



WWF

REPORT

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SUMMARY



Asian Fast Moving Consumer Goods: A Sustainability Guide for Financiers and Companies

Commodities | Water | Packaging

On the cover

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Credit Suisse is a sponsor of this report

Co-author and editor:

Jeanne Stampe, jstampe@wwf.sg

Key contributors:

Alix Grabowski, Richard Holland, Cassio Franco Moreira, Emmanuelle Neyroumande, Stuart Orr, Katrin Oswald, Laila Petrie, Coralie Ponsinet, Britta Rendlen and Erin Simon

WWF communications: Edith Verhoestraete

We would also like to thank the following people:

Credit Suisse: Ben Ridley

Principles for Responsible Investment (PRI): Jessica Robinson

WWF: Michael Arnold, Lisa Bentes, Claar van den Bergh, Andrea Berriman, Maria Boulos, Leanne Burton, Wei Yeap Chong, Nicolas Loz de Coëtghourhant, Chitra Devi, Jorien van Hoogen, Giuliana Improta, Rizkiasari Joedawinata, Hansted Koloszuk, Joshua Levin, Oliver Maennicke, Jeff Malcolm, Karina Marquesini, Nora Sticzay, Joel Palma, Daniel Robertsson, Edegar de Oliveira Rosa, Susan Roxas, Neha Simlai, Mingming Sun, Philip Tapsall, Nichapat Na Thalang, Daniel Buarque Tubenchlak, Stephen Watson, Stephen Wetmore, Matt Wilson and Yifei Zhang

Production and design:

Jennifer Campbell and Mitchell Davies

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WWF is one of the world's largest and most experienced independent conservation organizations, with over 5 million supporters and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

WWF's International Finance Programme seeks to support this vision by engaging directly with banks, asset managers and other financial institutions. It helps strengthen lending and investment criteria for key industry sectors, provides insights and data on environmental and social risks, fulfils critical research gaps and helps unlock innovation breakthroughs in sustainable financial products.

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INTRODUCTION TO THE GUIDE



Fast moving consumer goods
on the shelves in a supermarket
in Kuala Lumpur, Malaysia

INTRODUCTION TO THE GUIDE

Asian fast moving consumer goods (FMCG) are an important growth sector for the Asian economies and hence an important component of financiers' portfolios. A 2015 report by PWC estimated that the food, beverage and tobacco category in Asia will grow by 9 per cent per annum compared to a global average of 6.4 per cent, and that by 2018, Asia will account for US\$5.9 trillion, or 60 per cent, of global consumer expenditure in this category. The same report estimated that consumer spending on household and personal care goods will rise in Asia by an average of 8.5 per cent per year to reach US\$730 billion by 2018.

Extreme weather events, water and food crises, and climate change all feature in the World Economic Forum's top 10 global risks survey. Such environmental risks and accompanying trends will have a profound effect on Asian economies, some of which are already experiencing escalating problems related to water scarcity. The FMCG sector (defined as food and beverage, household and personal care) is particularly vulnerable to these risks through its long and diverse raw material supply chains.

In addition, Asian consumer and retailer attitudes toward the sustainability performance of consumer goods manufacturers are changing. Studies show that more consumers in Asia are considering the social and environmental impacts of the products they purchase. NGOs are launching more consumer awareness campaigns with calls to action focusing on the consumer's ability to choose wisely and responsibly. The recent move by retailers in Singapore to destock paper-based household products from a manufacturer linked to the haze demonstrates how access to market can be abruptly halted as retailers adopt responsible sourcing policies. Such actions can have significant negative impact on the revenues of the affected FMCG companies.

Awareness of these environmental and social issues and the related business value at risk is lower at many Asian FMCG companies in comparison to their international peers who have more ambitious sustainability profiles. Investor engagement on these issues and corporate disclosure by listed Asian FMCG companies are also generally lower. As such, it is imperative for Asian FMCG management and their financiers

(lending banks and investors) to embark upon a dialogue to promote sustainable practices and ensure the long-term viability of the industry.

This guide aims to help Asian FMCG companies and their financiers understand the environmental issues related to the three most important primary inputs impacting their gross margins and on which they can take immediate action – soft commodities (agricultural, forest and seafood commodities), water and packaging – and the commercial relevance of managing these issues. For each input, the guide provides an overview of existing initiatives in the finance sector, identifies key risks, sets out the business benefits of sustainable practices, and provides steps for managing related environmental risks.



**AWARENESS OF
ENVIRONMENTAL
AND SOCIAL ISSUES
AND THE RELATED
BUSINESS VALUE
AT RISK IS LOWER
AT MANY ASIAN
FMCG COMPANIES
IN COMPARISON
TO THEIR
INTERNATIONAL
PEERS WHO HAVE
MORE AMBITIOUS
SUSTAINABILITY
PROFILES**














The guide does not address the climate impacts related to energy use since there are many other relevant publications addressing this topic. Energy is of course an important primary input for FMCG companies, being used in their operations, manufacturing processes and in the transport and refrigeration of their products, as well as in the production of the raw materials. FMCG companies should already be acting to reduce their overall energy demand (through efficiency and waste reduction), source their energy from non-fossil fuel sources (switch to renewable sources), take embedded energy into account in sourcing decisions, and help educate their customers. For those just starting to address energy and climate issues, the most obvious place for companies to begin is by working aggressively on efficiency which will reduce greenhouse gas (GHG) emissions and (likely) also lead to immediate financial savings.

The guide also presents an overview of the steps disclosed by 26 large Asian FMCG companies across nine countries to manage the issues around these inputs (a summary of which is included below).

Finally, the guide provides useful insight on hurdles faced by FMCG companies and good practice solutions to inspire Asian FMCG management to overcome these challenges.

Financiers are increasingly looking into the value chains of FMCG companies to better understand risks and opportunities that impact growth and valuations. They can use this guide when building an investment case, for conducting due diligence on FMCG portfolio companies, or as part of any ongoing dialogue or engagement. Companies can use the same questions and insights to strengthen their internal risk (and opportunity) analysis and practices.

Figure 1: Asian FMCG companies’ disclosure of their steps to address sustainability issues

	 Sourcing certified commodities	 Water footprint* 			     Packaging**     					
		Direct water use	Agri supply chain water use	Consumer water use	Assessment of packaging design to protect products	RESPONSIBLE SOURCING OF MATERIALS		Design optimization	End of life and recycling infrastructure	
						Use of certified paper-based packaging	Use of recycled materials			
Amorepacific Corp	YES	YES		YES			YES	YES	YES	
Charoen Pokphand Foods PCL	YES***	YES						YES		
China Mengniu Dairy Co Ltd		YES				YES	YES		YES	
Dutch Lady Milk Industries Bhd	YES	YES				YES				
Emami Ltd										
Fraser & Neave Holdings Bhd		YES					YES	YES		
Fraser & Neave Ltd		YES					YES	YES		
Godrej Consumer Products Ltd		YES								
Hindustan Unilever Ltd	YES	YES	YES	YES		YES	YES	YES	YES	
Indofood CBP Sukses Makmur Tbk PT		YES					YES	YES	YES	
Masan Consumer Corp										
Mayora Indah Tbk PT										
Nestlé Malaysia Bhd	YES	YES	YES		YES	YES	YES	YES	YES	
Orion Corp/Republic of Korea										
Petra Foods Ltd	YES									
San Miguel Corp		YES					YES			
Super Group Ltd/Singapore										
Thai Beverage PCL		YES					YES	YES		
Thai Union Frozen Products PCL	YES***	YES					YES	YES		
Tingyi Cayman Islands Holding Corp		YES								
Tsingtao Brewery Co Ltd										
Ultrajaya Milk Industry & Trading Co Tbk PT										
Unilever Indonesia Tbk PT	YES	YES	YES	YES		YES	YES	YES	YES	
Universal Robina Corp										
Vietnam Dairy Products Joint Stock Company		YES								
Want Want China Holdings Ltd		YES	YES			YES				

*Companies with ‘yes’ have disclosed some steps to address the issues around water, although most are focusing on water footprint rather than water risk.

