

Pulse check on climate change



Insights from the ASEAN-5 countries

July 2013



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Foreword

It's time to act on climate change.

The ASEAN region is home to some of the world's most diverse landscapes and ecosystems, making it particularly vulnerable to the impacts of climate change with much of the population and infrastructure located in coastal and river delta areas. Further exacerbating the issue, energy related emissions are expected to double by 2030 due to the region's aggressive economic development plans. Sprawling megacities and expanding agricultural lands lead to land use conversion and forest loss, which will continue to be a major source of greenhouse gas emissions.

The business community within the region is starting to realise that there are risks to be alleviated and opportunities to be seized by addressing climate change. Preparing for the future will help companies to not only enhance their brand and reputation but also create new value and revenue opportunities, giving them a competitive edge both regionally and globally.

This report highlights some interesting perspectives on the maturity of climate change reporting in the region based on a survey we conducted of a large number of companies in the ASEAN region. Furthermore, this report also highlights a case study on how PwC assisted a global conglomerate's effort to measure their carbon footprint and identifying reduction initiatives.

We hope you find this report insightful and welcome opportunities to engage with you further. If you have any comments or questions, please do not hesitate to contact one of our regional sustainability experts.

Sundara Raj
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PwC Malaysia

About this survey

Are companies acknowledging the impact of climate change and how are they managing it? Our survey sought to understand the key driving forces behind the corporate climate change efforts.

We aimed to determine the level of disclosure for climate change reporting and understand the reasons for non-disclosure.

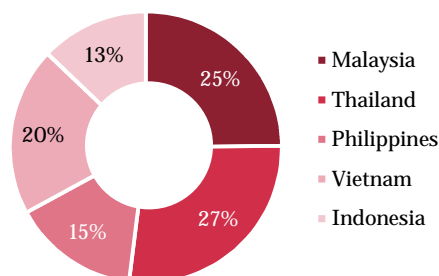
This report summarises the results of our survey and presents our view on the key issues arising. The ASEAN-5* countries are: Malaysia, Thailand, Indonesia, Philippines and Vietnam.

*ASEAN-5: Association of Southeast Asian Nations' five largest developing countries.

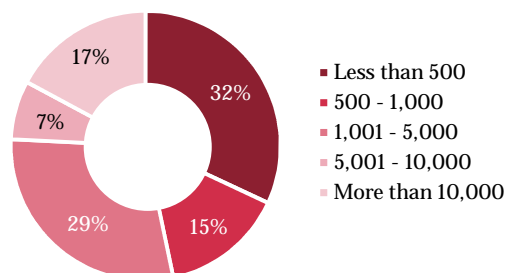
Our Approach

The survey was conducted online from August 10 to September 21, 2012. The online survey link was distributed to prominent companies across different industries in Malaysia, Thailand, Indonesia, Philippines and Vietnam. We invited over 700 companies and received 211 responses. These were analysed and the findings are presented in this report.

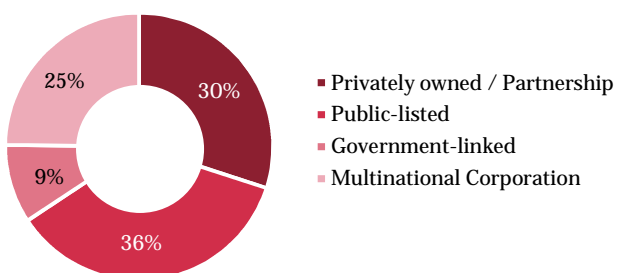
Country of operation or headquarter



Number of employees



Ownership structure



Climate change – Key driver to corporate sustainability

Under the influence of global climate change, Southeast Asia is facing severe threats caused by natural disasters over the last decade such as droughts, floods and tropical storms. As a result, millions of people and businesses were affected. The World Bank estimated an economic loss of USD 45.7 billion from the 2011 flooding in Thailand making it one of the costliest natural disaster event.

