



Golden Agri-Resources Ltd
Listed on the Singapore Exchange



PRESERVING THE PRESENT
ENSURING THE FUTURE
Sustainability Report 2012

ABOUT THIS REPORT

Scope

This report covers the plantations, mills and some key aspects of palm oil sales operations of Golden Agri-Resources Ltd (“GAR” or the “Company”) in Indonesia. The report only briefly mentions the Company’s other activities outside of Indonesia. These operations will be progressively included in future reports.

Our Indonesian upstream operations are the largest and most profitable part of GAR and are the most scrutinised, as this report will show.

In addition, and as mentioned under “Reporting Cycle”, the content of this report focuses primarily on activities carried out within the financial year 2012. However, given the importance of the implementation of GAR’s High Carbon Stock Forest Conservation Pilot Project in West Kalimantan, Indonesia in March 2013, we have provided an update on this initiative in this report.

Reporting Standards

We are reporting against the Global Reporting Initiative (“GRI”) G3 at application level B. We have also been guided by the principles of the AA1000 standard of Inclusivity, Materiality and Responsiveness.

Inclusivity

The principle of inclusivity requires the reporter to show how its strategy has been built upon a commitment to engagement with stakeholders. The report does this in its description of the business structure and operation and also where it addresses each stakeholder group.

Materiality

The materiality principle requires that we address the issues that are most important to our internal and external stakeholders. We have sought to do that by focusing on the economic, social and environmental issues that are most important to our internal and external stakeholders.

Responsiveness

The responsiveness principle requires that we demonstrate how the Company responds to stakeholder concerns. Accordingly, we have provided a detailed section on Stakeholder Engagement. It deals in detail with how the Company has advanced the multi-stakeholder process to develop solutions for sustainable palm oil production.

Reporting Cycle

It is our intention to report each year in line with the Company’s financial reporting cycle, which is the calendar year.

Assurance

In this report, we have focused on the issues raised by our stakeholders, and have not commissioned an independent assurance of the report. We intend to do so for future reports.

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CHAIRMAN'S STATEMENT

In 2012, Golden Agri-Resources Ltd ("GAR" or the "Company") set a new record for production output underpinned by continued application of best plantation management practices and favourable weather conditions. For the first time, our revenue has surpassed US\$6 billion with output nearing three million tonnes of palm product.

Sustainability remains core to our business as GAR focuses on optimal and responsible palm oil production. During the year, we extended our planted area to a total of 463,400 hectares. Such a development is important to GAR as our upstream business is key to ensuring sustainable palm production.

We believe that palm oil plays a strategic role in global development. Not only is palm oil a highly versatile oil with a wide range of uses from food to healthcare to biofuel production, it is the most efficient and lowest cost vegetable oil. Oil palm has a long replanting cycle of 25 years and uses significantly less land than other sources of vegetable oil to produce the same amount of oil. With the world population projected to increase to more than nine billion people in 2050, sustainable palm oil plays an important role in mitigating the mounting pressures on food security and inflation.

Supporting our integrated model is our downstream business that we have further strengthened by expanding our refinery in South Kalimantan. Meanwhile, we continue to pursue operational excellence.

As the largest palm oil player in Indonesia, GAR is committed to adopting the best industry practices and standards, managing the environment responsibly and empowering the communities where we operate, while maximising long-term shareholder value.

FULFILLING OUR COMMITMENTS

Increasingly, consumers are better informed and more conscious of their product choice. At the same time, stakeholders in the industry are concerned with sustainable palm oil, including the avoidance of deforestation.

What differentiates GAR from our peers is the implementation of our Forest Conservation Policy ("FCP"), together with The Forest Trust ("TFT"). The FCP ensures that the Company has no deforestation footprint in our palm oil operations while creating long-term sustainable growth for GAR and the industry. In collaboration with TFT and Greenpeace, fieldwork was conducted in Kalimantan to develop a sound methodology for defining and identifying HCS areas for conservation, resulting in the publication of the HCS Forest Study Report in June 2012.

In March 2013, we implemented a 12-month pilot project on HCS forest conservation at PT Kartika Prima Cipta in West Kalimantan. Through the project, we seek to develop solutions involving the Government of Indonesia, civil society organisations, local and indigenous communities, key growers and others to conserve HCS land.



As part of GAR's holistic approach towards sustainability, we have in place a Social and Community Engagement Policy ("SCEP") that we launched in November 2011. The SCEP ensures that our palm oil operations improve the lives of the communities they impact, as we recognise that the local communities are important stakeholders wherever we operate. Our social activities continue to focus on the empowerment of surrounding communities, with initiatives ranging from education, community development and energy self-sufficiency to healthcare and disaster relief.

In addition, we launched a Yield Improvement Policy ("YIP") in February 2012. By leveraging technology and innovation, the YIP seeks to increase crude palm oil ("CPO") yield in order to improve the livelihoods of smallholders and also to reduce the pressure to open new land. In 2012, the Company achieved a CPO yield of 5.26 tonnes per hectare, higher than the Indonesian industry average of 4.14 tonnes per hectare. Our on-going collaboration with smallholders has also been successful, with the CPO yield of our smallholders reaching 5.51 tonnes per hectare.

ACHIEVING INDUSTRY CERTIFICATIONS

As at 30 June 2013, 121,122 hectares of our plantations (including smallholder plantations of 21,418 hectares) and 11 mills have received Roundtable on Sustainable Palm Oil ("RSPO") certification. This brings GAR closer to our overall target of obtaining RSPO certification for all our existing 433,200 hectares of palm oil plantations and 42 mills (as at June 2010). In addition, 171,586 hectares of our plantations (including 32,873 hectares of plasma scheme plantations), 14 mills, eight bulking stations and three refineries have obtained International Sustainability and Carbon Certification ("ISCC").

GAR is also supportive of the Indonesian Sustainable Palm Oil ("ISPO") System, developed by the Indonesian Ministry

of Agriculture to improve the competitiveness of Indonesian palm oil in world markets and to meet Indonesia's commitment to reduce greenhouse gases and to focus on environmental issues. In December 2012, GAR's subsidiary PT Ivo Mas Tunggal received the Company's first ISPO certification for 9,721 hectares of plantations and one mill in Riau, Sumatra.

TAKING THE LEAD

GAR believes that multi-stakeholder collaboration is the best way to achieving solutions for sustainable palm oil production and we have been seeking to equip, connect and mobilise our stakeholders to develop solutions. Our efforts in multi-stakeholder collaboration are gaining recognition, and were behind the "Gold Standard Award for Communicator of the Year" with which PublicAffairsAsia honoured me in December 2012.

GAR continues to play an active role in the Partnership for Indonesia Sustainable Agriculture ("PISAgro") which I co-chair. This is an initiative created at the 2011 World Economic Forum to improve the productivity and quality of specific commodities, with special attention to environmental sustainability and the expansion of opportunities for smallholder farmers. PISAgro is targeting a 20% increase in agriculture output, a 20% improvement in smallholders' income or yield and a 20% reduction in carbon emission by 2020. To enable the development of smallholder farmers, the Palm Oil Working Group of PISAgro, plans to launch an innovative financing scheme for oil palm replanting for smallholder farmers. The model will need government support and endorsement, as well as buy-in from farmers and financial institutions. Indonesia aims to be both self-sufficient in strategic food supplies, as well as a major food supplier to the world by 2030.

The Government of Indonesia, together with the Indonesian Chamber of Commerce and Industry ("KADIN"), has mapped out its vision to "Feed Indonesia - Feed the World". In support of this vision, and in my capacity as Vice Chairman of KADIN for the agribusiness and food sector, we successfully organised a Jakarta Food Security Summit in February 2012. During the summit, SMART was recognised for its commitment in supporting the Indonesian Government in its Master Plan for Acceleration and Expansion of Indonesian Economic Development for the downstream palm oil industry.

In February 2012, SMART, together with WWF Indonesia and CIRAD France, organised the third International Conference on Oil Palm and the Environment ("ICOPE") in Bali, Indonesia. Themed "Conserving Forests, Expanding Sustainable Palm Oil Production", ICOPE 2012 gathered scientists, supply chain stakeholders, and representatives of institutions and NGOs to share best practices and solutions compatible with both palm oil production and environmental preservation.

FORGING ACADEMIC PARTNERSHIPS

To enable a better appreciation of the palm oil business and our sustainability approaches amongst those beyond the industry, we collaborated with the National University of Singapore ("NUS") and the Yale School of Management to develop a business case on GAR's journey in addressing environmental, social and sustainability challenges.

In March 2013, the case study was used by the Aspen Institute for its Business and Society International MBA Case Competition. Students from 25 leading business schools in the world competed for recognition and US\$35,000 in scholarship funds. To encourage continual learning in this area, the case was also taught at the NUS Business School in 2013 and made available as a learning material for business schools around the world.

ENGAGING ON THE GLOBAL STAGE

The Company continues to receive invitations to speak about our sustainability initiatives at various platforms around the world. This demonstrates that there is confidence in and acknowledgment of GAR's approach to sustainability, as well as keen interest by our stakeholders in the long-term sustainability of the industry.

These events included: the Greenpeace workshop "The Path to Zero Deforestation" held on the sidelines of Rio+20 United Nations Conference on Sustainable Development in Brazil; Goldman Sachs "Global Commodities Conference Asia Pacific 2012"; Ethical Corporation "7th Sustainable Supply Chain Summit" in London; RSPO "10th Annual Roundtable Meeting" in Singapore; Responsible Investor Asia 2013: Corporate ESG Summit in Singapore; and "Breaking Down the Barriers to Responsible Palm Oil" organised by the Union of Concerned Scientists, Philadelphia Zoo and TFT in USA.

INCREASING FOCUS ON SUSTAINABLE PALM OIL

There has been growing international interest in Environmental, Social and Governance standards. This is evidenced by the no deforestation commitments enforced by global brands such as Nestlé in its Responsible Sourcing Guidelines for palm oil. More recently, companies, such as oil refining and marketing company Neste Oil, have pledged to work proactively with palm oil producers and other stakeholders to identify ways to prevent deforestation.

This trend is an encouragement to our on-going sustainability commitments. Not only have we put in place supply chain controls so that the oil is traceable as sustainably produced, we have also made progress with our FCP and our commitment to a no deforestation footprint in our palm oil operations. We are heartened that more brands and companies in the supply chain are taking conscientious steps to support deforestation-free palm oil production.

CONCLUSION

The last three years have seen exciting developments in our sustainability focus. We will maintain our efforts in adopting the best industry practices and standards, managing the environment responsibly, empowering communities, and maximising long-term shareholder value. We recognise that GAR cannot act alone, and will keep up with our multi-stakeholder engagement to develop solutions for sustainable palm oil production.

As we review the year in our third sustainability report, we are appreciative of the partnerships we share with you, and look forward to your support as we continue this meaningful journey together.



Franky Oesman Widjaja
Chairman and Chief Executive Officer
1 July 2013

ABOUT GAR

Founded in 1996, Golden Agri-Resources Ltd ("GAR" or the "Company") has been listed on the Singapore Exchange Securities Trading Limited ("SGX-ST") since 1999. Our market capitalisation was US\$6.8 billion as at 31 December 2012. We have several subsidiaries, including PT Sinar Mas Agro Resources and Technology Tbk ("SMART") which has been developing and managing oil palm plantations in Indonesia since the mid-1980s.

In Indonesia, GAR's primary activities include cultivating and harvesting of oil palm trees; processing of fresh fruit bunches ("FFB") into crude palm oil ("CPO") and palm kernel ("PK"); crushing PK into palm kernel oil and palm kernel meal; and refining CPO into value-added products such as cooking oil, margarine and shortening. We also have integrated operations in China including a deep-sea port, oilseed crushing plants and production capabilities for refined edible oil products as well as other food products such as noodles.

Chart 2.1 shows GAR's growth in terms of palm product output since 1999, while Chart 2.2 shows the distribution of our assets as at end of 2012.

CORPORATE STRUCTURE AND OWNERSHIP

Chart 2.3 sets out a simplified corporate structure of the business including principal operating subsidiaries and intermediate holding companies. It also shows the structure of shareholding between our publicly traded shares and Flambo International Limited, an investment company owned by the Widjaja family. About 50% of our shares are held by Flambo International Limited and about 50% are publicly held.

GAR operates independently, as each business group of the Widjaja family has its own separate management team and independent directors. Our subsidiary SMART is marketed under the Sinar Mas brand. However, GAR and SMART are not subsidiaries of Sinar Mas, as Sinar Mas does not refer to any operating business entity.

In addition to GAR's listing on the SGX-ST since 1999, SMART has been listed on the Indonesia Stock Exchange since 1992. As listed companies, both GAR and SMART comply with the rules and regulations of the relevant stock exchanges.

All of our oil palm plantations are located in Indonesia. Chart 2.4 shows the location map of the plantations.

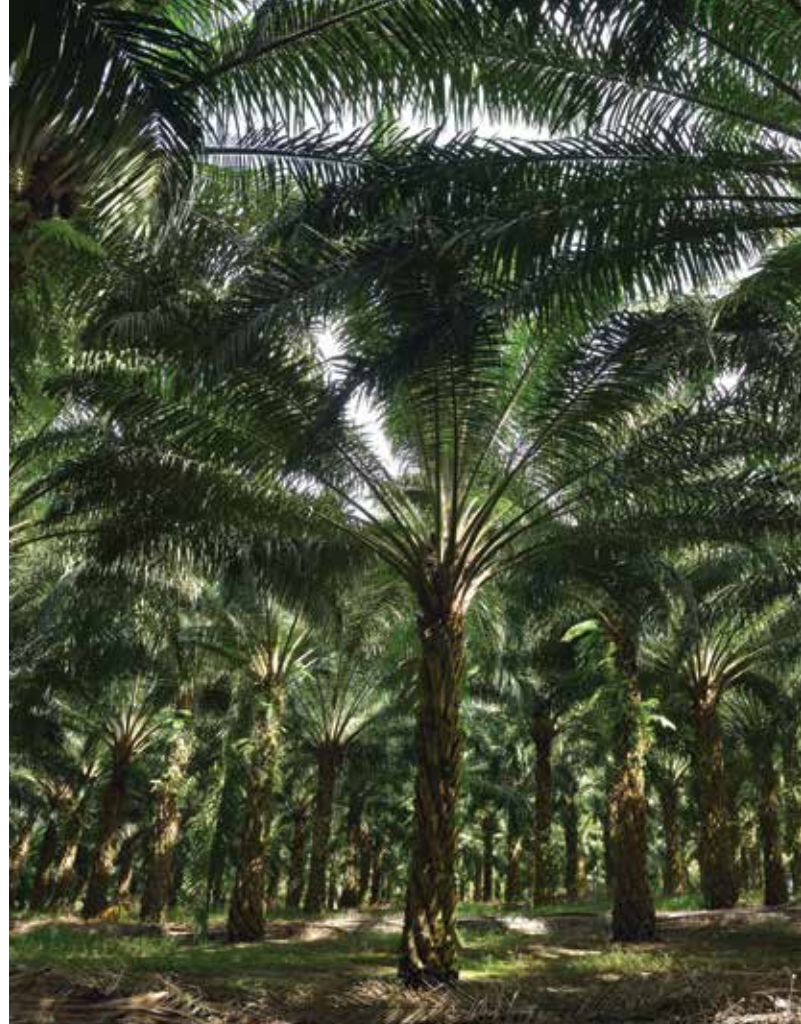


CHART 2.1 Output of palm products

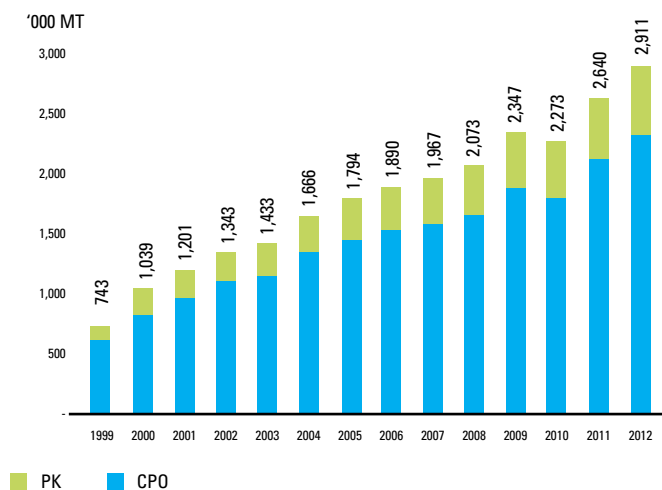
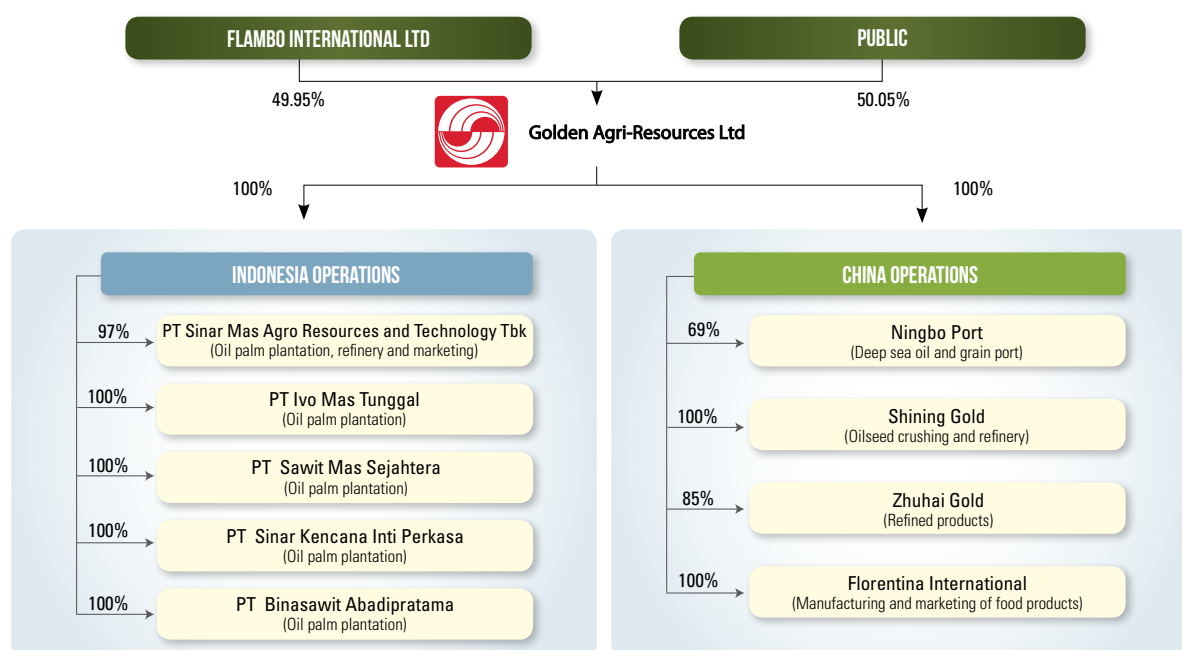


CHART 2.2 Distribution of GAR's assets as at end of 2012 (US\$ million)



CHART 2.3 Corporate structure of GAR



Note: Simplified corporate structure with principal operating subsidiaries

CHART 2.4 GAR's plantations in Indonesia



OUR BUSINESS MODEL IN INDONESIA

Our business model is based on creating a vertically integrated business, from the production of planting material to the development of plantations, harvesting, milling, refining and processing of palm oil products for bulk and consumer sales represented by a wide range of brands popular across Asia and beyond. We are pursuing sustained growth from the development of the upstream and downstream businesses in both domestic and international markets. Chart 2.5 shows the basic structure of the value chain of our palm oil business, stretching from plantation development to consumer sales.

In 2012, we produced 2.36 million tonnes of CPO, which accounted for approximately 9% of Indonesia's CPO production of 26.80 million tonnes.

Part of the CPO and PK produced is further processed in our refineries and kernel crushing plants. From these facilities, we generate higher value-added products, which we market in bulk form and under our own brands domestically and internationally. Our prudent and precise marketing strategy has successfully grown our branded products sales in Indonesia by 20% in 2012 compared to the previous year, despite the volatility of CPO input prices and intense market competition.

We continue to strengthen our existing foothold in international markets and penetrate new export markets. To reach out to such markets, we have extended our distribution and logistics capabilities by forming joint ventures with global transportation players Stena Weco A/S and Stena Bulk AB. This will provide a holistic solution for GAR's international transportation needs and secure greater and more flexible access to large shipping capacities. We have also built our own jetties and continue to expand bulking facilities in strategic locations.

CHART 2.5 The value chain of our business in Indonesia



GAR CHINA

Through operations in China, GAR owns integrated vegetable oil facilities comprising one of China's largest deep-sea ports, oilseed storage, crushing and refining facilities, as well as food production capabilities. Most of these operations focus on producing palm oil and soybean based products, including soybean oil, soybean meal, cooking oil and blended vegetable oils, to strategically selected markets in China. Chart 2.6 shows the basic structure of the value chain of our operations in China.

Revenue from our China operations in 2012 was US\$1.29 billion, 13% higher than the previous year, contributed mainly from sales of soybean meal and snack noodles. To grow GAR's presence in the edible oils and specialty fats market in China, we intend to leverage the market knowledge, customer base and extensive distribution channels of Florentina International Holdings Limited ("FIH"). FIH is a subsidiary GAR acquired

in September 2010, which manufactures and distributes a variety of economy and premium grade snack noodle and instant noodle products, ice sticks and jelly snack products in China. FIH operates seven strategically located noodle plants with a total annual capacity of 5 billion packets of noodles, and distributes its products via a strong integrated network of almost 26,000 distributors, 119,000 traditional retail outlets, supermarkets, chain stores and hypermarkets, as well as convenience stores throughout the country.

Chart 2.7 shows GAR's revenues by product over the past five years. Revenue has more than doubled during this period, primarily driven by higher average CPO prices and higher sales volume during the period, supported by increased CPO production. Our export business sells products worldwide (see the Customer Relations section for details). Chart 2.8 gives an indication of the main sources of GAR's revenues in 2012. Foreign revenue for our Indonesia operations in 2012 amounted to US\$4.11 billion.

