed to continuous improvement in SHE Quality performance through extending Safety, Health, Environment and Quality (SHEQ) management systems to all employees, contractors and vendors. The SHC meets quarterly to promote consistency and continuous learning in all OSH matters. This has resulted in fewer incidents as highlighted below. The total number of incidents has not increased compared to 2010.

A total of 4 SHC meetings were held on 18 February, 6 May, 8 August and 6 December 2011. All meetings received an attendance rate of more than 60%.

### **Incident Rate**

2011 36

2010 36

2009

Year

27

The number of incidents reported in 2011 has remained unchanged with 36 incidents being reported. This is the same as the previous year.

### Incident Breakdown by Type

The chart below shows the incident breakdown by type. Most incidents occurring in 2011 were caused by fire (28%) while the rarest incident was an explosion (3%).



The number of Lost Time Injuries (LTI) cases reduced from 3 in 2010 to 2 in 2011. We conducted Safety PTW Training and implemented a Contractor Pass which required all contract workers to attend a Safety Briefing every 6 months. A summary of LTI incidents occurring in 2011 is presented below.

DATE OCCURRED	LOCATION	INCIDENT SUMMARY	CORRECTIVE ACTION TAKEN
28 June and 8 July 2011	Quench Chute INC 4	A worker was handling the drum changing process at quench chute with a forklift when hot water escaped from the chute to a full drum and splashed onto him. During the first incident, the victim suffered injury to his foot. The second occurrence was more serious where the victim was totally drenched with hot water.	<ul> <li>Following the first incident, an outlet tube was fabricated and installed on the slag collection drums immediately. This ensures excess water can flow freely from the drum.</li> <li>In response to the second incident:</li> <li>Visors were fabricated and installed on forklift trucks</li> <li>Sliding gates were installed at the chute</li> <li>Chemical suits are required to be worn by forklift drivers</li> <li>A buddy system and safety watch were introduced. Workers were forbidden from handling sludge from the quench chute alone</li> <li>Awareness sessions were held for all INC 4 employees on emergency handling</li> </ul>

### Million Man Hours with Zero LTI

Since the last LTI incident in July 2010, our man-hour calculations were up to 1,170,726. This was reset due to LTI incidents recorded in June and July 2011 and started again on 7 August 2011. As of 31 December 2011 they were 401,093.



We aim to maintain a zero LTI incident rate in the coming years and as part of our efforts to minimise the occurrence of accidents and incidents at our workplace. The following approaches have been taken in our Integrated Management System (IMS) Management Programme Year 2011:

- Enhancement of PTW
- Contractor Management Programme
  - Conduct training for in-house contractors
  - Conduct training for shut-down contractors
  - Implementation of Contractor Pass (valid 6 months)
- Workplace Inspection programme
  - Area Inspection by SHE personnel (every 2 weeks)
  - Workplace Inspection by SHC and SHE Department (every 2 months)
- OSH Doctor consultation (every 2 months) and Health Talk
- Clinical Health Surveillance
- Chemical Exposure Monitoring programme Heavy Metal blood monitoring and Area and Personal Monitoring
- Noise Exposure monitoring programme Audiometric Testing

In 2011, our SHO presented our corrective action to the Department of Occupational, Safety and Health (DOSH) Officers when they performed a site inspection of the incident area. They were satisfied with our corrective actions taken.
### Awareness Training for Serious Diseases

We are committed to preventing the spread of serious diseases despite all employees receiving full clinical insurance and health cover. For example, Influenza A (H1N1) has affected many Malaysian citizens and we conducted an education programme equipping all employees with the latest guidelines and preventative approaches. Awareness posters were also displayed at strategic points around the office buildings and plants.

## **Internal Communication and Employees Engagement**

A staff dialogue with the MD was held on 23 March 2011 where employees were briefed on UEME's current and future business direction. The MD took this opportunity to explain the rationale behind employees' Performance Appraisal rating scores against the Company's scorecard.

In addition, a staff dialogue with the COO was held on 1 December 2011. The agenda included a brief presentation on current issues including financial status, plant capacity, treatment and price in comparison with other recyclers, latest technologies, business diversification and cost reduction.





# **KESUKA for Employees' Welfare**

KASB's Sports and Charity Club (KESUKA) was established in 1999 by the HRA Department and registered with Registry of Society (ROS) in 2006. KESUKA's objective is to encourage a healthy lifestyle through participation in sports, welfare and recreation activities that strengthen ties amongst employees. It recorded a membership of 327 on 31 December 2011.

We engaged with the local community at sporting activities which included football, volleyball and *sepak takraw*. These activities were held on the fields surrounding the plants such as Guthrie Tanah Merah, Kg Sendayan, Kg Jimah Lama and Kg Jimah Baru. We also initiated friendly badminton, futsal and netball matches with them.

KESUKA co-organised activities with the SHEQ team such as *The Biggest Loser* in consultation with the OSH doctor. This activity aims to promote healthy living and encourages employees to lose weight. Table tennis, bowling, badminton and snooker matches were among the activities held in 2011. Various inter-departments and state level matches were also hosted for its members. A *Majlis bacaan Yassin, Tahlil dan Doa Selamat* was led by Ustaz Abdullah Bin Omar, the *Imam* of Kg Sendayan in June 2011.

**KESUKA** does not limit its role to socially-motivated activities as it also aims to increase the environmental awareness of employees. In 2011, various environmentally-driven programmes were held including a Malaysian Environmental Non-Governmental Organisations (MENGO) Green Hunt on 25 June 2011. We also participated in Revive Green Festival which was jointly organised by Revive Sdn Bhd and *Majlis Perbandaran Port Dickson* (MPPD). Activities included beach cleaning and the rehabilitation of the *Pantai Telok Kemang*, Port Dickson on 10 December 2011.



Futsal is one of the much awaited games during KA-JAS Sports Carnival 2011



KESUKA members participated in the water rafting programme by the DOE Perak

## **Notice Period for Operational Change**

Any operational change is communicated to the relevant personnel for action. Staffing changes are managed by HRA personnel through necessary training and induction programmes. Legal changes or other requirements are communicated to all affected personnel. The introduction of new business, new machinery or a different type of machinery is managed using the current SHE Risk Assessment Procedure and Management of Change Procedure. All other changes are collectively discussed and action plans developed by the IMS Committee which may convene at any time deemed suitable. Minutes of the meetings and subsequent action taken are communicated and eventually implemented across the organisation through various IMS Committee representatives.

## **Employees Rights at Work**

Respecting the human rights of our employees is our most basic responsibility. The Company's Human Resource policy covers human rights issues such as non-discrimination and ethical practices. This policy extends to cover our procurement practices with human rights screening being standard in supplier and contractor contracts. The Company's employee handbook and Code of Conduct are provided to all employees including security personnel. Together these documents clearly define the scope of our ethical responsibilities.

There have been no significant incidents of discrimination or risks to freedom of association and collective bargaining. There were no cases of violations of human rights involving the rights of indigenous people at any time in the Company's history. We comply fully with the Children and Young Persons (Employment) Act of Malaysia 1966 which prohibits the employment of children under the age of 14. There have been no reported incidents or risk of child, forced or compulsory labour.

# MARKETPLACE

A sustainable marketplace consists of transparency, accountability and high value delivery within the supply-chain and customers. UEME regularly engages with its customers to understand their requirements and consistently delivers high quality services through its suppliers' development management.

"UEME and its contractors need to recognise the risk that e-biddings can bring to longterm relationships, project performance and contractor sustainability. E-bidding and e-tendering processes must also consider value extraction and not ignore partnering, team-working and best value. Contractors view the e-bidding process as selecting suppliers and contractors on price, rather than value and quality."

#### Haris Selven Pembinaan dan Kejuruteraan Damai (Contractor)



In response to this, the e-bidding process actually involves 2 bidding areas, technical and commercial. The technical bid is reviewed first. Suppliers who pass this stage can then be considered for the commercial bid. This systematic bidding process ensures all suppliers are evaluated fairly and technical expertise is prioritised.

"There is now better engagement between KASB and the DOE especially when providing updated information on unexpected incidents such as fire, explosions or malfunctioning equipment. KASB's compliance level is good based on investigations carried out. However, there were still companies which claimed that KASB does not entertain small quantities of waste which has been a concern for small scale companies."

#### Rosli Bin Mustafa DOE Negeri Sembilan



In response to this, we continue to emphasise that we do accept small quantities of waste. This is reiterated during DOE seminars, customer seminars and industrial association meetings. We also highlight this in other forums and feedback platforms. A console pick-up service is also available regardless of the quantity of waste.

"Our Company has been engaging with KASB for scheduled waste disposal for more than 5 years. The overall services provided are good and always improving. We previously experienced transportation problems but action had been taken by KASB. Currently, the transportation and service are prompt and the communication with your employees and support team is very encouraging."

> Jamaluddin Mansur Kisswire Cord (Customer)



## **Certifications and Achievements**

We continue to comply with local and international standards on quality. The certifications achieved by our Companies are testament to our commitment to deliver the best environmental solutions.

COMPANY	CERTIFICATIONS ACHIEVED TO DATE
KASB	MS ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, MS 1722:Part 1:2005 and ISO/IEC 17025
KKA	MS ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 and MS 1722:Part 1:2005
KKI	MS ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007
SBSB	MS ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007

DI THAZARDOUS WASTE MANAGEMENT CYCLE

1. Waste Generator (WG)



A Marketing Agent Representative advises customers on proper waste packaging and labelling to prepare waste for delivery to the WMC. A Scheduled Waste Transportation and Treatment Agreement (SWTTA) is signed between the customer and KASB.

2. The WMC



The waste arrives at the WMC, the trucks and their contents are weighed. A Waste Inspection and Sampling Team inspects and takes samples of waste from each consignment. The waste containers are bar-coded and entered into the Barcoded Waste Tracking System (BWTS) to ensure the accurate and reliable retrieval of information. Following laboratory analysis and evaluation, the waste consignment is transferred to temporary storage for treatment or disposal.

**Incineration Plant** 



The WMC's Incineration Plant treats organic waste such as mineral oil, solvents, pesticides and wastes containing halogens and sulphur. Inorganic waste such as metal hydroxide sludge, which contains more than 10% Total Organic Carbon (TOC), is incinerated at this plant. Slag from the rotary kiln is disposed of in secured landfill. Fly ash trapped in the fabric filter is treated at the Solidification / Stabilisation Plant. This Incineration Plant ensures a thermal destruction efficiency of 99,9999% which meets the DOE licensing conditions for incineration emissions. Scheduled wastes are incinerated and transformed into Carbon Dioxide (CO<sub>2</sub>), water vapour, hydrogen chloride gas, sulphur dioxide gas, slag and fly ash.

Physical / Chemical Treatment (PCT) Plant

3. Treatment or Disposal



Inorganic liquid wastes such as spent acid and alkaline, chromate and cyanide wastes are treated at this plant. The residual filter cake from the detoxification process is treated at the Solidification / Stabilisation Plant before it is finally disposed of in the secured landfill site.

ash

Solidification / Stabilisation Plant



Innocuous Waste

This plant continues the process of rendering the treated waste from the PCT Plant and other processes by solidifying the waste via fixation before disposal to the secured landfill site. Some inorganic solid wastes such as metal hydroxide sludge are also treated at this plant including lead, arsenic, nickel, zinc and chromium.

slag

Secured Landfill



The final destination of all waste sent to the WMC is the secured landfill site. Wastes meeting the Direct Landfill Acceptance Criteria, which include the Toxicity Characteristics Leaching Procedures (TCLP) test, can be disposed at the secured landfill directly without treatment. The 13 leachable metals listed under the TCLP test are arsenic, barium, boron, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, tin and zinc. Types of waste being disposed of in the secured landfill include slag from the Incineration Plant, solidified wastes from the Solidification Plant and external wastes that fulfil the direct landfill acceptance criteria.

# **Quality Services**

An internal audit is conducted at least once per calendar year. Our internal auditors attend the internal audit training or equivalent and they are responsible for monitoring all IMS Procedures and Operation Control Procedures. This ensures compliance with the Company's IMS, customer expectations, regulatories and guidelines as specified in ISO 14001, OHSAS 18001, ISO 9001 and relevant SHE legal requirements.

All comments and concerns raised by employees are recorded by the respective Heads of Departments. They are directed to the Company's IMS representative for discussion during Quarterly IMS meetings. The introduction of any new policies, procedures or IMS requirements are also discussed during this meeting. The IMS Management Review meeting, on 23 August 2011, recorded a 92% attendance rate.

To ensure the highest quality standards, we continue to conduct quality monitoring and assessment, with reference to various local and international recognised standards. The frequency of these monitoring sessions varies accordingly.