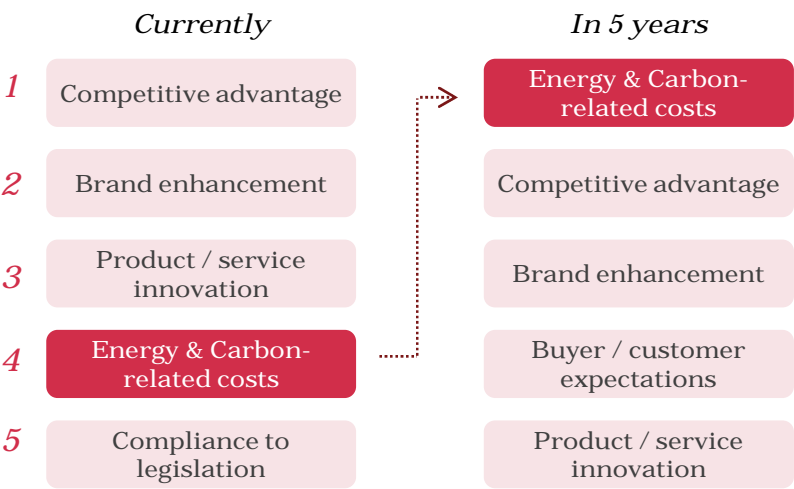
At the 2011 17th Conference of the Parties (COP 17) in Durban, South Africa, it was forecasted that global temperature will rise by 3.5°C by 2100 based on the emission reduction targets set by international heads of state instead of the 2°C rise predicted earlier.

This means that the climate change impacts predicted for the 2°C rise, such as changes in weather patterns, will be exacerbated and climate related disasters will also be more frequent. For Southeast Asia, key economy sectors such as agriculture, manufacturing and tourism may be affected.

*Source: The World Bank Supports Thailand's Post-Floods Recovery Effort". World Bank. 13 December 2011. Retrieved 25 January 2012

Climate change has become a hot sustainability topic in the corporate agenda in the region. Our survey highlighted the key factors driving sustainability and the result shows companies are already taking a keener interest on the risks and opportunities of climate change impacts on their business.

Top 5 sustainability drivers in ASEAN



Competitive advantage and brand enhancement are currently the top sustainability drivers and will remain to be the top drivers over the next five years. Corporations can achieve this by developing low-carbon business strategies and building a carbon neutral image.

However, companies are moving beyond compliance, agreeing that in the near future, energy and carbon related costs will be the number one sustainability driver in the region.

While climate change weaves its effects into companies' corporate strategy, we also looked at how these companies fare in terms of measuring their greenhouse gas (GHG) emissions and reporting on climate change in the following sections.



How do companies fare in climate change management?

“You can’t manage what you don’t measure.”

Measuring and monitoring GHG emissions are first steps to managing a company’s carbon footprint. Initiatives to measure and monitor GHG emissions enable companies to manage and communicate their carbon performance to their stakeholders. As GHG emissions can strongly relate to energy consumption, companies can identify cost savings initiatives and set energy efficiency and emissions reduction targets.