CHART 2.6 The value chain of our business in China



CHART 2.7 Revenue growth by products

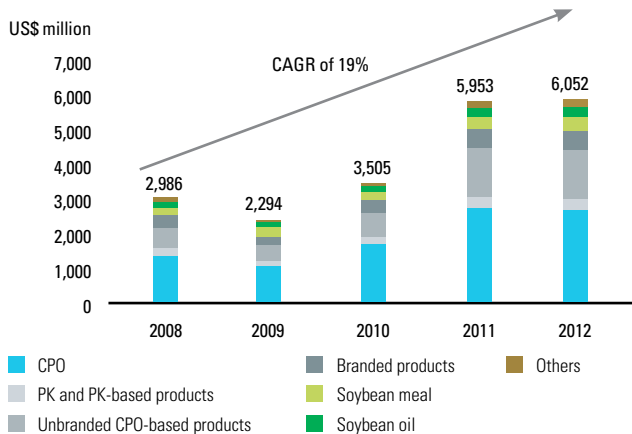


CHART 2.8 Revenue by source in 2012

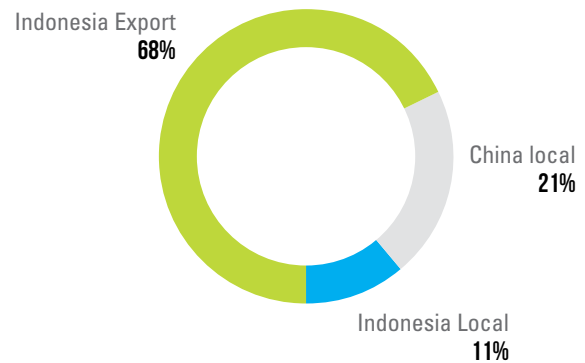


CHART 2.9 Financial performance 2008-2012

(US\$ Million)	2008	2009	2010	2011	2012
Revenue	2,986	2,294	3,505	5,953	6,052
Gross Profit	876	509	955	1,837	1,611
Gross Profit Margin	29%	22%	27%	31%	27%
Operating Profit	1,986	618	1,915	1,700	678
Income Tax	(528)	21	(482)	(428)	(196)
Core Net Profit ¹	377	203	387	571	404
Addition:					
• Net gain from changes in fair value of biological assets (Net of tax and non-controlling interests)	1,020	406	1,012	672	37
• Foreign exchange gain/(loss) (Net of non-controlling interests)	(34)	(1)	30	19	(7)
• Exceptional items	20	(1)	(6)	6	(24)
• Net Profit attributable to owners of the Company	1,383	607	1,423	1,268	410

Note:

¹ Core Net Profit is net profit attributable to owners of the Company, excluding net effect of net gain from changes in fair value of biological assets, foreign exchange gain/(loss) and exceptional items.

FINANCIAL PERFORMANCE

Chart 2.9 shows GAR's consolidated financial performance for the past five years, covering revenue, gross profit, operating profit, income tax and core net profit. During 2012, revenue grew by 2% while gross profit decreased by 12%. At the bottom line, "core net profit", net profit excluding the net effect of net gain from changes in fair value of biological assets, foreign exchange loss and exceptional items, experienced a 29% decline, mainly impacted by the weakening of CPO market prices.

Our financial performance is primarily affected by the prevailing CPO international market prices. CPO prices have been volatile given the influence of global economic conditions, supply and demand factors as well as volatility in crude oil prices.

Although CPO prices (FOB Belawan) in 2012 decreased by 11% compared to the previous year, they remained relatively high, averaging US\$959 per tonne. Chart 2.10 illustrates the historical performance of CPO FOB Belawan prices for the last five years.

Chart 2.11 shows the distribution of our profit before tax excluding the effect of net gain from changes in fair value of biological assets in 2012. As an expanding company, a high proportion of profits was retained for re-investment in our business. GAR is growing rapidly, and this expansion requires considerable capital investment, both from our own resources as well as from banks and capital markets.

PRODUCTIVITY THE KEY TO WEALTH CREATION

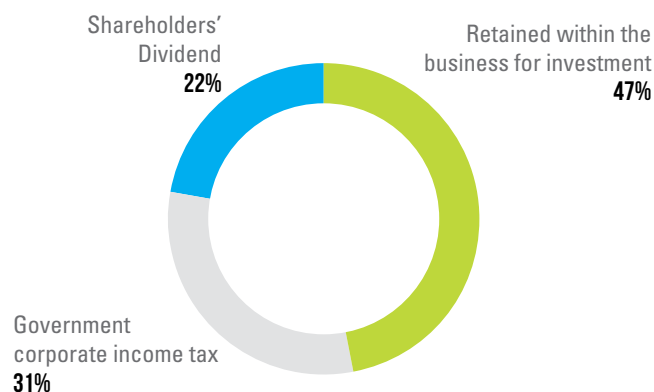
Palm oil is known for its multiple uses in food, healthcare products, cosmetics and biofuels. Currently, it is mostly used for food, both for end users and food industries. Its principal domestic use is as cooking oil. It is also used in solidified spreads and as an ingredient in various processed foods.

Palm oil's role in food security is becoming more important as it is now the world's most widely consumed vegetable oil, comprising 33% of consumed vegetable oil in 2012. As palm oil is the cheapest of all vegetable oils, it is an important part of the diet in most developing countries, including Indonesia, China and India.

CHART 2.10 Change in CPO prices over five years

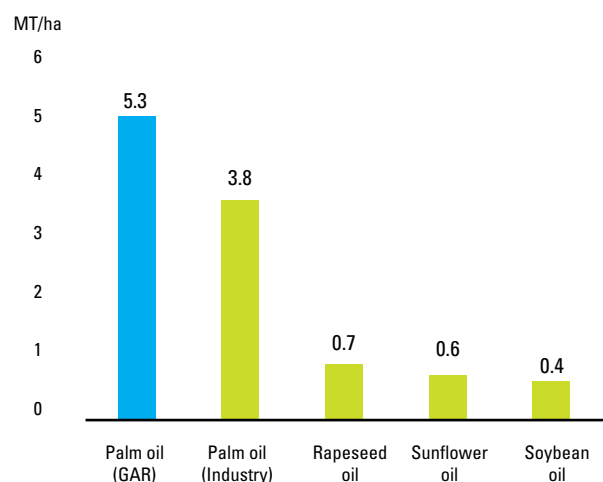


CHART 2.11 Distribution of GAR's 2012 profit before tax



Note: excluding net gain from changes in fair value of biological assets

CHART 2.12 Vegetable oil yield per hectare



Source: Oil World Annual 2013, ISTA Mielke GmbH, Germany www.oilworld.de and the Company

Besides being the cheapest, palm oil is also the most efficient vegetable oil in terms of land area used. Efficiency in land utilisation is crucial, as land availability becomes scarcer globally, with competition for it intensifying from a growing population and increasing per capita consumption.

The role of palm oil as the most productive vegetable oil has therefore gained importance. It is the most effective way to provide an affordable and ample global supply of vegetable oil, while freeing up land for other purposes including forest conservation. In 2012, mature oil palms occupied only 5% of the total harvested area for vegetable oils. However, in the form of palm oil and palm kernel oil, they supplied 37% of global vegetable oil consumption in 2012. Chart 2.12 illustrates how many tonnes of oil was produced per hectare of oil palm planted area (productivity) compared to the other three largest produced vegetable oils in 2012.

Chart 2.12 also shows that GAR considerably exceeds the average of the industry as a whole in terms of its productivity. This important contribution to sustainability is achieved by substantial investment in and continuous improvement of plantation management. This covers the quality of planting material used, best agronomical practices and land suitability.

In managing our vast plantation area, our integrated management information system has served as a one-stop multi-function monitoring and management control centre, providing operational, industry and general market information. This state-of-the-art system enables management to make decisions with complete factual input in a timely manner and to gather information in great detail as if on-site at each of our plantations.

ABOUT GAR

Our vertically integrated model enables us to switch between crude and refined products for both the local and international markets. In this way, we capture the full value of our production from plantation to consumer use according to local and international market demand. To do this, the business has invested in management expertise and technology to ensure quality control and traceability of products throughout the value chain.

SHARING WEALTH WITH STAKEHOLDERS

When we create wealth, we also share it with our stakeholders. Our dividend policy is to distribute up to 30% of underlying profit. Over a five-year period, we have generated reasonable returns to investors in terms of dividends. For instance, we distributed total dividends of 1.19 Singapore cents per share or equivalent to approximately US\$125.1 million in total in respect of 2012 income. Chart 2.13 shows growth in the value of our shares over the same period.

CHART 2.13 GAR's share price over the past 5 years



Our core stakeholders also benefit from our economic returns. Chart 2.14 shows how the total revenue of our Indonesia operations was shared amongst our core stakeholders in 2012. Our suppliers are the largest beneficiaries of our business. Some 62.9% of revenue is spent on three categories of suppliers including our plasma smallholder farmers.

As a company based in Indonesia, a developing country, we are aware that the growth and success of our business should contribute to the development of the nation and its people, in economic, social and environmental terms. This report therefore seeks to address all three aspects.

INVESTING FOR THE FUTURE IN AFRICA

In 2010, GAR decided to invest in The Verdant Fund LP, a private equity fund which owns Golden Veroleum (Liberia) Inc ("Veroleum"), a company incorporated in Liberia, West Africa. Veroleum has been granted a concession by the Liberian

CHART 2.14 Distribution of GAR Indonesia's revenue of US\$4,762 million in 2012

Stakeholders	Transactions	% of revenue
Suppliers	Provide products and services	
Plasma farmers	Provide FFB	7.3%
Non-plasma farmers	Provide FFB	2.2%
Other suppliers	Provide other products and services	53.4%
Suppliers sub-total		62.9%
Others		
Employees and casual workers	Salaries and benefits	10.4%
Government	Income tax and export tax	13.1%
Shareholders	Dividend distribution	2.6%
Banks	Interest expense	1.4%
Community	CSR activities	0.1%
Retained for the future	Research and development	0.2%
Retained for the future	Capital expenditure and investments	9.1%
Others sub-total		37.1%
Total		100.0%

government to develop 220,000 hectares of land for oil palm plantations. The area will be developed over a period of 20 years and in accordance with the highest standards of agronomy and sustainability and in compliance with RSPO standards and GAR's Forest Conservation Policy commitments.

Currently, three nurseries for seedling development have been established. As at end 2012, approximately 2,000 hectares of plantations had been planted. By providing technical expertise to the project, GAR will ensure that, like all our plantations in Indonesia, the oil palm cultivation in Liberia follows good sustainability practices.

CORPORATE VISION AND VALUES

At the heart of our business is a clear vision, a sense of mission and a set of values that guide what we do. We hold ourselves accountable to these standards and this report in many ways demonstrates how we seek to live by them.

The vision we have for our Company is:

We aim to be the best. To become the largest integrated and most profitable palm-based consumer company.

Our mission is focused on:

- Surpassing the highest standard of quality
- Maintaining the highest level of sustainability and integrity
- Empowering society and community
- Trend-setting innovation and technology
- Achieving maximum value for shareholders

The values which guide our everyday actions within the business are Integrity, Positive Attitude, Commitment, Continuous Improvement, Innovation and Loyalty.

Our vision, mission and values statements together commit us to the strictest standards of conduct in running the Company and in how we behave towards each other, our stakeholders, the natural environment and the wider society. We aspire to attain the highest level of sustainability which for us, a natural resource based company, means that environmental issues are of the utmost importance. However, we also recognise that long-term sustainability requires the consideration of economic and social factors too.

We have developed a draft Code of Business Principles to give employees more guidance on ethical issues and our responsibilities to stakeholders and the world around us. Further consultation with employees and management will be undertaken to finalise the Code. We will report further on our progress relating to the code as well as on linking the principles to our corporate policies and its implementation.

CORPORATE GOVERNANCE

The Company recognises the importance of good corporate governance, and is committed to observing high standards of corporate governance, to promote corporate transparency and enhance shareholder value. The Company has complied substantively with the principles and guidelines set out in the Code of Corporate Governance 2005 issued by the Monetary Authority of Singapore. On 2 May 2012, the Monetary Authority of Singapore issued the revised Code of Corporate Governance 2012, which will be applicable starting 2013. The Company is currently reviewing its corporate governance practices and will comply with, wherever applicable, the principles set out in the revised Code of Corporate Governance 2012.

BOARD OF DIRECTORS

Our nine-member Board of Directors is responsible for the strategy and direction of GAR in all respects. The Board is led by Franky O. Widjaja who is both the Company's Chairman and CEO. The Board also includes four independent directors – more than the one-third recommended under the Code of Corporate Governance 2005. The presence of independent directors provides internal checks and balances to ensure accountability, transparency and good governance at the highest level.

The Board of Directors consists of three Singaporeans, two Mauritians, three Indonesians and a Filipino. They have been elected to the Board based on their diverse skill sets and professional expertise across various industries.

In accordance with the Code of Corporate Governance 2005, the Board has established Nominating, Remuneration and Audit Committees; each of these is headed by one of the independent directors. Our Chief Internal Auditor reports directly to the Audit Committee, and our Internal Audit Department conducts audits on a regular basis.

CORRUPTION AND IMPROPER PAYMENTS

We do not tolerate any instances of improper payments and corruption in our Company. The spirit of integrity, which is an integral part of our Shared Values, is embraced by all our staff,



from management to plantation workers on the ground. Any employee found to have engaged in improper payments or corruption will be severely dealt with by the Company and to the full extent of the law.

RELATIONS WITH SHAREHOLDERS

GAR stocks are amongst the top 20 most heavily traded stocks on the Singapore Exchange and we are committed to providing easy and transparent access to all the data investors need to assess the Company and its performance. Currently, we have 20 analysts who cover the Company.

The resolutions from the 2013 Annual Meeting that was held on 25 April 2013 can be found online at http://www.goldenagri.com.sg/ir_members_meeting.php.

RELATIONS WITH GOVERNMENT

The development of our business is intimately connected with the development of Indonesia. Our growth is directly aligned with the national strategy for the development of the country's natural resources and industry, and we believe our Company makes a direct and positive contribution to the development of Indonesia. Consequently, we are committed to working closely with the government, and are guided by its development policies and all national laws relevant to our business, both upstream and downstream.

With regard to our plantation development, the Government of Indonesia, together with the Indonesian Chamber of Commerce and Industry ("KADIN"), has mapped out its vision to "Feed Indonesia - Feed the World", to ensure that Indonesia becomes self-sufficient in strategic food supplies and a major food supplier to the world by 2030. As a major player in the agribusiness and food sectors in Indonesia, we play an active role in leading and shaping the agenda and work within the government's framework of policies and laws.

GAR also plays an active role in Partnership for Indonesia Sustainable Agriculture ("PISAgro"), a new vision for agriculture launched by the Indonesian government during the World Economic Forum in June 2011 to address Indonesia's food, climate change and poverty challenges. PISAgro is targeting a 20% increase in agriculture output, a 20% improvement in smallholders' income or yield and a 20% reduction in carbon emission by 2020. Our Chairman and CEO, Franky O. Widjaja, is leading the initiative as a co-Chairman of PISAgro.

To enable the development of smallholder farmers, the Palm Oil Working Group of PISAgro plans to launch an innovative financing scheme for oil palm replanting for smallholder farmers. The model will need government support and endorsement, as well as buy-in from farmers and financial institutions. Indonesia aims to be both self-sufficient in strategic food supplies, as well as a major food supplier to the world by 2030.

As a good corporate citizen, we maintain good relationships with government institutions in a professional way. GAR also complies with all relevant prevailing laws and regulations in Indonesia. In 2012, we did not incur any significant fines or sanctions as a result of non-compliance with any laws and regulations or concerning the provision and use of products and services.

We recognise that the Government of Indonesia plays a critical role in adopting new regulations and enacting relevant legislation to enable the transformation of the palm oil industry. Therefore, we have actively engaged related ministries in Indonesia in developing solutions towards sustainable palm oil production.

RELATIONS WITH INDUSTRY, TRADE ASSOCIATIONS AND INTERNATIONAL ORGANISATIONS

We actively seek to engage with industry, trade and international organisations. This is shown in our participation through our subsidiary, SMART, and management in KADIN, The Indonesian Palm Oil Board ("IPOB"), The Indonesian Palm Oil Association ("GAPKI"), The Indonesian Edible Oil Industry Association ("AIMMI"), The Indonesian Food and Beverage Entrepreneurs Association ("GAPMMI"), and The Indonesian Palm Oil Community ("MAKSI").

Our Chairman and CEO, Franky O. Widjaja, is the Vice Chairman of KADIN for the agribusiness, food and livestock sector, a member of Supervisory Board of KADIN-Japan Economic Committee, and a member of the Advisory Board of GAPKI and GAPMMI.

INTERNATIONAL STAKEHOLDERS AND STANDARDS

As a company with a growing international customer and consumer base, we are also committed to a number of international standards, such as those set by ISO, that help improve our business in all aspects of quality and sustainability. In social and environmental matters, we are committed to adhering to four global and regional organisations or standards:

Indonesian Sustainable Palm Oil System ("ISPO")

In March 2011, the Ministry of Agriculture of Indonesia launched ISPO, which aims to support the commitment of the country in reducing greenhouse gas emissions, to raise awareness of the importance of sustainable palm oil production and to accelerate the implementation of a sustainable production system and certification, as well as to enhance the competitiveness of Indonesian palm oil in the world market.

GAR is supportive of ISPO and is working towards ISPO certification. Our subsidiaries, SMART and PT Ivo Mas Tunggal ("IMT") took part in ISPO field trials in early 2011 to provide feedback and input on the implementation of ISPO standards. In December 2012, IMT received the Company's first ISPO certification, for 9,721 hectares of plantations and one mill in Riau, Sumatra.

Roundtable on Sustainable Palm Oil ("RSPO")

GAR and its subsidiaries support the RSPO and are committed to adhering to RSPO Principles and Criteria. GAR has progressed in its RSPO certification plans. As of 30 June 2013, 121,122 hectares of plantations (including smallholder plantations of 21,418 hectares) and 11 mills have received RSPO certification. This brings GAR closer to our overall target of obtaining RSPO certification for all our existing 433,200 hectares of oil palm plantations and 42 mills (as at June 2010) by December 2015. This includes about 89,000 hectares of plasma scheme plantations involving about 45,000 smallholders. Palm oil operations established after 30 June 2010 will be part of a separate timebound plan. GAR has engaged The Forest Trust ("TFT") to help us prepare for RSPO certification. To optimise our certification efforts, we are deploying a scorecard system in collaboration with TFT.

The Company's RSPO certification team is guided by a steering committee chaired by Daud Dharsono, President Director of SMART.

International Sustainability and Carbon Certification ("ISCC")

The objective of ISCC is the establishment of an internationally oriented, practical and transparent system for the certification of biomass and bioenergy. ISCC is oriented towards reduction of GHG emissions, sustainable use of land, protection of natural biospheres and social sustainability.

As of 30 June 2013, 171,586 hectares of our plantations (including 32,873 hectares of plasma scheme plantations), 14 mills, eight bulking stations and three refineries have obtained ISCC certification.

United Nations Global Compact ("UNGC")

The UNGC is the world's largest voluntary corporate social responsibility initiative and as a signatory member through our subsidiary, SMART, we support the ten core principles covering human rights, labour standards and anti-corruption. This applies to our owned and operated businesses and those of key suppliers.

AWARDS WON

The following is the list of awards won by GAR and its subsidiaries in 2012:

- GAR was awarded as one of the Most Transparent Companies in 2012 by the Securities Investors Association (Singapore);
- Our Chairman and CEO, Franky O. Widjaja, received The Gold Standard Award for Communicator of the Year from PublicAffairsAsia in HongKong, in recognition of the Company's multi-stakeholder collaboration;
- For the third consecutive year, SMART received the Primaniyarta award, an Indonesia Export Award, for the category of Extraordinary Performance from the Ministry of Trade of Indonesia;
- Our prominent cooking oil brand in Indonesia, Filma, was awarded:
 - The No. 1 Choice Brand according to the Indonesian Women's Survey 2012 by Indonesian women's magazine Kartini and the Women's Insight Centre;
 - 5-Star Global Customer Satisfaction Standard 2012 in the cooking oil and margarine category, based on a survey by PT MARS Indonesia;
 - Indonesia Original Brands 2012 in the cooking oil category, based on a survey by SWA magazine and Business Digest;
 - World record from Museum Rekor-Dunia Indonesia ("MURI") as the first cooking oil and margarine product to have educational facilities about its production process.

MANAGEMENT OF SUSTAINABILITY

Our mission and values commit us to being the leader in sustainable palm oil production by adopting the best industry practices and standards, managing the environment responsibly, and empowering the communities where we operate, while maximising long-term shareholder value.

Our sustainability strategy focuses on engaging stakeholders proactively, implementing the best practices holistically (covering the environment, community, marketplace and workplace), benchmarking against industry standards, and reporting our progress in a timely and open manner.

In 2010, GAR appointed its own Managing Director of Corporate Communications and Sustainability to foster better relationships across a broad stakeholder group and bring a greater degree of integration of sustainability work across the



Franky O. Widjaja, Chairman and CEO of GAR, receiving "The Gold Standard Award for Communicator of the Year" for 2012.

whole of the business. The Managing Director reports to GAR's Executive Director and CFO, Rafael Buhay Concepcion, Jr. The internal management of sustainability at GAR is an integrated system that ultimately reports to the Chairman and CEO of the Company through the President Director of SMART.

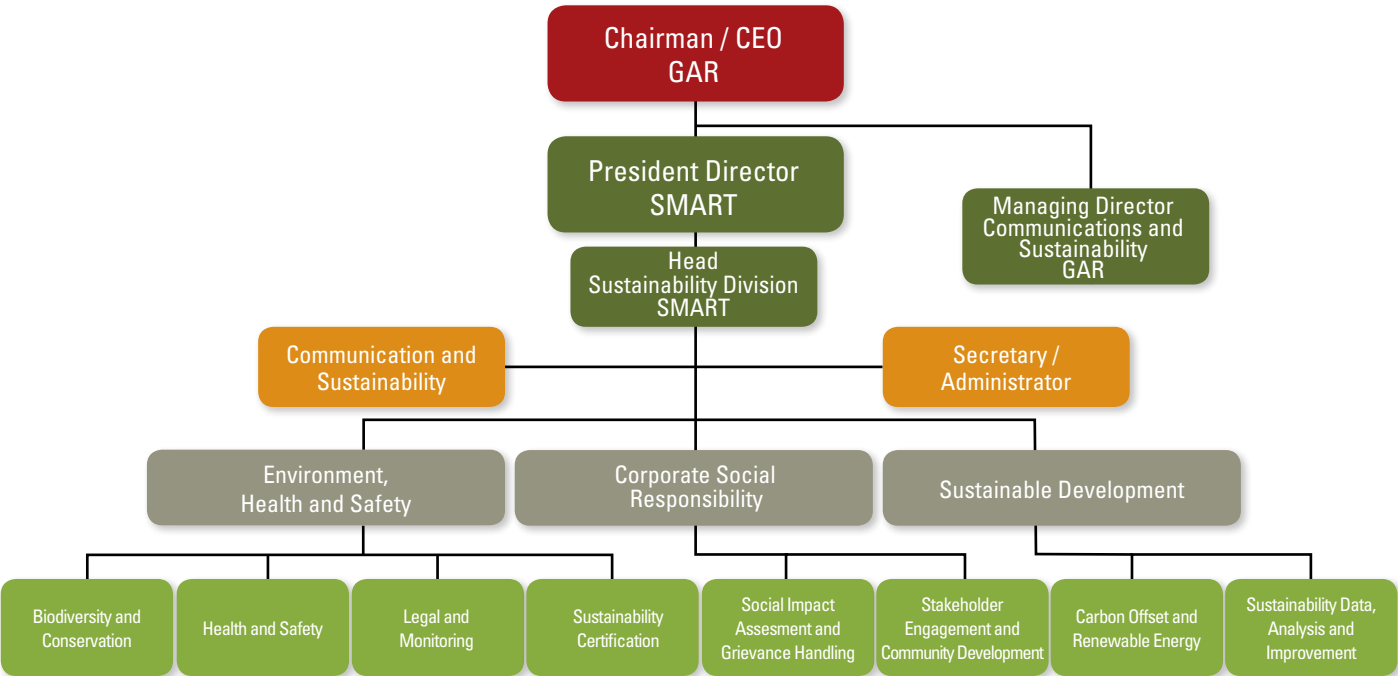
Chart 2.15 also shows the role played by the Sustainability Division of SMART in bringing together the different components of a well-rounded sustainability strategy.