ТҮРЕ	REFERENCE STANDARD	FREQUENCY OF MONITORING	ВҮ ЖНОМ	REPORTING TO
KASB Legal Register	MS ISO 14001:2004, OHSAS 18001:2007 and MS 1722:Part 1:2005	Annually	Area owner	IMS Management Representative (MR)
EMP	EQA 1974	Annually	Environmental Engineer	DOE
Noise Exposure Monitoring	FM (Noise Exposure) Regulations 1989	Annually	Trained person	DOSH
Audiometric Test	FM (Noise Exposure) Regulations 1989	3 months / annually / bi-annually / every 5 years, depending on circumstances	Supervised by clinical practitioner	DOSH
Chemical Health Risk Assessment	OSH Use and Standards of Exposure of Chemicals Hazardous to Health (USECHH) Regulations 2000	Every 5 years or when required	A registered CHRA Assessor	DOSH
Chemical Exposure Monitoring	OSH (USECHH) Regulations 2000 and Code of Practice (COP) - Indoor Air Quality	Upon recommendation based on CHRA report	Appointed hygiene technician	DOSH
Local Exhaust Ventilation (LEV) System examination & testing	OSH (USECHH) Regulations 2000	Annually	Appointed hygiene technician	DOSH
Clinical Health Surveillance	OSH (USECHH) Regulations 2000	Annually - for production staff Biennially - for admin staff	Appointed panel hospital	DOSH
IMS Objective & Programme	MS ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 and MS 1722:Part 1:2005	Every 6 months	Heads of Departments	Management review
Workplace Inspection	MS ISO 14001:2004, OHSAS 18001:2007 and MS 1722:Part 1:2005	As scheduled twice a month or ad hoc	SHE Assistant SHC COO/Senior Manager DOSH	SHC Meeting SHE Meeting

# **EIWIS**

EIWIS is a single platform providing multi-functional processes for business operations in the hazardous waste management industry. It provides real-time monitoring, tracks waste information and generates reports.

The EIWIS reporting portal was first introduced in May 2007. The idea was conceptualised within UEME and developed with the assistance of an external programme designer. In May 2009, EIWIS replaced the Online Customer Service (OCS) System.

In 2011, we improved the functionality of this system by migrating BWTS to EIWIS. We aim to fully migrate and implement the enhanced EIWIS by January 2012. The upgrading work focuses on improving the system's reliability especially the system support. The new centralised web-based platform provides comprehensive modules including a customer portal, e-billing, waste tracking and reporting. **The integrated technology of EIWIS results in a systematic procedure with better efficiency and improved accessibility.** This benefits the Company and its customers. The competitive benefits of EIWIS will become one of UEME's products and services. We aim to market this industry-leading system to other regions such as the Middle East.

#### **Benefits of Migration**

- Enhances and protects the long term investment in an organisation's software infrastructure and effectively reduces the Total Cost of Ownership (TCO)
- Performance benchmarking ensures migrated applications perform better than their predecessors which leads to increased scalability, simplified maintenance and reduced costs
- Rejuvenates existing business systems and enhances the application. It also provides compatibility for current and future technologies
- Enhances the new operating environment. Software assets are consolidated and applications are integrated into a single development platform. This results in improved performance, productivity, reliability, security and extensibility

# **Sustainable Procurement Practices**

Our procurement practices adhere to the requirements of the *Red Book: Procurement Guidelines & Best Practice* imposed () on GLCs. In principle, these guidelines outline 3 key national development objectives related to GLC procurement which include:

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

The concept of *value for money* is applied during the supplier's evaluation process. We consider the price, terms and conditions, delivery and quality. Our procurement practices require at least 51% of shareholding to be held by Bumiputera to qualify as a registered supplier or contractor to support local vendors. In December 2011, our suppliers' breakdown is as follows.

EQUITY STATUS						
ITEM	BUMIPUTERA	BUMIPUTERA (ORGANISATION/ DONATION)	NON- BUMIPUTERA	FOREIGNER	TOTAL	
No. of Suppliers	83	40	235	4	362	
Percentage (%)	22.93	11.05	64.92	1.10	100	

Our stringent procurement policies may extend up to 14 days for the screening process. The Purchasing Department verifies material parameters of suppliers and contractors including financial stability, capability, previous projects and shareholding status.

An e-Assessment System was introduced in August 2011 to monitor performance and highlight gaps in the delivery process. This encourages a two-way engagement process with our suppliers and contractors. Since the introduction of this system, we have achieved a 100% response rate from our suppliers and vendors.



KASB prioritises local suppliers in support of the Government's mission of developing local talent. Our suppliers' management programmes include:

- 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) largely in-line with the Group-wide initiatives
- Structured Supplier Management Programme (SSMP) for the non-SSMP and non-BVDP products that cumulatively
  comprise the top 80% of total procurement spent. A Preferred Supplier Status is given to suppliers who consistently
  meet their targets. Non-performers may receive penalties including the removal of the preferred supplier status and
  possibly blacklisting

Our suppliers' performance has shown an increase in each area as highlighted below.

SUPPLIER MANAGEMENT	UNIT	2009	2010	2011
Cost of all goods, materials and services purchased	RM Million / Month	8	4	5
Percentage of contracts that were paid in accordance with agreed terms, excluding agreed penalty arrangements	%	29	23	32.48

#### Socio-Environment in Procurement

We include social and environmental aspects in our vendor evaluation. Vendors are assessed on their Environment, Health and Safety commitments including the existence of an OSH system, certifications, recycling activities and other social compliance.

SUPPLIER MANAGEMENT	UNIT	2009	2010	2011
Performance of suppliers relative to environmental components of programmes and procedures	Rating (%)	76	72	65.12

## **Responsible Packaging**

Proper packaging is vital for the safe transportation and handling of hazardous waste. The WG is responsible for the correct packaging, labelling, transportation and waste specifications as stated in the (EQ(SW)R 2005). Our agent visits the WG's site and verifies that the packaging is done properly prior to collection. The types of packaging required for respective waste types are outlined below.

TYPE OF WASTE	TYPE OF PACKAGING	COMPLIANCE
Liquid organic / inorganic waste	Bunghole drum (steel/plastic) or plastic pallet tank with stopper. Drums should not be filled more than 90%. The maximum weight of a filled drum is 200 kg	Yes
Solid waste and empty contaminated container	Open top steel or plastic drums with covers and clamp. Drums must not be filled more than 10 cm from the top or used for free fluids	Yes
Dry solid waste and contaminated rags	1-tonne PP bags. Bags must not be filled more than 10 cm from the top, must be double-lined or used for free fluids	Yes
Pharmaceutical and laboratory waste	Open top steel or plastic drums with cover and clamp	Yes

# Scheduled Waste Storage and Spillage

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 should not be stored for more than 180 days on 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. In the unlikely event of a spillage during transportation from the WG's sites, the contaminated area should be cleaned up immediately. Items used in the clean-up are disposed of according to (EQ(SW)R 2005). In 2011, there were no incidents related to spillage.

## **Product and Services Labelling**

All scheduled waste containers are labelled with a hazard symbol in accordance to the Third Schedule (Regulation 10) () of the (EQ(SW)R 2005). The size, colour and orientation of the labels must also adhere to the guidelines in this schedule.

The labels on the container must be made of a material that is resistant to its contents and must reflect the actual risk of the wastes.

The WG is responsible for the correct packaging, labelling, transportation and specification of the waste under the (EQ(SW)R 2005). The packaging must display details of the consignment number; scheduled waste label corresponding to the waste; name, address and telephone number of WG; generic name of waste and Scheduled Waste Code; the date when the scheduled waste generated; and safety precautions to take such as keeping the contents cool or avoiding direct sunlight.



### Warning Labels

## Safe Operations

Drivers must ensure their trucks are cleaned and roadworthy against the Pre-Trip Vehicle Checklist prior to collection. Waste heavier than the truck's maximum load is rejected or the number of pallets reduced.

Since 2011, Global Positioning System (GPS) units have been installed in all KASB trucks. The movement and behaviour of each vehicle are 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 licence conditions, packaging, labelling and emergency response plans.

#### 01 🛈 Live Audit

On 30 June 2011, the Management approved the Managing Occupational Road Risk (MORR) programme. This programme introduced a live audit process for all trucks and subjected all drivers to a live audit annually. A 1 hour live audit is performed by an independent auditor on normal roads and expressways for a minimum distance of 80km/hour for a truck or town road. 3 live audits were conducted in 2011 on 17 August, 15 October and 15 December. The tracked vehicle was followed from a safe distance to avoid visual contact with the driver. Objective evidence such as photographs of the vehicle was gathered and the results discussed during Management meetings.

Audit results show that 2 trucks had faulty GPS tracking systems which did not capture any data and another 1 was found to be speeding excessively at 113km/hour. These drivers are monitored more closely. All other vehicles have passed the compliance parameter as stipulated by the MORR.

### EISB's Automatic Vehicle Locating System (AVLS)

GPS devices on all Compactor Units (CU) transmit data to the AVLS server for processing. This system is web-based and can be used to monitor the daily activity of each CU. This monitors other useful information such as bin location, speed, driving behaviour, route, compactor trip, time in-out of landfill and depot, location and compactor movement.

### Chemical Storage

Improperly stored chemicals may be hazardous to health as they could cause a fire or explosion. They may also cause injury by ingestion, inhalation, skin or eye contact. Incompatible chemicals are segregated and properly labelled. Precautionary approaches taken to minimise risks related to improper handling of chemical include a chemical register; Chemical Safety Data Sheets (CSDS); area warning signs; classification, labelling and relabelling of chemicals; and information, instruction and training on the handling and storage of chemicals.

## **Responsible Marketing Practices**

We have obtained exclusive rights from the Ministry of Natural Resources and Environment (MNRE) to continue working with the Government as a recognised partner in environmental solutions. Our motivation to continue delivering quality services to our customers remains a priority. We concentrate specifically on:

- A competitive and reasonable pricing policy
- Being the only Company in the industry providing integrated waste management solutions
- Providing our clients solutions for sustainable development while contributing to nation building
- The ability to manage waste residue which minimises the possibility of illegal dumped waste
- The management of our Level 4 secured landfill
- Our close relationship with the Government, the DOE, customers and stakeholders
- Being the choice of the industries, customers, stakeholders as being a well-managed integrated scheduled waste management facility

### **Responsible Pricing Strategy**

Transportation and treatment fees for all wastes have been regulated by the Cabinet since 1996. We continue to comply with the regulated rates devised by the Government to promote transparent and fair trade.

01 Live Audit

### **Educating our Customers**

We deliver an exclusive service to all customers and aim to achieve sustainable long-term relationships. We are also committed to educating customers by providing a Competency Training Programme on Scheduled Waste Management. In compliance with (EQ(SW)R 2005), under regulation 15: Conduct of training: every WG must ensure employees are 🔊 on involved in the identification, handling, labelling, transportation, storage and spillage or discharge response of scheduled waste and attend training programmes. The training will ensure that all customers grasp the processes involved in scheduled waste management.

Our mission to educate our customers goes beyond training. It also extends to nationwide seminars and dialogue sessions with the DOE, exhibitions, information on our website, brochures and open dialogue with surrounding communities. All these are done to promote a better understanding of our facility and business. We strive to provide waste management services with minimal or zero environmental impact, using the proper channels for the disposal of wastes and the responsibility to dispose of the waste residue safely. Socio-environment initiatives are also encouraged amongst our customers by providing a 5% rebate or discount to ISO 14001 certified companies as encouragement to join UEME in the use of an Environmental Management System.



In 2011, 952 WMC visitors were briefed on our waste life-cycle processes. The breakdown of these visitors is shown below.

VISITORS (%)					
STUDENT	CUSTOMER	GOVERNMENT AGENCIES	NGO	OTHER	TOTAL
73.74	13.97	7.46	4.20	0.63	100

# **Customer Satisfaction**

Our Customer Relationship Management (CRM) programme provides guidelines to all operating companies on our interactions with customers. Customer complaints are logged in the Company's system within 3 days and corrective actions are initiated within 1 week. In KASB, a survey is delivered by hand or mailed to the 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 below satisfaction. Corrective actions and improvements are monitored by Heads of Department based on the comments received.

DATE	NATURE OF COMPLAINT	DESCRIPTION OF NON- CONFORMANCE	CAUSE OF NON- CONFORMITY	CORRECTIVE ACTION TAKEN	STATUS
17 March 2011	Customer was unhappy with truck driver	Driver refused to accept double stack of waste and an extra pallet	Customer was unaware of the requirement for double stacking trucks	We have allocated 20 tonne trucks for future collections	Resolved and closed
12 October 2011	Customer was unhappy with the unregistered Indigenous Micro Organism International Maritime Organisation tank handlers	The assigned handlers were on emergency leave and their replacements were not registered in Clean Water Education Partnership (CWEP)	The handlers were unaware of customer's requirement and procedure	Replacement handlers were sent for re- training on 30 October 2011	Resolved and closed

### Customer Survey Results Summary

We are pleased to report that we have delivered better services to our customers once again as reflected in our 2011 Customer Survey results. The Survey results show that all indicators have significantly improved compared to previous years.