Less than 50%
of companies measure and monitor their GHG emissions

Nearly 30%
of the companies set targets for their GHG emission reduction

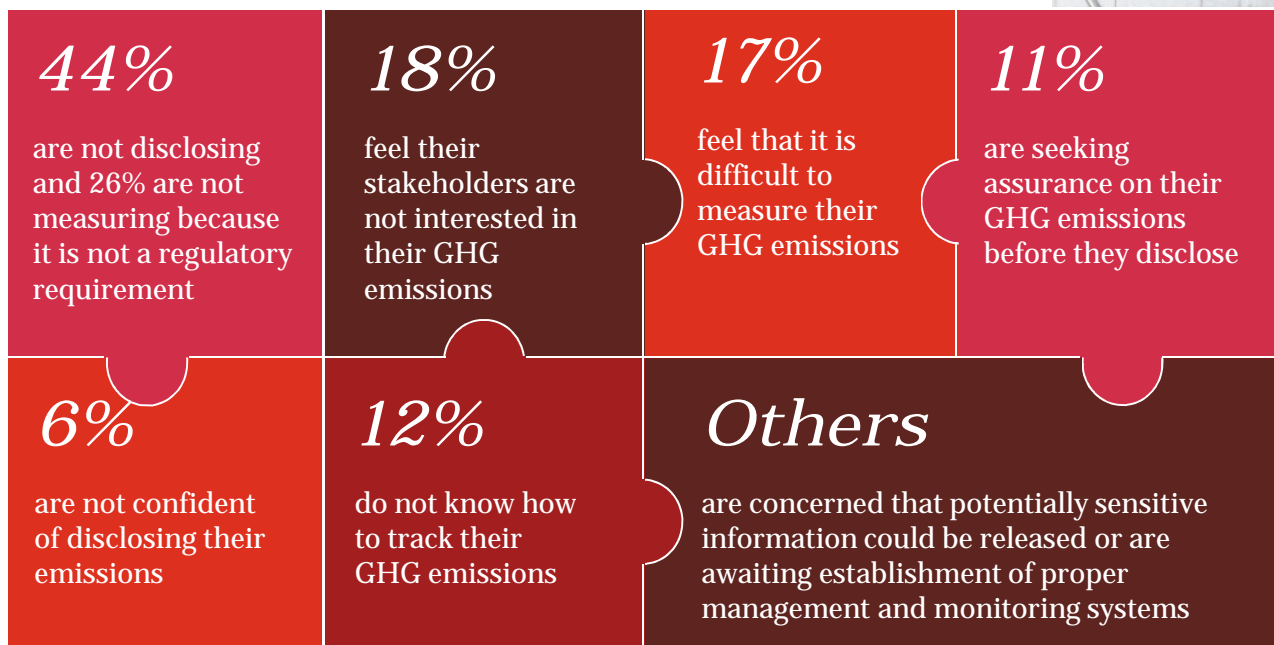
Only 26%
of the companies disclose GHG emissions externally

Although climate change and carbon emission are moving up the corporate agenda, our survey shows that 52% of the companies surveyed do not measure and monitor their GHG emissions. This may indicate a lack of awareness on climate change risks and opportunities or corporate GHG accounting and monitoring methodologies. About 20% of the respondents feel that it is difficult to measure their GHG emissions and 12% do not know how to track them. As a result, companies that do not measure their emissions miss out on potential cost savings and growth opportunities.

Once a company has measured its GHG emissions, it is able to establish an emissions reduction target and work towards attaining it. Setting a target based on an accurate and thorough inventory of GHG emissions communicates a company’s commitment to managing its carbon footprint. With countries pledging a reduction in carbon emissions and recently developing climate-related legislations, the onus is on industries to contribute to their nations emissions reduction. However, our survey shows that only 28% of the companies set targets for their GHG emissions reduction. Establishing clear, achievable, but ambitious targets can save money for the company, motivate staff and help drive long-term strategies. Examples of initiatives that can bring about cost savings are: retrofitting old technology with more efficient ones and recovering methane from wastewater treatment to produce heat and power.

In terms of disclosing GHG emissions, only 26% of the respondents disclosed their performance externally while 15% are planning to publish their results in the near future. Meanwhile, 8% of the respondents do not wish to disclose their GHG performance externally.

What is stopping companies from climate change reporting?



Companies are not reporting because it is not a regulatory requirement

Our survey highlighted that 26% do not measure and 44% do not disclose their GHG emissions because it is not a regulatory requirement. Without guidelines and direction set by regulators, most companies have no immediate motivation to change.

Of the five countries surveyed, only regulators in Indonesia, Malaysia and Philippines have initiatives in place that promote the disclosure of GHG emissions and even so, the initiatives are not robust enough to ensure proper management of the companies' emissions.

We also found that respondents from the Philippines have the highest percentage of carbon disclosure. This could be driven by the Philippine Greenhouse Gas Accounting & Reporting Program (PhilGARP), a voluntary program

launched in 2006 to help companies prepare GHG inventories and reduce GHG emissions.

Malaysia is likely to follow suit with the development of a national voluntary GHG reporting programme called MYCarbon. The programme is anticipated to be implemented in late 2013 and participating companies may receive incentives such as tax breaks and awards.

Companies will need to prepare for future regulatory changes. Recent developments in the region include plans by Vietnam and Indonesia to set up domestic carbon market schemes and Vietnam and Thailand to launch listing requirements for their stock exchanges.