**Note that for sustainable packaging, a systems-based approach must be adopted and the four strategies shown here need to be considered within this context and not as standalone strategies.

***Note that Charoen Pokphand Foods PCL and Thai Union Frozen Products PCL use certification standards that are not supported by WWF. Refer to chapter 1 for attributes of credible and effective standards that WWF supports.

ABOUT THIS GUIDE

TARGET AUDIENCE

This guide is intended for senior decision-makers and implementing teams across various contexts:

- Investors: risk officers, portfolio managers, analysts covering the consumer goods sector, environmental, social and governance (ESG) analysts;
- Banks: credit officers, industry coverage bankers, investment/research analysts covering the consumer goods sector, sustainability officers;
- FMCG companies: board members, senior executives (for example, CEOs, CFOs, and operations and procurement directors), sustainability officers.



**WWF RECOMMENDS
THAT FINANCIERS
ASSESS THEIR
PORTFOLIO
COMPANIES AS WELL
AS POTENTIAL NEW
INVESTMENTS AND
CLIENTS AS AN
URGENT PRIORITY**

OBJECTIVES

The objectives of this guide are to:

1. Highlight major environmental issues for three main inputs in FMCG supply chains;
2. Provide an overview of the levels of disclosure by large Asian FMCG companies and enable financiers to compare relative quality of disclosure and performance between companies;
3. Highlight the current level of finance sector focus and initiatives on these issues to demonstrate the increasing emphasis on them by financiers;
4. Demonstrate to companies and financiers the business benefits of tackling the identified issues through sustainable operating practices;
5. Provide frameworks for companies to address their key issues and for financiers to assess the relative performance of companies;
6. Provide background information on the issues and identify resources, including collaborative initiatives, where companies and financiers can obtain further information and support;
7. Provide examples of existing good practices to inspire FMCG companies to take action.

METHODOLOGY

This guide undertakes a review of the information disclosed by 26 FMCG companies from nine Asian countries on the topics of soft commodities, water and packaging. A sample of three or four companies, each of them with a minimum market capitalization of around SG\$1 billion, was selected for each of the nine countries. In each case the review is based on public disclosure that the company has made available through annual or sustainability/corporate social responsibility (CSR) reports, or through its corporate website. The research used information published prior to 20 November 2015, particularly from the most recent annual reports. The companies were not interviewed and have not verified the information contained in this report.

Only English language disclosure was reviewed, which may not provide a comprehensive overview of the companies' sustainability performance compared to local language disclosure. However this was done expressly to understand what type of information international investors had access to. It was also done to make the point that companies should disclose sustainability information in English as well as in the local language, in the same way they do for financial information, given material ESG issues are in effect business issues that should be brought to investors' attention.

In addition, WWF did not assess the quality of disclosure apart from assessing if there was indeed disclosure on the particular issue. WWF did not assess whether the steps disclosed or their implementation were adequate. We have provided examples of what the companies disclosed at face value to inform investors about the extent and quality of information available in the context of what WWF has described as good practices in the chapters. The side by side listing of disclosed information is to facilitate comparison and engagement by financiers. This is done expressly to promote dialogue and to allow financiers to adopt the relevant frameworks and insights and do their own analysis. There is no intention to grade or score the actual performance of the FMCG companies in this report.

The guide cites certain FMCG companies as examples of good market practice, however WWF does not endorse any company or the company's practices as a whole.

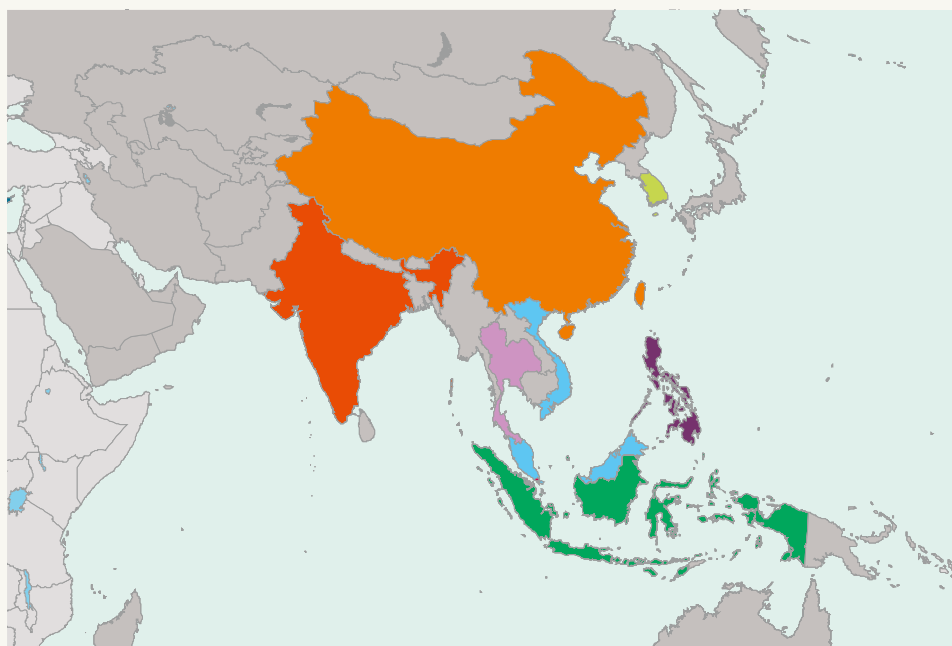


Shopping for fast moving consumer goods in a supermarket

© 1000 WORDS/SHUTTERSTOCK.COM

Organizations reviewed come from the following nine countries:

- China
- India
- Indonesia
- Malaysia
- Philippines
- Singapore
- South Korea
- Thailand
- Vietnam