Our overall customer satisfaction shows an increase over the last 3 years. The table below highlights our commitment moving forward to live up to our customers' expectations.

SURVEY INDICATOR	2009 (%)	2010 (%)	2011 (%)	KASB'S APPROACHES	KASB'S COMMITMENT MOVING FORWARD
Customer Service Executive	99.40	98	98	Sales team meets customers regularly	Continuous Customer Service Management (CSM) training for all front liners
Truck Drivers	97.80	97	97.40	Regular training including Driver Defensive, Driver Refresher, Road Safety Talks, First Aid, Emergency Response and Mock Drills	Close monitoring of drivers' road attitudes through GPS and live audits introduced in 2011
Support Services	94.20	92.80	94.70	Encouraged a prompt response to all queries	All queries to be addressed within 48 hours
Ability to meet need and expectation	97.30	95.40	97.90	Regular communication with customers to understand their concerns	Upon the finalisation of every project

## **Customer Privacy**

Employees are not permitted to discuss confidential Company information with business partners, customers, clients or other stakeholders except in the course of conducting Company business. It is the Company policy that any information pertaining to customers' details in any way whatsoever and which is not generally available to the public shall be treated with the utmost confidence. Such information cannot not 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.

## **Regulations Compliance**

There have been no significant incidents of non-compliance with regulations or voluntary codes relating to marketing communications including promotion and sponsorship during 2011. Our comprehensive quality control system is regularly evaluated and improved to ensure compliance with the provision of services. We did not have any major incidents of non-compliance with regulations concerning the health and safety impacts of our operations.

# **ENVIRONMENT**

We recognise our role with regard to various environmental challenges and risks faced in today's world. We ensure that our operations do not result in much negative impact to the environment including our resources, waste, emissions and transportation.

## **Environmental Conservation**

Our environmental conservation initiatives are developed internally and we encourage our employees to be eco-friendly in their daily routines. The following initiatives have been practised throughout the Company:

- Energy saving electrical and electronic devices are used including computers, photocopiers and LCD projectors
- Air conditioners are set to 23-25°C
- Fluorescent tube lights are replaced with energy savings compact fluorescent lights whenever feasible
- Paper usage is minimised as far as it is practicable and double-sided printing encouraged
- The use of electronic media for communication is encouraged
- All electrical power sources are isolated during lunch and after office hours
- Easily dissolved toilet papers are purchased to avoid clogged pipes and drains

The HRA Department appointed a contractor to maintain and service approximately 188 air-conditioning units at the WMC in April 2011 to prevent wastage and ensure all units are in good condition. Damaged centralised units were replaced with split units during 2011. The Company purchased Casio's LED/Laser Hybrid Light Engine Projector which contains no mercury.

## **Environmental Impacts Identified from KKA Operations**

In addition to our activities at the WMC, we acknowledge that certain stages of our marketing and transportation operations have also caused an impact to the environment. However, we continue to research all possible methods of mitigating the impacts as highlighted below.

OPERATIONS	POTENTIAL IMPACTS	APPROACHES IN MITIGATING IMPACT
Packaging	<ul> <li>Exposure to hazardous chemicals</li> <li>Spillage during the handling of drums or containers during packaging process</li> </ul>	• Strict guidelines and control on waste labelling and packaging
Collection	Spillage during collection	<ul> <li>All drums or bags must be fastened securely on a good conditioned pallet to minimise the risk of spillage during transportation</li> </ul>
Clean up job during illegal dump cases	• Exposure to hazardous chemicals	<ul> <li>All contractors must be approved by KKA prior to commencing work and comply with the safety requirements of KASB and KKA at all times</li> </ul>
Transportation of scheduled waste to the WMC	<ul> <li>Truck breakdown by road side</li> <li>Emission of black smoke</li> <li>Fatigue / long hours driving may cause road accidents followed by spillage</li> <li>Incompatibility may cause explosions or an uncontrolled reaction resulting in fire</li> </ul>	<ul> <li>EIWIS cradle-to-grave system which includes GPS, barcode labelling and finger printing</li> <li>Drivers fatigue management</li> </ul>
Driving	• Smoke emitted from vehicles	<ul> <li>Smoke monitoring system</li> <li>Use of Natural Gas Vehicle (NGV) trucks</li> </ul>

## **Materials Consumption**

In addition to electricity and water, a large amount of cement, sand, lime, caustic soda, nitrogen gas and a wide range of chemicals are used in scheduled waste treatment services. These materials are used at all of our Incineration Plants.

Lime

Caustic soda Activated carbon



The WMC also consumes a significant amount of diesel mainly as fuel for the Incineration Plant. Since 2004, options have been explored to use waste oil or Reconstituted Oil (RO) to replace diesel. During 2005, we invested RM 1.2 million to upgrade the main incinerator to run on RO. This new burner system can run on 100% diesel; 100% fuel from waste; or a combination of the 2. Major savings have been achieved as it uses actual liquid energetic waste as a fuel rather than the normal diesel and RO. This represents financial and environmental savings.

## **Energy Management**

KASB has used a heat recovery system in its Incineration Plant since it became operational which provides energy in the form of heat to the combustion.

### Alternative Source of Energy

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

## Water Management

Syarikat Air Negeri Sembilan (SAINS) supplies water to the WMC Plant. Unfortunately, a large amount of water was lost due to leakage in 2011. The Jabatan Bekalan Air (JBA) pipe is now checked frequently and any detected leaks are repaired immediately. We had earlier planned to check the entire 6 kilometres of JBA pipe but this has been postponed until early next year.

#### Water consumption by location

LOCATION	2009 (m³)	2010 (m³)	2011 (m³)
ADKA	10	47	94
EISB & Service Unit office	239	3,420	2,555
KKA Regional Office & Faber Towers	158	209	237
SBSB	-	3,519	615
UEME Corporate HQ	257	138	170
WMC	99,800	114,448	114,875
Total	100,464	121,781	118,546

# **Biodiversity**

In November and December 2005, the Company undertook a terrestrial flora and fauna study around the WMC's areas to study the diversity of various species of birds, mammals, snakes and insects. 2 areas rich in species diversity were identified with 59 species from 31 families of fauna. 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 2011 to preserve this precious flora and fauna.

## **Tree Tagging Project**

In 2011, 775 trees were recorded which sequestrate approximately 7,750 kg of CO<sub>2</sub> each year. We also launched the 1-to-1 Tree Replacement Policy and the progress will be disclosed in our next Report. No trees have been replaced to date.

### **Tree Planting Project**

In 2011, we continued our support for ENSEARCH's Cyberplant Conservation Network (CPCN)'s tree planting project which engages the national community to plant rare fruit trees. 6 schools including SK Gadong Jaya, SMK (Felda) Seri Sendayan, SK Sendayan, SJK (T) Tanah Merah, SK Jimah and SK Jimah Baru were selected to participate in this programme. 57 rare trees were planted including durian sangka, rambutan gergasi, sentol, petai, salak, langsat, bangkong, pancau and larah. Students also cared for the fruit trees and discovered the value of conserving our indigenous trees through ICT-based knowledge, scientific thinking, research skills and independent project learning. We will continue to monitor the growth of these plants every 6 months.





# **Emissions and Effluents**

We are a moderately energy intensive Company committed to managing our Greenhouse Gas (GHG) emissions effectively. Energy-efficient and alternative-energy programmes have been implemented voluntarily regardless of the cost. The total GHG emissions of CO<sub>2</sub> equivalent have increased since 1999 due to business expansion.

### Air Quality

A number of stations have been located to monitor ambient air quality and emissions from the incineration, solidification, physical-chemical plants, containerised mini incinerators and the ambient air. Each station monitors total suspended particulates, Volatile Organic Compounds (VOCs), Carbon Monoxide (CO), Nitrogen Oxides (NOx), Sulphur Oxides (SOx) and a number of other parameters. The stack monitoring stations recorded a number of hazardous gaseous substances that may result from the incineration of processed scheduled waste including dioxin and furans.



## **Domestic Waste Management**

Our domestic waste, such as non-recyclable and organic is sent to municipal landfill. Paper, carton boxes, plastic bottles and other segregated wastes are sent to a recycler. Contaminated operations uniforms are incinerated. Empty cartridges are collected by a third-party vendor.

We continue to implement an internal recycling programme at our offices. In 2011, we collected 95.15 MT of recyclable waste. The detailed breakdown of this waste is as follows.

TYPE OF INTERNAL WASTE RECYCLED	2010 (MT)	2011 (MT)
Paper	44.20	61.14
Plastic / Paper bottles	2.80	2.48
Empty Cartridges	7	0.30
Newspapers	22.10	15.65
Box / Cardboard	22.20	10.32
Iron	0.20	2.55
Aluminium Cans	-	0.25
Tin	-	2.36
Tetra Pak	-	0.10
Total	98.50	95.15



### Waste Treated and Internal Waste Generated from Operations

FACILITIES	2	009 (MT)	20	)10 (MT)	2011 (MT)		
	Waste Treated	Internal Waste Generated	Waste Treated	Internal Waste Generated	Waste Treated	Internal Waste Generated	
INC 1	40,582	10,145	38,665	7,664	24,158*	6,659	
INC 2	2,903	629	1,993	448	46*	12	
INC 3	3,295	709	2,364	468	97*	15	
INC 4	1,735	181	6,210	2,705	4,455*	1,677	
SOLI	14,577	179	17,819	265.89	11,160*	131.41	
PCT	20,161	15.70	14,888	0.01	10,607*	12.77	
PCT ETP	5,598	Nil	3,404	Nil	1,424*	Nil	
Total	88,851	11,859	85,343	11,551	51,947	8,507	

\* Note: as per Audited Financial Account for the year ended 31 December 2011

The total amount of waste generated and treated at INC 2 and INC 3 reduced significantly due to the suspension of operations in February 2011. This was partly due to the reduction of waste collection and also to maximise the operations of INC 1 and INC 4. Wastes which are suitable for INC 2 and INC 3 are channelled to our SDS Plant which has a lower treatment cost.

The reduction in total waste collected in 2011 was due to the Special Waste Management provision. This allows some scheduled waste to be excluded from being treated, disposed of or recovered on the premises or facilities other than at the prescribed premises or on-site treatment or recovery facilities. The provision also allows scheduled waste which falls under this category to 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 venturing into other potential business opportunities to minimise the impact of losing this waste such as offering on-site waste treatment to industries to reduce their disposal costs. We would treat the waste at their plants before the waste is managed under the special waste management category. **Even though this would reduce the amount of waste we treat, it would significantly lessen the impact on the environment.** 

## **Plant Downtime**

The plant downtime for 2011 has increased compared to previous years as INC 2 and INC 3 ceased operations for approximately 10 months in 2011. The downtime experienced at other plants remained stable.

FACILITIES	2009 (HOURS)	2010 (HOURS)	2011 (HOURS)
INC 1	1,246	1,572	1,249
INC 2	2,026	2,374	8,601
INC 3	1,998	1,430	8,483
INC 4	1,988	2,185	2,599
SOLI	477	503	349
PCT	779	667	658

## **Compressed Gas Cylinder Management**

Unused gas cylinders can be categorised under toxic, corrosive, flammable and inert gases. A Cylinder Management Device (CMD) is used to remove residual gas from waste cylinders which are neutralised in a scrubber system. We handle a wide range of cylinder types such as Hydrogen Chloride, Ammonia, Chlorine, Hydrogen Sulphide and catalysts. A cylinder penetration device allows a cylinder with an inoperable valve to release its chemical contents into the CMD. The scrubbing solution is treated at KASB's PCT facilities and cylinders are sent to secured landfill. KASB is fully equipped with scrubbers, reactors, a crane and salvage cylinders at its degassing room for the pre-treatment of corrosive and toxic gases.

We have established a degassing room and salvage cylinders, acetylene processing, mobile flare and mobile venting systems. These systems release and treat residual cylinder gas through venting directly into air, incineration or using scrubbing processes.

Currently, there are no authorised contractors who can treat and dispose of unused cylinders in Malaysia and this hazardous waste is just being stored. In 2011, KASB received 115 cylinders compared to only 25 cylinders in 2010. The statistic for the past 3 years is recorded as follows.



Closing the CMD before the penetration process is carried out



Tightening the entry point of flammable gas into Incineration Plant

	NO. OF CYLINDERS						
TYPE OF GAS	2009	2010	2011				
Flammable	7	15	19				
Corrosive	9	0	3				
Ozone Depletion Substances (ODS)	21	10	75				
Inert	0	0	17				
Others	7	0	1				
Total	44	25	115				

### Flammable Gases / ODS

Flammable gas is incinerated via a pipeline which connects the cylinder to the Incineration Plant. The gas from the cylinder is usually compressed at high pressure and directly released. Gas in low pressure cylinders requires a vacuum pump to purge its contents. The pipeline is purged with mineral oil, nitrogen or both to remove moisture and foreign matter along the line prior to incineration.