Lack of awareness is holding back carbon reporting

While regulation seems to be the key factor in driving carbon reporting, the lack of GHG and climate change awareness in the region has also affected the number of companies reporting their GHG emissions. This becomes apparent when 18% of the respondents cited that they do not disclose their GHG emissions because they think that their stakeholders would not be interested.

However, stakeholders are increasingly interested in how companies are managing climate change. In the 2012 Carbon Disclosure Project (CDP) Supply Chain Report, 39% of its members highlighted that they are prepared to deselect companies from their list of suppliers in the future if they do not employ good carbon management practices while 30% factor climate change into their evaluation of suppliers.

Companies are also lacking the proper knowledge and capabilities as 17% feel that it is too difficult to measure their GHG emissions, while 12% of the respondents cited they do not know how to track their GHG emissions.

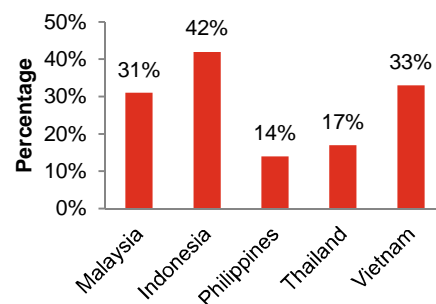
Companies are not confident with the integrity of their carbon data

The other factor preventing companies from disclosing their GHG emissions is because they are not confident with the integrity of their carbon emissions measurement with 6% of the respondents cited they are not confident to disclose their emissions and some are waiting for the establishment of more robust management and monitoring systems.

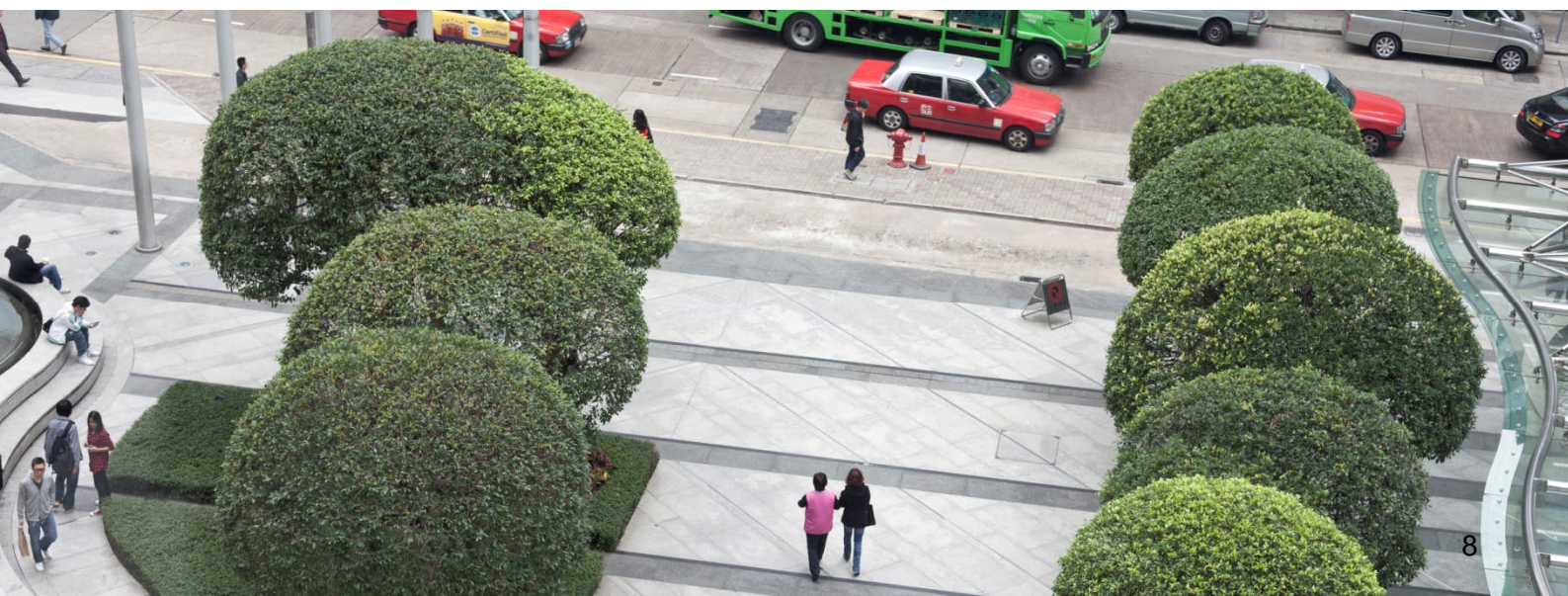
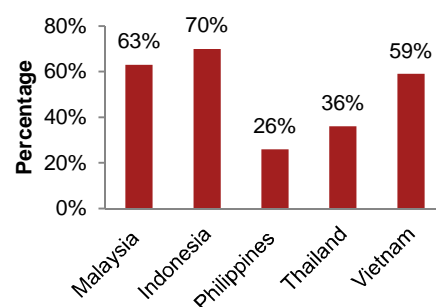
Nonetheless, the integrity and accuracy of carbon data can be ensured through verification. Companies are already acknowledging that an independent third party