In 2012, our strategic focus has been collaborating with multiple stakeholders to find solutions for the production of sustainable palm oil. We also continued to work with the RSPO to ensure that all our current practices are in line with its existing standards and that all our palm oil operations (as of 30 June 2010) will be fully certified to its standards by 2015 (see the Stakeholder Engagement section). TFT continues to be a strategic partner, and while our partnership has many facets, four key developments in 2012 and early 2013 have been:

1. the implementation of our Social and Community Engagement Policy ("SCEP");
2. the development of a new policy, Yield Improvement Policy ("YIP");
3. the publication of the High Carbon Stock ("HCS") Forest Study Report; and
4. the implementation of our HCS forest conservation pilot project in West Kalimantan, Indonesia.

The Forest Conservation Policy ("FCP") launched in February 2011 sets a holistic framework for land development and conservation, including our approach to HCS forests, High

CHART 2.15 The structure of sustainability management at GAR



Conservation Value land, zero planting on peat lands and related matters. As a development in closer partnership with TFT, it is discussed in the Stakeholder Engagement section.

The SCEP launched in November 2011 sets out in detail our commitment to responsibly managing relations with the communities impacted by our business.

The YIP launched in February 2012 focuses on how we can increase productivity in our existing plantations and the plantations of our plasma farmers, such that we can reduce the need to take more land into production. This policy also helps the Company to be more competitive and profitable, while improving the livelihoods of plasma farmers.

Following the launch of the FCP, GAR, SMART, TFT and Greenpeace (together, the "Team") conducted fieldwork in West and Central Kalimantan to develop a practical, scientifically robust and cost effective methodology to define and identify HCS areas for conservation. On 4 June 2012,

GAR and SMART published the HCS Forest Study Report in collaboration with TFT and Greenpeace. The report was presented at an Indonesian REDD+ Task Force seminar in Jakarta on 5 June 2012. Since then, the Team has been holding wider discussions with various stakeholders to gather feedback on the study and its outcomes.

On 13 March 2013, together with SMART we announced the implementation of an HCS forest conservation pilot project in PT Kartika Prima Cipta, West Kalimantan, Indonesia. This pilot follows from the publication of the HCS Forest Study Report. The purpose of the pilot is to establish a framework for successful HCS conservation by the broader palm oil industry.

These key developments are discussed in the sections on Stakeholder Engagement and Managing Sustainability in Our Plantations. They are an important part of this report, which seeks to show how they came about, and the impact they will have.

STAKEHOLDER ENGAGEMENT

As a listed entity on the Singapore Exchange and one of the largest integrated palm oil plantation companies in the world, we ensure that we continually deliver shareholder value, meet the demand for responsibly produced and quality palm oil, create employment opportunities as well as drive economic and social developments wherever we operate.

Equip, connect and mobilise are what we do as part of our stakeholder engagement with investors, customers, employees, the Government of Indonesia, civil society organisations, local and indigenous communities, our peers and other stakeholders in the palm oil industry.

We believe that multi-stakeholder collaboration is the best way to achieving solutions for sustainable palm oil production. To succeed, GAR cannot act alone.

A HOLISTIC APPROACH TOWARDS SUSTAINABILITY

Our sustainability strategy focuses on implementing best practices holistically, covering the environment, community, marketplace and workplace, and benchmarking against industry standards.

GAR's Forest Conservation Policy ("FCP"), Social and Community and Engagement Policy ("SCEP") and Yield Improvement Policy ("YIP") set the framework for our approach for sustainable development of our plantations.

Our FCP focuses on no development in high carbon stock ("HCS") forests, high conservation value ("HCV") areas and peat lands; free, prior and informed consent from indigenous and local communities; and compliance with all relevant laws and internationally accepted certification principles and criteria.

Building on the FCP are our SCEP and YIP. The former ensures that our palm oil operations improve the lives of the communities they impact while the latter leverages technology and innovation to increase crude palm oil ("CPO") yield, in order to improve the livelihoods of smallholders and reduce the pressure to open new land.

Advancing on forest conservation

During the year, GAR continued to progress with our FCP. Following the launch of our FCP on 9 February 2011, GAR and SMART together with global non-profit The Forest Trust ("TFT") and Greenpeace (together, the "Team") conducted fieldwork in West and Central Kalimantan to develop a practical, scientifically robust and cost effective methodology to define HCS areas for conservation. On 4 June 2012, we published the HCS Forest Study Report ("Report") in collaboration with TFT and Greenpeace. The Report was presented at an Indonesian REDD+ Task Force seminar on 5 June 2012 in Jakarta.



Since then, the Team has been holding wider discussions with various stakeholders to gather feedback on the study and its outcomes. Feedback from meetings with representatives from the Government of Indonesia, including the Bupati (District Head) and local leaders has been open and constructive.

An HCS Methodology Focus Group Discussion was held in Bogor, Indonesia, on 17 July 2012. Experts from local academia, government, trade organisations, TFT and Greenpeace attended the meeting. The event concluded that overall, the HCS methodology detailed in the Report is scientifically acceptable and a number of recommendations for improvement were made.

On 13 March 2013, together with SMART, we announced the implementation of an HCS forest conservation pilot project in PT Kartika Prima Cipta, West Kalimantan, Indonesia. The purpose of the pilot is to establish a framework for successful HCS conservation by the broader palm oil industry.

During the pilot, the Team continues to engage with the Government of Indonesia, civil society organisations, local and indigenous communities, key growers and other stakeholders in the Indonesian palm oil industry to address the following key success factors:

- Community buy-in, which would require palm oil companies to fulfil their plasma commitments to smallholders by compensating them for not being able to plant on HCS land. In addition to a compensation plan for HCS land, there would need to be a plan for the community to be involved in protecting HCS land.
- Government of Indonesia buy-in, whereby the government would take an active role in formulating policies to further

STAKEHOLDER ENGAGEMENT

promote HCS conservation. These would include amending the policy on abandoned land and implementing a land swap policy to facilitate the exchange of HCS land for alternative planting sites. The government would also map no-go HCS zones to indicate land on which there is to be a moratorium on clearing and planting.

- Industry buy-in, where at least ten key growers would adopt the HCS forest conservation strategy and implement their respective pilot projects before GAR rolls out the next phase of its HCS forest conservation. In addition, industry bodies such as the Indonesia Palm Oil Association ("GAPKI") would adopt an HCS conservation policy.

The press release and presentation of our HCS forest conservation pilot project can be found online at [http://www.goldenagri.com.sg/pdfs/SGX%20Filings/2013/GAR13-03-2013-PressReleaseAndPreso-GARandSMARTimplementpilotonHCS\(combine\)%20-%20attachment1.pdf](http://www.goldenagri.com.sg/pdfs/SGX%20Filings/2013/GAR13-03-2013-PressReleaseAndPreso-GARandSMARTimplementpilotonHCS(combine)%20-%20attachment1.pdf)

Through this multi-stakeholder engagement process, the Team seeks to rally all stakeholders to identify HCS areas, develop an enabling legal framework for HCS conservation, and implement measures to conserve HCS.

The pilot is expected to take 12 months and we will report on its progress.

Empowering the community

We provide employment for about 178,000 people in Indonesia, of whom 47,000 are direct employees, 66,000 are smallholders and 65,000 are casual workers on plantations. As a leader in the industry, we embrace our role in ensuring the well-being of our employees and the communities where we operate.



An example of a remnant forest or advanced secondary forest close to primary condition to be conserved under the HCS pilot project.

Our SCEP guides and shapes the Company's decisions in engaging with communities. We have been mobilising stakeholders such as local communities, our employees and government bodies while utilising our financial resources effectively. GAR and SMART have been actively driving a comprehensive range of community programmes including education, healthcare, building and providing public infrastructure, housing and facilities, giving financial aid to the needy and more.

Please see the Social and Community Affairs section for a more detailed report on our community initiatives.

Enhancing productivity of the industry

Our holistic approach towards sustainability includes improving productivity. We achieved an important milestone when we launched our YIP in February 2012. The YIP focuses on best practices in planting material, agronomical practices, plantation management and land suitability. It applies to GAR's total cultivated area including smallholdings.

In 2012, the Company continued to improve our CPO yield while our collaboration with our plasma smallholders too has been successful as they adopt our best practices in their plantations.

Committed to further enhancing productivity in our estates and in smallholdings, we continue to leverage our research institute, SMARTRI and collaborate with national and international research institutions and universities for innovative palm oil solutions.

For more information on the progress of our YIP and research work, please refer to the sections on Managing Sustainability in Our Plantations and Research and Development.

WORKING WITH CERTIFICATION BODIES Roundtable on Sustainable Palm Oil ("RSPO")

We continued to work closely with the RSPO during the year. GAR co-chaired the RSPO New Planting Procedure Working Group from 2011 to 2012. We currently co-chair the Indonesian HCV Task Force which was formed to explore means of effectively securing HCV areas in oil palm development areas in Indonesia, as well as identify options to reform local and national laws and procedures to secure HCV areas and accommodate the RSPO Principles and Criteria. GAR is also an active member of the HCV Compensation Task Force which is part of the Biodiversity and High Conservation Values Working Group.

We have progressed in our RSPO certification plans, and to optimise our certification efforts, we are deploying a scorecard system in collaboration with TFT.

As of 30 June 2013, 121,122 hectares of plantations including smallholder plantations of 21,418 hectares and 11 mills have received RSPO certification. This brings GAR closer to our overall target of obtaining RSPO certification for all our existing 433,200 hectares of oil palm plantations and 42 mills (as at June 2010) by December 2015. This includes about 89,000 hectares of plasma scheme plantations involving about 45,000 smallholders. Palm oil operations established after 30 June 2010 will be part of a separate timebound plan.

Indonesian Sustainable Palm Oil System ("ISPO")

GAR is also working towards ISPO certification. ISPO is a policy taken by the Indonesian Ministry of Agriculture to improve the competitiveness of Indonesian palm oil in world markets and to meet Indonesia's commitment to reduce greenhouse gas emissions and focus on environmental issues. Our subsidiaries, SMART and PT Ivo Mas Tunggal ("IMT") took part in the ISPO field trials in early 2011 to provide feedback and input on the implementation of ISPO standards.

In December 2012, IMT received the Company's first ISPO certification, for 9,721 hectares of plantations and one mill in Riau, Sumatra.

International Sustainability and Carbon Certification ("ISCC")

As of 30 June 2013, 171,586 hectares of our plantations (including 32,873 hectares of plasma scheme plantations), 14 mills, eight bulking stations and three refineries have obtained ISCC certification.

The objectives of the ISCC are the establishment of an internationally oriented, practical and transparent system for the certification of biomass and bioenergy. ISCC is oriented towards the reduction of greenhouse gas emissions, the sustainable use of land, the protection of natural biospheres and social sustainability.

STRENGTHENING CUSTOMER RELATIONSHIPS

We remain focused on engaging our customers to ensure we deliver our commitments. Our customers have indicated that they are encouraged by the implementation of our FCP, SCEP and YIP with TFT. We will continue to work with them to build sustainable practices and fulfil the increasing demand for deforestation-free palm oil.

Traceability represents an important milestone in our journey towards sustainable palm oil production. We have developed the necessary SOPs and work instructions for achieving traceability and segregation from estate through to refinery. The option for traceability and segregation can be applied as required by our customers based on commercially viable terms. We envisage that the implementation of changes to the supply chain for traceability would require co-investment.

SMART is also a member of the London-based Supplier Ethical Data Exchange ("SEDEX"), a database of socially responsible suppliers supported by a number of global multinationals as they seek contacts and information on suppliers based in developing countries that adhere to internationally recognised sustainability standards.

ENGAGING PALM OIL INNOVATORS

Underlining our commitment to deforestation-free palm oil production, GAR participated in the Tropical Forest Alliance ("TFA") 2020 workshop, "Promoting Sustainability and Productivity in the Palm Oil and Pulp & Paper Sectors" that was held in Jakarta from 27 to 28 June 2013. TFA 2020 was a result of discussions between the U.S. Government and the Consumer Goods Forum to mobilise and align efforts by governments, the private sector and NGOs. The workshop gathered companies like GAR to discuss the steps needed to reduce tropical deforestation from the supply chains for palm oil and pulp and paper.

On 28 June 2013, GAR became a member of the Palm Oil Innovation Group ("POIG") formed by several palm oil companies as well as environmental and social NGOs. The POIG is a constructive group that focuses on leveraging its experience to innovate the palm oil industry and act as advocates for these innovations. It aims to build on RSPO standards and commitments by both demonstrating innovation to implement RSPO existing standards but also on additional critical issues.

With a focus on the three thematic areas of environmental responsibility, partnerships with communities, and corporate and product integrity, POIG members will strengthen their commitments to socially and environmentally responsible palm oil production. The POIG charter is not yet finalised but will cover requirements on reserving enough land for local communities' food crops, greenhouse gas emissions and no development on peatlands.

SHARING BEYOND THE INDUSTRY

GAR also reaches out to stakeholders such as investors, academia and those in the supply chain to enable a better understanding of our business and the industry.

Through such sharing opportunities, we are confident that sustainable palm oil will be increasingly supported by the marketplace, if these stakeholders, in making their choices as consumers, customers and investors, get behind sustainably produced palm oil products or companies. This in turn will be an encouragement to our existing work and motivate more palm oil growers to cultivate and manage their operations more responsibly.

During the year, GAR's approach to sustainability was also presented at various forums that reached out to customers, investors, supply chain personnel and NGOs, for example. These events include the Greenpeace workshop "The Path to Zero Deforestation" held on the sidelines of the Rio+20 United Nations Conference on Sustainable Development in Brazil, Ethical Corporation "7th Sustainable Supply Chain Summit" in London and "Breaking Down the Barriers to Responsible Palm Oil" organised by the Union of Concerned Scientists Philadelphia Zoo and The Forest Trust in the USA. In Singapore, we presented at the Goldman Sachs "Global Commodities Conference Asia Pacific 2012", RSPO "10th Annual Roundtable Meeting" and "Responsible Investor Asia 2013: Corporate ESG Summit".

In March 2013, a case study on GAR was used by the Aspen Institute for its Business and Society International MBA Case Competition. The case study on GAR's journey in addressing environmental, social and sustainability challenges was developed by the National University of Singapore ("NUS") and the Yale School of Management whom we collaborated with.

Students from 25 leading business schools in the world competed for recognition and US\$35,000 in scholarship funds. The top five teams stood out with their innovative and sustainable solutions to reduce the environmental impact of palm oil cultivating, increase economic development in the community, produce a better product and improve the business' financial and valuation performance.

To enable continual learning, the case was taught at the NUS Business School in 2013 and made available as a learning material for business schools around the world.

MANAGING SUSTAINABILITY IN OUR PLANTATIONS

As at 31 December 2012, GAR managed 463,400 hectares of oil palm plantations consisting of 157 estates located throughout Indonesia. Of this planted area, the estates owned by GAR ("nucleus") make up 366,900 hectares while the estates of smallholders ("plasma") comprise 96,500 hectares. During the year, we successfully planted 13,600 hectares, including replanting 3,900 hectares of old estates. In terms of acquisitions, we are in the process of acquiring 16,000 hectares of oil palm plantations in Indonesia, with completion targeted for 2013.

The large-scale operations are well supported by our world-class oil palm research and development centre (SMART Research Institute or "SMARTRI") and superior plantation management, maintaining our estates at their best quality. Younger estates use a newer generation of high-yielding Dami Mas seeds, which will boost GAR's production in the future.

As a result of consistent expansion over the past few years, the age profile of our estates remains favourable, with an average age of approximately 13 years, providing a solid foundation for near to medium term growth. Of the 463,400 hectares, 10% are immature while 90% are mature. Of the mature estates, 51% are at the prime age of 7 to 18 years that produces optimum yield, while 22% are at the young age of 4 to 6 years, securing production growth in the coming years.

A HOLISTIC APPROACH TOWARDS SUSTAINABILITY

As a leading palm oil group committed to environmental, social and economic sustainability, GAR's holistic approach for sustainable development of our plantations comprises the Forest Conservation Policy ("FCP"), Social and Community Engagement Policy ("SCEP") and Yield Improvement Policy ("YIP").

Forest Conservation Policy

In line with our FCP to ensure that our palm oil operations have no deforestation footprint, we are committed to conserving high carbon stock ("HCS") forests and promoting the adoption of high carbon stock conservation across the palm oil industry.

On 13 March 2013, we announced the launch of a 12-month HCS forest conservation pilot project in PT Kartika Prima Cipta ("PT KPC"), West Kalimantan, Indonesia. The pilot follows the publication of the High Carbon Stock Forest Study Report (the "Report") by GAR and SMART in collaboration with The Forest



Trust ("TFT") and Greenpeace (together, the "Team") on 4 June 2012.

The Report is a result of extensive fieldwork that the Team conducted in West and Central Kalimantan between the first quarter and last quarter of 2011 as part of the HCS forest study to develop a practical, scientifically robust and cost-effective methodology to define and identify HCS areas for conservation.

The study categorised areas into different strata based on measurements of carbon in the above ground biomass. The study found that six strata could be identified and these correlated with different average carbon stocks. These are:

- High Density Forest ("HK3") - Remnant forest or advanced secondary forest close to primary condition;
- Medium Density Forest ("HK2") - Remnant forest but more disturbed than High Density Forest;
- Low Density Forest ("HK1") - Appears to be remnant forest but highly disturbed and recovering (may contain plantation/mixed garden);
- Old Scrub ("BT") - Mostly young regrowth forest, but with occasional patches of older forest within the stratum;
- Young Scrub ("BM") - Recently cleared areas, some woody regrowth and grass-like ground cover;
- Cleared/Open Land ("LT") - Very recently cleared land with mostly grass or crops, few woody plants.

For the purpose of the pilot, the Team defines HCS as comprising BT, HK1, HK2 and HK3 areas. The implementation of the HCS approach will depend on the result of the pilot and consultations with stakeholders.

Ultimately, the conserved HCS area can revert to its natural ecological function as a forest.

Besides PT KPC, we are conserving HCS forests in seven other concessions with new plantings in West and Central Kalimantan. Together, the HCS areas in these eight concessions cover about 19,000 hectares.

This initiative is based on the HCS forest study that indicate that there is a practical and scientifically robust methodology to define and identify HCS forests in our concessions in Kalimantan. However, for the HCS methodology to be used as a reliable predictive tool for HCS forests across Indonesia, further testing and fieldwork would be required.

We recognise that in order for HCS conservation to succeed, we need to engage with the Government of Indonesia, civil society organisations, local and indigenous communities, key players and other stakeholders in the Indonesian palm oil industry, to find solutions to existing challenges, including the current legal framework. More information on this can be found in the section on Stakeholder Engagement.

Social and Community Engagement Policy

Sustainable palm oil production requires the active participation of members from all management levels, from senior managers to field workers, smallholder farmers and local communities. All stakeholders need to understand what we are trying to achieve and be engaged in helping to shape our policies and practices on the ground. Such constructive engagement can only be built on a basis of trust and transparent communication.

Consequently, in our SCEP, we have collaborated with TFT to develop a framework of principles that enables us to effectively relate to our stakeholders. We believe that these principles will enable us to build the relationships that are essential for sustainable success. We expect to be judged by how well we live them out, and will promote this approach across the palm oil industry in Indonesia and around the world.

Yield Improvement Policy

Launched in February 2012, the YIP that we jointly developed with TFT applies to GAR's total cultivated area including all smallholdings. The YIP leverages technology and innovation to increase crude palm oil ("CPO") yield in order to improve the livelihoods of smallholders and to reduce the pressure to open new land.

Under the policy, we aim to achieve by 2015 an average CPO yield of 5.8 tonnes per hectare and 5.6 tonnes per hectare for our own plantations and smallholdings respectively, from oil palm trees in the prime age of 7 to 18 years. This is a 12% increase from the average CPO yield achieved by GAR and its smallholders in 2010.

In 2012, GAR achieved a CPO yield of 5.26 tonnes per hectare, higher than the Indonesian average of 4.14 tonnes per hectare. Our on-going collaboration with smallholders has also been successful, with the CPO yield of our smallholders reaching 5.51 tonnes per hectare.

GAR's productivity is consistently higher than the industry average mainly because we continuously build on our best practices in using high-yielding planting material, advanced agronomic practices and best-in-class estate management.

We are committed to continuous improvement as best practices evolve and adopt an open learning approach to develop and share these developments with our smallholders.

CHART 4.1 GAR CPO yield compared to the Indonesian industry (tonnes per hectare)

Year	2008	2009	2010 ²	2011	2012
GAR	5.18	5.35	4.70	5.02	5.26
Indonesian Industry ¹	3.90	3.95	3.89	4.00	4.14

¹ Source: Oil World Annual 2013. ISTA Mielke GmbH, Germany www.oilworld.de

² Palm oil production is highly dependent on weather conditions. 2010 was not a favourable year for palm oil production because of La Nina which resulted in high rainfall in Indonesia throughout the year. The wet weather disrupted the pollination process for fruit production and also impeded the harvesting process.

CHART 4.2 GAR smallholder CPO yield compared to the Indonesian smallholder average (tonnes per hectare)

Year	2008	2009	2010	2011	2012
GAR smallholders	5.20	5.45	4.92	5.42	5.51
Indonesian smallholders ¹	3.33	3.31	3.33	3.29	3.35 ²

¹ Source: Indonesian Palm Oil in Numbers 2012, Indonesian Palm Oil Commission

² Preliminary figure



GAR's YIP builds on our early success of improving yield, which has been consistently above the Indonesian industry average for many years.

MANAGING SUSTAINABILITY IN OUR PLANTATIONS

MANAGING ENVIRONMENTAL IMPACTS

We proactively manage and monitor the environmental aspects of our operations in order to minimise adverse impact on the natural environment. There are five key performance areas that we track as part of our environmental management.