RECOMMENDATIONS

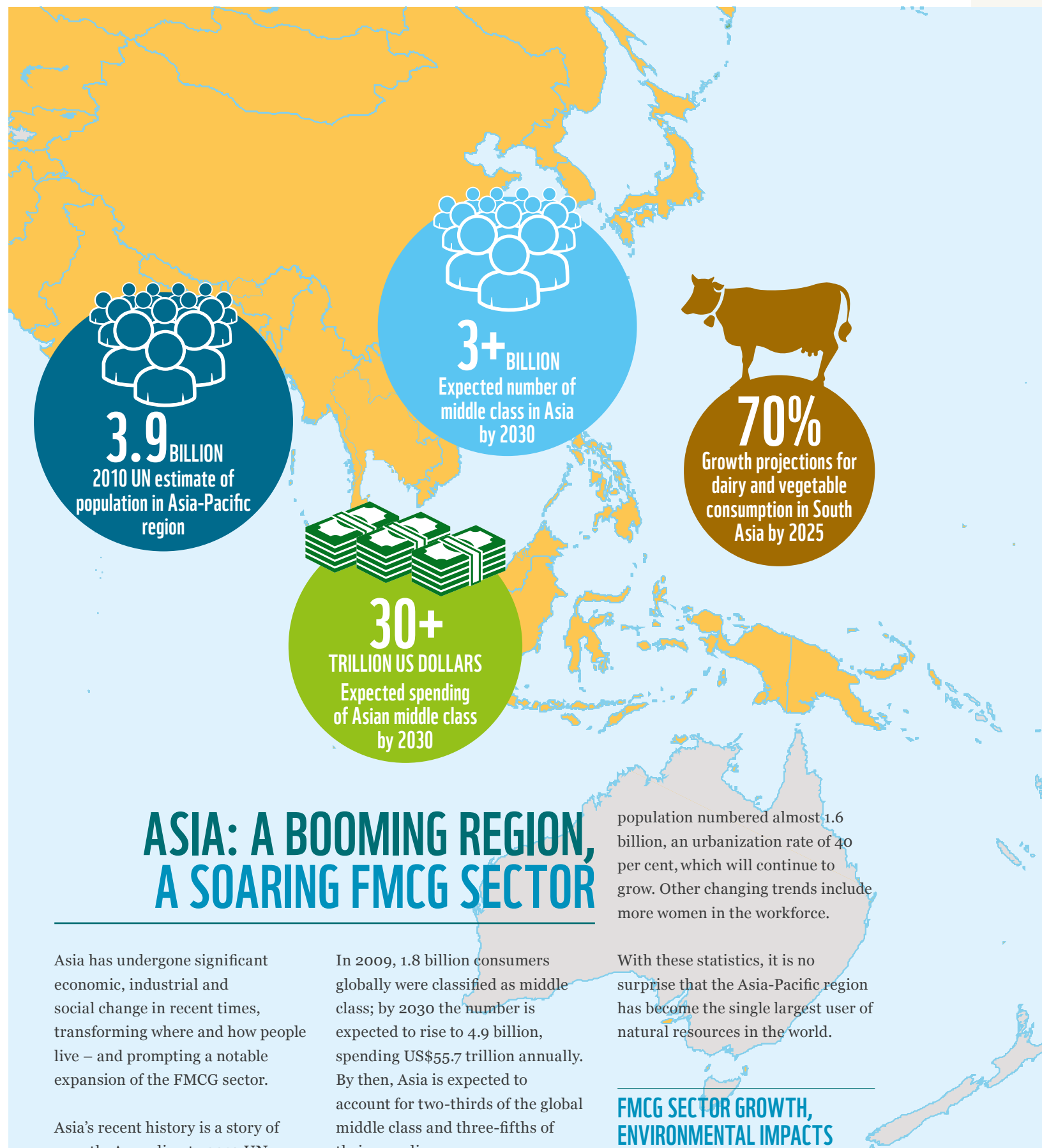
WWF recommends that financiers assess their portfolio companies as well as potential new investments/clients as an urgent priority using the frameworks and insights provided, and begin an immediate dialogue with Asian FMCG company management to spur action.

By tying the cost of and access to capital to more sustainable practices and using their influence as shareholders and lenders to engage with companies, financiers can ensure that the growing Asian FMCG sector can be robust and viable in the long term, contributing to the sustainable development needs of the region.

WWF urges Asian FMCG companies to take immediate steps to address the core issues in their supply chains pertaining to commodities, water and packaging. Based on the multiple examples provided of existing market practice and the commercial arguments for sustainable practices on these three fronts, there is no reason why Asian FMCG companies cannot take steps now to improve their performance. WWF calls on these companies to publish ambitious targets and action plans and to report on progress achieved.

Through our guides, insights and active involvement in platforms concerning certification of commodities, water stewardship and sustainable packaging, WWF stands ready to support companies on their sustainability journey. We will also monitor commitments and results achieved by FMCG companies in this area and will publish summaries of performance in future years.





Asia has undergone significant economic, industrial and social change in recent times, transforming where and how people live – and prompting a notable expansion of the FMCG sector.

Asia's recent history is a story of growth. According to 2010 UN estimates, 3.9 billion people live in the Asia-Pacific region. Globally, the number of people classified as 'middle class' continues to increase.

In 2009, 1.8 billion consumers globally were classified as middle class; by 2030 the number is expected to rise to 4.9 billion, spending US\$55.7 trillion annually. By then, Asia is expected to account for two-thirds of the global middle class and three-fifths of their spending.

Many in Asia, particularly the growing middle class, are moving to cities. By 2010, Asia's urban

population numbered almost 1.6 billion, an urbanization rate of 40 per cent, which will continue to grow. Other changing trends include more women in the workforce.

FMCG SECTOR GROWTH, ENVIRONMENTAL IMPACTS

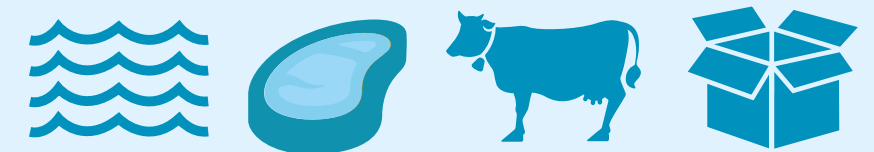
The FMCG sector is rapidly growing to cater for this growing middle class urbanized population and their changing preferences.

Demand has shifted, particularly among the middle class, from consuming staple carbohydrates such as rice, to processed or packaged convenience foods including chilled goods, meat and dairy products. In South Asia, growth projections to 2025 are 70 per cent for dairy and vegetable consumption and 100 per cent for meat consumption.

There is also a growing focus on food safety and traceability. Middle and upper income consumers are willing to pay more for products that comply with health standards, and that meet their expectations for taste, appearance and packaging.

Urbanization has increased transportation requirements and given rise to new distribution channels, particularly supermarkets. During the 2000s, annual growth of supermarket retail sales in China, India and Vietnam averaged 28 per cent to 50 per cent. This sales increase is composed of growth within individual retail chains as well as increases in the number of retail chains. The growth in number of supermarket outlets has created additional distribution points for food, beverage, household and personal care items, which has helped to drive consumer demand.

Such socio-economic changes have environmental and social impacts. For example they exacerbate the demand-supply imbalance of water as more water is needed to produce



SOCIO-ECONOMIC CHANGES HAVE ENVIRONMENTAL AND SOCIAL IMPACTS. FOR EXAMPLE THEY EXACERBATE THE DEMAND-SUPPLY IMBALANCE OF WATER AS MORE WATER IS NEEDED TO PRODUCE MEAT AND DAIRY, AND TO PROCESS AND PACKAGE CONVENIENCE FOODS COMPARED TO TRADITIONAL DIETS

meat and dairy, and to process and package convenience foods compared to traditional diets. Bottled juice, water and soda are also becoming popular in Asia, all of which require large amounts of water.

RISKS TO FMCG COMPANIES

These lifestyle and economic conditions have intensified the demand on natural resources and increased the type and complexity of environmental challenges and business risks FMCG companies face across their value chains.

FMCG companies contribute to environmental pressures through unsustainable practices, from which they may be able to emerge unscathed in the short run. However, these pressures may materially and reputationally impact businesses in the medium and long term due to their reliance on natural resources for their long-term viability and growth.

For example, it has been estimated that agriculture, forestry and other land uses account for 20-24 per cent of global anthropogenic emissions of GHGs. As such, the unsustainable production of soft commodities used by FMCG companies contributes to climate change, which in turn has a negative impact on FMCG companies via negative shocks to raw material availability/pricing and water availability. South and Southeast Asian countries are also particularly vulnerable to the effects of climate change. The type and severity of effects vary by country, but include temperature increases, and greater prevalence of droughts, floods, typhoons and unpredictable precipitation.

These factors can impact on ability to grow the crops, rear the livestock, and produce the seafood on which FMCG companies depend. FMCG companies need to address this negative feedback loop if they are to remain viable in the long run.

SUMMARY OF CHAPTER 1. SOFT COMMODITIES



Four key soft commodities:
sugar, palm fruit, coffee and seafood

SOFT COMMODITIES

From palm oil and sugar to dairy and seafood, Asian FMCG companies depend heavily on soft commodities to maintain and grow their business. In fact, FMCG companies are typically the largest users of these commodities. Companies need a reliable, good quality, reasonably priced and reputational risk-free supply of raw materials to allow them to manufacture, brand and sell their goods.

However, environmental degradation, problems with local communities and labour, and mounting issues such as climate change are making it more challenging for producers to provide consistent and growing supplies of commodities. Furthermore, many common soft commodity production practices are exacerbating these environmental and social challenges. This will have a direct impact on FMCG companies' ability to source raw materials.