assurance can provide greater credibility to the data being reported. However, only 11% of the respondents have sought independent assurance on their carbon data before disclosing it externally.

% of companies measuring their GHG emissions by country



% of companies disclosing their GHG emissions by country



Case study – Measuring carbon emissions is the first step to strategically reduce carbon emissions

The ever changing and evolving global business environment has governments, investors, shareholders and the public increasingly concerned and interested in organisations' commitment to, and efforts in, environmental and social initiatives.

A diversified conglomerate based in Malaysia recognised their vulnerability as they did not know what their carbon emissions were and had no standard way of calculating their emissions across the group. With operations in high impact industries, this was especially risky as they were not in a position to estimate potential financial risks under future climate change policies and regulations.

Recognising the need to stay ahead of competitors and manage risks, the company engaged PwC to work with them to develop a tailored carbon inventory calculator and embed an appreciation and understanding of the relevance of carbon throughout their organisation and facilitate the identification of reduction opportunities and reduction targets.

Project Objectives

Operationally, there were key benefits for embarking on this journey. By taking stock of their carbon emissions, the conglomerate would be able to:

- Take position on climate change and engage governments on policies in major countries where they operate currently and in the future
- Identify key opportunities for carbon reductions and the associated cost savings to be feed into business strategies going forward
- Build and develop stronger stakeholder relationships by enabling reporting to, and dialogue with, their key stakeholders around emissions and risks

Approach

The project was divided into two phases.

Phase 1 - Establishing a carbon inventory baseline

- This phase involved developing a global carbon inventory for the conglomerate covering seven countries and all divisions using 2009 as a base year

Phase 2 – Identifying strategic carbon reduction initiatives for each business unit

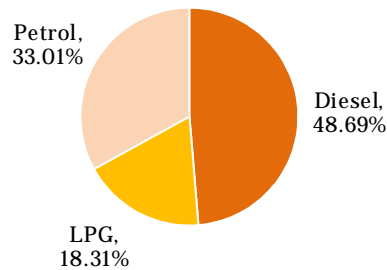
- This phase involved identifying strategic emissions reduction opportunities, developing a strategic carbon reduction roadmap and develop guidelines on setting carbon targets.

Project Outcome

In phase 1, the carbon data were analysed and broken down into various components. Top emission sources for each site and business unit and the top emitters by country, business unit and site were also identified. As a result the conglomerate were able to have an in-depth look at their carbon impact on a local and global scale.

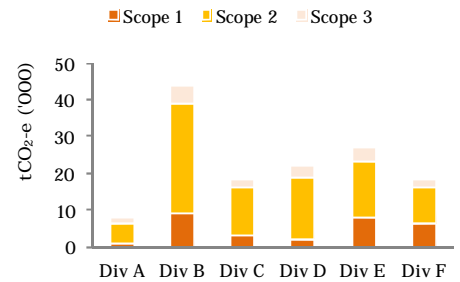
Emissions by fuel type:

Emissions were categorised by fuel type, which helped in identifying possible fuel related reduction opportunities