Soil fertility and management

GAR implements best agricultural management practices that maintain and enhance soil fertility through a comprehensive mineral nutrition management plan. The objective is to minimise the quantity of fertiliser applied, while still enabling the oil palms to attain their full productive and economic potential, and to reduce the associated risk of soil degradation posed by agricultural activities.

We recycle almost all the biomass and by-products (pruned fronds, empty fruit bunches, and palm oil mill effluent) produced in our plantations and mills, using them as organic fertilisers. This practice is fully integrated in our fertiliser management plan, and helps reduce the use of mineral fertilisers by about 15% in global quantity. Some of the recycled products are applied as extra soil amendments (or soil conditioners) when the original soil fertility is poor. However, the use of such by-products alone is not always sufficient to maximise the potential of the palms, as the palms require a different balance and amount of nutrients compared with what the biomass and by-products contain. Consequently, site specific management is required to adjust the rates and occasionally the combination of organic and inorganic fertilisers.

To further minimise the use of mineral fertilisers while still maximising the yield performance of the oil palms, our research institute, SMARTRI, has embarked on a research programme for a holistic approach of soil fertility evaluation as discussed in the Research and Development section.

Natural pest control and pesticide use

We use only approved and registered agrochemicals permitted by the Ministry of Agriculture. These are applied by trained personnel in accordance with national laws and regulations.

We are committed to implementing tight control over the use of chemical pesticides. Since the early development of our operations, we have advocated the use of an Integrated Pest Management approach in our plantations to minimise the use of pesticides and mitigate the possible impact of pest control on the environment. We use beneficial plants that attract natural parasitoids, natural predators and pathogens or bacteria, and rely on handpicking or mechanical traps to help control oil palm pest. For example, rat control is predominantly managed by barn owls kept in plantations, leaf-eating caterpillars are limited thanks to the growth of beneficial plants as well as the flora biodiversity in the plantations, and pheromones are used against rhinoceros beetles (*Oryctes rhinoceros*).

Pesticide use is minimised throughout all growth phases of the palms. The preferred method is to deploy biological controls. Pesticides are deployed only to control outbreaks of infestation when biological controls are not successful. In such cases, pesticide is used carefully in compliance with national laws.

In 2012, the use of herbicide (including paraquat) increased to 25 grams per tonne of CPO produced, up from 21 grams per tonne of CPO produced in 2011. There were favourable conditions for the development of weeds in remote West Kalimantan. Coupled with an acute labour shortage, our standard methods for weed control did not achieve satisfactory results to control the situation. As such, we resorted to using paraquat to eliminate the rampant growth of the woody weeds.

To reduce the use of chemical pesticides, we will continue our research and adoption of breeding methods to ensure that our oil palms are hardier, more disease and pest resistant.

Through collaborations with national and international institutions, we will maintain our efforts in researching and finding ways to phase out the use of such chemicals.

CHART 4.3 Active ingredients in pesticides used in GAR plantations

Type of pesticides	Quantity used per year (kg or litre per hectare)			Quantity used per year (kg or litre per tonne of CPO produced)		
	2010	2011	2012	2010	2011	2012
Acaricides ¹	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fungicides ¹	0.004	0.008	0.005	0.001	0.002	0.001
Herbicides	0.327	0.397	0.510	0.076	0.084	0.097
including Paraquat	0.083	0.100	0.133	0.019	0.021	0.025
Insecticides	0.001	0.001	0.002	<0.001	<0.001	<0.001
Rodenticides	0.001	0.001	0.001	<0.001	<0.001	<0.001
Total	0.333	0.407	0.518	0.077	0.086	0.098

¹ used only in nurseries

Water management

Minimising any risk of water pollution, whether in surface water or ground water, is a top priority for GAR.

At GAR, we focus on fertiliser applications and land management practices of crop production to reduce any potential risks of water pollution. Specific recommendations in the Company's SOPs include: splitting fertiliser applications based on soil nutrient retention capacity (mainly soil texture), avoiding application during heavy rain periods, maintaining an appropriate interval between successive applications, and maximising the recycling of fronds and other organic products to increase the fixing capacity of cations in soils.

To assess the impact of our agronomic practices on the quality of surface water, we are conducting studies which are discussed in the section on Research and Development.

Water use

Water is the main supplementary material used in palm oil production. We meet our water needs by using surface water that is processed to meet the quality standards required for the production process. We strive to use water efficiently by recycling and reusing it in certain parts of the process. Ground water is used only in very limited quantities in locations where there is no surface water. Chart 4.4 shows our water consumption over the last five years.

CHART 4.4 Water consumption

Water consumption (m ³ per tonne of CPO produced)				
2008	2009	2010	2011	2012
3.03	3.02	3.09	2.96	3.08

Waste management

Fresh fruit bunches ("FFB") processing generates a variety of by-products, such as empty fruit bunches ("EFB"), fibre, shells and palm oil mill effluent ("POME"). Our zero waste strategy is to reuse, recover and recycle. We recycle all organic by-products as organic fertiliser and as a source of energy.

With about 2.4 million tonnes of palm oil produced by our units in Indonesia in 2012, we generated around 4.2 million tonnes of solid waste (EFB, fibre and shells) and around 6.9 million tonnes of liquid waste (mainly POME).

Around 1.3 million tonnes of fibre and around 600,000 tonnes of shells are used in our mills as renewable fuel. The detailed breakdown of the use of our plantation waste as organic fertilisers is as seen in Chart 4.5.

Empty fruit bunches

- 92% is applied fresh, or after composting with effluent, in the field as organic fertiliser.
- 8% is still incinerated because of specific site conditions, and subsequently ashes are applied in the field as a substitute for potash fertiliser. The Company is continuously looking for operational alternatives in order to reduce and stop this practice.



Field application of empty fruit bunches.

CHART 4.5 Recycling of waste (estimated values)

Waste	Quantity produced (tonnes or m ³)	Quantity recycled (tonnes or m ³)	Usage	Energy equivalent (kCal x kg fuel)	Fertiliser equivalent (tonnes)	CO ₂ equivalent (tonnes)
Fibers	1,333,000	1,333,000	Fuel	3,100	–	120,000
Shell	600,000	512,000	Fuel	4,200	–	70,000
EFB	2,240,000	2,050,000	Organic fertiliser	–	54,000	1,235,000
POME	6,900,000	6,750,000	Organic fertiliser	–	50,000	145,000

MANAGING SUSTAINABILITY IN OUR PLANTATIONS

Palm oil mill effluent

- 95% is applied in the field after traditional anaerobic and aerobic treatment in order to render their chemical and physical characteristics in accordance with national regulations.

A specific application permit has been obtained for each location, with close monitoring of environmental impact as requested by the authorities.

- Almost 4% is applied after composting with EFB.

A new composting facility began operation in December 2011. During 2012, this new unit produced some 39,000 tonnes of compost, of which almost 35,000 tonnes have been applied on 1,955 hectares of plantations. The rest of the compost was applied in early 2013 on an additional 212 hectares. As a result of this additional composting unit in operation, a total of more than 52,000 tonnes of compost was produced in 2012, well above the approximately 13,500 tonnes produced in 2011.

- Less than 2% is treated before being disposed of.

Reducing greenhouse gas emissions

GAR is committed to reducing GHG emissions. Our efforts focus on addressing the three main sources of GHG emissions linked to palm oil production.

Nitrogen fertilisers

We adjust the use of mineral fertilisers, such as nitrogen fertilisers, to the minimum rate required by the palms. In addition, we employ stringent nitrogen fertiliser application procedures. We avoid application during dry periods to reduce volatilisation of ammoniac gas, and during very wet periods to reduce emission of nitrous oxide. Such practices minimise the risk of emissions related to nitrogen fertiliser utilisation.

Land use change

In February 2010, GAR made an important decision to stop any development on peat regardless of depth. This builds on our pioneering zero burning policy established in 1997. In February 2011, GAR committed to conserving high carbon stock forests and high conservation value areas under its Forest Conservation Policy. These measures have a significant impact on reducing our carbon footprint.

Palm oil mill effluent

We have taken steps to capture methane gas, a greenhouse gas 21 times more potent than carbon dioxide, from our palm oil mill effluent.

In 2011, we invested in bio-digester system to capture methane gas produced from the effluent treatment at our Sei Pelakar Mill in Jambi, Sumatra. This project was developed under the Kyoto Protocol as a Clean Development Mechanism. On 17 May 2013, this project was officially registered in United Nations Framework Convention on Climate Change ("UNFCCC") under project no. 7031.

The bio-digester has provided an alternative source of electricity for our mill operation, reducing our diesel consumption by 80%. We have a similar project at our Belian Mill in West Kalimantan which is expected to be operational in December 2013. Such technology

to convert methane gas into energy is being implemented progressively in our operations.

PRESERVING HIGH CONSERVATION VALUE AREAS

We support efforts to preserve high conservation value ("HCV") areas. HCV areas are made up of wildlife habitats, rare ecosystems and cultural areas. They are found across land for development and in our existing plantations.

Our HCV assessments are benchmarked against best practices and are incorporated into management plans for plantation development. Where necessary, we engage external experts to provide inputs to these HCV assessments. If an HCV area is found in our plantations, we take the following measures to enhance its natural value and biodiversity:

- protecting the flora and fauna, especially endangered species, by eliminating threats from illegal activities such as poaching;
- avoiding degradation and deterioration;
- continuously reviewing management plans to conserve HCV areas; and
- monitoring the HCV regularly and enriching or rehabilitating, if necessary.

As at December 2012, we completed HCV assessments for all of our existing plantations. To date, the HCV areas found in our existing plantations and new planting areas are approximately 22,954 hectares and 25,036 hectares respectively.

GAR's management of HCV areas involves internal management and key stakeholders such as local communities and government. All levels of GAR's management are committed to implementing our HCV management. The standard operating procedures involve the assessment of HCV areas, management of the HCV areas to conserve biodiversity and the quality of the HCV conservation areas, and continuous monitoring of the HCV areas to ensure that they remain conserved.

Endangered species

GAR operates our business in Indonesia where there is a rich and immensely varied eco-system. We recognise the importance of protecting and conserving the habitats of rare and endangered species as part of our commitment to sustainable palm oil production.

Chart 4.6 shows threatened species under the Indonesia's National Law of Protected Species (Peraturan Pemerintah nomor 7 tahun 1999) or on the IUCN Red List. They have been identified within our concessions and the surrounding landscape during our HCV assessment and their habitats are classified as HCV to be conserved.

SMART has a Zero Tolerance Policy towards hunting, injury, possession and killing of rare and endangered wildlife within our plantations. We have been educating our employees and local communities as well as related stakeholders on the importance of conserving rare and endangered species. Any infringement of this policy will result in disciplinary measures, including termination of employment. We also collaborate with the government, related organisations and NGOs on the management of rare and endangered species.

CHART 4.6 Threatened species identified in our concessions

Type	Common name	Scientific name	IUCN status ¹	Protected under PP7/1999 ²
Kalimantan				
Mammals	Javan Chevrotain	<i>Tragulus javanicus</i>	Data deficient	Yes
	Agile Gibbon	<i>Hylobates agilis</i>	Endangered	Yes
	Müller's Bornean Gibbon	<i>Hylobates muelleri</i>	Endangered	Yes
	Bornean Orangutan	<i>Pongo pygmaeus</i>	Endangered	Yes
	Proboscis Monkey	<i>Nasalis larvatus</i>	Endangered	Yes
	Sunda Pangolin	<i>Manis javanica</i>	Endangered	Yes
	Banded Linsang	<i>Prionodon linsang</i>	Least concern	Yes
	Flying Squirrel	<i>Cynocephalus sp</i>	Least concern	Yes
	Greater Oriental Chevrotain	<i>Tragulus napu</i>	Least concern	Yes
	Malayan Porcupine	<i>Hystrix brachyura</i>	Least concern	Yes
	Maroon Leaf Monkey	<i>Presbytis rubicunda</i>	Least concern	Yes
	Southern Red Muntjac	<i>Muntiacus muntjak</i>	Least concern	Yes
	Three-striped Ground Squirrel	<i>Lariscus insignis</i>	Least concern	Yes
	Black Giant Squirrel	<i>Ratufa bicolor</i>	Near threatened	Yes
	Berang – belang	<i>Lutra sp</i>	Nil	Yes
	Leopard Cat	<i>Felis bengalensis</i>	Nil	Yes
	Sambar Deer	<i>Cervus unicolor</i>	Nil	Yes
	Timor Deer	<i>Cervus timorensis</i>	Nil	Yes
	Bare-backed Rousette	<i>Rousettus spinalatus</i>	Vulnerable	Yes
	Binturong	<i>Arctictis binturong</i>	Vulnerable	Yes
	Clouded Leopard	<i>Neofelis nebulosa</i>	Vulnerable	Yes
	Greater Slow Loris	<i>Nycticebus coucang</i>	Vulnerable	Yes
	Malayan Sun Bear	<i>Helarctos malayanus</i>	Vulnerable	Yes
	Southern Pig-tailed Macaque	<i>Macaca nemestrina</i>	Vulnerable	Yes
	White-fronted Langur	<i>Presbytis frontata</i>	Vulnerable	Yes
Birds	Barn Swallow	<i>Hirundo rustica</i>	Least concern	Yes
	Black-winged Kite	<i>Elanus caeruleus</i>	Least concern	Yes
	Brahminy Kite	<i>Haliastur indus</i>	Least concern	Yes
	Cattle Egret	<i>Bubulcus ibis</i>	Least concern	Yes
	Crested Goshawk	<i>Accipiter trivirgatus</i>	Least concern	Yes
	Glossy Ibis	<i>Plegadis falcinellus</i>	Least concern	Yes
	Hill Myna	<i>Gracula religiosa</i>	Least concern	Yes
	Olive-backed Sunbird	<i>Nectarinia jugularis</i>	Least concern	Yes
	Peregrine Falcon	<i>Falco peregrinus</i>	Least concern	Yes
	White-throated Kingfisher	<i>Halcyon smyrnensis</i>	Least concern	Yes
	Wreathed Hornbill	<i>Aceros undulatus</i>	Least concern	Yes
	Asian Black Hornbill	<i>Anthraceroceros malayanus</i>	Near threatened	Yes
	Oriental Darter	<i>Anhinga melanogaster</i>	Near threatened	Yes
	Painted Stork	<i>Mycteria leucocephala</i>	Near threatened	Yes
	Rhinoceros Hornbill	<i>Buceros rhinoceros</i>	Near threatened	Yes
	Eclectus Parrot	<i>Lorius roratus</i>	Nil	Yes
	Chinese Egret	<i>Egretta eulophotes</i>	Vulnerable	Yes
	Grey Imperial Pigeon	<i>Ducula pickeringii</i>	Vulnerable	Yes
	Large Green Pigeon	<i>Treron capellei</i>	Vulnerable	Yes
	Lesser Adjutant	<i>Leptoptilos javanicus</i>	Vulnerable	Yes

¹ Citation: IUCN 2011. The IUCN Red List of Threatened Species. Version 2011.2. <<http://www.iucnredlist.org>>. Downloaded on 26 April 2011.

² Indonesian Law on Protected Species No. 7 / 1999

Data Source: HCV Reports 2009 - 2012 and Historic HCV Assessment 2011

MANAGING SUSTAINABILITY IN OUR PLANTATIONS

CHART 4.6 Threatened species identified in our concessions (continued)

Type	Common name	Scientific name	IUCN status ¹	Protected under PP7/1999 ²
Kalimantan				
Reptiles	Siamese Crocodile	<i>Crocodylus siamensis</i>	Critically endangered	Yes
	False Gharial	<i>Tomistoma schlegelii</i>	Endangered	Yes
	Saltwater Crocodile	<i>Crocodylus porosus</i>	Lower risk/least concern	Yes
	Asiatic Rock Python	<i>Python molurus</i>	Lower risk/near threatened	Yes
	Bornean Lizard	<i>Varanus borneensis</i>	Nil	Yes
Plant species	Hopea	<i>Hopea mengerawan</i>	Critically endangered	Yes
	Light Red Meranti	<i>Shorea teysmanniana</i>	Endangered	Yes
	Meranti	<i>Shorea spp.</i>	Endangered	Yes
	Mersawa	<i>Anisoptera grossivenia</i>	Endangered	Yes
	White Meranti	<i>Shorea agami</i>	Endangered	Yes
	Borneo Ironwood	<i>Eusideroxylon zwageri</i>	Vulnerable	Yes
	Durian Merah	<i>Durio kutejensis</i>	Vulnerable	Yes
	Indonesian Ebony	<i>Diospyros celebica</i>	Vulnerable	Yes
	Lign-aloes	<i>Aquilaria malaccensis</i>	Vulnerable	Yes
	Moluccan Iron-wood / Borneo Teak	<i>Intsia bijuga</i>	Vulnerable	Yes
	Ramin	<i>Gonystylus bancanus</i>	Vulnerable	Yes
	Tengkawang	<i>Shorea macrophylla</i>	Vulnerable	Yes
	Tortoise Durian	<i>Durio testudinarum</i>	Vulnerable	Yes
Papua				
Mammals	Dusky Pademelon	<i>Thylogale brunii</i>	Vulnerable	Yes
	Kangguru Tanah	<i>Thylogale Bruntt</i>	Vulnerable	Yes
	Round-eared Tube-nosed Bat	<i>Nyctimenecyclotis</i>	Data Deficient	Yes
Birds	Black-capped Lory	<i>Lorius lory</i>	Least Concern	Yes
	Brahminy Kite	<i>Haliastur indus</i>	Least Concern	Yes
	Mambruk	<i>Goura Victoria</i>	Vulnerable	Yes
Sumatra				
Mammals	Javan Chevrotain	<i>Tragulus javanicus</i>	Data deficient	Yes
	Agile Gibbon	<i>Hylobates agilis</i>	Endangered	Yes
	Asian Elephant	<i>Elephas maximus</i>	Endangered	Yes
	Malayan Tapir	<i>Tapirus indicus</i>	Endangered	Yes
	Siamang	<i>Symphalangus syndactylus</i>	Endangered	Yes
	Sumatran Surili / Mitred Leaf Monkey	<i>Presbytis melalophos</i>	Endangered	Yes
	Sunda Pangolin	<i>Manis javanica</i>	Endangered	Yes
	Banded Linsang	<i>Prionodon linsang</i>	Least concern	Yes
	Greater Oriental Chevrotain	<i>Tragulus napu</i>	Least concern	Yes
	Malayan Porcupine	<i>Hystrix brachyura</i>	Least concern	Yes
	Southern Red Muntjac	<i>Muntiacus muntjak</i>	Least concern	Yes
	Sunda Stink Badger	<i>Mydaus javanensis</i>	Least concern	Yes
	Banded Surili	<i>Presbytis femoralis</i>	Near threatened	Yes
	Black Giant Squirrel	<i>Ratufa bicolor</i>	Near threatened	Yes
	Berang – belang	<i>Lutra sumatrana</i>	Nil	Yes
	Leopard Cat	<i>Felis bengalensis</i>	Nil	Yes
	Sambar Deer	<i>Cervus unicolor</i>	Nil	Yes
	Timor Deer	<i>Cervus timorensis</i>	Nil	Yes

¹ Citation: IUCN 2011. The IUCN Red List of Threatened Species. Version 2011.2. <<http://www.iucnredlist.org>>. Downloaded on 26 April 2011.

² Indonesian Law on Protected Species No. 7 / 1999

Data Source: HCV Reports 2009 - 2012 and Historic HCV Assessment 2011

CHART 4.6 Threatened species identified in our concessions (continued)

Type	Common name	Scientific name	IUCN status ¹	Protected under PP7/1999 ²
Sumatra				
Mammals	Clouded Leopard	<i>Neofelis nebulosa</i>	Vulnerable	Yes
	Greater Slow Loris	<i>Nycticebus coucang</i>	Vulnerable	Yes
	Malayan Sun Bear	<i>Helarctos malayanus</i>	Vulnerable	Yes
	Southern Pig-tailed Macaque	<i>Macaca nemestrina</i>	Vulnerable	No
	Thomas Langur	<i>Presbytis thomasi thomasi</i>	Vulnerable	Yes
	Thomas Leaf Monkey	<i>Presbytis thomasi margae</i>	Vulnerable	Yes
Birds	Barn Swallow	<i>Hirundo rustica</i>	Least concern	Yes
	Black-winged Kite	<i>Elanus caeruleus</i>	Least concern	Yes
	Brahminy Kite	<i>Haliastur indus</i>	Least concern	Yes
	Cattle Egret	<i>Bubulcus ibis</i>	Least concern	Yes
	Crested Goshawk	<i>Accipiter trivirgatus</i>	Least concern	Yes
	Hill Myna	<i>Gracula religiosa</i>	Least concern	Yes
	Olive-backed Sunbird	<i>Nectarinia jugularis</i>	Least concern	Yes
	Peregrine Falcon	<i>Falco peregrinus</i>	Least concern	Yes
	White-throated Kingfisher	<i>Halcyon smyrnensis</i>	Least concern	Yes
	Woolly-necked Stork	<i>Ciconia episcopus</i>	Least concern	Yes
	Wreathed Hornbill	<i>Aceros undulatus</i>	Least concern	Yes
	Asian Black Hornbill	<i>Anthraceros malayanus</i>	Near threatened	Yes
	Oriental Darter	<i>Anhinga melanogaster</i>	Near threatened	Yes
	Painted Stork	<i>Mycteria leucocephala</i>	Near threatened	Yes
	Rhinoceros Hornbill	<i>Buceros rhinoceros</i>	Near threatened	Yes
	Bluwok	<i>Ibis cinereus</i>	Nil	Yes
	Eclectus Parrot	<i>Lorius roratus</i>	Nil	Yes
	Lesser Adjutant	<i>Leptoptilos javanicus</i>	Vulnerable	Yes
Reptiles	False Gharial	<i>Tomistoma schlegelii</i>	Endangered	Yes
	Saltwater Crocodile	<i>Crocodylus porosus</i>	Lower risk/least concern	Yes
	Asiatic Rock Python	<i>Python molurus</i>	Lower risk/near threatened	Yes

¹ Citation: IUCN 2011. The IUCN Red List of Threatened Species. Version 2011.2. <<http://www.iucnredlist.org>>. Downloaded on 26 April 2011.

² Indonesian Law on Protected Species No. 7 / 1999

Data Source: HCV Reports 2009 - 2012 and Historic HCV Assessment 2011



Release of orangutans to their habitat in Seruyan Forest on 21 June 2013. **From left:** Zulkifli Hasan (Minister of Forestry), Gandi Sulistiyanto (Managing Director of Sinar Mas), Sehat (Senior Supervisor of OFI), Birute Mary Galdikas (Founder of OFI).