### Pre-treatment – Incineration of ODS / GHG

The most common ODS and GHG are  $CO_2$ , hydrochlorofluorocarbons (HCFCs), chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), nitrous oxide, methane and sulphur hexafluoride. These gases deplete the ozone layer or absorb and emit radiation at specific wavelengths which cause the greenhouse effect. They are incinerated to decompose the gas into hydrochloric acid or hydrofluoric acid which is scrubbed during the incineration. This reduces the environmental impact particularly from CFCs or HCFCs if released directly into air. The same pipeline at the Incineration Plant is used for this purpose.

## **ELV Programme**

We are the first Company in Malaysia to operate a systematic vehicle disposal management system. This system dismantles and disposes of vehicles in an environmentally friendly manner through our subsidiary, SBSB in Tanjung Malim, Perak. There are 2 types of ELV. Premature ELVs are of any age that are terminally damaged as a result of an accident, flood, fire or theft. Natural ELVs have naturally come to the end of their useful life. SBSB primarily handles Natural ELVs.

Prior to the establishment of SBSB, old cars were dumped, left to rust or sent to scrap metal dealers without proper deregistration with Government Authorities. Oil or fluid waste was disposed of in a non-environmentally manner and non-valuable items were sent to domestic landfill. The ELV's depollution machine and process that complies with the European Union Standard is outlined below.



Since its commencement in August 2009, SBSB has scrapped a total of 47,464 cars: 336 cars were collected and 2,096 cars were decommissioned in 2011. There was a significant decrease compared to 2010 whereby 21,310 were collected and 34,262 cars were decommissioned. This was due to the discontinuation of Proton Edar Sdn Bhd's and Perodua's X-Change and Swap Scheme in 2011 respectively.

During 2011, SBSB has also registered its certification with the Ministry of Finance (MOF) to allow SBSB to participate in Government tenders. The types of waste recovered for the past 3 years are shown below.

TYPE OF WASTE	2009 (MT)	2010 (MT)	2011 (MT)
Ferrous waste	5,670	20,557	943
Non Ferrous waste	990	2,948	123
Plastic	900	2,680	119
Rubber	450	1,340	62
Batteries*	11	144	8
Used Oil *	4	128	25
Solid Waste	575	6,465	292
Total	8,600	34,262	1,572

\*Hazardous waste

## **Environmental Performance**

#### Surface Water Quality

of No The DOE uses the Water Quality Index (WQI) to evaluate the status of the river water quality. The WQI serves as the basis for environment assessment of a watercourse in relation to pollution load categorisation and designation of classes of beneficial uses as provided for under the National Water Quality Standards for Malaysia (NWQS). The WQI at the 6 stations recorded an average of 73, which is between the range of clean and slightly polluted.



Silt Trap Discharge from W2 and W3 is the flow of storm water during raining period. 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 which is the best comparison as it takes readings from the discharge point.



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### **Groundwater Quality**

We continued groundwater monitoring at our 7 locations. Out of these 7, 6 are located around the WMC and the remaining is located at Kg Jimah Lama. We benchmark our results against the National Guidelines for Raw O I Drinking Water Quality (NGRDWQ) which is a standard used for groundwater. Results show that our groundwater quality is within the permissible limit set by NGRDWQ for all parameters.

Parameter	· (mg/l)	Lead	Copper	Zinc	Arsenic	Cyanide	Mercury
K II	Min	< 0.02	0.08	0.32	< 0.01	< 0.01	< 0.001
KJL ST	Max	0.04	0.14	4.39	0.02	< 0.01	0.002
14/14/2	Min	< 0.02	< 0.01	0.02	< 0.01	< 0.01	< 0.001
VV VV Z	Max	0.08	0.01	0.23	< 0.01	< 0.01	0.002
14/14/2	Min	< 0.02	< 0.01	0.05	< 0.01	< 0.01	< 0.001
VV VV 3	Max	0.15	< 0.01	0.20	0.06	< 0.01	0.002
	Min	< 0.02	< 0.01	< 0.02	< 0.01	< 0.01	< 0.001
VVVV4	Max	0.03	0.07	3.44	0.03	< 0.01	< 0.001
	Min	< 0.02	< 0.01	0.04	< 0.01	< 0.01	< 0.001
VV VV 5	Max	< 0.02	0.08	0.30	0.03	< 0.01	0.002
	Min	< 0.02	< 0.01	0.04	< 0.0	< 0.01	< 0.001
VVVVO	Max	0.07	0.06	0.02	0.06	< 0.01	0.004
14/14/7	Min	< 0.02	< 0.01	0.05	< 0.01	< 0.01	< 0.001
••••	Max	< 0.02	0.01	0.19	< 0.01	< 0.01	0.002
NGRDWQ		0.05	1	3	0.01	0.07	0.001
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## Air Quality

We monitored the ambient air quality at KASB and KKI operations. KASB monitored a total of 6 sites, 3 of which are located within the WMC compound. The remaining 3 sites are located in the surrounding community. KKI monitors a total of 2 sites. We comply with the DOE requirements for all parameters.

#### **KASB**

Parameter (mg/Nm³)	A	1	A2		A3		Α4		А5		A6		DOE Limit
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
Total Suspended Particulate (TSP)	9.30	149	25	29	24.60	59	19	42	16.30	103	7.20	218	260
Sulphur Dioxide (SO <sub>2</sub> )	<0.20	20.50	<0.20	0.20	<0.20	0.20	<0.20	0.20	<0.20	0.20	<0.20	21.20	350
Nitrogen Dioxide (NO <sub>2</sub> )	0.40	1	0.20	0.20	0.20	0.20	0.60	0.60	<1	1	0.20	<1	320
Copper (Cu)	<0.01	0.02	<0.01	0.01	<0.01	0.02	<0.01	0.02	<0.01	0.03	<0.01	0.100	50
Lead (Pb)	<0.01	0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.02	<0.01	0.01	<0.01	0.01	1.50
Cadmium (Cd)	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2
Arsenic (As)	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.30
Antimony (Sb)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	25
Zinc (Zn)	0.02	0.20	0.10	0.20	0.10	0.20	0.10	0.20	<0.01	0.05	0.01	0.30	120
Iron (Fe)	<0.01	0.1	0.01	0.02	0.01	0.03	<0.01	0.02	0.01	0.08	0.01	0.08	4
Manganese (Mn)	<0.001	0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	2.5
Chromium (Cr)	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1.50
Nickel (Ni)	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	320
Mercury (Hg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2
Carbon Monoxide (CO)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	35
Chlorine (Cl)	<0.10	5.90	<0.10	0.30	<0.10	0.30	<0.10	0.30	<0.10	11.30	<0.10	5.50	18
Hydrogen Chloride (HCl)	<0.10	6.60	<0.10	0.30	<0.10	0.30	<0.10	0.30	<0.10	8.30	<0.10	18.20	32

#### KKI

Parameter (mg/Nm <sup>3</sup> )	A1	A3	DOE Limit
TSP	57	54	260
Particulate Matter	37	26	150
SO <sub>2</sub>	54.5	54.5	105
CO	<1	<1	35
NO <sub>2</sub>	0.5	0.29	320
Ozone (O <sub>3</sub> )	<0.01	<0.01	200
Pb	<0.01	0.02	0.5
As	<0.01	<0.01	0.3
Cd	<0.01	<0.01	0.025
Cu	0.18	0.28	50
Sb	<0.01	<0.01	25
Zn	3.02	2.78	120
Hg	1.3	0.8	2

### **Stack Emissions Monitoring**

Since our INC 2 and INC 3 ceased operations in 2011, stack emissions monitoring at those 2 sites did not record any results. We complied with the DOE and EQA limits for all parameters. The results of our emissions monitoring on 2 incinerators are presented below.

PARAMETER	1 <sup>st</sup> QUARTER		2 <sup>nd</sup> QUARTER		3 <sup>rd</sup> QUARTER		4 <sup>th</sup> QUARTER			ENV. QUALITY (CLEAN
	INC 1	INC 4	(unit)	(1978) (mg/Nm <sup>3</sup> )						
TSP	26	7	21	15	28	19	21	17	30 mg/Nm3	-
Smoke Density	#0	#0	#0	#0	#0	#0	#0	#0	#1 Riglemann	-
Chlorine	0.50	0.03	0.04	0.40	0.10	0.04	0.16	0.11	200 mg/Nm3	200
НСІ	0.01	0.01	0.04	0.20	0.6	0.10	0.12	0.16	100 mg/Nm3	100
СО	1.30	7.80	3.50	23	18.30	<3	20.80	8.80	125 mg/Nm3	125
SO <sub>2</sub>	<3	<3	<3	<3	<3	<3	<3	<3	200 mg/Nm3	200
NOx	20.50	52.90	53.4	82.0	53.40	144	2.10	2.10	400 mg/Nm3	400

### Noise

Noise monitoring was conducted at stations N1 to N4, which are situated within the WMC compound. Noise Exposure 🔇 🛛 monitoring complies with Regulation 12 of the Factories and Machinery (Noise Exposure) Regulations, 1989.

LOCATION	PERIOD	LAeq dB (A)	LA10 dB (A)	LA50 dB (A)	LA90 dB (A)	LAmin dB (A)	LAmax dB (A)	LIMITS
N1	Day time	60.05	60	60.45	53.90	50.45	88.05	
	Night time	50.55	52.20	49.45	42.80	41.75	74.75	
NI2	Day time	62.95	59.80	53.30	42.50	49.85	83.15	<45 dP(A) for Day time
INZ	Night time	52	60.70	56.05	45.85	40.30	79.45	<55 uB(A) for Night time
N3	Day time	62.55	64.60	59.20	45.50	42.50	84.30	<55 dB(A) for Night time
INJ -	Night time	54.25	51.60	48.20	43.95	39.35	76.35	
N4	Day time	59.15	66.70	63.05	57.70	44.40	81.75	
	Night time	50.60	54.45	48.90	41.60	37.45	75.10	

*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**

Biodiversity monitoring continued to be conducted at the WMC. This ensures our activities do not contribute to any major environmental impacts especially on the biodiversity levels.

### **Bio-aquatic Monitoring**

Bio-aquatic monitoring is performed through random sampling of macro and microorganisms in aquatic areas. A Diversity Index was developed using Shannon's H and E to calculate biological community structure and provide information about rarity and commonness of a species in 1 community or area. Station AF2 was the most diverse with species of fish, pyhtoplankton and zooplankton compared to other stations.





Station AF2 and MWR recorded a higher concentration of *Chlorophyll a*, while the remaining 2 stations recorded a lower concentration in 2011. The higher the concentration of *Chlorophyll a*, the poorer the water quality as *Chlorophyll a* thrives in a high nutrient environment.



### **Bioassay Testing**

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

#### Chlorella Vulgaris Growth Rate

The levels of *Chlorella Vulgaris* at station AF2, AF3 and AF4 on the 72<sup>nd</sup> hour and 96<sup>th</sup> hour were higher than the previous year. This indicates high levels of nitrogen and phosphorus in the water.

	AF2				AF3			AF4		
HOURS	2009	2010	2011	2009	2010	2011	2009	2010	2011	
0	100	100	100	100	100	100	100	100	100	
24	130.10	115.50	98	154.80	148.50	92	112.90	118.40	92	
48	100.20	92.80	88	102.90	109.80	88	95.10	83.80	81	
72	62	62	89	59.80	73	79	63.80	69.30	81	
96	62	53	92	52.40	59	83	58.90	45	76	

#### *Tilapia sp. Bioassay* 96<sup>th</sup> Hour Test Result

The number of *Tilapia sp.* deaths is minimal at AF2 but it is significantly higher at AF3 and AF4 especially on the 24<sup>th</sup> hour. We will conduct further studies on the cause in 2012.

STATION	WATER SAMPLE (%)	NUMBER OF DEATHS (HOURS)							
		0	24	48	72	96			
AF2	100	0	1	1	0	0			
AF3	100	4	16	0	0	0			
AF4	100	3	17	0	0	0			

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 as of December 2011 is presented below.

Mean Mortality of Moina Micrura on 48th Hour





### Flora and Fauna Survey

We continued our flora and fauna surveys at our property. In 2011, there were 80 flora species and 74 fauna species recorded. This shows an increase compared to the previous year which documented 73 flora and 48 fauna species.