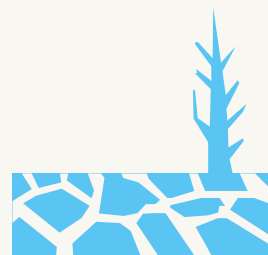
ASIA FALLING BEHIND GLOBAL FMCG COMPANIES

Global FMCG companies are among the leaders in implementing sourcing policies to remove these risks from their supply chains and take advantage of related opportunities. Global investors and banks have been engaging with global FMCG companies to promote responsible sourcing. This plays a role in mitigating systemic risks, such as climate change, water scarcity and deforestation. It also reduces risks and enhances quality of earnings at portfolio companies.

However, **Asian FMCG companies have only started to identify and manage these issues**; they remain behind global leaders and may have vulnerabilities in

AWARENESS OF NEGATIVE IMPACTS OF SOFT COMMODITIES IS RISING

- Awareness of the negative environmental and social impacts of soft commodities and how these affect businesses is increasing. Of the 162 Global 500 companies that reported to the CDP *Global Forests Report 2014*, 74 per cent recognized at least one material business risk associated with the key commodities driving deforestation. In terms of the types of risks recognized, 55 per cent of companies recognized at least one reputational risk across commodities; 51 per cent of companies recognized at least one operational risk and 45 per cent of companies recognized at least one regulatory risk.
- In line with the growing awareness of the need to address these concerns, 14 US-based FMCG companies, including General Mills, Mars Inc and PepsiCo, signed a joint letter in November 2015 calling on world leaders to adopt a strong global climate deal at the COP21 climate conference in Paris. In this letter, the companies stated that government, civil society and business need to play their part in tackling climate change and one of the three commitments they disclosed was focused on boosting their efforts to make their supply chains more sustainable.





**OF THE 162 GLOBAL
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THE CDP GLOBAL
FORESTS REPORT
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DEFORESTATION**


their supply chains. **They urgently need to employ the strongest management approach possible: time-bound, quantified procurement targets based on third party certification standards.**

In the [full report](#), this chapter:

- Reviews finance sector initiatives in commodity supply chains;
- Sets out the major environmental and social issues linked to commodity production;
- Reviews certified responsible commodity production;
- Reviews the uptake of certified responsibly produced commodities, in particular by Asian FMCG companies;
- Highlights the business benefits of sourcing certified responsibly produced commodities;
- Identifies solutions and existing market practices to the hurdles some companies may encounter.

The following table shows which large Asian FMCG companies are disclosing their sourcing of certified responsibly produced commodities.

Figure 2: Companies' disclosure of their sourcing of certified responsibly produced commodities

Companies disclosing their sourcing of certified commodities	Companies NOT disclosing their sourcing of certified commodities 
Amorepacific Corp	China Mengniu Dairy Co Ltd
Charoen Pokphand Foods PCL*	Emami Ltd
Dutch Lady Milk Industries Bhd	Fraser & Neave Holdings Bhd
Hindustan Unilever Ltd	Fraser & Neave Ltd
Nestlé Malaysia Bhd	Godrej Consumer Products Ltd
Petra Foods Ltd	Indofood CBP Sukses Makmur Tbk PT
Thai Union Frozen Products PCL*	Masan Consumer Corp
Unilever Indonesia Tbk PT	Mayora Indah Tbk PT
	Orion Corp/Republic of Korea
	San Miguel Corp
	Super Group Ltd/Singapore
	Tingyi Cayman Islands Holding Corp
	Thai Beverage PCL
	Tsingtao Brewery Co Ltd
	Ultrajaya Milk Industry & Trading Co Tbk PT
	Universal Robina Corp
	Vietnam Dairy Products Joint Stock Company
	Want Want China Holdings Ltd

*Note that Charoen Pokphand PCL and Thai Union Frozen Products PCL use certification standards that are not considered credible by WWF. Refer to page 38 for attributes of standards that WWF supports.

SOURCING RESPONSIBLY PRODUCED COMMODITIES: THE BUSINESS BENEFITS

The sourcing of responsibly produced commodities offers a wide range of benefits to FMCG companies.

Operational benefits

Evidence from studies across several commodities is that certification processes result in higher yields and more stable long-term supplies. Through supporting their suppliers to undergo certification, FMCG companies can create more resilient supply chains, with greater transparency, and higher quality control.

Reduced reputational risks

As markets mature, brand value represents an increasingly large percentage of a company's market capitalization. Asian companies that do not make an effort to source responsibly produced commodities run the risk of being seen as laggards by civil society stakeholders, financiers and consumers – with negative consequences for their reputation. Those that move ahead may find new opportunities.



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CIVIL SOCIETY
STAKEHOLDERS,
FINANCIERS AND
CONSUMERS**

Positive branding opportunities

Evidence from product take-up and marketing surveys finds that products made with responsibly produced commodities can have a marketing advantage over conventional products. Nielsen found that Asia-Pacific is the region with the strongest propensity to buy socially responsible brands.

Anticipating tighter retailer sourcing policies

An increasing number of retailers in developed markets have pledged to use responsibly produced commodities in private-label products and also in the products that they stock on shelves. This presents a risk for Asian FMCG companies if they are not able to meet these requirements. It also represents an opportunity to increase their market share by developing a base of sustainable products to serve the demand.

Reduced regulatory risks

There are a number of risks that may result from sourcing commodities not produced in accordance with regulation. Estimates vary but a significant proportion of palm oil is thought not to be in compliance with domestic law. Risks include supplier disruption, direct fines, reputational risks, and restrictions on market access. All certified responsibly produced commodity standards reduce these risks as they require compliance with the law.

STEPS TO ACHIEVE THESE BENEFITS

Companies are adopting a number of strategies to take advantage of opportunities and create more resilient supply chains. FMCG companies should consider the following steps:

- Build internal capacity to understand environmental and social issues in the supply chain.
- Map and assess raw materials supply chains to identify where these issues present risks and/or opportunities to the company.
- Consider the resilience of suppliers to environmental and social shocks.
- Establish the cost of various certification schemes.
 - Consider suppliers' needs for capacity building, training and financing.
 - Consider synergies to be achieved through partnering with suppliers and other buyers.
- Establish the potential marketing benefits of products with sustainable attributes.
- Assess which customer markets have the highest potential for sustainable products and potential impact of sustainability leadership on brand value and customer loyalty.
- Develop a sustainable sourcing policy and formulate plans to implement the policy. The best policies include:
 - Quantified and time-bound key performance indicators;
 - Sourcing based on certification standards that are international, credible, independent and have input from multiple stakeholders;
 - Complementing certification by participating in platforms such as the Palm Oil Innovation Group (POIG) to innovate and stretch the certification schemes and make commitments to achieve higher levels of performance, for example the Roundtable on Sustainable Palm Oil (RSPO) NEXT criteria;
 - Clear protocols regarding supplier codes of conduct.
- Set out an internal governance structure with clear responsibilities for reviewing the policy and monitoring and reporting on its implementation.

ENGAGEMENT QUESTIONS FOR INVESTORS

- What are the most significant environmental and social risks and opportunities in the company's supply chain, production and marketing processes?
- How is the company identifying and addressing these risks with its policies? How is it capturing opportunities?
- What are barriers to implementation?
- How does the company decide what to disclose about its supply chain-related policies?

Truck collecting palm fruit,
Musim Mas palm oil plantation,
Sumatra, Indonesia



© JAMES MORGAN / WWF-INTERNATIONAL

SUMMARY OF CHAPTER 2. WATER



Water is an essential resource for people and FMCG companies but shortages can have significant impacts. Here a boy pumps out water for his bath in Donsol Sorsogon, Bicol, Philippines

WATER

FMCG companies across Asia are benefiting from rising populations, and the changes in lifestyles and diets that accompany urbanization and growing wealth. However, these shifts, particularly the move toward eating more meat, are putting significantly more pressure on water resources.