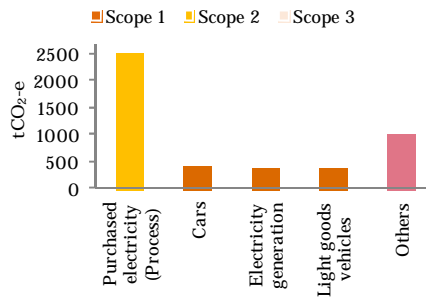
Emissions by business unit:

Total emissions for each business unit were calculated and analysed by scope to compare at group level



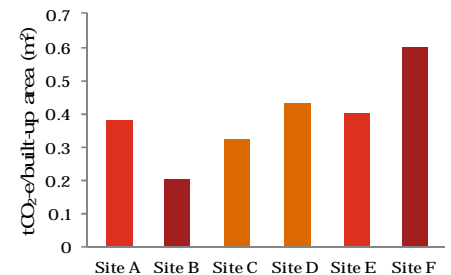
Top emission sources:

The top 5 carbon emission sources for each site and business unit were identified and analysed. This data was used as a basis for carbon reduction targets in Phase 2.



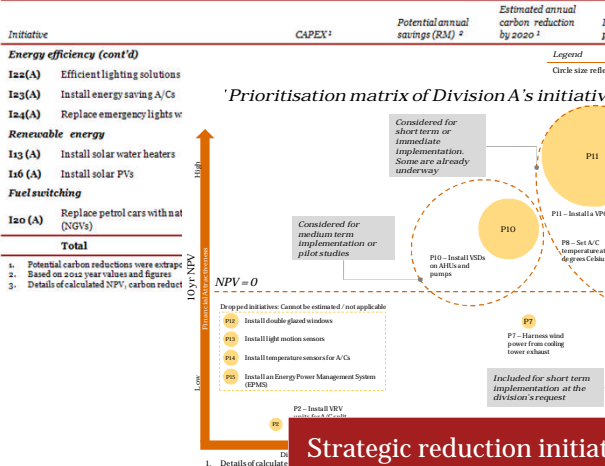
Carbon intensity by site and business unit:

Standard units were identified to normalise data, enabling comparison of emissions data by site, business unit and with other organisations.

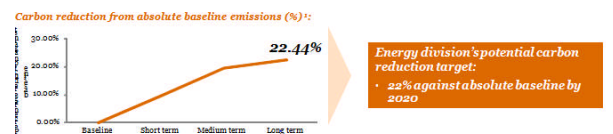


Potential carbon reduction initiatives were identified and modelled to estimate total potential carbon emissions reduction and financial attractiveness. The initiatives were then prioritised based on criteria including potential carbon reduction, financial attractiveness and implementation effort.

Business Unit A carbon reduction initiatives inventory



Potential carbon reduction from prioritised Division A initiatives



Energy division carbon reduction summary:

Energy division	Short term (Current yr - 2014)	Medium term (2015-2016)	Long term (2017-2020)
Carbon reduction	1,128.23 tCO ₂ -e	2,297.44 tCO ₂ -e	2,648.80 tCO ₂ -e
Intensity	9.56%	19.46%	22.44%
PD ⁴	0.061	0.055	0.055

Strategic reduction initiatives were compiled into a high level roadmap to identify potential reduction in the short, medium and long term timeframes at the division level. These enabled them to set realistic targets that were then consolidated at the group level.

Key lessons for climate change management

1

Be prepared for future regulatory changes.

Governments in the region are beginning to take a serious look at mitigating effects of climate change. Companies should start thinking of potential financial opportunities and risks under future climate change policies and regulations and take action to address these issues.

2

Action speaks louder than words.

Saying that one is committed to climate change reduction is one thing; actually doing something to reduce climate change impacts is a whole different ball game. Companies should always be transparent with their goals, reduction strategies and their climate change reporting in order to effectively demonstrate their commitment.

3

Start measuring and monitoring it.

Emissions data help companies understand the impacts of their business activities on climate change. Development of a carbon emissions inventory should follow the five principles of completeness, relevance, accuracy, transparency and consistency.

4

Turn data into actionable information.