Our partnership with OFI

In November 2011, SMART entered into a two-year partnership programme with Orangutan Foundation International ("OFI") to support the protection of orangutans in Kalimantan, Indonesia. Founded by Dr. Birute Mary Galdikas in 1986, OFI is a non-profit organisation dedicated to the welfare of wild orangutans and their rainforest habitat.

Under this partnership programme, SMART supports the release of 40 wild-born ex-captive orangutans into their natural habitat.

On 21 June 2013, 10 orangutans, consisting of eight females and two males, aged five to 15 years old were released, joining 22 other orangutans which were earlier released to their habitat in Seruyan Forest. This event coincided with the inauguration of Seluang Mas Camp by the Minister of Forestry. The camp is built to support OFI's monitoring and evaluation of the orangutans before and after they are released into the forest.

MANAGING SUSTAINABILITY IN OUR PLANTATIONS

Our partnership includes a training programme by OFI that has trained 202 of our employees on orangutan conservation. These employees are mainly involved in field operations in Kalimantan while some of them oversee our biodiversity and conservation efforts. In addition, the Company also seeks assistance from OFI in handling orangutans and rehabilitating the 1,400-hectare orangutan sanctuary which we have set aside in Sungai Rungau, Central Kalimantan.

Protecting tiger and elephant

Tiger and elephant are amongst the list of endangered animals in Jambi, Sumatra. To protect these iconic species, we collaborated with the Jambi Nature Conservancy Indonesia (Balai Konservasi Sumber Daya Alam) to train our employees. The training programme raised their awareness about these endangered animals and equipped them with basic skills in managing animal-human conflict.

With an improved capacity to deal with such conflicts, local attitudes will change and create better conditions for implementing other tiger and elephant conservation initiatives.

ENVIRONMENTAL AWARDS
Indonesian Green Awards 2012

In August 2011, SMART, through its subsidiary PT Kresna Duta Agroindo, initiated a bio-digester system at Sei Pelakar Mill in West Sumatra to capture methane gas from palm oil mill effluent. This is an important milestone in our journey towards sustainable palm oil production as it enables the development of renewable energy and GHG emissions reduction in our operations.

In recognition of our efforts to reduce greenhouse gas emission, SMART received the Indonesian Green Award 2012 from the Ministry of Forestry and the Ministry of Industry and Trade on 10 July 2012.

PROPER

The Indonesian Ministry of Environment’s Programme for Pollution Control, Evaluation, and Rating (“PROPER”) is a national public environmental reporting initiative. GAR has taken part in PROPER since 2007. PROPER assessment refers to the environmental compliance stipulated in government regulation related to water and air pollution control, hazardous waste management and environmental impact assessments.

The programme uses a color-coded rating, ranging from gold for excellent performance to black for poor performance.

In 2012, 17 of our mills took part in the assessment process for PROPER. Three mills were rated green for exceeding the expected compliance level while 13 mills obtained a blue rating for achieving the regulatory standards. One mill received a red rating as its water pollution control fared below the 90% minimum requirement although it achieved 100% compliance in other aspects of the evaluation. The Company has conducted a thorough internal audit and implemented an action plan to close the gaps identified by the audit.

Chart 4.8 shows our PROPER assessment from 2008 to 2012. We will continue to improve on our current environmental management system.

CHART 4.7 PROPER rating system

Gold	For businesses/activities that have successfully displayed environmental management effort and achieved excellent results.
Green	For businesses/activities that have displayed environmental management effort and achieved results better than those required by regulation.
Blue	For businesses/activities that have displayed environmental management effort, and have achieved the minimum standard required by regulation.
Red	For businesses/activities that have displayed environmental management effort, but have achieved only part of the minimum standard required by regulation.
Black	For businesses/activities that do not display significant environmental management effort.

CHART 4.8 GAR's PROPER achievements (2008 – 2012)

No	Company	Mill	Location	PROPER Achievement				
				2008	2009	2010	2011	2012
1.	PT Bumi Permai Lestari	Bukit Perak	Bangka	NA	NA	NA	NA	Blue
2.	PT Djuandasawit Lestari	Muara Kandis	South Sumatra	Blue Minus	Red Minus	Blue	Blue	Blue
3.	PT Foresta Lestari Dwikarya	Tanjung Kembiri	Belitung	NA	NA	NA	Blue	Blue
4.	PT Ivo Mas Tunggal	Sam Sam	Riau	Blue Minus	Red	Blue	Blue	Blue
5.	PT Kresna Duta Agroindo	Jelatang	Jambi	NA	Red Minus	Red	Blue	Blue
6.	PT Kresna Duta Agroindo	Langling	Jambi	NA	Red Minus	Red	Blue	Blue
7.	PT Kresna Duta Agroindo	Pelakar	Jambi	NA	NA	NA	NA	Blue
8.	PT MP Leidong West Indonesia	Leidong West	Bangka	NA	NA	NA	NA	Blue
9.	PT Ramajaya Pramukti	Rama Rama	Riau	NA	NA	NA	NA	Blue
10.	PT Sinar Kencana Inti Perkasa	Sungai Kupang	South Kalimantan	NA	Black	Blue	Blue	Green
11.	PT SMART Tbk	Batu Ampar	South Kalimantan	Blue Minus	Red	Blue	Blue	Green
12.	PT SMART Tbk	Bukit Kapur	South Kalimantan	NA	NA	NA	NA	Blue
13.	PT SMART Tbk	Padang Halaban	North Sumatra	Blue Minus	Blue Minus	Blue	Red	Blue
14.	PT SMART Tbk	Tanah Laut	South Kalimantan	NA	NA	NA	NA	Green
15.	PT Sumber Indah Perkasa	Sungai Buaya	Lampung	Blue Minus	Red Minus	Blue	Blue	Blue
16.	PT Sumber Indah Perkasa	Sungai Rungau	Central Kalimantan	NA	NA	NA	Blue	Red
17.	PT Tapian Nadenggan	Hanau	Central Kalimantan	NA	NA	NA	Green	Blue

Promoting sustainability of smallholders

Plasma smallholders

We have approximately 66,000 smallholders in Indonesia under the plasma scheme with a total planted area of 96,500 hectares as at end 2012. While the Company does not own the plasma plantations, they are very closely integrated into our management system and we take the lead in promoting their success and productivity.

In a typical scheme, holders of the plasma plots would be supported in the early years before the oil palms reached maturity, through employment and subsistence agriculture. Under the cooperative credit scheme Koperasi Kredit Primer Anggota and Revitalisation Programme, the management of the plasma area would come officially under a cooperative of smallholders, which would generally contract technical functions back to the nucleus plantation company.

Hence, plasma smallholders are often engaged as workers on their plots. They received additional income through the guaranteed sale of FFBs at a price set through a government formula.

GAR has been supportive of the plasma scheme since 1990. Our on-going collaboration with smallholders has been successful.

In 2012, the CPO yield per hectare of our smallholders was 5.51 tonnes, higher than the Indonesian smallholder average of 3.35 tonnes. Refer to Chart 4.2 to see how our smallholders fared in the last five years.

We continue to fully support the development of plasma smallholders and are committed to improving their productivity. In addition to supplying them with high-yielding seeds, we provide knowledge transfer and capacity building through training on best agricultural practices such as optimal fertiliser usage and application techniques, integrated pest management, health and safety, and other agronomical support.

Besides educating plasma smallholders on the optimal usage and application of fertilisers, we help by supplying good quality fertilisers to them. Since fertilisers account for a major part of operational cost, we allow them to pay in affordable instalments.

We also assist them in palm oil certification (see Helping smallholders achieve RSPO certification on the following page). Our plasma smallholders also benefit from our social and community provisions such as schools and clinics (see the Social and Community Affairs section).

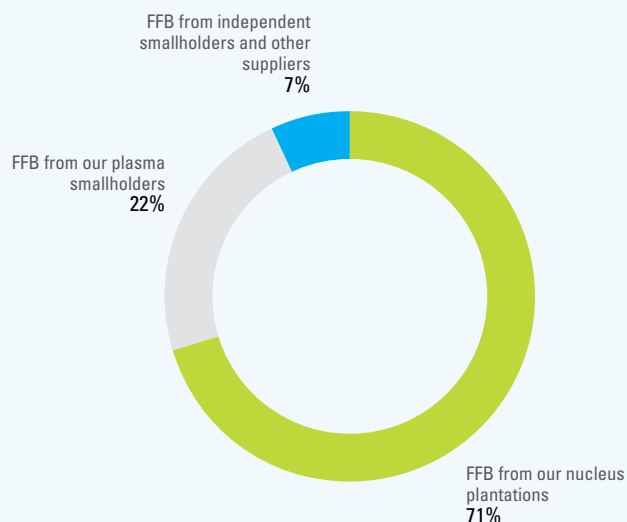
Promoting sustainability of smallholders (continued)

Independent smallholders

Independent farmers contribute to our business by selling FFB to our mills. As Chart 4.9 shows, independent smallholders and other suppliers provided 7% of our total intake of FFB in 2012.

They are totally independent of our operations, owning their own land and being completely responsible for the development and maintenance of their own crop. They are self-organised and can choose where to sell their crop, unlike the plasma farmers who are contractually bound to our business. Nevertheless, we do have links with them. Many benefit from our technical assistance in agronomy, which is important in helping to maximise their economic return and increasing the adoption of good sustainability practices.

CHART 4.9 FFB intake by source in 2012



Helping plasma smallholders achieve RSPO certification

As we make steady progress with our RSPO certification plans, it is important that our smallholders obtain RSPO certification simultaneously so that they too can stand out as sustainable oil palm growers in the marketplace.

The smallholders are expected to fulfil the same stringent set of certification principles and criteria for RSPO certification. To help them, the Company actively shares expertise, imparts knowledge of sustainable practices and lends them technical support during the certification process.

Through a gap analysis against the RSPO principles and criteria, we help them identify areas for improvement and build capacity. We imbue in the smallholders the practice of assessing HCV areas to be carved out for protection and have them build in occupational health and safety management as part of their operations. We also assist in developing a more robust documentation of their operations as well as the management of their environmental and social responsibility. Through a stringent audit process, we help to check that they are meeting the RSPO standards.

In November 2012, the Company received its first smallholder RSPO certification for 3,259 hectares of plasma plantation in South Kalimantan.

In March 2013, two subsidiaries of PT Ivo Mas Tunggal, PT Buana Wiralestari Mas and PT Rama Jaya Pramukti received RSPO certification for 18,159 hectares of plasma plantations in the Kampar District, Riau Province.

As at 30 June 2013, 21,418 hectares of our smallholder plantations involving over 11,000 smallholders have received RSPO certification.

We remain focused on helping more of our smallholders attaining RSPO certification. This is in line with GAR's efforts to obtain RSPO certification for 89,000 hectares of smallholder plantations, involving about 45,000 farmers by December 2015.

Launch of certification scorecard system

Together with TFT, the Company is deploying a scorecard system to optimise efforts in RSPO certification.

Developed as a tool to monitor gaps against the RSPO Principles and Criteria, this computerised system allows certification units to create an action plan to ensure the closure of these gaps. The relational database system is accessible online by the different levels of the management as a strategic management tool. As an analytic management tool, it enables the Company to efficiently map progress across all estates and mills.

The programme has been implemented in the field since 27 May 2013.

Together with TFT, we are focusing on ensuring the smooth deployment of the RSPO scorecard as we monitor and evaluate the implementation and impact of the scorecard across the certification units comprising mills and estates.

RESEARCH AND DEVELOPMENT

The mission of SMART Research Institute ("SMARTRI") is to support the sustainable development of GAR, through innovation, developing best practices, and an improved oil palm breeding programme. In 2012, the research and development spending was Rp82.03 billion (or US\$8.73 million).

SMARTRI conducts applied and scientific research in the following main areas:

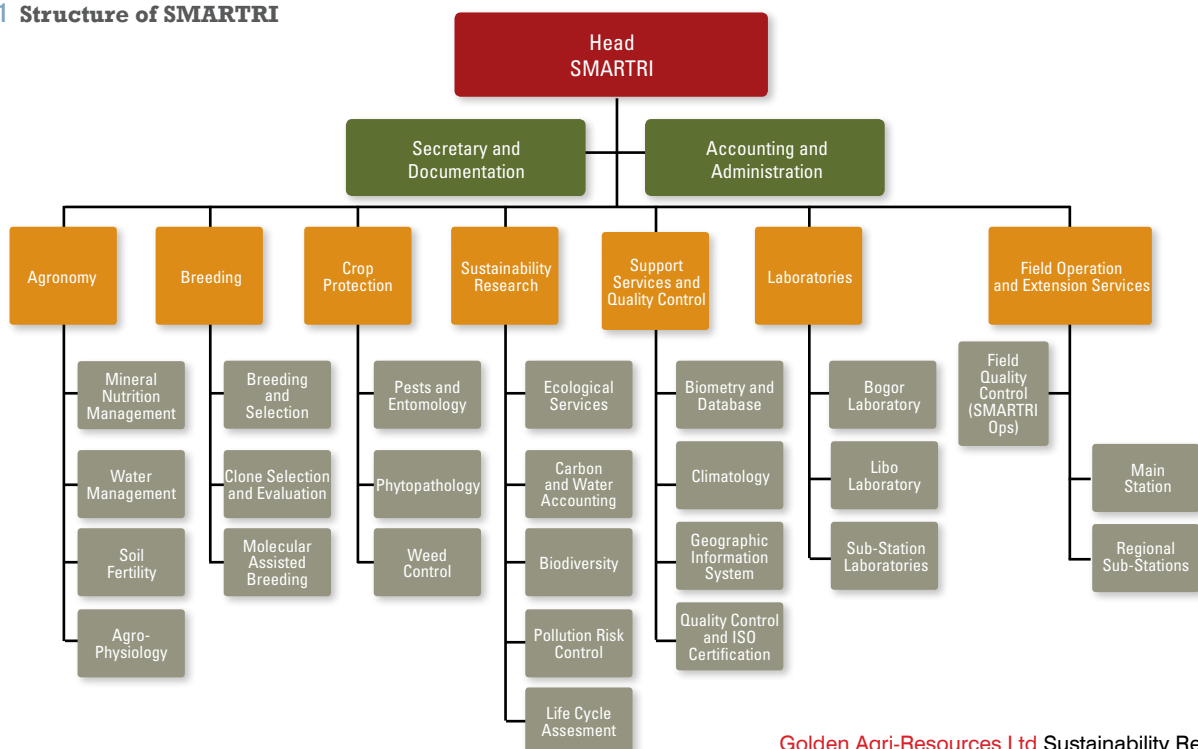
- Agronomy, which includes various studies such as the oil palm tree mineral nutrition, water management, soil fertility, eco-physiology studies, and the development of sustainable cultivation practices;
- Breeding, namely the continual improvement of the oil palm tree through a conventional selection programme, and more recently through assisted molecular breeding. The development of tissue culture will also contribute to improving the yield of our future plantings;
- Crop protection, predominantly through an Integrated Pest Management ("IPM") approach, covering the control of pests, entomology, phytopathology and weeds; and
- Sustainability, including developing methodologies and tools to assess the impact of our field practices on the environment, and subsequently to develop and test more sustainable agricultural practices for palm oil production.



A significant number of our research programmes is cross-disciplinary, such as various breeding programmes to develop planting material that is disease-tolerant (e.g. against Ganoderma disease), drought-resistant or more efficient in nutrient uptake and utilisation, as well as research into carbon accounting and biodiversity assessment within our plantations.

Our research institute is certified ISO 9001-2008, and the analytical laboratory is certified ISO 9001-2008 as well as accredited ISO 17025. Our research activities are managed by seven departments, as illustrated in Chart 5.1.

CHART 5.1 Structure of SMARTRI



RESEARCH AND DEVELOPMENT

EQUIPPING AND TRAINING

As of December 2012, we had 70 graduate researchers posted in the main research station of Libo in Riau, Sumatra as well as in our research substations located in all the provinces where GAR operates. GAR is committed to training these researchers, providing them with both in-house and external training conducted by foreign institutions. Our researchers generally possess a bachelor degree in agriculture. In addition, 23% of them have obtained a master's degree in Indonesia or abroad, and 6% have a PhD from abroad.

CHART 5.2 Training received by researchers in 2012

	Indonesia	Abroad
Short and mid-term training		
Number of staff	19	2
Number of days	58	30
Days/staff	3.1	15
Conference, workshop and seminar		
Number of staff	17	1
Number of days	65	3
Days/staff	3.8	3.0
Long-term training (> 30 days)		
Number of staff	2	3
Number of days	194	142
Days/staff	97	47

ENSURING ENVIRONMENTAL SUSTAINABILITY

We recognise that measuring the impact of our agricultural practices is an important step towards environmental sustainability. Many of our current research projects are aimed at effective management of our environmental impacts. We also believe that in many situations and based on our field activities, there is a close correlation between best practices, such as in fertiliser management, and the environmental outcomes.

Soil fertility management

Soil fertility is a major consideration in managing the mineral nutrition of an oil palm plantation. It has a significant impact on the quantity of nutrients to be applied to the palms to reach their potential while maintaining soil fertility. It is also a key factor to be considered for the short, medium and long-term potential use of land.

To further improve the nutrition management in our plantations, SMARTRI in collaboration with the Centre for International Cooperation in Agronomic Research for Development ("CIRAD") has embarked on a dedicated research programme for a holistic approach to soil fertility evaluation.

The objective of the research programme is to minimise the use of mineral fertilisers while optimising the yield performance of the palms. One main outcome will be to develop an indicator of soil fertility status. The findings would be useful, for instance, in developing a new approach to optimising the application of organic fertilisers generated from the recycling of our organic by-products including palm oil mill effluent ("POME") and empty fruit bunches ("EFB"). Although the recycling of organic by-products has been integrated in our soil fertility and mineral nutrition management system, we believe that there is still room for improvement. Our hypothesis is that we may observe a synergy between organic and mineral fertilisers, resulting in an improved mineral nutrition of the palms

In 2012, we took the first step to investigate the spatial variability of several parameters of soil fertility and their relationships. Analysing the biological component of soil fertility, the abundance and taxonomy of soil biota (macro-fauna, nematodes, and microbial communities) has been studied in relation with the physical and chemical traits of the upper layers of the soil in two mineral nutrition management systems – a full mineral fertiliser usage and the organic waste recycling of EFB. This is an important step as such knowledge is necessary for subsequent studies to be interpreted without bias.

The results confirm the spatial variability of several chemical and physical characteristics of the soil, while other physical properties tested during the study were relatively homogenous. In addition, we found that the application of organic products results in a change of this spatial variability, with more earthworms found underneath the EFB applications area, while in a conventional system, earthworms are dominant in the circle close to the palm trunk. However, there is an evolution with time based on the decomposition process of the EFB after their application on the soil. Based on a standard qualification index used by scientists, the nematode population can be characterised as "more mature" in the EFB area compared to conventional management. The consequence of these differences for soil fertility remains to be studied.

Water quality management

As mentioned in our Sustainability Report 2011, specific studies have been carried out to assess the impact of our agronomic practices on the quality of surface water. In addition to the observations in our previous report, we further studied the quality of surface water at the field level within our plantation and at the landscape level.

At the field level within our plantation

In 2011, a dedicated research design was set up to assess, quantify and subsequently build a model of the phenomenon involved. Several factors are known to have an impact on the level of water run-off and subsequent soil erosion and nutrient losses. The study focuses on two major factors, i.e. the degree of the slope and the vegetation cover of the ground.

The design compares situations with three land slope levels, at 5%, 15% and 25%, as well as two agricultural management practices of soil cover. The soil type in the trial is mineral soil with a sandy loam to loamy sand texture.

In our current standard practice, soil cover is managed selectively. Only the circle at the base of the palms and the harvesting path are chemically weeded two to three times a year, while in the remaining parts, only woody re-growth is eliminated and common grass is kept to cover the soil. In order to evaluate the impact of other field practices on run-off and erosion, we created test conditions with totally bare soil in order to obtain a wide range of values for modelling purposes.

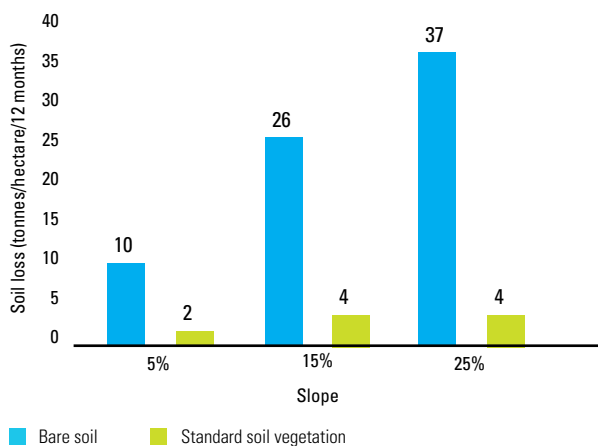
The design set-up collects water and sediments in a small observation plot. Similar observation plots have been repeated several times to obtain representative results.

Analysis of the observations in 2012 shows that good management of the ground cover that includes keeping the weeds in most parts of the in-field area (i.e. around 80% to 85% of the area), results in

minimal soil erosion, even on relatively steep slopes. The practice of selective vegetation control maintains soil losses at the three slope levels at a low two to four tonnes per hectare. On bare ground, soil erosion increases from 10 to 26 and 37 tonnes per hectare at the 5%, 15% and 25% slope level respectively.

Observations are still on-going to confirm these results. Laboratory analysis is also in progress to quantify the nutrient loss in relation to water run-off and soil erosion.

CHART 5.3 Soil loss due to erosion based on several slope level ground vegetation management practices in 2012



At the landscape level

In collaboration with McGill University (Canada), we carried out a study at the landscape level on several watersheds to assess the quality of river surface water in relation to the various oil palm agro-systems including large and smallholder plantations. The study covered fertiliser management practices including mineral and organic fertiliser regimes.

The low nutrient concentration levels recorded in the streams throughout the landscape indicate that mature oil palm plantations covered in the study did not contribute to the eutrophication of the aquatic ecosystems. The high nutrient uptake capacity of oil palms, together with the Company's rational fertiliser programme are among the reasons for such results.

The study found that annual specific fluxes from watersheds of industrial oil palm cultivation did not exceed fluxes from smallholder watersheds. Some of the measured parameters (total phosphorus, potassium, calcium and ammonium nitrogen levels) are even lower in the large plantation watersheds managed by GAR. Values of water quality and nutrients fluxes in this study were within the range of records reported in the literature regarding studies carried out in forested tropical watersheds.

The data measured in this study shows a high efficiency of the nutrient applied in our plantations. Although the exact values are difficult to establish as identical comparative situations are very hard to obtain, we can estimate that the current fertiliser management practices implemented by GAR result in a low level of losses in the stream, well below 5% of the amount of nutrients input in the oil palm agro-ecosystem.



