

NEWS FLASH!

SLP has been commissioned by a global risk management firm to provide Phase 1 ESA Sub-Consultancy services in South East Asia.

Feeling Hungry?

Read the 'Sun Cooked Chickens are Hot' Article on Page 3.



Did you know....

- It has been estimated that three of the largest Shopping Malls in Bangkok use more energy in one year than the entire province of Mae Hong Son in NW Thailand.
- Air conditioning adds 50% to the energy costs of a building and in cars increases fuel consumption by 10 to 14%.
- Approximately 5.2 billion plastic bags are used per year in Thailand.

Project Focus:

SLP secures Environmental Due Diligence commission for a downstream oil and gas laboratory in Thailand. See Page 3.

Foreword

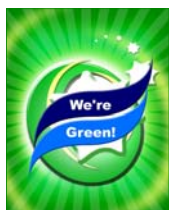
Welcome to our first edition of 'Green Leaves', SLP Environmental's quarterly e-newsletter providing a mixture of news, articles, topical features and projects that involve SLP personnel. In this first issue we introduce SLP Environmental and provide an overview of our key specialisms and services.

SLP Environmental was established in Bangkok, Thailand in 2008 with a mission to provide premium quality environmental consultancy and sub-consultancy services within the South East Asian marketplace. At SLP our guiding principle is 'Environmental Improvement through Technical Excellence', and we are committed to providing cost effective environmental solutions that will both deliver our clients objectives and also benefit the natural environment and local communities.

We offer a comprehensive range of high quality environmental consultancy services across a range of disciplines and sectors. Our Services include: Environmental Due Diligence Assessments, Land Quality Assessments, Carbon Quantification and Management, Land and Water Remediation, Environmental Impact Assessment and Environmental Sustainability. For further information on our Services visit our website.

Article: Actions Speak Louder Than Greenwash

The road to hell is paved with good intentions but it is time for businesses to stop jumping on the green bandwagon and take decisive action in the battle against climate change and environmental degradation.



One has only to walk out of the front door these days to be assailed with messages from companies proclaiming their green credentials. Manufacturers, retailers and developers are falling over themselves in their rush to surf the green wave. Unfortunately for us all however, you usually only have to scratch the surface of their claims to find that nine times out of ten it is just 'greenwash' generated by the marketing department.

As commendable as it is to encourage shoppers to replace plastic carrier bags with reusable cloth bags, this in itself will not 'save the planet' as is so often claimed on the billboards. Whilst we should all applaud businesses who seek to raise public awareness of environmental issues, it

is also fairly evident that some unscrupulous companies are capitalising on the green theme merely as a PR exercise designed to swell their coffers.

Just like any good General planning a military campaign, we need to understand the enemy at our gates so that we can develop a strategy that is both effective and proportionate to the scale of the problem. So let's quickly remind ourselves of the enormity of the problem.

'Nine times out of ten it is just 'Greenwash' generated by the marketing department'.

There is now consensus amongst the scientific community that man-made climate change and environmental degradation are destabilising the earth's natural systems that support life on Planet Earth.

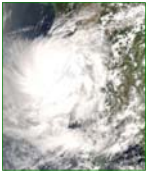
The concentration of carbon dioxide in the atmosphere before the Industrial Revolution was about 280 parts per million (ppm), now its 385ppm and rising at a rate of **Article continues on Page 2.**

Water, water everywhere.... This October, SLP will be participating in 'World Water Monitoring Day', an educational program that promotes public awareness and involvement in protecting water resources around the world. School children and other Bangkok citizens will sample and test water samples from the Chao Phraya River, Bangkok while aboard the Prem Centre Magic Eyes Barge, a floating laboratory on a converted rice barge. If you would like to attend this event co-organised by SLP on 17th October between 13.00hrs and 16.00hrs contact us at info@slpenvironmental.com.



Continued from Page 1.

about 2ppm a year, largely due to the burning of fossil fuels and extensive deforestation.



As a consequence the average temperature of the earths near surface air has increased approx. 0.7°C over the last one hundred years and various computer simulations project it will increase a further 1.1 to 6.4°C over the coming century. This is expected to cause sea levels to rise and lead to an increase in the intensity of extreme weather events as well as altering the amount and pattern of precipitation across the globe. This could be disastrous for low lying areas in SE Asia such as Bangkok and Ho Chi Minh, as rising sea levels will make these areas more vulnerable to devastating storm surges such as that recently caused by Cyclone Nargis in the Irrawaddy Delta region of Myanmar.