FLORA SPECIES										
		01 SLISTED UN OF THREAT	DER IUCN RED LIST ENED SPECIES * 02 (		LISTED UNDER MALAYSIAN WILDLIFE PROTECTION ACT OF 1972					
TYPE OF SPECIES	TOTAL SPECIES	TOTAL SPECIES LISTED	STATUS OF LIVING OF IUCN	(CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA)						
Woody Trees Species	27	7	(2 sp. Vulnerable), (2 sp. Least Concern), (3 sp. Critically Endangered)	None	None					
Shrubs & Herbaceous Species	33	4	(3 sp. Vulnerable), (1 sp. Least Concern)	None	None					
Ferns and Ferns-allies	17	1	(1 sp. Critically Endangered)	None	None					
Palms	3	0	None	None	None					

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FAUNA SPECIES					
		LISTED UNDER IUCN RED LIST OF THREATENED SPECIES *		LISTED UNDER CITES APPENDIX II (CONVENTION ON	LISTED UNDER MALAYSIAN WILDLIFE
TYPE OF SPECIES	TOTAL SPECIES	TOTAL SPECIES LISTED	STATUS OF LIVING OF IUCN	INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA)	PROTECTION ACT OF 1972
Frogs Species	8	5	(5 sp. Least Concern)	None	None
Mammals Species	6	5	(5 sp. Least Concern)	(2 sp Long-tailed macaque & common treeshrew)	(1 sp Musang Tenggalong)
Birds Species	37	26	(26 sp. Least Concern)	None	None
Reptiles	2	0	None	None	None
Grasshoppers, Dragonflies and Butterflies Species	21	0	None	None	None

\* The IUCN Red List categorises a given species according to the degree at which it is threatened.



# GHG EMISSIONS

Emissions released result in a negative greenhouse effect. At UEME, we constantly strive to manage our GHG emissions through operational efficiency. We monitor direct and indirect emissions resulting from throughout our supply chain cycle.

**O1 (S)** We conducted a company-wide GHG emissions study in 2006. The GHG Protocol established by the World Business Council for Sustainable Development (WBCSD) and World Research Institute (WRI) was the central guiding principles in the examination. Our emissions accounting is based on the GHG Protocol classification of direct and indirect emissions.

	SCOPE	CATEGORY	INDICATORS MEASURED
	Scope 1	Direct GHG emissions	<ul> <li>Fuel consumption in our incineration process</li> <li>Company owned vehicles</li> </ul>
	Scope 2	Indirect GHG emissions	Electricity consumption
	Scope 3	Other indirect GHG emissions	<ul> <li>Employee owned vehicles</li> <li>Contractor owned vehicles</li> <li>Air travel</li> </ul>
01 www.qhqprotocol.org/about-qhqp		J/about-ghgp	

### Scope 1: Direct GHG Emissions

#### **Plant Operations**

We treat and dispose of most of our waste through incineration before the remaining slag is sent to secured landfill. This results in our incinerators consuming large amounts of energy as they are operated for extended periods.

#### Fuel Consumption and CO<sub>2</sub> Emissions from Incinerator Plants

In 2011, our diesel consumption decreased by 47.66%, from 705 MT to 369 MT and our RO consumption decreased by 16.23% from 1,916 MT to 1,605 MT compared to the previous year. Overall, our fuel consumption decreased by 24.69% from 2,621 MT in 2010 to 1,974 MT in 2011.

As a result of the reduction of fuel consumed in our incinerators, our GHG emissions reduced by 22.58% from 7,331 MT in 2010 to 5.676 MT in 2011.



#### **Company Owned Vehicles**

GHG emissions from Company Owned Vehicles are derived from all company vehicle fuel purchases consumed for cars, motorcycles, 4-wheel drives, vans, trucks and other heavy industrial vehicles. Emissions resulting from our Company Owned Vehicles were significantly higher than the previous year due to the inclusion of EISB company vehicles.

#### CO<sub>2</sub> Emissions from Company Owned Vehicles



#### Summary of Scope 1 Emissions

Our overall Scope 1 GHG emissions were 23.25% higher than reported in 2010 due to increased fuel consumption by our incinerators and Company Owned Vehicles.



#### Scope 2: Indirect GHG Emissions

The emissions arising from our electricity consumption decreased from 11,940 MT in 2010 to 10,483 MT in 2011. This represents a reduction of 12.20%.

#### CO<sub>2</sub> Emissions from Electricity Use

In total, we consumed 15,347,990 kWh of electricity with 97.09% being consumed at the WMC. We are continuously taking all possible initiatives to keep our electricity usage to a minimum.



#### Scope 3: Other Indirect GHG Emissions

#### **Employee Owned Vehicles**

In 2011, Employee Owned Vehicles emissions rose by 42.90% from 345 MT in 2010 to 493 MT in 2011.

#### CO<sub>2</sub> Emissions from Employee Owned Vehicles



Year I CO<sub>2</sub>-eq Emissions (MT)

#### **Contractor Owned Vehicles**

Contractor Owned Vehicles consist of those listed under KASB, KKA, KKI and EISB. Most of the vehicles owned by our contractors are heavy industrial transporters, waste collection vehicles and landfill compactors. GHG emissions arising from the use of Contractor Own Vehicles reduced slightly in 2011 by 1.56% from 6,229 MT in 2010 to 6,132 MT.

#### CO<sub>2</sub> Emissions from Contractor Owned Vehicles



#### Air Travel

Emissions resulting from business air travel decreased by 30.51% in 2011 from 59 MT in 2010 to 41 MT in 2011. GHG emissions were measured from point to point including the number of employees on board.

#### CO<sub>2</sub> Emissions from Air Travel



### Summary of Scope 3 Emissions

This diagram summarises our total Scope 3 emissions for the year 2011 which represents a slight increase of 0.5%.



### **Total Emissions**

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

SCOPE	EMISSION SOURCE	2009 (MT)	2010 (MT)	2011 (MT)
1	Plant Operations	7,475	7,331	5,676
	Company Owned Vehicles	665	270	3,692
	Subtotal	8,140	7,601	9,368
2	Electricity Consumption	10,837	11,940	10,483
	Subtotal	10,837	11,940	10,483
3	Employee Owned Vehicles	241	345	493
	Contractor Owned Vehicles	5,112	6,229	6,132
	Air Travel	33	59	41
	Subtotal	5,386	6,633	6,666
	Grand Total	24,363	26,174	26,517

Our total GHG emissions in 2011 were 26,517 MT which is approximately 1.31% more than the previous year.

YEAR	TOTAL WASTE TREATED (MT)	TOTAL CO <sub>2</sub> EMISSIONS (MT CO <sub>2</sub> -eq)	CO2 EMISSIONS PER MT OF WASTE TREATED (MT CO2-eq/ MT WASTE TREATED)
2009	136,266	26,779	0.1965
2010	154,241	26,397	0.1711
2011	51,777	26,517	0.5121

# UNFOLDING HORIZONS

In 2011, we actively broadened our horizons both geographically and in our field of expertise. Numbers of successful innovations were created which resulted in higher savings, efficiency and an enhanced waste management life-cycle.

### **New Innovation**

### Installation of New Design and Arrangement Air Preheater (APH) Tubing for INC 4 Plant



In 2011, KASB fabricated an APH for INC 4. The APH is a type of air-to-air heat exchanger with 2 connecting ducts which transfer heat from the hot side to the cold side. Air is heated up to 200°C and drawn into a rotary kiln and a secondary combustion chamber. The preheating of the combustion air reduces fuel consumption. The flue gas is cooled down in the APH to approximately 185°C. The APH also consumes less water at the Quench to lower the flue gas temperature.

INC 4 Plant has experienced process upset, partly due to APH system becoming frequently clogged. This led to a total down time of 286 hours in 2010. Frequent plant stoppage can also cause brick deterioration and corrosion of plant components especially the bag house. It can also increase auxiliary fuel consumption by approximately 8,000 litres during the frequent ramping up.

A new design of tubing has been fabricated. It will be installed in order to increase the Plant-On-Waste (POW) by reducing downtime for APH tube cleaning. Other new design features that significantly improve the APH operation are:

- The reduction of gas flow resistance through the APH tubing
- The new tubing design which can be more easily cleaned
- The new tubing will increase the space area for flue gas flow inside the APH by increasing the distance between the tubing from 22 mm to 52 mm
- The damaged tubing can be replaced individually
- 2 rows of screen tubes installed prior to hot flue gas entering the APH to protect the heat pipes from overheating

APH clogging produces thick smoke at the stack area. This initiative reduces the running load for the IDF and thick smoke can be controlled more effectively.

#### New Innovation by EISB

"EISB continues to be the local partner in environmental solutions, having secured the 22-year CA with the Federal Government in September 2011. We aim to contribute towards the Government's initiative of achieving 22% recycling by 2020 from the current 5% baseline.

I am very proud to have witnessed the various activities that EISB had participated in including *Jom Kitar Semula, Gotong Royong* along with 3R activities with schools we actively hold. Being a customer-focused waste concessionaire, we appreciate the feedback we had received from our community. In November 2011, we launched a Toll Free Hotline, 1-800-88-7472, for *Aduan Sisa* initiative.

2011 had been an exciting year for EISB as we have recorded a series of achievements. Last year saw us introducing an underground bin system known as Badger. **The capacity and efficiency of this Badger is the first to be introduced in Malaysia and South East Asia.** A Mini Waste Transfer Station (MWTS) was also introduced which acts as a processing site for the temporary deposition of waste. The MWTS has solved the vehicle and manpower shortage problem as well as reducing operational costs. We had also introduced the Integrated Green Composting Facility (IGCF) last year, which is capable of processing waste from 3 wet markets and surrounding areas. This has helped to increase the recycling activities in Alor Setar Service Unit (ASSU) from less than 2% to 11%; reducing mass volume waste by approximately 65%; and reducing waste cost, odour and pests. Through EISB's clean Green Material Recovery Facility (GMRF) operations, we aim to reach a recycling rate of at least 22%, which is aligned with the target of the Solid Waste Management and Public Cleansing Act (Act 672).

We will continue to innovate ourselves and look forward to many more achievements in the coming years."



Mhd Saiful Anuar Bin Zainal A.M.K. Chief Executive Officer EISB

#### Underground Bin System Badger

EISB introduced *Badger* on 19 November 2011. The *Badger* is designed with an airtight lid to minimise odour. It is compatible with top loader trucks resulting in higher efficiency and reduced operation time. The trucks run on NGV which should reduce fuel consumption by 30% to 40%. The *Badger* is equipped with a metal strainer at the bottom for waste dewatering to maximise the bin capacity. A study conducted has confirmed that the *Badger* does not contain any dangerous flammable gas.





A cost-analysis calculation on the *Badger* has recorded at least 47% of savings as compared to a conventional bin (Leach bin 1100L). The calculation is as follows.

PARAMETER	LEACH BIN (1100 L)	BADGER (5m <sup>3</sup> )	VARIANCE (%)
Capacity of waste (kg)	275	2,500	809
Cost (RM/unit)	1,450	7,000	NA
Cost per Kg waste (RM/kg)	5.27	2.80	-47

#### **MWTS**

In 2011, EISB began developing the MWTS due to ageing vehicles which have higher running costs. MWTS acts as a processing site for the temporary deposition of waste. Since its introduction, local waste collection vehicles deposit their waste cargo prior to loading it into larger trucks before transporting it for disposal. The MWTS has solved the vehicle and manpower shortage problem. The Badger alleviated the storage problem as it stores almost 9 times more dry waste than a conventional system. Waste collected through this system is drier as leachate water drains to the lowest sump and is emptied through a separate pump installed on the compactor. The system is closed to minimise odour and the surrounding bin frame is aesthetically pleasing. An Indigenous Micro Organism (IMO) is used to minimise odours released from the bins by restricting gas production from the stored waste. This IMO was produced in-house by EISB employees.



Dato' Seri Chor Chee Heung launched the EISB Badger

Operational costs have reduced as 1 driver and 1 crew member are required rather than the previous 3 crew members. A robotic arm reduces the time and the number of compactors required for waste transportation. The new system improvements are presented below.

DESCRIPTION	EXISTING System (Conventional)	NEW SYSTEM (MWTS)
Number of compactors (unit)	17	11
Manpower for collection: Driver (person)	17	11
Manpower for collection: Crew (person)	68	12





### Unique Features of the MWTS System

Compactor with Crane	<ul> <li>High payload - 20 MT per trip</li> <li>Equipped with side loader to lift bin sizes of between 120 to 1,100 litres</li> <li>Operated by 1 driver and 1 crew</li> </ul>
Shredding Machine	<ul> <li>Shreds incoming mixed waste from the satellite hauler</li> <li>Acts as a homogeniser</li> <li>Large surface area to reduce air pocket allowing more waste to be transported via compactor to the secured landfill</li> </ul>
Badger	<ul> <li>Built with rattan as inner structure, steel structure, fibre plastic cover lid and culvert materials</li> <li>Leachate dump can store up to 450 litres of liquid which is pumped into the vehicle's store tank</li> <li>Eliminate spillage of leachate during unloading of waste from the bin to the rubbish truck</li> <li>Equipped with Automatic Lid Closing system to prevent odour</li> <li>Volume up to 5.0 m<sup>3</sup> which can store up to 2.50 MT of waste</li> </ul>

The significant advantages of this system are:

- Less travelling during disposal which reduces fuel, maintenance and overtime costs
- Fewer compactors required to operate within ASSU (from 17 units to 11 units)
- Fewer compactors required to transport and dispose of waste to the secured landfill (only 6 normal compactors and 1 huge compactor with crane)
- 35% fewer collection drivers and workers
- Side loader allows the compactor to clear waste with Mobile Garbage Bin (MGB) 660L and operate on the main road
- Reduced time taken to the secured landfill
- Better supervision of collection vehicles

Through this system, we aim to increase the nation's daily recycling rate to 22%. This successful system will be replicated in other large service units such as Majlis Perbandaran Sg Petani, Majlis Perbandaran Kulim, Majlis Perbandaran Kangar and Majlis Daerah Kubang Pasu.