Globally, 2.8 billion people already live in areas of high water stress. This will rise to 3.9 billion by 2030 – representing more than half of the expected population of the world. By the same year, global demand for food is projected to grow by 40 per cent.

Pressure is acute in both India and China. Some of India's most populous river basins could face severe depletion by 2030, including the Ganga, the Krishna, and the Indian portion of the Indus. In China, current water supply is just over 618 billion m³ – but demand is expected to reach 818 billion m³ by 2030.

Water issues are creating mounting problems for FMCG companies, particularly in Asia. FMCG companies are heavily reliant on water through their supply chains, and face many water-related risks and issues – its availability, its quality, how it is governed, and whether organizations are seen to be fair and responsible in their water use. All these can have physical, regulatory and reputational impacts on a business and its supply chain.



ASIAN FMCG COMPANIES HAVE ONLY STARTED TO IDENTIFY AND MANAGE THESE RISKS AND GENERALLY THEY REMAIN BEHIND GLOBAL LEADERS

Current business-as-usual water management practices and levels of water productivity will put approximately US\$63 trillion at risk by 2050. That is 45 per cent of the projected 2050 global GDP (at 2000 prices), and equivalent to 1.5 times the size of today's entire global economy.

Asian FMCG companies have only started to identify and manage these risks and generally they remain behind global leaders. The strongest approaches they can employ include significant engagement with stakeholders in the basins they rely on.

Globally, FMCG companies that have started to address water-related risks are finding that it is not enough to only reduce their direct water use since corporate water supplies are affected by upstream users who in turn affect downstream users. They are also increasingly taking action to reduce water risks in their supply chains associated with manufacturing and raw material supply. Companies have to better understand stakeholder needs and work more actively with other water users in their water basin to reduce their water risk exposure.

Global investors and banks are also concerned about water-related risks, as evidenced by the rise in respondents to, and investors involved in, the CDP Water

Questionnaire. They are concerned about systemic risks to portfolios as well as risks to specific companies. In many cases investors and banks are working individually and collectively to ensure the companies in their portfolios are addressing water risks – improving earnings quality.

In the [full report](#), this chapter:

- Highlights key environmental and social concerns around water and why water is a local and temporal issue;
- Reviews finance sector initiatives related to water management;
- Highlights water challenges in Asia;
- Explains the importance of water risk management for FMCG companies;
- Sets out the steps required to effectively manage water, and solutions and existing market practices to overcome potential hurdles companies may encounter.

THE VALUE OF WATER

Despite the low pricing of water, the value it delivers to business is extremely high. All businesses harness natural resources in some way, but often do not pay for their full value.


In Asia, the natural capital cost of water use is US\$1.15 trillion. This factors in local water availability to provide a more accurate price for water and represents the currently unpaid and unpriced natural capital input to production. This is a significant amount of value at risk across Asia, and represents half of all these unpaid costs (or risks) globally. Asia is therefore facing by far the largest risk of any region.



The following table identifies, based on public disclosure, a number of large Asian FMCG companies that have already taken some steps to address water issues in their operations and supply chain. These range from simple water use reduction goals to water stewardship programmes by the Asian companies which are part of global multi-national corporation groups.

Companies with 'yes' have disclosed some steps to address the issues around water, although most are focusing on water footprint rather than water risk.

Figure 3: Companies' disclosure of their steps to address water issues

	Direct water use	Indirect downstream water use (consumers)	Indirect upstream water use (commodity supply chain)
Amorepacific Corp*	YES	YES	
Charoen Pokphand Foods PCL	YES		
China Mengniu Dairy Co Ltd	YES		
Dutch Lady Milk Industries Bhd	YES		
Emami Ltd			
Fraser & Neave Holdings Bhd	YES		
Fraser & Neave Ltd	YES		
Godrej Consumer Products Ltd	YES		
Hindustan Unilever Ltd	YES	YES	YES
Indofood CBP Sukses Makmur Tbk PT	YES		
Masan Consumer Corp			
Mayora Indah Tbk PT			
Nestlé Malaysia Bhd	YES		YES
Orion Corp/Republic of Korea*			
Petra Foods Ltd			
San Miguel Corp	YES		
Super Group Ltd/Singapore			
Thai Beverage PCL	YES		
Thai Union Frozen Products PCL	YES		
Tingyi Cayman Islands Holding Corp	YES		
Tsingtao Brewery Co Ltd			
Ultrajaya Milk Industry & Trading Co Tbk PT			
Unilever Indonesia Tbk PT	YES	YES	YES
Universal Robina Corp			
Vietnam Dairy Products Joint Stock Company	YES		
Want Want China Holdings Ltd	YES		YES

*The asterisk indicates companies which answered the CDP Water Questionnaire in 2015.

WATER RISK MANAGEMENT: THE BUSINESS BENEFITS

Preventing supply chain disruption

Companies that consider the embedded water risk in their supply chains will be more likely to avoid disruption. The FMCG sector depends heavily on water in its agricultural supply chains, to grow and produce key soft commodities. While this initially appears to be an issue for suppliers to manage, the risk transfers to FMCG companies if their suppliers are unable to deliver products at the required price, quantity and quality, and FMCG companies cannot feasibly hedge against fluctuations.

Mitigating operational risks

FMCG companies that manage water well can also prevent their processing and production operations grinding to a halt. These can be strongly affected by reduced water availability, whether due to groundwater depletion (sometimes requiring company investment in additional boreholes or infrastructure to withdraw the same volume of water), surface water reduction, municipal water supply cost increase or growing local community needs and conflicts.

Maintaining a good reputation

Companies can suffer huge reputational damage on water issues, either locally near operations and supply chains (including reputational damage via suppliers' actions and practices), or at a global and brand level. Managing water well can avoid this.

Staying in line with regulations

Regulatory risks are connected to unstable or poor regulation of water use and lack of positive water management processes. For a company or its suppliers, this can mean instability, uncertainty, higher costs and a lack of balanced decision-making on water rights and allocations. Companies that stay in line with regulations and back strong water management institutions can ensure that water allocation and quality are sustainable and balanced. This is needed at the water basin level.

Cotton, rice and sugarcane all require a large, steady supply of water to grow



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THE FIVE-STEP PLAN FOR WATER STEWARDSHIP

Water risk mitigation for FMCG companies requires individual and collective efforts. The first three steps below relate to internal measures, the fourth and fifth to external. Water stewardship is the best way for companies to ensure their long-term viability and the questions below are useful for understanding how well an FMCG company is addressing water risk.

1. Water awareness: build awareness within the company of water issues and exposure to physical, reputational and regulatory risks.

- Has the company developed training programmes for relevant operational and purchasing managers?
- Has the company obtained access to or developed appropriate expertise to assess its impacts, dependencies, and water-related risks in its operational river basins and raw materials supply chain?

2. Knowledge of impact: understand what and where the water impacts of the company and its supply chain are and identify priority water-risk hotspots.

- Is the company using water risk tools such as the Water Risk Filter (waterriskfilter.panda.org) to assess its impacts and prioritize issues and risks?
- Are water risk assessments for operations and suppliers conducted at a water basin level?
- Beyond immediate requirements, is the company factoring water issues into its growth strategy – both for sourcing and production at current and potential sites?
- Does the company disclose its risk exposure to water through annual reports, sustainability reports or disclosure platforms such as the CDP *Global Water Report*?
- Does the company transparently report its performance on water?

3. Internal action: outline actions, targets, goals and plans to tackle water issues under the company's immediate control, including engaging employees, suppliers and buyers.

- Are policies and management systems in place to manage water-related risks?
- Are there targets for operational and supply chain water management, such as commitments to standards and certifications that address water stewardship?
- Are all operations and suppliers in full compliance with relevant water permits and laws?