Field design to study soil run-off and erosion in plots with vegetation cover and bare ground.



Collecting water samples from river for analysis.

Crop protection

Biopesticides

SMARTRI has been researching and applying alternative methods to protect crops from weeds, pests and diseases, in order to reduce the use of herbicides, rodenticides and insecticides. One such alternative is the use of biopesticides that helps reduce our reliance on the use of conventional pesticides.

Biopesticides are pesticides derived from natural materials such as animals, plants, bacteria, and certain minerals. They are usually inherently less toxic than conventional pesticides (i.e. synthetic molecules) and generally affect only the target pest and closely related organisms, unlike broad spectrum conventional pesticides. Also, biopesticides often decompose quickly, thereby resulting in lower exposures and mitigating the pollution problems caused

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by conventional pesticides. In the last three years, our use of biopesticides has been adjusted according to the pest situation in the field (see chart 5.4).

CHART 5.4 Biopesticides used in GAR plantations

Type of biopesticides	Quantity used (kg)		
	2010	2011	2012
Bacillus thuringiensis	94	8	107
Cordyceps	2,929	559	841
Mycorhyza	106,460	95,094	80,263
Trichoderma	58,336	46,136	128,015
Virus	37	0	0
Total	167,856	141,797	209,226

Natural pest control

As rat population outbreaks can cause significant damage to the production of oil palm, it is important that we control the population of the rodent at a relatively low level. Our threshold for damaged number of fresh fruit bunches is 5%, and thus a relatively low quantity of rodenticides is used in our plantations.

In 2012, an average of 0.8 gramme per hectare of rodenticide active ingredient was applied. Despite the low level of rodenticides used in our plantations, it is the second most used pesticide in our plantations and currently makes up 25% of total pesticides used.

We aim to further reduce the quantity used, through enhanced knowledge of the distribution of the variety of rats in our plantation, further identification of any case of resistance to rodenticide, and most importantly a maximisation of the biological control of the rat population. To date the most common biological control system used in oil palm plantations is to deploy barn owls (*Tyto alba*), which is widely established in our mature plantations. While a very high success rate of this practice is observed in most parts of Sumatra, barn owls are either less efficient or have difficulties in settling down in immature plantations as well as in several other regions in Indonesia.

During the last five years, a comprehensive research programme involving a series of studies has been organised to better manage the rat population in our plantations, including the three studies described below.

Analysing rat species composition and behaviour

In collaboration with the Veterinary School of Lyon, we conducted a study to seek a better understanding of the species composition and behaviour of the rat population in several of our plantations. The objective of this study was to investigate the distribution of rat species across Indonesia and to detect the occurrence of rat resistance to rodenticides in a region that is experiencing a regular and high rate of damage to the palm fruits, associated with a relatively poor efficiency of biological control by barn owls.

Study of predator species

In collaboration with CIRAD, with the support of the University of Besançon in France which specialises in rodent studies, and the Museum of Natural History of Paris, we conducted a study on how a large diversity of predator species, including small carnivores, could contribute to the control of small mammals like rats. The importance of landscape composition and structure in promoting predator diversity and population was also studied.

Our research aims to better understand how predation by small carnivores (e.g. wild cats, civets, mongooses) could complement predation by barn owls to provide more effective natural pest control in oil palm plantations. This research assesses variation in the diet of both small carnivores and barn owls found within and between several oil palm concessions. It also gathers information about where these small carnivores are found within the oil palm concessions, to provide insight into how the population of small carnivores can be maintained and enhanced within the oil palm landscape.

Initially, a dedicated study has determined a relationship between allometric measurement of rat bones and the age of these rats. This is an important preliminary achievement in order to avoid any bias in the population studied.

Subsequently, three sites have been selected in Sumatra and Bangka, representing three contrasting situations in terms of landscapes, rodent population and rodenticides used. In each estate, we investigated the diversity and the spatial distribution of small carnivores, using scat collection found along pedestrian transects and night spot-sight counts. Interviews with local people including hunters have also been conducted to confirm the presence of the species. Small carnivore scat and barn owl pellets were analysed to assess the dietary variations of both predator communities.

Data analysis is ongoing, but preliminary results indicate that small carnivores might play a significant role in the control of rat population. Moreover, we have observed a high density of leopard cats (*Prionailurus bengalensis*) within estates in biogeographic areas where this species is naturally occurring, suggesting the suitability of oil palm landscape for the leopard cat. Geostatistical analysis of scat and animal distribution will be carried out to investigate the correlation of habitats within and surrounding the plantation.

Camera-trap study

Camera-trapping has also been used to confirm the presence of natural small carnivore species in the plantations. During 2012, eight units were installed in the middle of two plantations, close to the settlements and near forested area within the plantations located in Riau, Sumatra. Three different species of small carnivores, i.e. leopard cat (*Prionailurus bengalensis*), common palm civet (*Paradoxurus hermaphroditus*) and Malay civet (*Viverra zibetha*) which are all known to be predators of rats, were captured in more than 200 pictures.

Both leopard cats and common palm civets were found throughout the plantation, indicating that these species can thrive in oil palm plantations. On the other hand, the Malay civet was only found in one of the plantations.

Carbon accounting

Agricultural activities including oil palm cultivation can result in the modification of the carbon balance, through emission of carbon dioxide and other GHGs on the one hand, and fixation of carbon in the vegetation and fruit biomass as well as in soil as organic matter on the other hand.

In order to assess these changes, SMARTRI has been conducting direct measurement of carbon flux using a micrometeorological method known as eddy covariance. An open path eddy covariance system and various sensors have been installed on the top of 25-metre high tower, above the oil palm canopy. The instruments are continuously measuring carbon dioxide fluxes based on atmosphere concentration variations, wind direction and intensity, and other parameters.

The carbon dioxide absorption and emission in ecosystem, known as net ecosystem carbon dioxide exchange ("NEE"), are calculated based on the above parameters. From the NEE, flux partitioning algorithm was used to calculate ecosystem respiration (" R_{eco} ") and gross ecosystem carbon dioxide uptake, known as gross primary production (" GPP ").

In addition to measuring the whole oil palm agrosystem carbon dioxide exchange as mentioned above, a set of long-term automatic soil respiration chambers have been installed to measure carbon dioxide emission from the soil. SMARTRI began measuring atmospheric carbon dioxide flux in September 2011 and soil carbon dioxide emission in April 2012.

Based on the analysis of data recorded in 2012, the oil palm agrosystem in the measurement site could absorb about 164 tons of carbon dioxide per hectare per year (equivalent to 45 tonnes of carbon per hectare per year), and emit about 124 tonnes of carbon dioxide per hectare per year (equivalent to 34 tonnes of carbon per hectare per year) back into the atmosphere. The balance of these two values, about 40 tonnes of carbon dioxide per hectare per year (equivalent to 11 tonnes of carbon per hectare per year) can be considered as carbon being sequestered from the atmosphere through NEE (see Chart 5.5).

Extrapolating from nine months of available data, the soil in the measurement site was emitting about 62 tonnes of carbon dioxide per hectare per year (equivalent to 17 tonnes of carbon per hectare per year) to the atmosphere, or contributing around 50% from the total ecosystem respiration. We will present further analysis and interpretation of these findings in future reports, when longer data sets are available.

PROMOTING PRODUCTIVITY IN THE INDUSTRY

In the palm oil industry, planting material is recognised as the most critical factor in maximising yield potential.

We have been using the high-yielding Dami Mas seeds in our new plantings and replantings since 2002. The high-yielding Dami Mas seeds are developed through stringent and robust breeding experiments conducted by SMARTRI. As at end 2012, 36% of our total cultivated area used Dami Mas seed.

Besides yield potential, GAR recognises the importance of improving disease tolerance, drought tolerance and nutrient efficiency to enhance the sustainability of the palm oil industry. Thus, GAR embarked on its oil palm breeding programme in early 2000. Our oil palm breeding and selection programme employs three main approaches: conventional breeding, tissue culture and biotechnology. The results of some of our breeding trials are described below.

Conventional breeding

GAR's conventional plant breeding programme involves the introduction and introgression of novel genes from other genetic sources to boost the genetic biodiversity of palms. As part of the programme, we have acquired wild germplasms from Cameroon and Angola. These accessions have been planted in the fields and have started to bear fruit bunches. Our research scientists are monitoring and studying the genetic variations in these populations and are confident that some novel traits of oil quality, growth habits (such as slow vertical growth), disease and drought tolerance would be discovered and later used in our oil palm improvement programme.

Tissue culture

GAR's tissue culture programme which was initiated in 2007 has been encouraging with our first semi-commercial planting of oil palm clones in 2011. These clonal palms have now come into bearing. No abnormalities in the fruits and bunches have been detected so far. The abnormality syndrome has been the bane of oil palm tissue culturists in the past.

We have been using breeding methods to ensure that our oil palms are hardier, more disease and pest resistant. Currently, Basal Stem Rot disease caused by the fungal pathogen *Ganoderma* sp. is the only disease threatening the oil palm industry in this part of the world. Higher incidences of this disease have been observed in successive replantings of oil palm. GAR has not spared any breeding efforts in its search for a *Ganoderma*-tolerant oil palm variety. Screening of our mother palms through the artificial

CHART 5.5 Average carbon dioxide fluxes (tonnes per hectare per month)

Year	2011				2012												Total 2012
Month	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
NEE	3 ¹	4	3	2	5	4	4	4	2	3	4	2	3	3	3	3	40
GPP	9 ¹	14	14	13	16	13	16	15	13	13	13	11	14	15	12	13	164
R_{eco}	6 ¹	10	11	11	11	9	12	11	11	10	9	9	11	12	9	10	124
R_{soil}								2 ²	6	5	5	4	5	5	6	6	44 ²

¹ from September 2011

² from April 2012

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inoculation technique has enabled us to select candidate mother palms for the production of Ganoderma-tolerant palms. These candidate Ganoderma-tolerant planting material will be produced for further evaluation and validation in the Ganoderma endemic fields.

Oil Palm Genome Project

We have been an active participant in the Oil Palm Genome Project ("OPGP"), a worldwide initiative by a consortium of 16 reputable research organisations from seven countries. The project uses molecular biology as a tool to support conventional breeding. The main objective is to map the entire genome spectrum of oil palm varieties, including identification of specific traits such as disease resistance, drought tolerance, superior quality oil and high yield.

The first phase of the project started in 2009 and has produced terabytes of DNA information. Bioinformatics is used to decipher these data to provide useful information for biotechnology and plant breeding. OPGP will be entering its second phase.

As an active participant in OPGP, we have formed a dedicated team in our biotechnology division, and our staff has been involved in related research activities in Spain and France. Our participation in the project has helped the Company make advances in the biotechnology field, ultimately providing the tools and solutions for the implementation of molecular assisted plant breeding. Such tools will ensure more rapid and better advancements in the sustainability of oil palm, with higher yields complemented with improvements in other secondary oil palm traits. A breeding cycle of the perennial oil palm takes about 10 years and an average yield increase of 10% per cycle has previously been reported.

BIODIVERSITY ECOSYSTEM AND FUNCTION IN TROPICAL AGRICULTURE PROJECT

In 2012, SMARTRI, in collaboration with the University of Cambridge, UK, implemented the Biodiversity Ecosystem and Function in Tropical Agriculture project ("BEFTA") in Sumatra.

The BEFTA Project experimentally investigates the role of local habitat complexity in supporting biodiversity, ecosystem functioning and crop productivity within oil palm plantations. The aim of the project is to manipulate the understory and epiphyte complexity within the oil palm landscape to assess the potential of biodiversity-friendly management to enhance biodiversity, ecosystem services and crop production. We intend that the project will lead to practical suggestions for improved management for biodiversity and sustainable production across the industry, from smallholders to large estates.

The basic experimental set-up consists of three levels of habitat complexity:

1. normal: standard industry practice for control of understory and epiphytes;
2. reduced: removal of all understory and epiphytes; and
3. enhanced: allowing regrowth of understory and epiphytes as far as possible while still allowing access to palms for harvest.



An insect combination trap being set in one of the BEFTA plots.

Each replicate will consist of one normal, one reduced and one enhanced treatment block, each of which will be a 150m x 150m area (2.25 hectares) of oil palm plantation. We have set up six replicates within SMART estates in Riau, Sumatra. An important feature of the design is that we can obtain detailed baseline data on biodiversity and other variables in each block, so that we have precise knowledge of the initial conditions in each block to compare with any later changes caused by the three different management strategies. In addition, we will be able to compare the relevant variables in each treatment as the experiment progresses over time. The experiment will continue for at least four years.

In each treatment block we will measure:

- biodiversity of a wide range of taxa, including insects, soil organisms, birds, frogs and mammals, as well as flora diversity;
- ecosystem functions such as herbivory of oil-palm foliage, litter decomposition, dung removal, and pollination;
- soil characteristics (chemical, physical, biological); and
- yield data of the oil palm trees.

It is intended that the experiment will have maximum flexibility, by encouraging other scientists to join the experiment in order to monitor particular aspects of biodiversity and ecosystem function.

The following have been achieved since the project started in October 2012:

1. Establishment of 18 experimental blocks in two estates located in Riau, Sumatra;
2. Initial measures of height and diameter of all the focal trees within these blocks;
3. Continual collection of yield data at all the plots since January 2013;
4. Measurement of oil palm leaf herbivory using digital images to calculate area damaged;
5. Collection of invertebrates using insect combination traps;
6. Baseline surveys for butterflies and dragonflies in the plots on two occasions; and
7. Leaf litter decomposition measured by using litter bags in the plots.

The establishment of the experimental blocks and the initial collection of baseline data on the biodiversity of a variety of organisms, on a range of ecosystem functions, and crucially on oil palm yield have been exceptionally successful. We have, for example, recorded around 60 species of dragonflies within the plots, collected large numbers of specimens in insect traps, and found that leaf decomposition in the litter bags occurs at a high and variable rate across the sites.

The project has been established effectively and is progressing in a very satisfactory way, based on a good collaboration among the scientists and staff at SMARTRI, and the research biologists from the University of Cambridge, UK.



Some of the range of dragonfly and damselfly species found within the BEFTA plots.

LABOUR RELATIONS

In Indonesia, GAR provides employment for about 112,000 people, of whom 47,000 are direct employees and 65,000 are casual workers on plantations. We also provide indirect employment for about 66,000 plasma smallholders. More on plasma smallholders is discussed in Managing Sustainability in Our Plantations.

The Company builds and maintains fair economic and positive social relations with our employees, casual workers and smallholder farmers who are on our plasma scheme. We want them to sustain a good standard of living and engage with the Company on terms of mutual trust and respect.

Chart 6.1 sets out the overall structure of our workforce in Indonesia by full-time direct employees and regular casual workers who work for day wages. Charts 6.2 and 6.3 give a breakdown of our workforce in Singapore and China respectively.



CHART 6.1 Workforce in Indonesia (excluding smallholders)

Workforce in Indonesia	2010		2011		2012	
Permanent employees	39,399	44.7%	41,415	44.2%	47,482	42.2%
Casual workers	48,837	55.3%	52,289	55.8%	64,953	57.8%
Total	88,236	100.0%	93,704	100.0%	112,435	100.0%
Permanent employees						
Men	30,629	77.7%	35,755	86.3%	40,926	86.2%
Women	8,770	22.3%	5,660	13.7%	6,556	13.8%
Total	39,399	100.0%	41,415	100.0%	47,482	100.0%
Casual workers						
Men	30,767	63.0%	31,065	59.4%	38,021	58.5%
Women	18,070	37.0%	21,224	40.6%	26,932	41.5%
Total	48,837	100.0%	52,289	100.0%	64,953	100.0%
Managers						
Men	590	79.6%	695	80.3%	789	81.1%
Women	151	20.4%	170	19.7%	184	18.9%
Total	741	100.0%	865	100.0%	973	100.0%

CHART 6.2 Employees in Singapore

Employees in Singapore	2010		2011		2012	
Men	50	46.7%	91	51.7%	109	52.2%
Women	57	53.3%	85	48.3%	100	47.8%
Total	107	100%	176	100%	209	100%
Managers						
Men	28	75.7%	49	66.2%	51	72.9%
Women	9	24.3%	25	33.8%	19	27.1%
Total	37	100%	74	100%	70	100%

CHART 6.3 Employees in China

Employees in China	2010		2011		2012	
Men	2,630	50.1%	2,574	49.2%	2,593	49.3%
Women	2,622	49.9%	2,662	50.8%	2,665	50.7%
Total	5,252	100%	5,236	100%	5,258	100%
Managers						
Men	103	69.1%	138	80.7%	146	80.2%
Women	46	30.9%	33	19.3%	36	19.8%
Total	149	100%	171	100%	182	100%

GENDER AND OTHER EMPLOYMENT ISSUES

We believe that all of our employees should be treated equally, fairly and with respect. It is in this belief that we signed the UN Global Compact in 2006 through our subsidiary, SMART, and it is this belief that motivates us in our day-to-day operations. As a signatory to the UN Global Compact, we are committed to upholding its ten basic principles. In addition, as part of our Social and Community Engagement Policy, we reinforced our commitment to ensuring that the rights of all people working in our operations are respected according to local, national and ratified international laws. We adhere to all Indonesian labour laws which cover issues such as freedom of association for our employees, decent pay and working hours, non-discrimination and the complete elimination of child or forced labour.

Our commitment to fair labour practices is also emphasised in our employee handbook and employment practices. The Company has an equal opportunities policy on employment, banning discrimination based on race, national origin, religion, disability, gender, sexual orientation, union membership and political affiliation.

Employees enter into our employment freely. As a matter of policy, we do not require our employees to deposit identity papers nor money. Some employees join through pre-employment training or education programmes paid for by the Company, whereby they agree to work for the Company upon completion of their training programme. Upon graduation, they are assigned to different estates or mills throughout Indonesia and earn an income without any deduction in their salary. These conditions are explained thoroughly to potential candidates and they are free to choose to join the programme or turn it down. In keeping with Indonesian laws and regulations, we do not employ prison labour.

About 14% of our permanent employees and 41% of our casual workers in Indonesia are women. While we promote the employment of women, certain jobs are more suited for male employees than female employees due to the manual labour required in our field operations. The higher percentage of women among casual workers reflects the traditional family structure where men are the main breadwinners. While male workers perform heavier physical tasks, like harvesting fresh fruit bunches and carrying them to trucks for transport to the mills, women are assigned tasks like weeding and collecting loose fruits that have fallen on the ground.

In order to support our female employees and care for our employees' children, all of our units provide a day care centre. We

also have a clear anti-sexual harassment policy integrated into our SOP to protect our female employees. The implementation of this SOP includes extensive training and socialisation for all estate and mill workers. We also establish gender committees, comprising representatives from the labour unions and management, to promote female participation and advancement in the workplace. These committees also handle sexual harassment complaints. When a case of harassment is reported either formally or informally, the relevant committee investigates to determine whether further sanctions or law enforcement action are needed. During the investigation, the committee provides assistance and support to the victim.

MINIMUM AGE OF EMPLOYMENT

The minimum age for employment in GAR in any capacity is 18 years. As a signatory to the UN Global Compact through SMART, we are totally against any form of child labour and we rigorously enforce these principles at all our plantations, mills and other places of work. Our recruitment officers check the identification card against the prospective employees' schooling records, such as their school diplomas, to ensure that we do not employ children.

WAGES AND CONDITIONS

The minimum wage in Indonesia differs from province to province, as it is set by provincial and district authorities that check the local prices of a basket of goods and services needed to sustain a decent living for a single worker. In addition to wages, the Company provides employees and casual workers with a range of benefits.

In order to present data on the relative living standards of our employees and casual workers, we have taken an average of the minimum wages across five provinces representing our plantations in Sumatra and Kalimantan and compared them with an average of wages and cash equivalent of the benefits we provide across the same five provinces. The selected five provinces are Bangka Belitung, Jambi, Central and South Kalimantan and Riau, which together account for more than 70% of our total mature planted area in 2012.

PERMANENT WORKERS

Permanent workers in our plantations earn approximately US\$146 per month in wages excluding incentives and non-cash benefits. However, their actual take home pay including incentives can be as high as 140% of their basic salary, depending on their performance.

LABOUR RELATIONS

CHART 6.4 The value of the daily wages and the benefits of a GAR plantation worker benchmarked against the average of the minimum daily wage¹ across five Indonesian provinces²

Average of the minimum wage per day across five provinces	Average plantation worker's wages per day	Value of a plantation worker's benefits per day	Total value of a plantation worker's wages and benefits per day
Rp54,363	Rp55,033	Rp24,600	Rp79,633
US\$5.78	US\$5.85	US\$2.62	US\$8.47

¹ Average monthly wage divided by 25 days

² Bangka Belitung, Central Kalimantan, Jambi, Riau, South Kalimantan

CHART 6.5 Estimated annual total benefit value per employee in 2012

Benefits Provided	Services
Education	Kindergarten to 6 th grade on each estate 7 th – 9 th grade for each region
Electricity	Free to all homes
Healthcare	Free on-site polyclinic
Housing	Free for all permanent employees
Meal allowance	Rice is provided for estate workers and their dependents
Religious observance	Mosques/ churches provided on each estate
Sports/ recreation	Facilities provided on each estate
Water	Free to all homes
Estimated annual value of quantified benefits	Rp7,380,000 (US\$785)

CHART 6.6 Casual worker remuneration against the average of the minimum daily wage¹ across five Indonesian provinces² in 2012

Average of the minimum wage per day across five provinces	Average casual worker's wages per day	Value of a casual worker's benefits per day	Total value of a casual worker's wages and benefits per day
Rp54,363	Rp54,918	Rp4,000	Rp58,918
US\$5.78	US\$5.84	US\$0.43	US\$6.27

¹ Average monthly wage divided by 25 days

² Bangka Belitung, Central Kalimantan, Jambi, Riau, South Kalimantan

In addition, workers on our estates receive benefits like free healthcare, housing, water, electricity and free education for their children from kindergarten to junior high. The value of our workers' wages and benefits combined, benchmarked against the average minimum wages of the five Indonesian provinces in 2012, is presented in Chart 6.4. Chart 6.5 lists the benefits we provide with a notional cash value assigned to them.

CASUAL LABOUR

In addition to our permanent employees, we employ about 65,000 casual workers at our plantations. About 59% of our casual workers are men, while 41% are women who do less physically demanding work such as weeding. There are many husband-and-wife teams, and men and women are paid the same standard wage.

Most casual workers come from the villages surrounding our estates and mills to work for us on a part-time basis, often working 3 to 4 days a week. They are trained on-the-job in skills relevant to their day-to-day work. They are not unionised as they work on an ad-hoc basis.

Casual workers are paid approximately Rp54,918 (US\$5.84) per day (see Chart 6.6). Although they do not receive all the benefits that our full-time employees enjoy, they still benefit from free medical services at our polyclinics.