Once emissions data collection and visualization is in place, companies should use this information to monitor their emissions performance and identify opportunities, as well as use the data as a tool in decision-making for the reduction of climate change risks and associated cost savings.

5

Keep track.

Climate change and emissions reporting are most beneficial when it is clear and comparable, with supporting data. Companies should keep track of their performance and summarise against targets to gauge progress in climate change initiatives. If this is absent, responsible companies are missing an opportunity to differentiate themselves and stakeholders are unable to make comparisons of management quality and performance improvement.



Conclusion

Companies in the region are acknowledging the risks and opportunities of climate change. Energy and carbon costs have been identified as a key driver for companies to report on climate change in the near future.

However, due to lack of regulations, awareness and robust monitoring systems, many companies are yet to measure and report on their GHG emissions. Even though there are no regulations in the region to mandate companies from reporting on climate change, many governments are planning to have national policies in place to encourage companies to report their GHG emissions such as the MYCarbon programme in Malaysia.

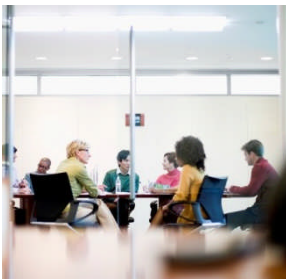
Nonetheless the case study shows that there are many other benefits to reporting on climate change such as developing stronger stakeholder relationship, preparing for international compliance and realising operational cost savings.

PwC Malaysia's Sustainability Team

At PwC, we put strategic thinking at the heart of sustainability, and sustainability at the heart of corporate strategy

We can help you understand which areas pose the greatest sustainability and climate change risks to your business, form strategies to address them and support you through the necessary organisational changes and reporting processes.

Our core range of services include:



Strategic sustainability

Generating, assessing or aligning your sustainability strategy to make the most of your sustainable initiatives

Assurance and reporting

Assisting you with non-financial information frameworks, reporting and assurance, furthering efforts to influence stakeholders trust

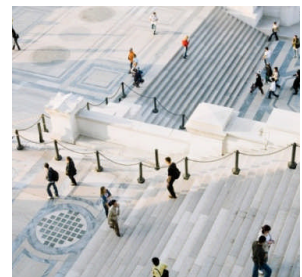


Climate change and carbon management

Helping you anticipate changes in markets and policy, as well as managing climate change risks and respond to opportunities

Governance, risk and compliance

Working with you to set up or realign your structure, policies, or procedures to reduce reputational risk and ensure compliance



Tax and the regulatory environment

Assessing your exposure to environmental tax and regulation while advising on relevant incentives or subsidies to optimise your tax position

Supply chain and operations

Understanding and addressing sustainability impacts in the supply chain to improve your performance



Global Reporting Initiative



The Malaysian, Thailand and Indonesian firms are GRI-certified training partners. Being a Certified Training Partner enables the firms to deliver training on how to report effectively based on the GRI Reporting Framework.

Our team has a blend of skills and experience, gained across diverse sectors

PwC Malaysia has an experienced team of Sustainability and Climate Change professionals who have a range of technical skills and industry knowledge. The team has considerable sector experience across the following: Retail & FMCG, Banking & Financial Institutions Government & Regulators, Telecommunications, Oil & Gas, Plantations, Property and Automotive.



Jack Cunningham

Associate Director

Jack leads strategic sustainability services, governance, risk & compliance, supply chain & operations, Board- & senior-management engagement.

Rashyid Anwarudin

Associate Director

Rashyid leads climate change & carbon management, assurance & reporting and tax & the regulatory environment. Rashyid is a GRI certified trainer.



Adelene Anthony

Manager

Adelene is a risk, compliance and environmental due diligence expert with particular experience in the Oil & Gas, Shipping and Automotive sectors.

Elaine Chan

Manager

Elaine specialises in climate change and carbon inventory development with deep experience in the Plantation, Property and Government sectors.



Natasha Yap

Manager

Natasha focuses on sustainability benchmarking, impacts, and frameworks with experience across Telco and Financial sectors. Natasha is a GRI certified trainer.

Yvonne Au Yong

Manager

Yvonne focuses on strategy and has experience in strategic sustainability and is the east region champion of PwC's global sustainability strategy framework.



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