### **Mini Composting Plant**

In 2011, EISB introduced the IGCF which is able to process waste from 3 wet markets and surrounding areas. The IGCF is strategically located in Kubang Rotan, at the centre of the ASSU, to reduce fuel costs to the secured landfill.

Composting is considered one of the best approaches for developing countries to harvest 55% of their organic waste in the solid waste composition. It can be transformed into valuable and marketable bio organic fertiliser for landscaping and vegetable gardening. This process extends the service life of the secured landfill areas. It also increases recycling activities in ASSU from less than 2% to 11%; reduces mass volume waste by approximately 65%; and reduces waste cost, odour and pests.

EISB has also produced IMO from leftover fruits and other organic wastes. **A chemical free solution is created which can accelerate the composting process from 90 days to 50 days.** Compost samples are analysed by the Malaysian Agriculture Research and Development Institute (MARDI) for nutrients and to obtain compost certification.





Shredding process



Windrow turner



IMO solution is sprayed on the windrow to speed up degradation process



Compost mature after 50 days



Compost is packed and ready for market






## **NEW VENTURES**

At UEME, we work together to tap new opportunities arising from the growth of emerging markets. We focus on delivering the best quality of services to our stakeholders. Year 2011 has been an exciting year with the arising of potential areas of businesses to explore.

### Venturing into the Middle East

In 2007, KASB entered Qatar through a tender invitation for the Operation and Maintenance of an Integrated Waste Management Centre in Mesaieed Industry City. Following this, we completed a detailed feasibility study in 2010. The study concluded that the development of the proposed integrated wastewater management in Doha was required urgently. KASB aims to provide a sustainable solution to help Qatar manage its liquid industrial hazardous waste more effectively and sustainably. The current practice of managing industrial wastewater is not sustainable as 30,000 cubic metres of raw industrial wastewater is discharged per day without proper treatment. KASB is positioned as a total solutions provider and effective integrated wastewater management facility for wastewater management strategies.

### **Clinical Waste**



The treatment and disposal of clinical waste in Malaysia is growing between 10% and 30% annually. We were approached by the MOH to help the concession companies cope with the increase and clear their backlog waste. We were granted a temporary licence to treat clinical waste, from 10 June 2011 until 28 April 2012. This waste was treated at our INC 4. **This plant is now fully equipped with an innovative ram feeder system and lifting device for clinical bins to be unloaded into the hopper.** 

We treated a total of 4,665 MT of clinical waste from June until December 2011. This waste consists of blood bags, needles, plastic containers and human body parts. The total amount came from the daily waste deliveries and backlog stored in containers. The backlog wastes were transported by 40 and 20 foot containers. At the height of the backlog crisis, we stored up to 160 containers at our facility, allowing our customer to free up valuable storage space at hospitals and at their facility. For daily wastes delivery, it was transported to our facility in 10 tonne trucks. We received between 15 to 17 MT of waste each day.

Clinical waste arriving at the WMC is weighed before being transferred to the INC 4 for disposal. These bins are unloaded into a hopper and the empty bins are cleaned. 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 treated 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 IDF, passed through a 15-metre stack and monitored in real time through Continuous Emission Monitoring System (CEMS) as required by the DOE.

### **Continuous Improvement Programme**

### Oily Sludge Pre-treatment Plant

### Acetylene Gas Processing Plant



This plant began full operations in 2011 with 11,629 unused or gas waste cylinders of which 4,744 were treated. During the treatment process. the plant's heating chamber removes the acetylene and solvent in the acetylene cylinder. The cylinder which still contains asbestos after the removal is safe for secured landfill disposal. This programme has resulted in an additional value of RM 877,640 in 2011.

#### This plant was

established to pre-treat oily sludge by separating it into oil and sludge. The project was approved by the DOE in November 2011. The approval took longer than expected as the feeding system needed to be modified to accommodate high solid content of waste. This plant is scheduled to be fully operational in 2012 and 59 MT of waste was treated during the commissioning of the plant. This programme has resulted in an additional value of RM 91.970 in 2011.

### Spent Caustic Pre-treatment Plant



Supplementary Environmental Impact Assessment (EIA) for the plant was approved by the DOE in February 2011 and written approval was received in November 2011. This plant converted 558 MT of spent caustic into salt and water rather than being incinerated. This programme saved RM 696,224 in 2011.



**SDS** 

The previous pilot plant was upgraded to a permanent plant in 2011 to pre-treat incineration waste which meets secured landfill acceptance criteria. Supplementary EIA was approved in June 2011, followed by written approval in November 2011. This plant has treated 1,152 MT of sludge waste and has saved RM 925,056.

### Hydrofluoric Acid (HF) Treatment



HF has a low pH < 1.0. In normal treatment, the acid is usually treated in a PCT Plant where it is neutralised by high quantities of alkaline Chemical such as Caustic Soda (NaOH) and lime powder. This process takes time and costs are higher due to chemical requirements. The acid is also very corrosive and can erode our storage tank linings which are coated with glass flake. This causes the lining to become thinner

Once the acid has been neutralised, more waste is produced which must be treated off-site.

In our special treatment, the waste acid is suitable for use at our Leachate Treatment Plant (LTP). The leachate from secured landfill or water from the perimeter drainage is usually pH 8 – 9. The acid adjusts the waste water to pH 6 – 7 to prepare it for pre-precipitation process in LTP. This project has resulted in an added value of RM 851,400.

### PLUS Food Waste



The project aims to convert food waste to biogas which will be used to generate electricity if sufficient quantities can be produced. The project is in its infancy and a study has been completed on the composition of the food waste at the PLUS RSAs. The project is being funded by the Ministry of Environment Japan and led by a Japanese food waste specialist.

Sewage Treatment Plant (STP)



An Operation and Maintenance (0&M) project has been secured from PLUS Berhad (PLUS) for the maintenance of STPs at 216 Rest and Service Areas (RSAs) along the North-South highway. The contract period is for 3+2 years.

## **UEME's Achievements**

MoU with Emirates Steel Industries (ESI)	On 12 October 2010, we signed an MoU with ESI for a proposed ELV project in Abu Dhabi, United Arab Emirates. A desktop study on the project was conducted and project team has been selected. However the project is currently postponed as UEME and ESI have yet to receive the relevant information and support from Government authorities.
Treatment of Discarded Cylinders	The project addresses the safe disposal of waste gas cylinders (toxic and non-toxic, flammable, corrosive) at the WMC. The gas from the cylinders is treated through venting, flaring, incineration or a scrubbing process. Secondary waste generated from the scrubbing process is further treated by PCT and the empty cylinder is disposed of at our secured landfill.
Flue Gas Monitoring Project	We have secured air monitoring projects for Genting Malaysia Berhad on 2011. The project includes stack monitoring of 8 boiler units and 11 generator sets.
Wastewater Management	In 2011, we approached several industries for water recycling projects. Effluents from STPs or rain water would be collected and channelled to an advanced treatment system via physical filtration after which water can be used for the toilets, cleaning of vehicles and to run boilers.
Renewable Energy	We are looking into participating in Waste to Energy (WTE) projects. A number of technologies and potential technology providers have been identified. UEME is considering participating in this WTE initiative in Malaysia and overseas. UEME has started Research and Development commercialisation initiative relating to photovoltaic solar panels. UEME has registered with the Sustainable Energy Development Authority of Malaysia (SEDA Malaysia) and is currently awaiting licence confirmation. UEME will begin small but plans for major operations by year 2015 within its KASB's compound.





Boiler stack flue gas sampling at Genting





Sealing the acetylene cylinders in the heating chamber before the heating process



Freon gas treatment - gas tubing from Incinerator Plant is connected to freon gas cylinder



Visit to Waste to Energy Plant of KCS in China



Upgrading works for STP at Tapah RSA North Bound

## WAY FORWARD

Our way forward plan is to continue to focus on every part of the business, strengthening our expertise, improving quality and accelerating progress on productivity and competitive costs. We place great emphasis on Research and Development to enhance productivity, discover improvements in sustainable operations and explore new opportunities in environmental solutions.

### Waste Reduction

We are looking at technologies for waste reduction in particular the potential of producing Synthesis Gas (syngas) and converting GHG into valuable resources. We have identified a few partners to assist us in this endeavour and we are working to integrate these new technologies into our existing ones.

We are designing and constructing a pilot plant to process syngas. Air emissions from Incineration Plant chimneys are converted into valuable products such as ethanol. The ethanol would be sold to diesel suppliers who will normally mix the ethanol with diesel to form biodiesel. The biodiesel can be sold to power plants and boiler operators as fuel. However, this is still a pilot lab-scale project.

### Fuel Blending Programme

Fuel blending is an alternative waste management technique used by the cement industry. Hazardous wastes are mixed with other raw materials during the manufacturing of cement allowing them to be treated in a single process. This programme is looking for suitable waste which can substitute the raw material used in cement production.

### **GMRF by EISB**

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 solid waste stream which mechanically and manually separates designated recyclable materials.

In 2011, EISB was at the planning stage of its clean GMRF operations, accepting plastic, paper, metal, glass, office waste and electronic waste. 40% of waste in Kedah was inorganic and recyclable. The minimum capacity for this facility was 100 MT per day. EISB aims to reach a recycling rate of at least 22% through this clean GMRF, which is aligned with the target of the Solid Waste Management and Public Cleansing Act (Act 672).

## LIST OF AWARDS

The awards received are testament to our continuous commitment and dedication in delivering the best enviromental solutions to our stakeholders. () 01

### ACCA MaSRA 2010

- Reporting on Environmental Performance
- Commendation Assurance

Among the highlights of the judges' comments on our Sustainability Report 2010 are:

- Reporting on Environmental Performance
  - Demonstrates incremental improvements and progression having moved this year from the quantification of their Greenhouse Gas (GHG) emissions in the past four years to implementing a company-wide project to manage and reduce GHG emissions.
  - Only company to report on its carbon footprint and voluntary reduction of carbon emissions, according to the GHG protocol classification of direct and indirect emissions.
  - Provides comprehensive graphical and diagrammatic presentation of comparative data for annual carbon emissions from activities material to operations.







01 www.kualitialam.com/index.php?page\_id=704

- Transparent objectives, targets and explains reasons targets were not met.
- Comprehensive and transparent disclosure on monitoring of environmental and consumption indicators such as resource use (water and air quality) and noise monitoring.
- Comprehensive disclosure strategy towards the preservation of biodiversity including bio-aquatic monitoring, bioassay testing, and chlorella vulgaris growth rate.
- Detailed description of our continuous improvement programme.
- Flora and fauna survey of sites to identify the type and total number of species aligned to the International Union for Conservation of Nature Red List of Threatened Species and those listed under the Malaysian Wildlife Protection Act of 1972.

### • Commendation – Assurance

- Demonstrates incremental improvement with inclusion of a third party assurance statement in this year's sustainability report.
- Establishes scope of assurance, independence and impartiality.
- Provides a list of internal and external documentation investigated and reviewed.
- Explains shortcomings and provides recommendations.



DATE	AWARD
20 January 2012	KKI received a notable achievement at the Prime Minister Hibiscus Award 2010/2011. This prestigious award gives recognition to business and industry's environmental accomplishment and leadership.
17 May 2011	KASB and KKA both won the Royal Society for the Preventive of Accidents (ROSPA) Gold Award 2011. KKA also won the ROSPA Gold Award 2011 and MORR Gold Award 2011. Following the principles of the ROSPA National Safe Driving Awards Scheme, these awards are judged on verifiable historical performance data of accidents and the identification of an effective, cohesive corporate road risk management programme.
22 July 2011	The Malaysian Society for Occupational Safety and Health (MSOSH) protects co-workers, family members, employers, customers, suppliers, nearby communities, and other members of the public who are impacted by the workplace environment. MSOSH is committed to the fulfilment of the Safety and Health Policy in striving for excellence in all our activities. In 2011, UEME received 2 such awards including MSOSH Gold Merit Award 2011 for KKA and MSOSH Gold Class II Award 2011 for KASB.
30 September 2011	KASB won another health and safety award namely the MOSHPA OSH Gold Star Award 2011. This award is presented to companies which adhere to best practices in Occupational Safety and Health.
4 October 2011	Our Sustainability Report 2010 was recognised at the ACCA MaSRA 2011 in the category of Reporting on Environmental Performance. This award recognises companies' efforts in delivering transparent and accurate information to stakeholders. We have also received Commendation in the Assurance category for the independence and credibility of the report.
9 December 2011	KASB received its ninth consecutive recognition from Institute Kimia Malaysia Excellence Award for excellent laboratory practice and competency.
21 December 2011	KASB was awarded by the 2011 NCOSH Excellence Award in Utility Cleanliness category.