**THE VALUE OF
THE SERVICES
PROVIDED BY
FRESHWATER
ECOSYSTEMS
IS EXTREMELY
HIGH FOR ANY
OPERATION,
ESPECIALLY ONE
DEPENDENT ON
AGRICULTURAL
PRODUCTS**

4. Collective action: work with others at various scales, from local water user groups to international fora, to improve water management – find out what collective action initiatives are already under way in your area.

- Is the company taking part in collective action projects in operational and supply chain locations?
- Is the company taking into account the views of other stakeholders in developing its plans?

5. Influence governance: join government and other stakeholders to develop a common understanding of the challenges and drivers of water problems, and help improve the systems in place for managing water resources and services.

- How effective is governance in the water basins relevant to the company and its suppliers?
- How is the company anticipating potential criticisms that it is seeking to influence water governance and benefit at the expense of other users who have yet to engage with government?

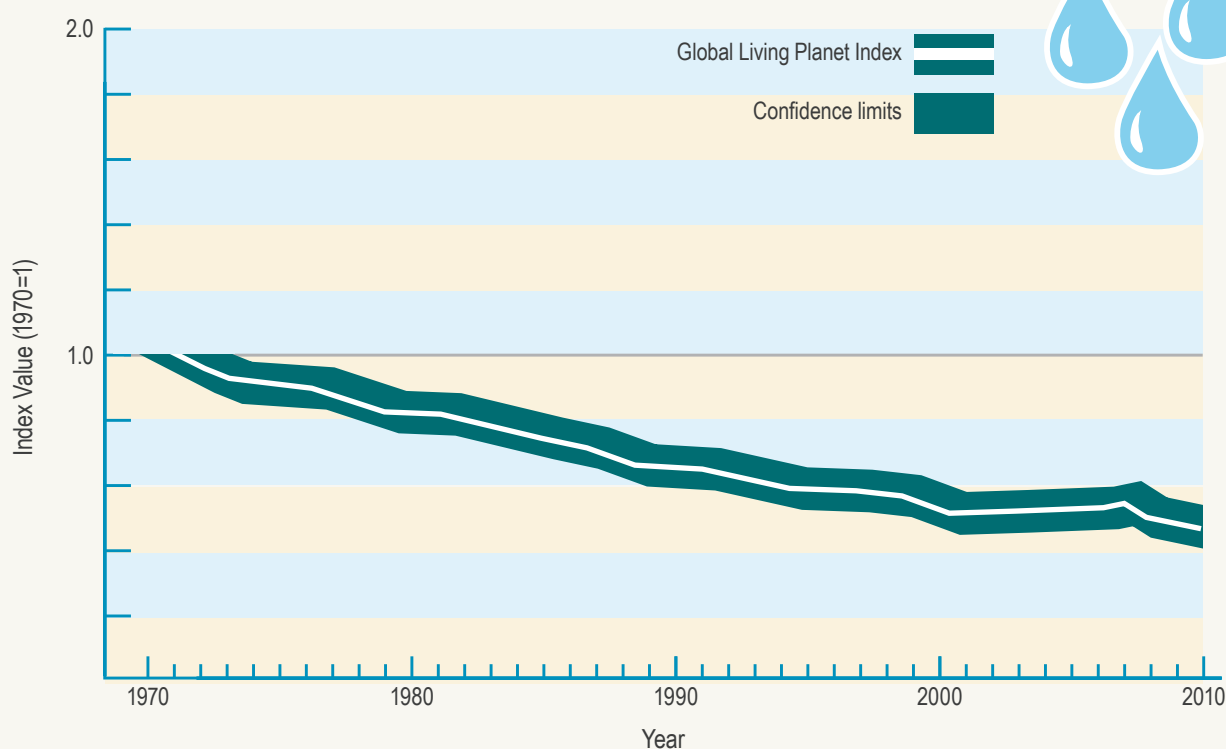
ENGAGEMENT QUESTIONS FOR INVESTORS

- To what extent does the company face potential risks relating to water (for example, reliance of business model on water versus availability of water now and in the future)?
- Is the company assessing its water-related risks and taking steps to manage them?
- What are the barriers the company faces to developing and implementing its approach to water management?
- How does the company decide what to disclose about its water-related policies?

5 KEY WATER FACTS

- Freshwater species are declining faster than any other. This impacts livelihoods that depend on them as well as ecosystem health. The value of the services provided by freshwater ecosystems is extremely high for any operation, especially one dependent on agricultural products.
- More than 1 billion people in the world do not yet have access to clean water. This is often not due to a lack of physical water resources, but to a lack of infrastructure and human development. Countries which, 25 years ago, had low incomes yet had access to adequate safe water and sanitation have had an average of 3.7 per cent growth in GDP per year, while countries with the same per person income but limited access to water have grown at only 0.1 per cent per year over the same period.
- Women and girls in low-income countries spend 40 billion hours a year collecting water — the equivalent of a year's worth of labour by the entire workforce in France. In many countries, the disproportionate burden of fetching water can greatly affect girls' and women's educational and employment opportunities.
- Water pollution is a huge issue in Asia. Polluted water is not available for use without major investment in treatment technologies, and this reduces the supply of usable or available water. Pollution of water can also reduce or distort the ecosystem services provided by water. For example, in 2015, the Chinese Ministry of Environmental Protection reported that nearly two-thirds of groundwater and one-third of surface water were graded in 2014 as unfit for direct human contact.
- Climate change is likely to create more extremes of weather – more droughts, more flooding, more intensified scarcity or lack of availability of water at particular times – as existing weather systems break down. Sites in Asia are very likely to experience these extremes as well as changes in monsoon patterns that impact agricultural production.

Figure 4: Temperate and tropical freshwater Living Planet indices 1970-2010



WHY COMPANIES MUST MANAGE WATER LOCALLY

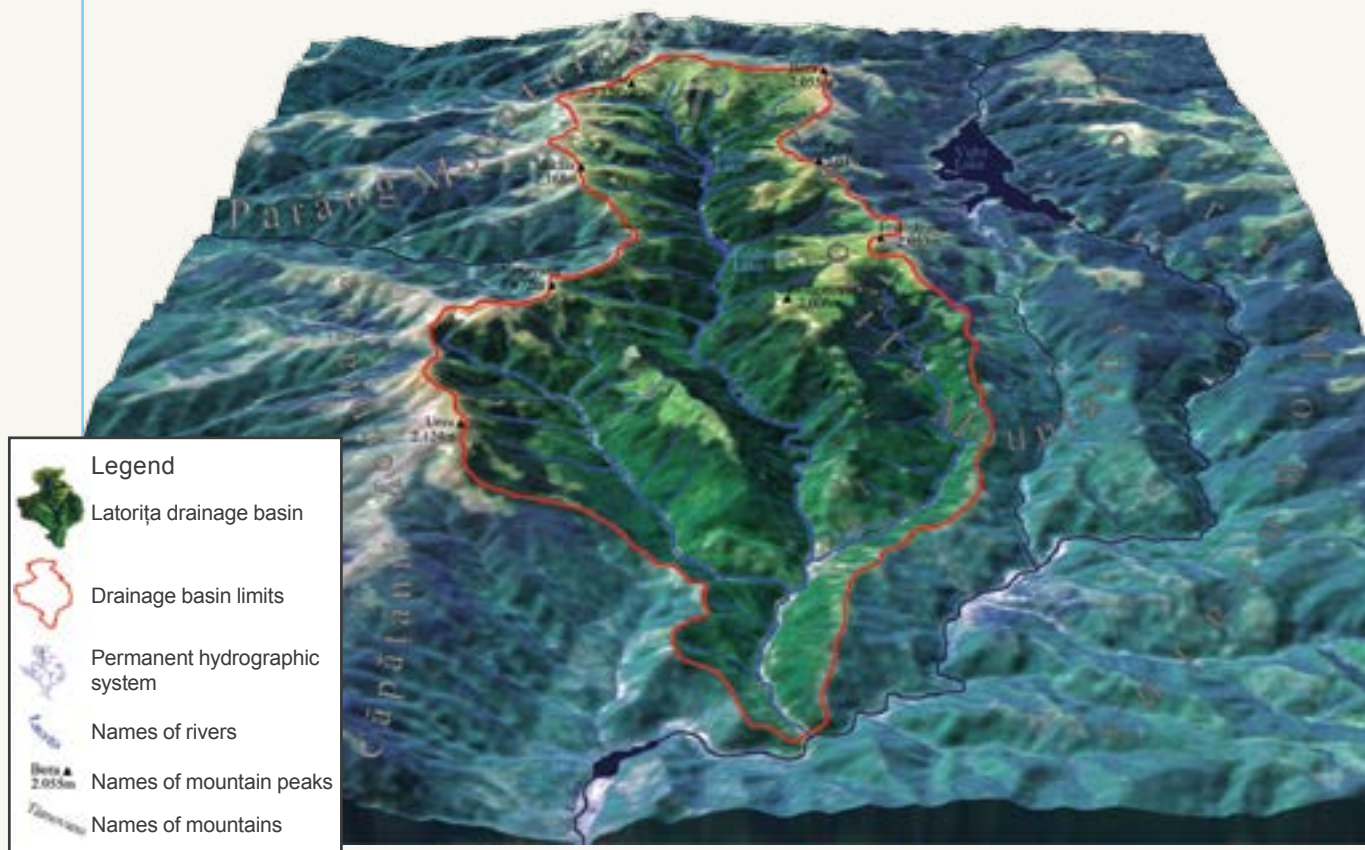
Water is a local issue, and the circumstances in each location in each river basin are unique. Unlike carbon, for which a tonne saved anywhere on Earth is the same, water systems function around specific basins, as shown in the figure below. These basins can also be broken down into smaller sub-basins.