OCCUPATIONAL HEALTH AND SAFETY

The Company introduced occupational health and safety ("OHS") management in 1999 to prevent work-related illness and workplace accidents. We are committed to constantly improving our performance in OHS, in accordance with government regulations and keeping pace with best practices, new technologies and scientific advances.

Our OHS programme is aimed at reducing lost time injury and creating a safe and healthy workplace to improve efficiency and productivity. Key elements of our programmes including emergency response and health and safety training are discussed later in this section.

Occupational Health and Safety Supervisory Committee

The Company has an Occupational Health and Safety Supervisory Committee (Panitia Pembina Keselamatan dan Kesehatan Kerja or "P2K3") in compliance with Law No. 1 of 1970 on Occupational Safety. P2K3 promotes cooperation between the Company and its workers in OHS management.

All our units have P2K3 committees that are approved by the government agency that oversees OHS. P2K3 informs and advises the management on OHS issues. P2K3 membership comprises representatives from every work unit who guide and coordinate OHS implementation in their respective units.

On average, the number of active P2K3 members in each of our plantation estates and mills is around 36 to 40 people, of whom 60% have a manual labour background. This is in line with the Indonesian Ministry of Manpower regulation No. 04 of 1987 which requires both management and labour representation on the committee.

"Gold Flags" (Bendera Emas SMK3) on health and safety management system and Zero Accident Awards

In recognition of our good OHS management and implementation, the Company received the Certificates of Bendera Emas SMK3 and Zero Accident Awards from the Indonesian Minister of Manpower and Transmigration for one million accident-free hours for three consecutive years from 2010 to 2012.

CHART 6.7 Awards achieved in 2010 – 2012

Award	2010	2011	2012
SMK3 Gold Flags	5 Mills	4 Mills	8 Mills
Zero Accident Award	3 Mills 1 Estate	5 Mills	2 Mills 4 Estates
Total number of awards	9	9	14

Monitoring the number of accidents

The Company recognises that monitoring accident rates is an important step towards preventing work-related accidents and injuries. In Indonesia, this is conducted in reference to the applicable rules by calculating the Frequency Rate and the Severity Rate of accidents in one million hours of work.

Fatalities

In 2012, six fatalities were reported, two more than a year ago. There were two traffic-related accidents that occurred while the victims were travelling to work and four incidents in our plantations (see Chart 6.8).

We are committed to ensuring the highest safety standards across our operations. To prevent the recurrence of similar accidents, thorough investigations were conducted to uncover underlying causes and develop additional and enhanced safety measures. The reviews are followed by continued efforts in training and refresher programmes so that safety is not taken for granted.

To assist the bereaved families, we provided them with the appropriate financial assistance and support, including helping them to submit JAMSOSTEK (Indonesian Health, Accident Insurance and Pension Fund) claims and to cover burial costs.

CHART 6.8 Fatalities in 2012

No	Company	Location	Type of Accidents
1	PT Agro Lestari Mandiri	West Kalimantan	Tractor accident
2	PT Buana Wira Lestari	Riau	Motorcycle accident while travelling to work
3	PT Bumi Permai Lestari	Bangka	Motorcycle accident while travelling to work
4	PT Ivomas Tunggal	Riau	Electrocution while harvesting below a power pole
5	PT Paramitra Internusa Pratama	West Kalimantan	Fatal reaction to bee sting
6	PT Tapian Nadenggan	Central Kalimantan	Electrocution while preparing for work in the plantations

Frequency and Severity Rate

The Frequency Rate ("FR") refers to the number of accidents in one million hours of work, while the Severity Rate ("SR") is the number of workdays lost in one million hours of work within a year. The SR illustrates the extent of safety problems by highlighting how critical each injury and illness is. The premise is that an employee who must miss time from work to recover has a more severe problem than one who can immediately return to work.

Owing to more stringent work safety measures, the FR of work-related accidents declined monthly from 7.05 in January 2012 to 4.32 in December 2012. However, in 2012 the SR increased to 269.16, due to a number of deaths as listed in Chart 6.8.

Such indicators help us track the effectiveness of measures taken to improve occupational safety and health in our operations and plantations. This in turn helps the Company identify the most useful preventive action, thereby enabling a concentration of effort in the most effective way.

LABOUR RELATIONS

Emergency response equipment

To anticipate emergencies that could occur at our plantations and mills, every operation unit, be it a mill or an estate, has an emergency response team ("Tim Kesiapsiagaan dan Tanggap Darurat") fully equipped with emergency response equipment that includes ambulance, fire engine, water tanks, fire extinguishers and first aid kit.

Healthcare facilities

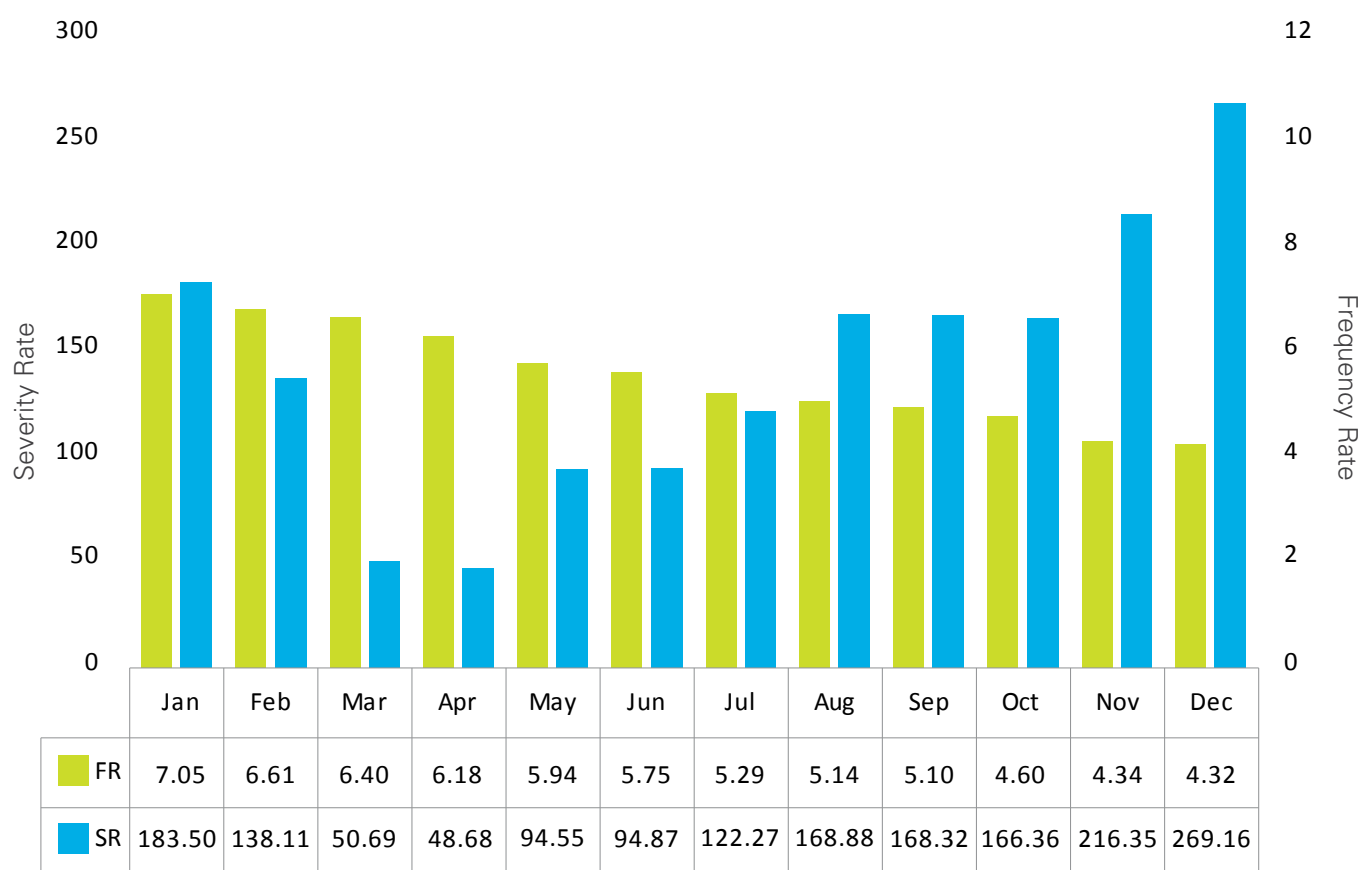
Most of GAR's operations are located in remote areas of Indonesia with limited infrastructure and accessibility, where there is less incentive for doctors to practise. To provide our entire workforce with healthcare, the Company has built health facilities in most of our estates, staffed with qualified healthcare professionals. As of end 2012, we have 140 polyclinics with inpatient facilities, 24 doctors and 251 paramedics (see Chart 6.10)

Besides providing medical care for our workers and their families, our healthcare officers conduct pre-employment medical checkups for new recruits as well as periodic and special medical check-ups for workers who are exposed to potential health and safety hazards in their area of work. The medical check-up programme is part of our efforts to prevent and treat work-related illnesses through early detection.

CHART 6.10 Healthcare provisions available in our plantation (2010-2012)

	2010	2011	2012
Polyclinics	121	130	140
Doctors	17	22	24
Paramedics	186	202	251

CHART 6.9 Frequency Rate and Severity Rate of work-related accidents in 2012



Occupational health and safety training

To raise our workers' awareness of OHS, the Company conducts training programmes for the entire workforce in accordance with national regulations.

Through training and certification programmes by external parties, relevant employees are certified as:

- auditors of OHS management systems;
- heavy equipment operators;
- OHS doctors and paramedics;
- occupational health and safety (OHS) experts;
- pest management (restricted pesticides) specialists; and
- welders.

Internal training is conducted for workers, supervisors, and administrative staff. Training is compulsory for management staff at every level starting from the Basic Management Development Programme for new staff to the Supervisory Management Development Programme, Middle Management Development Programme and Executive Development Programme.

In 2012, 107 of our employees underwent Occupational Health and Safety Expert Training. We have a total of 296 Occupational Health and Safety Specialists in the Company as of December 2012. Deployed in estates and mills, they play an important role in the implementation of OHS in operational units.

FREEDOM OF ASSOCIATION AND TRADE UNION MEMBERSHIP

Harmonious industrial relations are fundamental to productivity and value creation. We maintain industrial peace and productivity and ensure the welfare of our workers through open dialogue, fair labour practices, care and respectful communication in the workplace.

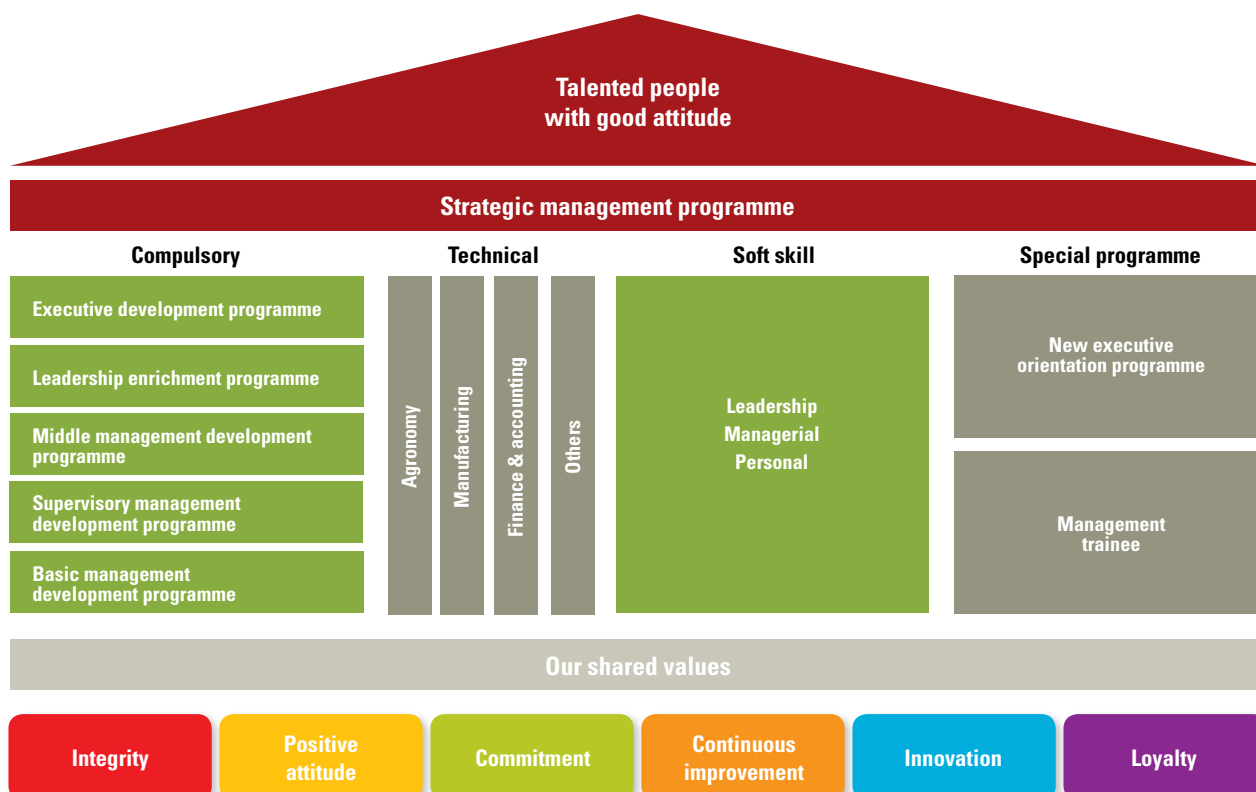
Freedom of association is mandated by Indonesia's Law and Regulation No. 21/2000 on Trade/Labour Unions and is in line with International Labour Organization Convention No. 98 on the freedom of organisation and collective bargaining.

Our permanent workers are free to join a union at their workplace and 80% of our permanent workers are union members. Currently, there are 139 units of Labour Unions representing 38,047 non-management employees across our plantations in Indonesia. Union representatives elected by members in each unit work together with local management in a bipartite forum which meets regularly to discuss and resolve issues.

TRAINING AND DEVELOPMENT

GAR and all its subsidiaries see the training of our employees as an investment that benefits both employer and employee. Our training and development programmes range from technical training to managerial and leadership training and are specifically tailored to develop the full potential of our employees. Chart 6.11 shows our comprehensive learning portfolio.

CHART 6.11 Our comprehensive learning portfolio



LABOUR RELATIONS

Total spending on training and development in 2012 was Rp49.37 billion (approximately US\$5.25 million), an increase of approximately 22% from 2011.

We seek to give our management level employees two training modules per year. In 2012, we conducted comprehensive training programmes for them covering a broad range of topics from compulsory training to special programmes such as RSPO and ISPO certification. More than 3,500 management level employees from our upstream operations received training during the year. Overall, employees from this category received an average of about 13 hours of training.

Our training and development programmes are delivered both formally and informally. The formal training curriculum is delivered through six regional training centres located in various parts of Indonesia: three in Sumatra (Padang Halaban Training Centre, Sungai Rokan Training Centre and Ujung Tanjung Training Centre); two in Kalimantan (Sungai Rungau Training Centre and Batu Ampar Training Centre); and one in West Java (Nirmala Training Centre).

Leadership and management training is conducted at the Nirmala Training Centre in Sukabumi, located in a tea plantation next to Halimun Mountains National Park and Nature Conservation Area in West Java.

Candidates are identified for further training and development programmes based on merit. A management training course is compulsory for employees to be promoted to the next management level. In 2012, we awarded postgraduate scholarships to six employees. Such initiatives encourage personal development and better job performance amongst our employees.

We provided formal training to more than 2,300 clerical and non-management employees. Many informal and instructional training sessions are carried out on the job and hence not formally recorded.

Strengthening Technical Expertise

Aligned with our Social Community and Engagement Policy, SMART implemented training programmes on mediation and the implementation of Free, Prior and Informed Consent principles to strengthen our skills in engaging our stakeholders. The former was conducted in partnership with the Badan Mediasi Indonesia and Eka Tjipta Foundation while the latter was run jointly with local NGO Lingkar Komunitas Sawit Indonesia.

In support of our High Carbon Stock ("HCS") forest conservation initiative, a training session on HCS conservation was conducted from 25 to 26 January 2013. 40 participants from the Kapuas Hulu and Ketapang regions where we have new plantings attended the event. The event covered topics including the HCS concept and implementation as well as the collaborative and socialisation approach to conserving HCS forests.

In collaboration with TFT, we are deploying a scorecard system to optimise efforts in RSPO certification. Two training sessions on the RSPO scorecard system were held from 11 to 12 February 2013 and 14 to 18 May 2013 in Jakarta and Belitung respectively. The former focused on RSPO Scorecard web application and was attended by key officers from various estates across the region, internal auditors and staff from the Sustainability Division.

The latter which included a workshop was attended by managers, relevant coordinators and officers from the mill and estates in Tanjung Kembiri and Tanjung Rusa as well as persons-in-charge of Environment, Social and Operational Health and Safety.

SECURITY GUARDS

The safety of our workers and their families is most important, particularly in isolated rural areas. We employ security guards for our operations in Indonesia to ensure that the plantations and surrounding communities are secure.

All of our security guards are required to undergo a 21-day comprehensive training programme by the Bhakti Manunggal Karya Centre of Education and Training ("BMK"). Upon completion, they receive a certificate from the Indonesian National Police. The programme covers human rights as well as professional ethics. Our security guards do not carry firearms but are equipped with security enforcement devices such as batons, knives and handcuffs. In 2012, 404 security officers were trained and certified by BMK.



Our security guards are trained to ensure security of our plantations.

SOCIAL AND COMMUNITY AFFAIRS

GAR firmly believes that the cultivation of oil palm is an effective way to create jobs and alleviate poverty, and hence has the potential to empower people to secure a better livelihood for themselves and future generations.

At the same time, the establishment of plantations can imply major changes for local communities and indigenous people. In the development of palm oil plantations, GAR respects the customary rights of the local and indigenous communities to their land and commits to ensuring free, prior and informed consent from these communities before commencing any operations.

We provide employment for about 178,000 people in Indonesia, of which 47,000 are direct employees, 65,000 are casual workers on plantations and 66,000 are smallholder farmers. We recognise that wherever we operate, the acceptance and support of the local communities is central to our sustainable growth. To ensure that our palm oil operations improve the lives of the communities they impact, we adhere to our Social and Community Engagement Policy ("SCEP").

ADVANCING WITH SOCIAL AND COMMUNITY ENGAGEMENT POLICY

Following the launch of our SCEP in November 2011, we continue to work with The Forest Trust ("TFT") in implementing the policy on the ground. We have been reviewing all our existing standard operating procedures ("SOP") relating to the SCEP and developing an action plan to incorporate the findings and recommendations. Together with TFT, we are also developing new guidelines and building capacity in areas such as mediation, conflict management and participatory corporate social responsibility ("CSR") planning. All these initiatives are governed by the principles of the SCEP including:

- Free, prior and informed consent ("FPIC") of indigenous people and local communities;
- Responsible handling of complaints;
- Responsible resolution of conflicts;
- Open and constructive engagement with local, national and international stakeholders;
- Empowering community development programmes;
- Respecting human rights;
- Recognising, respecting and strengthening the rights of our workers; and
- Compliance with all relevant laws and internationally accepted certification principles and criteria.



To instil the principles of the SCEP amongst our internal stakeholders, we implemented a socialisation programme that reached out to staff of various levels last year. This included staff from the corporate office and operational personnel from the 23 regional areas of our operations in Indonesia.

For community related social programmes, we are developing a five-year CSR strategy that reflects our corporate objectives and the expectations of our communities, employees and other key stakeholders. It supports and links to the SCEP, providing a framework that allows us to better manage performance and report on our social and economic impacts. With this strategy, we seek to make a positive difference through healthcare, education, social and economic empowerment and infrastructure development programmes.

Staying accountable to our stakeholders, the Grievance Committee chaired by the President Director of SMART and supported by SMART's key section heads, continues to monitor and provide direction on resolving disputes and grievances in our upstream operations.

To facilitate the process, we have improvised our data collection and processing with a data management system, and strengthened our SOPs in this area. The generated reports systematically reflect the nature of the issues, the progress and areas of fulfilment undertaken by the parties involved. This helps us stay abreast of the issues and determine follow-up actions effectively.

We continue to conduct mediation through third party mediators such as TFT. To enhance our capabilities in mediation and conflict resolution, our employees underwent training with the Indonesian Mediation Board (Badan Mediasi Indonesia) in Jakarta last year. The plan is for employees from other regions to attend the same

SOCIAL AND COMMUNITY AFFAIRS

programme. These training programmes support our objective to resolve issues in an open and responsible manner.

Similarly, we started training on FPIC in collaboration with local NGO Lingkar Komunitas Sawit Indonesia ("LINKS") in East and South Kalimantan. This helps to ensure that we apply the FPIC principles when it comes to palm oil development in our land concessions. Participants who underwent the training have found it beneficial and have applied its lessons to our estate operations. The FPIC training will be extended to other regions of our operations and reviewed periodically to ensure proper implementation.

Stakeholder engagement will remain crucial in formulating and facilitating our implementation of the SCEP on the ground. Through

continual dialogue with our key stakeholders including members of the community, employees, local government and NGOs, we seek to find solutions in an open and responsible manner.

EMPOWERING THE COMMUNITY

In 2012, we continued to mobilise stakeholders such as local communities and government bodies as we utilise our financial resources in community outreach. We believe in the empowerment of surrounding communities and help them grow in a harmonious and healthy environment. Hence, we have put in place a range of community development programmes for education, healthcare, social and economic empowerment, as well as supported cultural activities. We also encourage our employees to join us in serving the community.

Multi-stakeholder approach to resolving disputes

In line with our SCEP, we commit to actively promote and support the responsible and peaceful resolution of any conflicts involving the plantations that GAR owns, manages or invests in regardless of the stake. We believe in working with the relevant stakeholders to ensure that conflicts are resolved through a process that is agreed upon by all appropriate parties.

In this section, we report on three cases, of which two involve our operations in Indonesia and one involves Golden Veroleum (Liberia) Inc ("GVL") that is incorporated in Liberia. GVL is a subsidiary of The Verdant Fund LP ("Verdant"), a private equity fund and is independently operated and managed through the fund's general partner. Verdant's lead investor is GAR.

GVL resolves community issues responsibly

In October 2012, a case was lodged with the Roundtable on Sustainable Palm Oil ("RSPO") against GVL for non-compliance with RSPO New Planting Procedures and RSPO Principles and Criteria relating to land preparation and community engagement in Liberia. The complaint was filed by an NGO, the Green Advocates ("GA"), on behalf of the communities in Greenville, Butaw and Kpanyan districts of Sinoe County.