## **Financial Performance**

2011 was a challenging year for UEME and its subsidiaries on the back of an economic slowdown. There was a significant reduction in the total waste treated with intense competition in the market. Lower revenue in other business segments, including KKI and SBSB, also contributed to our overall financial performance. UEME Group revenue recorded 33.96% reduction from RM 235 million in 2010 to RM155 million in 2011.

Despite the challenging times faced by UEME, we still prove to be a caring employer. We gave our employees a good bonus coupled with a salary revision of 12% in-line with the market which gives rise to an increase of 20.29% in staff costs as shown below. We had also rewarded our shareholders with a dividend of RM 8.25 million. We present our financial performance for the past 2 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	2010 (RM '000)	2011 (RM '000)
Revenue	234,836	155,079
Purchase of goods and services	(87,025)	(65,067)
Specific (provision) / reversal for doubtful debts	(1,427)	20
Other income	2,742	3,929
Admin and sales and marketing	(13,784)	(18,272)
Share of profit / (loss) of joint venture	755	(2,685)
Value distributed:-		
To Employees		
Salaries and other staff costs	23,380	28,123
To Government		
Income tax (including deferred tax)	15,537	11,245
To Communities and others		
Corporate donations and sponsorships	130	115
To Providers of capital		
Ordinary Dividend to shareholder of the Company	-	8,250
Finance costs	3,710	3,743
Retained for future reinvestment & growth		
Depreciation & amortisation	52,009	41,899
Retained profits / (losses)	41,348	(20,371)
Minority interests	(18)	_

## Glossary

3R	Reuse, Reduce, Recycle
ACCA	Association of Chartered Certified Accountants
ADKA	Abu Dhabi Kualiti Alam Environmental Services Limited Liability Company
ASSU	Alor Setar Service Unit
AVLS	Automatic Vehicle Locating System
BCSRM	Business Council for Sustainability & Responsibility Malaysia (formerly known as Business Council for Sustainable Development Malaysia)
BVDP	Bumiputera Vendor Development Programme
BWTS	Barcode Waste Tracking System
CA	Concession Agreement
CFCs	Chlorofluorocarbons
CHRA	Chemical Health Risk Assessment
CITES	Convention on International Trade in Endangered Species
CMD	Cylinder Management Device
C0	Carbon Monoxide
C00	Chief Operating Officer
C0 <sub>2</sub>	Carbon Dioxide
CPCN	Cyberplant Conservation Network
CR	Corporate Responsibility
CSR	Corporate Social Responsibility
CU	Compactor Units
DOE	Department of Environment
DOSH	Department of Occupational Safety and Health
EES	Employee Engagement Survey
EIA	Environmental Impact Assessment
EISB	E-Idaman Sdn Bhd
EIWIS	Electronic Integrated Waste Information System
ELV	End-of-Life Vehicle
EMP	Environmental Monitoring Programme
EMS	Environmental Management Services
ENSEARCH	Environmental Management and Research Association of Malaysia
EQA	Environmental Quality Act
(EQ(SW)R 2005)	Environmental Quality (Scheduled Wastes) Regulations 2005
EVP	Employment Value Proposition
GHG	Greenhouse Gas
GLCs	Government-Linked Companies
GLICs	Government-Linked Investment Companies
GMRF	Green Material Recovery Facility
GPS	Global Positioning System

GRI	Global Reporting Initiative
HCFCs	Hydrochlorofluorocarbons
HFCs	Hydrofluorocarbons
HRA	Human Resource & Administration
IDF	Induced Draft Fan
IGCF	Integrated Green Composting Facility
ІМО	Indigenous Micro Organism
INC	Incinerator
IUCN	International Union for Conservation of Nature
JBA	Jabatan Bekalan Air
ЈККК	Jawatankuasa Kemajuan dan Keselamatan Kampung (Village Development and Security Committee)
JVC	Joint Venture Company
KASB	Kualiti Alam Sdn Bhd
КАМІ	Kualiti Alam Mind Innovation
KESUKA	Kelab Sukan dan Kebajikan (Kualiti Alam's Sports and Charity Club)
Kg	Kampung
KKA	Kualiti Khidmat Alam Sdn Bhd
KKI	Kualiti Kitar Alam Sdn Bhd
KPI	Key Performance Indicator
KYUEM	Kolej Yayasan UEM
LCA	Life Cycle Assessment
Ldg	Ladang
LTI	Lost Time Injury
LTP	Leachate Treatment Plant
MaSRA	Malaysia Sustainability Reporting Awards
MD	Managing Director
MENGO	Malaysian Environmental Non-Governmental Organisations
MICCI	Malaysian International Chamber of Commerce and Industry
MIS	Management Information Systems
MOE	Ministry of Education
МОН	Ministry of Health
MORR	Managing Occupational Road Risk
MOSHPA	Malaysian Occupational Safety and Health Professional's Association
MSOSH	Malaysian Society for Occupational Safety and Health
МТ	Metric Tonnes
MoU	Memorandum of Understanding
MWTS	Mini Waste Transfer Station
NCOSH	National Council for Occupational Safety and Health
NGOs	Non-government Organisations

NGRDWQ	National Guidelines for Raw Drinking Water Quality
NGV	Natural Gas Vehicle
NOx	Nitrogen Oxides
OSH	Occupational Safety and Health
OHSAS	Occupational Health and Safety Assessment Series
PCT	Physical/Chemical Treatment
PERODUA	Perusahaan Otomobil Kedua Sendirian Berhad
PINTAR	Promoting Intelligence, Nurturing Talent and Advocating Responsibility
PINTAR UELP	PINTAR UEM English Literacy Programme
PLUS	PLUS Berhad
PDPA 2010	Personal Data Protection Act 2010
PPSPPA	Perbadanan Pengurusan Sisa Pepejal dan Pembersihan Awam
PP	Poly Propylene
PPE	Personal Protective Equipment
PTW	Permit to Work
RM	Ringgit Malaysia
RO	Reconstituted Oil
ROE ex-El	Return on Equity excluding Exceptional Items
RoSPA	Royal Society for the Prevention of Accidents
SBSB	Special Builders Sdn Bhd
SDS	Sludge Destabilisation System
SHC	Safety and Health Committee
SHE	Safety, Health & Environment
SHEQ	Safety, Health, Environment and Quality
SH0	Safety Health Officer
SSMP	Structured Supplier Management Programme
SSP	Strategic Supplier Programme
STP	Sewage Treatment Plant
Syngas	Synthesis Gas
UEME	UEM Environment Sdn Bhd
ULC	UEM Learning Centre
USECHH	Use and Standards of Exposure of Chemicals Hazardous to Health
WG	Waste Generator
WMC	Waste Management Centre
WQI	Water Quality Index

## **Assurance Statement**



#### Assurance Statement

#### **Introduction**

Bureau Veritas has been engaged to provide assurance services to UEM Environment Sdn Bhd. This Assurance Statement applies to the Sustainability Report 2011 (the 'Report').

The preparation of the Report and its content is the responsibility of UEM Environment Sdn Bhd. Our responsibility is to provide assurance over the Report and underlying processes within the scope set out below:

#### Workplace: Governance

Verification through moderate assurance via information provided.

#### Workplace: Employment

Verification through moderate assurance on employment, health and safety and working conditions via information provided.

#### Workplace: Awards & Accreditation

Verification through moderate assurance via information provided.

#### > Marketplace:

Verification through moderate assurance via information provided.

#### > Environment:

Verification through moderate assurance via information provided and site visits to Waste Management Centre (WMC) and E-Idaman (EISB).

#### > Community:

Verification through moderate assurance via information provided.

It is agreed that UEM Environment Sdn Bhd expects to be able to provide a response to each of the GRI-G3 Guideline Protocols.

UEM Environment Sdn Bhd aims to provide the A+ Application Level which requires reporting on the Standard Disclosures which include on all criteria for G3 Profile disclosures, management approach for each indicator category.



#### Exclusions from the scope of our work

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

- □ Statements of commitment to, or intention to, undertake action in the future;
- Statements of opinion, belief and / or aspiration;
- Our assurance does not extend to the information hyper linked from the Report.

#### Basis of our opinion

In conducting this engagement we have considered the following guiding principles:

The principles of materiality, stakeholder inclusiveness, sustainability context, completeness, balance, comparability, accuracy, timeliness, clarity, relevance and reliability as per Sustainable Reporting Guideline version 3.1 (GRI-G3).

Our work was planned and carried out to provide reasonable, rather than absolute, assurance and we believe that the work conducted as described in the scope of work above provides a reasonable basis for our conclusions.

We relied on the representations made to us during the course of our assurance work by UEM Environment Sdn Bhd personnel and the audited financial statement 2011 by Ernst & Young.

Where we have provided assurance over numeric information, this has been achieved through review of consolidation processes and databases held at the Headquarters, UEM Environment Sdn Bhd, 13-1, Mercu UEM, Jalan Stesen Sentral 5, Kuala Lumpur Sentral, 50470 Kuala Lumpur, Malaysia.

This work is not considered sufficient for us to identify all misstatements.

Our review included the following activities:

- Interviewed with relevant staff at corporate and operation levels responsible for the information in the Report;
- A review of internal and external documentation and displays such as awards, photos and pictures, minutes of meeting, TNB electricity bill, Syarikat Air Darul Aman water bill, statement account listing, Lembaga Air Perak, <a href="http://www.kualitialam.com">http://www.kualitialam.com</a>, Smartpay statement, debit note, Group human resource monthly report, training calendar 2011, receipts, data for RO & diesel consumption, environmental monitoring report for Kualiti Alam Waste Management Centre, electricity consumption summary, Syarikat Air Darul Aman, laporan data kutipan, World Resource Institute, 2006 IPCC guidelines for greenhouse gas inventories,



www.terrapass.com, Green Tag, invitation letters, variance analysis reports, ems expenditures, risk management committee members list, risk management report, invoice, consignment notes, reports, attendance list, Kosmo, Sinar Harian, Sin Chew, Bernama, Berita Minggu, STAR, online Berita Harian, recruitment log book, manpower rationalization report, SHC chart, incident statistic, incident investigation report, LTI mhrs, emails, memo, KA scheduled waste management guide, vendor assessment report, managing occupational risk live audit report, corrective action report, maintenance and service agreement, PR summary, monthly power consumption 2011, electricity and water expenses, trees inventory, transfer ticket, daily treatment report, inventory of cylinder collection, sustainability report 2010, summary operation report 2011, e-perolehan MOF, weigh bridge ticket, summary of PPI, daily operation report, detailed feasibility study report 2010, summary clinical waste report, ElWIs system, weekly update acetylene plant, treatment file, PNL account, purchase order, bulletin, group statement of comprehensive income 2011, etc.

- □ A review of the underlying systems and procedures used to collect and process the reported information, including the aggregation of data into the information in the Report;
- A review of the reliability of the quantitative and qualitative information in the Report based on sampling;
- Visited Waste Management Centre (WMC) office and E-Idaman HQ office and Alor Star Service Unit office to review the data collection process and implementation evidence on reported statements in the Report;
- Challenged the related statements and claims made in the Report.

During our investigation we discussed the necessary changes in the Report with UEM Environment Sdn Bhd and determined that these changes have been adequately incorporated into the final version.

#### **Conclusions**

- □ In our opinion, the report fulfills the A+ requirements of the GRI Sustainability Reporting Guidelines (Version 3.1).
- During the course of our review nothing came to our attention to indicate that there was any material error, omission or misstatement. It is Bureau Veritas' opinion that the statements in the Report are accurate and reliable based on UEM Environment Sdn Bhd presented data.
- The Report provides a fair representation of UEM Environment Sdn Bhd's sustainability reporting activity for the period from 1<sup>st</sup> January 2011 up to the data collection deadline on 31<sup>st</sup> December 2011.



#### Areas for ongoing improvement

The company could consider for inviting the verification body to observe any engagements or programmes to be conducted for the following year.

#### **Considerations and limitations**

In relation to our assurance work and conclusions, the following considerations and limitations should be noted:

- Certain information is excluded from the scope of our assurance work, as stated above;
- Environmental and social data are subject to inherent limitations due to its nature and the methods used for determining, calculating or estimating such data. Therefore this independent assurance statement should not be relied upon to detect all errors, omissions or misstatements in the Report, nor can it guarantee the quality of social accounting and reporting processes. We have provided reasonable assurance as to the quality and accuracy of the report within the scope of our investigations.