River basins are mostly self-contained, and do not interact with others. For this reason, water impacts are only meaningfully understood at a basin or sub-basin level. One litre of water consumed in the Yangtze is not interchangeable with one litre in the Ganges – it matters *where* water is used. As such, companies need to understand the risk on a site by site basis for their direct and supply chain embedded water, rather than looking at an aggregate corporate level. **Aggregated volumetric water data at national or international levels can be misleading, and fails to capture local impacts.**

It is also important *when* water is available. Each river basin will have varying flow volumes throughout the year, and these different levels of water at different times are important for ecosystems, as well as flood and drought prediction. It is important for companies to understand temporal water flows at each operating site.

Solutions need to be at the local level. Meaningful answers must be found in the water catchment – together with other stakeholders and regulators (which may be at the national level). **A company's response should not only focus on efficiency and reducing pollution, but on water stewardship.**

Figure 5: Latorița River, tributary of the Lotru River (drainage basin)



Woman picking juice drinks - FMCG companies use packaging to protect the underlying products but also for branding and customer communication

SUMMARY OF CHAPTER 3. PACKAGING



PACKAGING

FMCG companies use extensive amounts of packaging. It plays an important role in protecting products and minimizing damage and waste. It is also vital for companies' branding.

It does, however, create multiple environmental problems. The extraction of raw materials often contributes to issues such as deforestation and fossil fuel depletion; and packaging production processes can cause emissions to land, water and air. Packaging is also one of the most common items to be mismanaged at the end of its life, adding to problems like ocean waste.

For FMCG companies, poor management of the problems around packaging creates potential reputational and longer-term regulatory risks, as well as supply chain resilience issues.

For companies that want to stay ahead of consumer expectations and regulatory change, as well as improve their reputation and operational resilience, the answer is sustainable packaging. There are various benefits to sustainable packaging, with Asian FMCG companies increasingly adopting sustainable practices.

However, defining 'sustainable packaging' is not simple. For example, one type of packaging can increase product shelf-life thereby reducing waste, but may have a higher resource requirement or end of life footprint. This is precisely why companies need to use systems thinking and do a proper assessment of all trade-offs when deciding what packaging to use. There is guidance available on this.

In the [full report](#), this chapter:


- Reviews existing focus on packaging by the finance sector;
- Sets out the major environmental impacts of unsustainable packaging and poor management of packaging waste;
- Identifies steps toward more sustainable packaging;
- Highlights the business benefits of more sustainable packaging;
- Presents solutions and existing market practices to overcome potential hurdles.


The following table identifies, based on public disclosure, which of the 26 large Asian FMCG companies have already taken steps to address environmental and social issues in their packaging solutions. Note that none of them have disclosed the adoption of a systems approach and the steps below taken alone are not solutions to sustainable

packaging. They should be perceived as sub-strategies/actions that can form part of a sustainable packaging optimization strategy based on a systems approach. Without systems thinking in the first place, each of these steps taken on a standalone basis could lead to sub-optimal outcomes from a sustainability (or economic) point of view.

Financiers should assess the companies to understand how much they have progressed from point zero of not doing anything toward systems thinking, bearing in mind that the net outcome of a poorly thought out strategy of taking some steps without systems thinking could have a net negative impact.

Figure 6: Companies' disclosure of their steps to address packaging issues

	Assessment of packaging design to protect products	RESPONSIBLE SOURCING OF MATERIALS		Material/design optimization	Consideration of end of life in material choices and support of recycling infrastructure
		Sourcing of certified responsible paper-based materials	Use of recycled materials		
Amorepacific Corp			YES	YES	YES
Charoen Pokphand Foods PCL				YES	
China Mengniu Dairy Co Ltd		YES	YES		YES
Dutch Lady Milk Industries Bhd		YES			
Emami Ltd					
Fraser & Neave Holdings Bhd			YES	YES	
Fraser & Neave Ltd			YES	YES	
Godrej Consumer Products Ltd					
Hindustan Unilever Ltd		YES	YES	YES	YES
Indofood CBP Sukses Makmur Tbk PT			YES	YES	YES
Masan Consumer Corp					
Mayora Indah Tbk PT					
Nestlé Malaysia Bhd	YES	YES	YES	YES	YES

	Assessment of packaging design to protect products	RESPONSIBLE SOURCING OF MATERIALS		Material/design optimization	Consideration of end of life in material choices and support of recycling infrastructure
		Sourcing of certified responsible paper-based materials	Use of recycled materials		
Orion Corp/Republic of Korea					
Petra Foods Ltd					
San Miguel Corp			YES		
Super Group Ltd / Singapore					
Thai Beverage PCL			YES	YES	
Thai Union Frozen Products PCL			YES	YES	
Tingyi Cayman Islands Holding Corp					
Tsingtao Brewery Co Ltd					
Ultrajaya Milk Industry & Trading Co Tbk PT					
Unilever Indonesia Tbk PT		YES	YES	YES	YES
Universal Robina Corp					
Vietnam Dairy Products Joint Stock Company					
Want Want China Holdings Ltd		YES			

SUSTAINABLE PACKAGING: THE BUSINESS BENEFITS

Saving money

Sustainable packaging has the potential to create many savings, from immediate cost savings from lower use of raw materials (packaging makes up roughly 8 per cent of the cost of food products and up to 40 per cent of the cost of manufacturing cosmetics) and efficiencies within packaging operations, to reduced distribution costs because packaging is lighter. It can also create efficiencies with retailers where handling costs are lower and with the end user where packaging increases shelf-life or product utility. This is of course subject to no loss in the performance in its primary role to prevent product damage and waste.



**WHEN THE
MISMANAGEMENT
OF PACKAGING
WASTE
CONTRIBUTES
TO POLLUTION
PROBLEMS,
IT CAN BE VISIBLY
LINKED BACK TO
THE COMPANY**

Enhancing branding and reducing reputational risk

There are reputational issues related to packaging, particularly around waste and sourcing. When the mismanagement of packaging waste contributes to pollution problems, it can be visibly linked back to the company. Brands can enhance their green credentials through their packaging.