WWF, the global conservation organisation, has developed the concept of **One Planet Living®**, which put simply, states that the rate of consumption of the planet's natural resources should not exceed the rate at which they can be renewed by the Earth. Many researchers now believe that humanity's demands exceed our planet's capacity to sustain us. In effect humanity is facing a planetary emergency that requires governments, corporations and individuals alike to take decisive action in the battle against climate change and environmental degradation.

'for every 1000kg of cement produced nearly 900kg of CO₂E is emitted into the atmosphere'.

If businesses are serious about joining the battle then their efforts would be best spent on looking at what tangible actions they can take to significantly reduce their environmental footprints rather than coming up with new marketing gimmicks.

Undertaking an **environmental sustainability appraisal** is a useful first step in this process. This involves undertaking a detailed audit of a companies operations and activities with respect to the key environmental sustainability indicators such as; energy, transportation, waste management, natural resource usage, emissions to environmental media and local ecology. Carbon quantification, commonly referred to as carbon footprinting, is a common component of the assessment process, and involves the calculation of the carbon dioxide equivalent (CO₂E) emissions associated with the specific activities and operations of a particular business. Determining a company's carbon footprint is the critical first step in developing an effective carbon management strategy, as it sets the benchmark against which all future improvements and modification to practices and activities will be measured.

Carbon footprint modelling is a complex activity that requires detailed research to establish the emission rates and other factors associated with a whole host of operational activities. It grows significantly more complex if the *embodied energy* associated with actual materials such as steel and plastic is included. Whilst a business manager may be justifiably proud that his new trucks run on compressed natural gas, he is unlikely to know the full story

behind the carbon emissions associated with the lifecycle of the vehicles. The steel used in their construction has ultimately been mined, smelted and cast, the plastic started life as crude oil and the factory where it was all put together either generated its own power from on-site boilers or drew it from the national grid. A useful fact that puts the importance of embodied

'what tangible actions can businesses take to significantly reduce their environmental footprints?'

energy in perspective is that for every 1000kg of cement produced nearly 900kg of CO₂ is emitted into the atmosphere.

It is therefore critical in any carbon quantification exercise to clearly **define the boundaries** of the assessment at the outset of the project. Moving them too far back the supply chain will significantly increase the complexity of the exercise and the costs and time-frames will increase accordingly.

The Building Sector is responsible for the largest consumption of fossil fuels and natural resources in the world today, yet innovative construction and services design can lessen their impact on our environment through energy and resource efficiency. Simple solutions in the tropics can include; sun shading, building orientation and placement, less reliance on materials with a high thermal mass and the use of natural ventilation and recycled building materials. More active solutions include the use of solar panels and wind turbines to generate renewable energy to feed into the building and/or the national grid.

As more and more purportedly 'green' buildings fill the SE Asian skyline, how can we as consumers and environmentally concerned citizens be sure that a particular

developer's claims are more than just greenwash? Surely it is time for SE Asian countries to implement a formal third party rating and certification process such as the Leadership in Energy and Environmental Design (LEED) **Green Building Rating System** promoted by the U.S. Green Building Council. LEED certification provides independent, third-party verification by

accredited professionals that a building project meets the highest green building and performance measures and is environmentally responsible and a healthy place to live and work. **LEED projects** are in progress in 41 different countries, although to date only two projects have been certified in ASEAN countries; one in Thailand and one in Singapore.



The magnitude of the challenge faced by humanity in the face of climate change and environmental degradation is truly daunting. The stark message from the WWF report is that we have around a decade to make the changes necessary to minimise the impacts from extreme climate change. The good news is that companies that actively reduce their environmental impact are more sustainable, profitable, valuable, competitive and socially responsible. This is good for the economy and the environment, a true win-win scenario. **Please contact Steve Pearmain for further information on our Environmental Sustainability Services.**

A Partner You Can Trust

SLP Environmental recently visited Vientiane in the Lao People's Democratic Republic (PDR) to meet with a number of leading engineering consultancies. Following the visit SLP agreed partnering arrangements with two reputable consultancies based out of Vientiane.