16th May 2012

#### Statement by Bureau Veritas of independence, impartiality and competence

Bureau Veritas is an independent professional services company that specialises in Quality, Health, Safety, Social and Environmental management with over 180 years history in providing independent assurance services.

Bureau Veritas has implemented a code of ethics across the business that is intended to ensure that all our staffs maintain high ethical standards in their day-to-day business activities; we are particularly vigilant in the prevention of conflicts of interest.

Competence: Our assurance teams completing the work for the Sustainability Report have extensive experience in conducting assurance over environmental, social, ethical and health and safety information, systems and processes and an excellent understanding of good practice in Corporate Responsibility reporting and assurance.



## **GRI G3.1 Content Index**

In ensuring our compliance to the highest level of transparency in our Sustainability Report 2011 disclosure, we have adopted the internationally-recognised reporting framework, the Global Reporting Initiatives (GRI). 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. Application Levels indicate the extent to which the G3.1 Guidelines have been applied in our sustainability reporting. The GRI Content Index table is presented to guide where information on each GRI indicator can be found. Our Sustainability Report 2011 has been certified to have complied with the GRI Application Level Check A+.



\* Sector supplement in final version

\* Performance Indicators may be selected from any finalized Sector Supplement, but 7 of the 10 must be from the original GRI Guidelines

\*\*\* Performance Indicators may be selected from any finalized Sector Supplement, but 14 of the 20 must be from the original GRI Guidelines

Status : • Fully Disclosed; Dertially Disclosed; x Not Disclosed

### 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	•	P6-7	
1.2	Description of key impacts, risks, and opportunities	٠	P6-7, P17-18	

## 2. Organisational Profile

PROFILE DISCLOSURE	DESCRIPTION	STATUS	CROSS- REFERENCE	REASON FOR OMISSION & EXPLANATION
2.1	Name of the organisation	•	Front Cover, P4	
2.2	Primary brands, products, and/or services	•	P5	
2.3	Operational structure of the organisation	٠	P5	
2.4	Location of organisation's headquarters	٠	P4	
2.5	Number of countries where the organisation operates	٠	P5	
2.6	Nature of ownership and legal form	٠	P5	
2.7	Markets served	•	P5	
2.8	Scale of the reporting organisation	٠	P4	
2.9	Significant changes during the reporting period	•	P6-7, P16	
2.10	Awards received in the reporting period	•	P76-78	

## 3. Report Parameters

PROFILE DISCLOSURE	DESCRIPTION	STATUS	CROSS- REFERENCE	REASON FOR OMISSION & EXPLANATION
3.1	Reporting period	٠	P4	
3.2	Date of most recent previous report	٠	P4	
3.3	Reporting cycle	٠	P4	
3.4	Contact point for questions regarding the report or its contents	•	P4	
3.5	Process for defining report content	٠	P4, P15-16	
3.6	Boundary of the report	٠	P4, P15-16	
3.7	Specific limitations on the scope or boundary of the report	٠	P4	
3.8	Basis for reporting on joint ventures, subsidiaries, etc	•	P5	
3.9	Data measurement techniques and the bases of calculations	•	P62-64	
3.10	Explanation of the effect of any re-statements of information	•	P6-7	
3.11	Significant changes from previous reporting period	٠	P6-7, P15-16	
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	•	Assurance Statement	

## 4. Governance, Commitments and Engagement

PROFILE DISCLOSURE	DESCRIPTION	STATUS	CROSS- REFERENCE	REASON FOR OMISSION & EXPLANATION
4.1	Governance structure of the organisation	•	P8-9	
4.2	Indicate whether the Chair of the highest governance body is also an executive officer	•	P8-9	
4.3	Independent and/or non-executive members of the Board	•	P8-9	
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	•	P37-38	
4.5	Linkage between compensation and the organisation's performance	•	P20-21, P79	
4.6	Processes in place to ensure conflicts of interest are avoided	•	P18	
4.7	Qualifications and expertise of the Board	•		All of the Board members and top management are qualified and have extensive experience in their respective fields. Details on Board members' expertise and qualifications can be found on our website.
4.8	Internally developed statements of mission or values, codes of conduct, and principles	•	P5	
4.9	Identification and management of economic, environmental, and social performance, conduct, and principles	•	P34, 39, 41	
4.10	Processes for evaluating the highest governance body's own performance	•	P34	
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organisation	•	P17-18	
4.12	Externally developed economic, environmental, and social charters, principles	•	P34, 39, 41	
4.13	Memberships in associations	٠	P12-14	
4.14	List of stakeholder groups engaged by the organisation	•	P12-14	
4.15	Basis for identification and selection of stakeholders with whom to engage	•	P15-16	
4.16	Approaches to stakeholder engagement	•	P12-14	
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics	•	P12-14	

### STANDARD DISCLOSURES: Performance Indicators

### Economic

PERFORMANCE INDICATOR	DESCRIPTION	STATUS	CROSS- REFERENCE	REASON FOR OMISSION & EXPLANATION	TO BE REPORTED IN
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### **Economic Performance**

EC1	Direct economic value generated and distributed	•	P17, P79		
EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	X		At UEME, we continue to improve ways in delivering environmental solutions. However, the present expertise we deliver is not directly designed to address risks and opportunities due to climate change. We will consider these activities in the near future.	As and when such activities exist.
EC3	Coverage of the organisation's defined benefit plan obligations	٠	P28		
EC4	Significant financial assistance received from government	•	P27		
Market Presenc	e				
EC5	Standard entry level wage vs. local minimum wage	٠	P28		
EC6	Policy, practices, and proportion of spending on locally-based suppliers	•	P42		
EC7	Procedures for local hiring	•	P28		

### Indirect Economic Impacts

EC8	Development and impact of infrastructure investments and services provided primarily for public benefit	٠	P22-27		
EC9	Understanding and describing significant indirect economic impacts	٠	P22-27		

ENVIRONMENTAL								
PERFORMANCE INDICATOR	DESCRIPTION	STATUS	CROSS- REFERENCE	REASON FOR OMISSION & EXPLANATION	TO BE REPORTED IN			
Materials								
EN1	Materials used by weight or volume	•	P49					
EN2	Percentage of materials used that are recycled input materials		P49	Quantity is reported in MT instead of joules.	2013			
Energy								
EN3	Direct energy consumption by primary energy source	•	P62					
EN4	Indirect energy consumption by primary source	•	P63					
EN5	Energy saved due to conservation and efficiency improvements	X		We did not measure the amount of energy saved from conservation and efficiency activities. We hope to improve our measurement and monitoring in the future.	2013			
EN6	Initiatives to provide energy- efficient or renewable energy	•	P75					
EN7	Initiatives to reduce indirect energy consumption and reductions achieved	•	P48-49					
Water								
EN8	Total water withdrawal by source		P49	The total withdrawn is disclosed as an absolute number instead of by source. We will continue to look for ways to monitor this withdrawal by source for our future reporting.	2013			
EN9	Significant impact of withdrawal of water	•	P49					
EN10	Percentage and total volume of water recycled and reused	X		This data is not available at the moment and we will consider measuring such data for future reporting.	2013			
Biodiversity								
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas	•	P50, P58-61					
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas	•	P50, P58-61					
EN13	Habitats protected or restored	•	P50, P58-61					

EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	٠	P50, P58-61		
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations	•	P50, P58-61		
Emissions, Efflu	ients and Waste				
EN16	Total direct and indirect greenhouse gas emissions by weight	•	P61-64		
EN17	Other relevant indirect greenhouse gas emissions by weight	•	P61-64		
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	X		We have not developed specific initiatives to reduce greenhouse gas emissions and measure reductions resulted from such activities. We aim to improve our initiatives in the future.	2013
EN19	Emissions of ozone-depleting substances by weight	•	P53		
EN20	NOx, SOx , and other significant air emissions by type and weight	٠	P58		
EN21	Total water discharge by quality and destination		P49	The total water discharged was disclosed in absolute terms instead of by quality and destination. We will improve our data collection to meet such criteria in the future.	2013
EN22	Total weight of waste by type and disposal method	•	P51-52		
EN23	Total number and volume of significant spills	X	-	Information on this indicator is not currently available at the moment. We hope to monitor this once we have the necessary equipment to measure in the future.	2013
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous	٠	P54		

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	٠	P49					
Products and Services								
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	•	P55-58					
EN27	Percentage of products sold and their packaging materials that are reclaimed by category	X		Such information is not available / measurable at the moment. We will continue to improve our data collection to include this indicator in the future.	2013			
Compliance								
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	•	P48					
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	•	P64					
Overall								
EN30	Total environmental protection expenditures and investments by type	•	P17					
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	٠	P29-30					
LA2	Total number and rate of employee turnover by age group, gender, and region		P30	Turnover rate is disclosed in absolute and not broken down by region, category and age. We will improve our data collection to disclose this breakdown in the future.	2013			
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations	٠	P28					

LA15	Return to work and retention rates after parental leave, by gender	X		Such information is yet to be monitored. We hope to have this available in our next Report.	2013
Labour/Manag	ement Relations				
LA4	Percentage of employees covered by collective bargaining agreements	٠	P38		
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements	٠	P38		
Occupational H	ealth 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 programmes	•	P35		
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region		P35-36	Information on Lost Day Rate (LDR) and Absentee Rate (AR) are not available at this time. We hope to improve our monitoring system to make this available in the next Report.	2013
LA8	Education, training, counselling, prevention, and risk-control programmes in place to assist workforce members, their families, or community members regarding serious diseases	٠	P37		
LA9	Health and safety topics covered in formal agreements with trade unions.	•	P38		
Training and Ed	ducation				
LA10	Average hours of training per year per employee by employee category	•	P31		
LA11	Programmes for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	X		We are yet to design programmes for skills management to assist retirement. We will consider such programmes in the near future.	2013
LA12	Percentage of employees receiving regular performance and career development reviews	•	P34		
<b>Diversity and E</b>	qual 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	•	P29-30		

### 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	•	P28		
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Social: Human	Rights				
PERFORMANCE INDICATOR	DESCRIPTION	STATUS	CROSS- REFERENCE	REASON FOR OMISSION & EXPLANATION	TO BE REPORTED IN
Diversity and E	qual Opportunity				
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening	٠	P38		
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	٠	P38		
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	٠	P38		
Non-discrimina	ation				
HR4	Total number of incidents of discrimination and actions taken	•	P28, P38		
Freedom of Ass	sociation 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	٠	P38		
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	٠	P38		
Forced and Cor	npulsory 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	•	P38		
Security Practi	ces				
HR8	Percentage of security personnel trained in the organisation's policies or procedures concerning aspects of human rights that are relevant to operations	•	P38		
Indigenous Rig	hts				
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken	•	P38		

### Assessment

HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments	٠	P38	
Remediation				

<b>HR11</b> Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms	•	P38		
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## Social: Society

PERFORMANCE INDICATOR	DESCRIPTION	STATUS	CROSS- REFERENCE	REASON FOR OMISSION & EXPLANATION	TO BE REPORTED IN
Community					
S01	Nature, scope, and effectiveness of any programmes and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting	•	P23-27		
S09	Operations with significant potential or actual negative impacts on local communities	٠	P23		
S010	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities	•	P23		
Corruption					
S02	Percentage and total number of business units analysed for risks related to corruption	٠	P27		
503	Percentage of employees trained in organisation's anti-corruption policies and procedures	٠	P27		
S04	Actions taken in response to incidents of corruption	٠	P27		
Public Policy					
S05	Public policy positions and participation in public policy development and lobbying	•	P27		
S06	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country	•	P27		
Anti-Competiti	ve Behaviour				
S07	Total number of legal actions for anti- competitive behaviour, anti-trust, and monopoly practices and their outcomes	•	P27		
Compliance					
S08	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	٠	P27		

## Social: Product Responsibility

PERFORMANCE INDICATOR	DESCRIPTION	STATUS	CROSS- REFERENCE	REASON FOR OMISSION & EXPLANATION	TO BE REPORTED IN
Customer Healt	th 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	•	P40		
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	•	P40-41, P45		
Product and Ser	rvice Labelling				
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	٠	P43-44		
PR4	Total number of incidents of non- compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes	٠	P43-44, P47		
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	٠	P47		
Marketing Com	munications				
PR6	Programmes for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	•	P45-46		
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	•	P47		
<b>Customer Priva</b>	су				
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	•	P47		
Compliance					
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	•	P47		



# 2011 Sustainability Report

The report team wishes to thank all the individuals throughout the organisation who contributed information, stories and data to this report. Special thanks to the core contributors besides the Management Team on pages 10 and 11 that have been helpful in contributing towards the successful publication of this Sustainability Report.

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