Increasing operational resilience

Packaging materials supply disruption can be a business risk for FMCG companies. Where packaging materials are derived from soft commodities, notably paper and paperboard, responsible sourcing can mitigate some of the related risks. Similarly, companies sourcing packaging materials derived from petroleum and aluminium face greater price volatility and supply disruption risk.

Minimizing regulatory risk

Paper is a significant packaging raw material for FMCG products but may also be linked to illegal timber harvesting, putting FMCG companies at risk of regulatory impacts as more and more countries adopt regulations to face this issue. An increasing number of countries are also tackling plastic waste by introducing binding targets for recycling that may affect FMCG companies – both by increasing their costs and influencing consumers' behaviour toward purchasing products with recyclable packaging.

SUSTAINABLE PACKAGING STRATEGIES

Although there is no common definition of sustainable packaging, there are initiatives to create standards and protocols, such as the Global Packaging Protocol, and opportunities to work with other FMCG companies on shared solutions. The use of systems thinking should underlie any strategy to achieve more sustainable packaging.

Companies can use the steps and questions below to help formulate their strategy.

Internal capacity building, monitoring and reporting on progress

Companies adopting a strategy to achieve more sustainable packaging need first to build internal capacity, undertake analysis and then set appropriate goals.

- Does the company take a systems view in order to assess its overall environmental impact and identify opportunities for improvement?
- Is there internal capacity to understand the environmental and social footprint of current packaging solutions, including expertise on packaging and systems thinking? Is the company able to gather information of sufficient quantity and quality on its packaging footprint?

A conveyor line carrying thousands of aluminum beverage cans at a factory



© MAXPETROV/SHUTTERSTOCK.COM

- Are decision-makers within the company incentivized based on systems-level results or are departments working in silos and hindering the company's efforts to take a systems approach?
- How does the company measure the sustainability of its packaging and what tools does it use to assess its packaging?
- Has the company developed a sustainable packaging policy based on target key performance indicators that are quantified and time-bound?
- Has the company set out an internal governance structure with clear responsibilities to review and monitor the sustainable packaging policy?
- Does the company report its progress to its stakeholders?

Design the packaging to protect products

The focus here is to ensure that systems thinking is in place and to respect that the fundamental purpose of packaging is to protect and facilitate use of the product. Resources can be saved via suitable packaging design if there is a resulting extension in the shelf-life of the product and/or reduction in damage, misuse and mishandling both at the distribution and consumer use ends.

- Has the company assessed the performance of its packaging solutions in terms of shelf-life, and rate of damage during transportation at the distributor end and consumer end?
- Does the company monitor misuse or product wastage (for example, spillage, spoilage or leftover product inside the packaging that cannot easily be retrieved) at the consumer end?
- Does the company compare the relative performance of packaging materials (in terms of product shelf-life etc.) in its design and material choice? (See sub-strategy below on material/design choice.)

Use responsibly sourced and/or recycled materials

Here the focus is on the sourcing of the raw materials for the packaging. For example, using FSC-certified paper and paperboard and using recycled materials. This is important for FMCG companies where marketing to 'ethical' consumers and where FMCG companies have already started sourcing responsibly produced and recycled raw materials.

- What proportion of packaging materials are responsibly sourced or recycled? Is this formalized through procurement policies and are there plans to increase the proportion of responsibly sourced materials?



**IT IS KEY THAT
SYSTEMS THINKING
IS USED TO
UNDERSTAND ALL OF
THE TRADE-OFFS
WITHIN THE
PRODUCT AND
PACKAGE SUPPLY
CHAIN IN MAKING
DECISIONS AROUND
OPTIMIZATION OF
MATERIAL USE**

- Are the raw materials credibly tracked via certifications with chain of custody or third party verification?
- How would the brand value of the company or product be impacted by increased consumer awareness of the extent of sustainability of the packaging raw materials? Can more sustainable packaging provide branding and new market opportunities?

Optimize material/design

FMCG companies need to consider how to optimize their use of materials. First and foremost, the role of a package is to protect the contents inside. Packaging material use in either extreme (increased or decreased materials) can contribute to additional environmental impacts. It is key that systems thinking is used to understand all of the trade-offs within the product and package supply chain in making decisions around optimization of material use.

There can be benefits to using less materials where this does not compromise packaging performance. Less materials can reduce input costs as well as waste. It can also lower the weight and/or volume of packaging and hence reduces distribution and handling costs. However, taken in isolation, there could be overall negative impacts. For example some extremely lightweight materials are too thin to go through existing recycling lines.

- Are there opportunities to lower material input and potentially distribution costs through changing the mix of the material or packaging design?
- Is there an opportunity to collaborate with a packaging supplier to share research and development costs and develop packaging with less materials for the same functions and with the same end of life impacts, or at least an overall net positive impact on the value chain?

Consider end of life in material choices and work with partners to enhance recovery and recycling systems

The emphasis of this strategy is on designing packaging and choosing materials that have a lower footprint and specifically have a lower contribution to waste, taking into consideration the local waste management options and waste hierarchy. Beyond material choice, there is also the question of how companies work with regulators and consumers to create better waste management systems, including recycling infrastructure.

- Has the material and design choice taken into consideration the existing recycling technology, infrastructure and practices in place in the consuming country (for example, some extremely lightweight materials are too thin to go through existing recycling machines)?
- What proportion of packaging materials can be reused or recycled?

- What proportion of customers have access to recycling infrastructure?
- Would different choices of materials or designs improve the reuse/recycling rates and what are the trade-offs to consider, for example, the quantity and renewability of materials that are more easily recyclable?
- Is it possible to work with other parties to improve recovery and recycling infrastructure?

ENGAGEMENT QUESTIONS FOR INVESTORS

- Does the company perceive and understand sustainability risks or opportunities relating to packaging?
- Has the company taken a systems approach in trying to optimize its packaging?
- What are the barriers the company faces to developing and implementing sustainable packaging solutions?
- How does the company decide what to disclose about its approach?

WHAT IS 'SUSTAINABLE PACKAGING'?

Packaging performs four key functions – (i) containment of the product for transport and use, (ii) protection of the product, (iii) communication about the contents as well as branding, and (iv) utility to consumers through making products last longer and enabling reclosure. In light of these functions, it is not always clear how FMCG companies should make relevant trade-offs, such as between changes in packaging utility and changes in resource footprint.

For example, one type of packaging can increase product shelf-life, so reducing waste. But it may have a higher resource requirement or end of life footprint. Given the majority of the environmental footprint of a packaged food product lies in the product itself, if packaging can be optimized to increase shelf-life and reduce waste, the overall system becomes much more sustainable. This is precisely why systems thinking is required and a proper assessment reflecting all trade-offs is needed.

Even questions such as resource footprint require complex calculation and thinking about the whole system. For instance, a company may be choosing between plastic or glass bottles on sustainability grounds. It is only possible to assess this with an understanding of the waste disposal procedures and consumer behaviour in the relevant market's area. Will consumers reuse or recycle the bottles? Are there facilities to recycle glass or plastic? Should biodegradable plastic be used or is there a risk this will contaminate plastic for recycling? Should lower weight, new technology materials be used or is there a higher end of life footprint if they are more difficult to recycle? As such, there are also local differences to consider – what may be a sustainable solution for one product or one market might not be more sustainable for another.





A woman carrying water taken from the river, Annapurna Conservation Area, Nepal

100%
RECYCLED

THE IMPORTANCE OF SUSTAINABILITY

BIOCAPACITY

It takes 1.5 years for the Earth to regenerate the renewable resources that people use, and absorb the CO₂ waste they produce in that same year.

BIODIVERSITY

Biodiversity, ecosystems and ecosystem services – our natural capital – must be preserved as the foundation of well-being for all.



BETTER CHOICES

Living within ecological boundaries requires a global consumption and production pattern in balance with the Earth's biocapacity.

EQUITABLE SHARING

Equitable resource governance is essential to shrink and share our resource use.



Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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