Liz Pearmain, Director of SLP Environmental said *'We are delighted to be partnering with these companies in what is a growing and exciting market for environmental services, and we look forward to the opportunities that will arise for our clients and staff as a result of our extended network'.*



SLP Environmental takes root in the Big Mango

SLP's new office is located at Q House Lumpini, South Sathorn Road, Bangkok. Bangkok was chosen as our regional hub as it is ideally located in the heart of South East Asia with excellent infrastructure, human resources, academic institutions and internationally accredited analytical laboratories. Based out of Q-House we are no more than a few hours journey from other ASEAN cities.



info@slpenvironmental.com

Did You Know?

- It is estimated that the Olympic torch generated 6.5 million pounds of CO₂ from its 50,000 mile tour of 20 countries by private plane. The tour demanded the use of



270,000 gallons of jet fuel which generated levels of CO₂ equivalent to the weight of 540 adult male elephants which is twice the amount of CO₂ the average American will use in their lifetime.

- The Lao government hopes to transform the country into 'the battery of S.E. Asia' by exporting the power generated by numerous hydroelectric projects.



The Lao power development plan contains more than 70 dams, at least 10 of which are under construction or at advanced planning stages.

- Different countries are consuming and polluting at different rates. If everyone in the world lived as the average North American does, we'd need five planets to support us and if everyone in the world lived like the average European we'd need three planets to live on! Large segments of the populations of major countries such as India, China and Brazil consume natural resources at similarly high rates.



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www.slpenvironmental.com

Project Focus: Environmental Due Diligence

SLP were appointed by an international client to undertake an environmental due diligence (EDD) assessment of a specialist downstream oil and gas laboratory facility located in Thailand as part of a pre-acquisition auditing exercise. The audited company provides a variety of rock core, reservoir fluid and gas analysis services to the onshore and offshore oil exploration industry.

The Phase 1 Environmental Site Assessment (ESA) was conducted in general conformance with the methods and procedures described in the —



Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment

Process, Designation E1527-05', published by The American Society of Testing and Materials (ASTM) in November 2005.

The assessment comprised a site inspection, interviews with key staff and a data review. Particular attention was paid during the



site audit to the management and operational practices associated with the storage and handling of hazardous substances, emissions to environmental media, dust and odour controls, waste management practices, water supply and waste water controls, nuisance controls (noise and vibrations), soil and groundwater quality and other pertinent miscellaneous environmental aspects. The company's Environmental Management and

Health, Safety and Environment documentation was also reviewed.

The assessment included a check that the necessary licenses/consents/permits for the facilities operations were in place and verification that the conditions associated with such were being observed. This involved a compliance assessment against pertinent Thai legislation including the Factory Act and the Hazardous Substances Act. In addition, site setting data was also reviewed which included historical maps, aerial photographs and geological, hydrogeological and hydrological information.

If you want more information on the scope of EDD services we provide, please do not hesitate to contact us:

info@slpenvironmental.com

Sun Cooked Chickens Are Hot!

The Bangkok Post recently reported the following story:

In Phetchaburi, Thailand a stall holder has shown a positive way to use global warming by creating a delicious, and money-making menu.

Smoke rises over his stall as chickens split open hang vertically against a grill while being roasted. These succulent chickens sizzle away under the searing sunlight reflected onto them by a towering wall of small mirrors, which stand opposite the grilling frame.

The stall holder said his solar barbecue came from an idea he borrowed from a childhood science experiment, where a magnifying glass was used to burn paper. He thought that many mirrors reflecting the sunlight onto a single spot would generate enough heat to grill food.

Soon after the idea dawned on him, he built a large panel studded with lots of small mirrors. The panel is



curved in to manipulate the sun's reflection so it is focused on the grilling areas.

The stallholder said that after he set up his solar barbecue all he needed were marinated chickens and a pair of goggles to wear to protect his eyes from the glaring light while flipping over the chickens.

The solar panel is positioned to face the morning sunlight, which allows him to roast chickens from 7am to 11am. The chicken needs a little more than 10 minutes to cook and the stallholder said on a sunny morning he manages to roast up to fifty chickens, each weighing about 1.6kg each on average and they sell for 160 baht (\$4).

The stallholder has been recognized for his green initiatives. He has been awarded an honorary bachelor's degree in the field of production technology from the Phetchaburi Rajabhat University and a team of Japanese researchers also came to look at his solar barbecue.



Want to join our team?.

We are looking for dynamic and motivated Environmental Due Diligence and Environmental Impact Assessment specialists at all grades to join our Bangkok office. We are also looking for full and part time Interns with an environmental science or engineering, geology or physical geography background.