To resolve the matter responsibly, GVL engaged TFT to conduct a multi-stakeholder assessment of its community engagement process and reviewed areas where it could further improve. The terms of reference were agreed between GVL, Forest People Programme and TFT. The comprehensive assessment took place in January 2013 and was completed in 21 days. It involved the communities in Sinoe County, GA, the Ministry of Agriculture and the United Nations Mission in Liberia amongst others.

On 16 March 2013, GVL made public the report by TFT on its independent assessment of GVL's community engagement. The findings concluded that while communities, in particular Butaw and Kpanyan, recognise the employment opportunities and social merits such as the improvements in the road network that GVL has brought about into the region, there are concerns about the approach by GVL in developing the region and its impact on the environment and customary lands where there are burial sites. The analysis highlighted that further strengthening of GVL's FPIC process and a better alignment of its operation and social focus were needed.

Fulfilling its obligations as an RSPO member, GVL has been complying with the RSPO New Planting Procedures since 4 February 2013. Being mindful of the interests of the communities and fully committed to implementing a robust FPIC process, GVL took on board the recommendations that TFT made to its FPIC process and has since also implemented a more robust standard operating procedure in the field. Enhancements have also been made to its environmental and social impact assessment and high conservation value assessment to better appreciate the way of life of the local communities and facilitate community participation in the assessments.

Consistent with its endeavours to make a positive difference to the communities and in protecting the environment, GVL's development plans now see more robust processes and enhanced functional links between its operations and social and environmental departments. Meanwhile, GVL also focuses on capacity building through staff training so that they are more adept in their community outreach. Similarly, natural resources concerns have been addressed while customary land matters are being resolved. A detailed status report on its actions has been filed with RSPO on 17 June 2013.

The milestones are aligned with the findings of TFT's assessment of GVL's progress that was conducted from 30 May to 7 June 2013. While the detailed findings can be found online at the RSPO website, some of the observations stated in the letter by TFT to RSPO on 10 June 2013 include:

- GVL has taken on board the recommendations TFT made on FPIC and has been implementing the associated standard operating procedure in the field;
- The communities whom TFT talked to had been well involved in the participative mapping process which is now better documented; and
- GVL has reorganised its social teams, now involving the environmental and social departments in the Company's decision making process. Meanwhile, some newly recruited and trained staff are bringing in critical skills and more rigor to the FPIC process.

Multi-stakeholder approach to resolving disputes (continued)

To find a common ground with the various stakeholders in the communities, a roadmap on engaging the communities has been developed and proposed. GVL will continue to finalise the action plan to be upheld and implemented by various stakeholders. There is still work to be done in the field but GVL is on a journey of continuous improvement.

Ensuring mutual cooperation in Jambi

As reported in SR2011, we have been collaborating with TFT on a peaceful resolution of a case in the village of Karang Mendapo ("Karmen"), Jambi. The case involves SMART's subsidiary, PT Kresna Duta Agroindo ("KDA") which, in partnership with the Koperasi Tiga Serumpun ("KTS"), manages plasma plantations of farmers of eight villages under the cooperative credit scheme, Koperasi Kredit Primer Anggota.

Central to this dispute are land and estate management issues that led to conflict. In September 2008, a group of villagers from Karmen began to manage disputed plantations in Karmen and a neighbouring village, Batu Ampar and sold the fresh fruit bunches ("FFB") to other mills instead of delivering the FFB to KDA as part of the plasma partnership agreement.

As a result, the loan and interest payment from the disputed areas stopped because there were no sales proceeds to pay down the bank loan that was disbursed to KTS for the initial investment of these smallholder plantations. Meanwhile, KDA, being the guarantor of the credit facility continued to service the bank loan and interest for the account of KTS on behalf of the farmers from Karmen and Batu Ampar. The conflict escalated in January 2011 when a clash between the group of villagers from Karmen and the local police resulted in injuries.

To resolve the conflict amicably, SMART engaged TFT to help in the mediation process. TFT facilitated a series of seminars and consultations involving stakeholders to clarify the concerns of each party and ensure that a common understanding on the national policies and principles related to the plasma partnership was reached. On 14 October 2011, the Karmen leadership, KTS and KDA signed a resolution with an action plan for mutual cooperation. The agreement mainly relates to the full delivery of the FFB harvested in Karmen to KDA, commitment of a proportion of the revenue from FFB for loan and interest repayment to the bank and the transfer of technology and knowledge on best agronomy practices amongst others.

The various parties were working on the implementation of the agreed action plan until 19 February 2013 when the delivery of

FFB to KDA from Karmen stopped and the bank loan repayment came to a halt as a result.

On 3 April 2013, TFT gathered the key parties concerned to review the resolution and action plan that was signed on 14 October 2011 and to discuss the next steps. The meeting was attended by representatives from SMART, KDA, KTS, the Village Representative Board (Badan Perwakilan Desa or "BPD") and leaders of Karmen, leaders of Batu Ampar village as well as local NGOs. Unfortunately, the Village Head of Karmen did not attend the meeting. The meeting concluded with a commitment expressed by each party to keep the engagement process going and resolve any issues that could hinder the progress.

The BPD of Karmen pledged to undertake a more active role and responsibility in resolving the matter, involving the villagers, village government as well as the informal leaders and government of Sarolangun.

Leaders of Batu Ampar will accelerate the review of the determination of village boundaries with Karmen and their bank loan repayment and oil palm plantation management with KDA and KTS.

Together with TFT, we would continue to actively engage these stakeholders to resolve the matter amicably.

Addressing land tenure conflict in Biru Maju

Currently, the Company, supported by TFT and LINKS is working on resolving a land tenure conflict between GAR's subsidiary, PT Buana Artha Sejahtera ("BAS") and the community of Biru Maju village.

From March to April 2013, a task force comprising SMART, TFT and LINKS conducted a mapping exercise to assess the situation on the ground and interests of the parties concerned. During the mapping process, the task force met and engaged key stakeholders including staff of BAS; the leaders and communities of the Biru Maju village; NGOs in Central Kalimantan, representatives from the Social Labour and Transmigration Agency and Forest and Plantation Agency, and other related stakeholders.

Based on findings from the mapping exercise, we are in the process of putting up the recommendations to resolve the matter amicably.

As we progress with the case, we will update its development in future sustainability reports.

SOCIAL AND COMMUNITY AFFAIRS

Educating the next generation

Education is a key pillar of our community development programmes. We see it as a key to unlocking the potential of Indonesia and an effective way to break the poverty cycle that affects many Indonesians. Through our education programmes, we also support the Government of Indonesia's human resource development efforts in building high quality human capital.

To date, we help develop and support the establishment of 209 schools that employ 2,159 teachers and educate 35,781 students, ranging from kindergarten to junior high. In support of the nine years of compulsory education required by the Indonesian Ministry of Education, we have ensured that each estate has facilities for kindergarten to sixth grade schooling and every region a junior high school that adequately meets the needs of our employees and the local communities.

Children of our employees and casual workers living in the estate receive free education from kindergarten to junior high school and heavily subsidised higher education. In the wider community, children living around our estates receive heavily subsidised education at all levels. To further encourage our employees to send their children to school, we provide free school bus services for all students.

Sekolah SMART programme

Our investment in educating the young also includes free training and teaching materials for our teachers. Sekolah SMART (SMART School), our strategic collaboration with Eka Tjipta Foundation ("ETF"), is a quality improvement programme for schools located in our plantations. Its main aim is to prepare these schools for the National Standard School Certification from the Indonesian Ministry of Education. The programme also aims to establish schools that combine ethics and academics to foster character development and care for the environment.

Sekolah SMART focuses on quality training for teachers, school management and community involvement. Participating teachers receive instructions on pedagogical approaches to school principal leadership and capacity building.

As of 2012, Sekolah SMART has been implemented in 19 elementary schools and five junior high schools in Central Kalimantan. The programme has also been rolled out in three elementary schools in West Kalimantan.

In March 2013, Sekolah SMART was named runner-up in the education category of the Indonesia Millennium Development Goals ("MDG") Awards 2012. Acknowledged by The Office of The President's Special Envoy for MDG, the award recognises stakeholders who make significant contributions to national programmes in line with the MDG including Achieving Universal Primary Education.

Rumah Pintar programme

In mid-2011, GAR started building Rumah Pintar (Smart House) in some of our concessions. This is in support of the programme initiated by Indonesia's First Lady, Mrs. Ani Suliso Bambang Yudhoyono, who is the Chairperson of Solidaritas Istri Kabinet Indonesia Bersatu (Solidarity of the Wives of United Indonesia Cabinet).

The goal of Rumah Pintar is to empower children, mothers and other community members, in order to create educated and prosperous communities throughout Indonesia. Each Rumah Pintar is designed as a community learning centre focusing on early childhood education, education of women in empowerment activities and nurturing of family health. It comes with a library, a play room and an arts and culture corner, and is equipped with computers and multimedia stations.

We completed construction of 23 Rumah Pintar across our plantations in Indonesia and officially launched them on 6 July 2012.



Through initiatives such as Rumah Pintar, GAR seeks to empower the next generation through education.

Scholarship programmes

GAR funds five scholarship programmes and a fellowship. In 2012, we spent approximately Rp11.3 billion (US\$1.2 million) on these, benefitting more than 350 students.

SMART Diploma

We fund the SMART Diploma, a scholarship jointly administered with the Palm Oil Vocational Programme of Bogor Agricultural University, the most prominent agricultural university in Indonesia. The diploma equips students for employment in the growing oil palm industry and provides foundation skills for careers in agriculture. It is open to our employees' children as well as students who reside in the vicinity of our operations. Recipients are granted a full scholarship, including living expenses during the academic year. In 2012, a total of 71 students were awarded scholarships. Since its inception in 2007, 458 students have been awarded the SMART Diploma.

SMART Engineer

SMART Engineer was initiated in 2009, in collaboration with the Palm Oil Industrial Engineering Programme of the Institute of Agricultural STIPER Yogyakarta ("INSTIPER"). To date, 120 students are participating in this scholarship programme. Graduates are guaranteed jobs in our mills.

Oil Palm Processing Technology Diploma Programme

Since 2011, we have been collaborating with Bandung Institute of Technology and Science on a scholarship scheme for the palm

processing technology diploma programme. Upon graduation, scholars are directly employed as mill assistants. As at 2012, there was a total of 28 scholars.

Tjipta Pemuda Bangun Palma

The Tjipta Pemuda Bangun Palma scholarship for undergraduates was launched in 2010 in collaboration with ETF, INSTIPER and the University of Tadulako, Central Sulawesi. Since its inception, 81 students have received funding for their education and living costs.

Tjipta Guru Scholarship

In 2011, we launched the Tjipta Guru Scholarship, our latest collaboration with ETF. The objective of the scholarship is to encourage bachelor degree holders to take up teaching in private companies or foundations. The scholarship is awarded to students with educational degrees all over Indonesia. To date, 17 scholarships have been awarded.

We also have an ongoing scholarship scheme with the Tzu Chi Foundation for needy students who perform well academically. Under this scheme, 222 students from elementary school to university level received funding for their school fees in 2012.

SMART Artha Widya Fellowship Programme

Through the SMART Artha Widya Fellowship Programme, we provide research grants for final year undergraduate students doing research on promoting sustainable oil palm cultivation and environmental management.

Healthcare

Most of GAR's operations are located in remote areas of Indonesia with limited infrastructure and accessibility, where there is less incentive for doctors to practise.

We believe that access to basic medical care is a basic human right and we have built healthcare facilities in most of our estates, staffing them with qualified medical professionals to serve our employees and their families.



Our healthcare facilities are staffed with qualified medical personnel.

To date, we have established 140 clinics and mobilised 275 medical personnel to provide free and subsidised treatment for about 1,480 patients a day or about half a million a year. More data on our healthcare facilities can be found in our Labour Relations section.

In addition, we regularly work with the Tzu Chi Foundation to provide healthcare services in selected areas. These services are organised by our employee volunteers and funded by donations from our employees and the Company.

Our healthcare initiatives in 2012 included:

- Free medical and dental services for approximately 4,500 patients in Jogjakarta, Central Kalimantan, East Kalimantan and West Kalimantan;
- Eye check-ups for almost 67,900 students and teachers in Bangka, Belitung, Jambi, East Java, West Java, Central Kalimantan, West Kalimantan, South Kalimantan, Lampung, Riau, and North Sumatra, with more than 17,900 people provided with free spectacles;

Converting waste to energy

In June 2012, SMART decided to support a Palm Cow Biogas programme that now provides an alternative energy source to 12 households in the Jambi Province in Sumatra. Through this programme, biogas, a renewable energy, is produced from cow dung to power the energy needs of families in the rural areas.

This initiative was proposed by SMART when it was brought to our attention that the cows, reared by these families for their source of meat and milk, were causing inconvenience and hygiene issues around the community and in the plantations. Through the programme, SMART offered a solution that has not only eradicated

the problems caused by the cows but also provided an alternative source of energy for these households.

Apart from funding the project, SMART oversaw the planning and installation of a biogas reactor system in each of these households. This initiative helps to reduce the households' spending on energy, lessen greenhouse gas emissions and limit waste of cows within a confined area. Meanwhile, the beneficiaries who are farmers receive organic fertilisers as a by-product of the biogas production and the cattle no longer grazes in their fields.

SOCIAL AND COMMUNITY AFFAIRS

- Surgery for about 220 patients with conditions such as cleft lip, hernia, cataracts and tumours;
- Health education and awareness programmes on pregnancy, breast-feeding and children's health for more than 2,200 mothers in North Sumatra, Central Kalimantan, South Kalimantan and Lampung; and
- Seminars on drug abuse and HIV/AIDS awareness, conducted in Medan and Surabaya.

Promoting small and micro enterprises

In addition to our employees, numerous people depend indirectly on our plantations for their livelihoods. GAR helps to develop micro-economies near our estates by using local transporters to move our products and engaging local contractors for land preparation, planting and other services that support our operations.

We also help empower oil palm smallholders under the plasma scheme, as well as village cooperatives (Koperasi Unit Desa or "KUD") and oil palm smallholder cooperatives (Koperasi Petani Sawit or "KOPSA").

As of 2012, GAR had conducted small and micro enterprise empowerment programmes in 63 districts and 10 provinces in Indonesia. GAR is committed to continuing this in order to support Indonesia's sustainable economic development, especially for the local communities living in the vicinity of our operations.

This empowerment and development of small and micro enterprises in GAR is aligned with the Indonesian Government's 4P's programme, which is pro-poor, pro-job, pro-growth and pro-environment.

ENGAGING OUR EMPLOYEES IN THE COMMUNITY

In addition to developing our people, we continue to engage and mobilise our staff for various causes. We also seek to meet the needs of our employees and the people living near our operations by:

- building and maintaining public infrastructure such as roads, bridges and places of worship such as mosques and churches;
- providing the facilities and know-how to run cooperatives that ensure basic necessities are available at affordable prices;
- constructing well-built dwellings and health, educational and sporting facilities; and
- providing financial help for communities to celebrate festive and cultural events.

Last year, our employees were mobilised for disaster relief work when tidal waves struck Kampung Pula Laut, in the Kotabaru regency of South Kalimantan on 19 March 2012. Through concerted teamwork, food assistance was rendered to the victims on 25 March 2012.

In 2012, we mobilised employees and tenants at our corporate headquarters in Jakarta to participate in regular blood donation drives for the Indonesian Red Cross. Some 820 blood bags were collected.

Our employees are also encouraged to contribute funds regularly to the Tzu Chi Foundation. In 2012, 6,942 of our employees participated in the monthly donation programme. A dedicated team sees to the distribution of these donations that are allocated as scholarships for underprivileged students and provision of free medical services in remote areas.

SUPPLIER RELATIONS

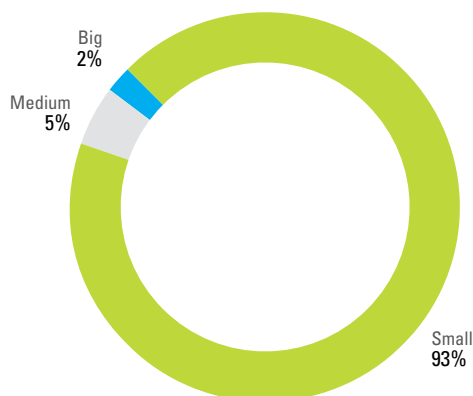
The economic, social and environmental impacts of our business can be felt through our own operations as well as those of our suppliers. In this section, we focus solely on suppliers who support our upstream and downstream businesses in Indonesia. Our upstream suppliers support our plantations and mills, while our downstream suppliers support our refineries and kernel crushing plants ("KCP"). Among upstream and downstream suppliers, there exists a diversity of firms ranging from small local suppliers to larger nationwide businesses. Overall, 62.9% of GAR Indonesia's revenues are spent on suppliers (see Chart 2.14 in the About GAR section). Hence, there is a significant impact in terms of small business development and job creation, which we are unable to quantify at present.

We recognise the importance of maintaining and developing good relationships with our suppliers. We select our suppliers based on a determined set of criteria that includes time of delivery, quality and cost competitiveness.

SPENDING ON UPSTREAM SUPPLIERS

The impact on our supplier spending is most significant in the rural areas of Indonesia. Over 99% of all supplier purchases by our plantations and mills come from within Indonesia. Excluding smallholder raw materials providers, our plantation operations have approximately 3,200 suppliers. Small businesses make up 93% of our suppliers as Chart 8.1 shows.

CHART 8.1 Number of suppliers by contract size in 2012

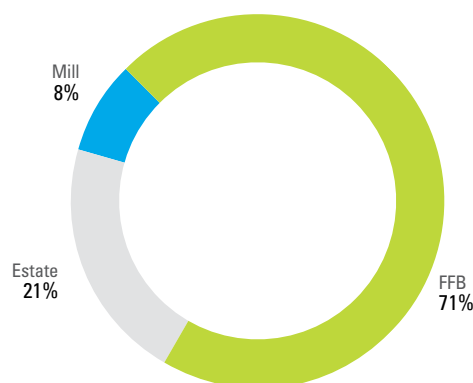


Note: Big (>Rp5 billion); medium (Rp1-5 billion); Small (<Rp1 billion)



About 89% of these suppliers are located close to our operations in less developed areas of Sumatra, Kalimantan and Papua, and are an important part of local economic development. In 2012, our plantation division spent over Rp6 trillion (approximately US\$645 million) on raw materials, goods and services bought from local suppliers surrounding our estates. Chart 8.2 shows the three main categories of expenditure: fresh fruit bunches ("FFB") from smallholders and third parties, estate related expenditure such as transport expenses, and mill-related purchases such as transport expenses and spare parts.

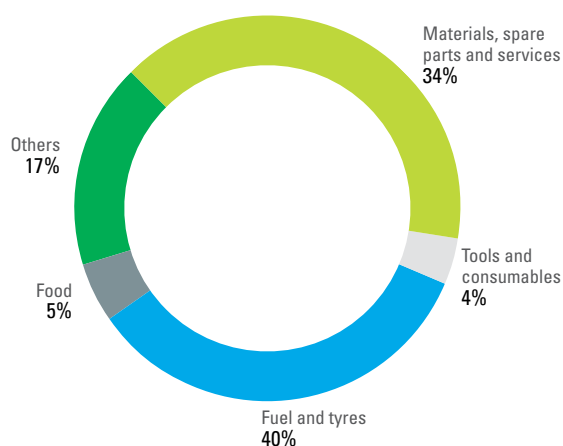
**CHART 8.2 Local spending on plantation suppliers in 2012
Rp6.06 trillion (US\$645 million)**



SUPPLIER RELATIONS

Chart 8.3 shows estate and mill expenditure on major items such as food, fuel and tyres, material, spare parts and services, as well as tools and consumables.

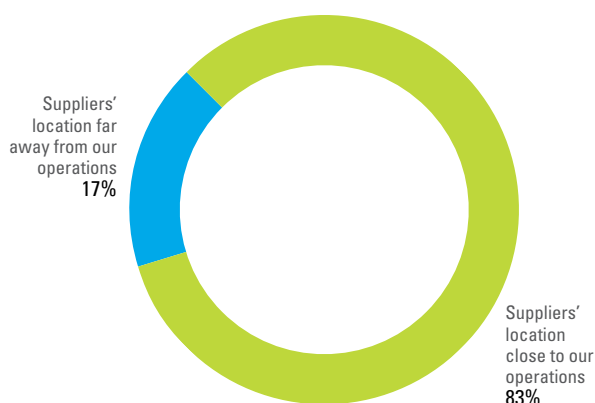
CHART 8.3 Estate and mill expenditure by major items



SPENDING ON DOWNSTREAM SUPPLIERS

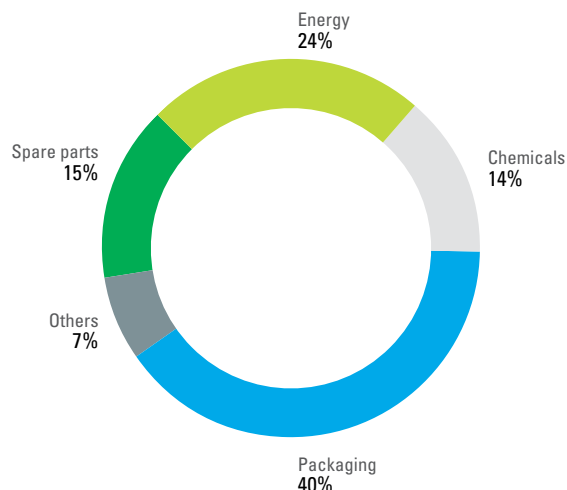
Our downstream suppliers (excluding crude palm oil and palm kernel suppliers), support our refining and manufacturing businesses that produce finished products for the bulk and consumer markets. Our refinery and KCP operations have approximately 6,000 suppliers. Most of these are small and medium-sized businesses, and as Chart 8.4 shows, about 83% of these suppliers are located close to our operations in Jakarta, Surabaya, Medan, Tarjun and Lampung.

CHART 8.4 Location of downstream suppliers relative to operations



In 2012, our refinery and KCP operations spent almost Rp648 billion (approximately US\$69 million) on goods and services from local suppliers. Chart 8.5 shows the breakdown of expenditure on major items.

CHART 8.5 Breakdown of major items



OPEN PROCUREMENT AND FAIR TREATMENT OF SUPPLIERS

Suppliers are important stakeholders in our business. Our supplier selection is conducted in a transparent and open manner. To qualify, all suppliers have to meet the same basic criteria of legal and commercial requirements of:

- Legal compliance, with no pending legal issues;
- Tax compliance, including tax identification and Value Added Tax ("VAT") registration certification; and
- Certification of Competence for the type of business they are conducting.

Once entered into our supplier database, the procurement process is transparent. At least three qualified suppliers are invited to tender for purchases above Rp1 billion, and a formally constituted Tender Committee makes the decision to award the contract based on price, quality and delivery capacity. The Tender Committee comprises representatives from Central Procurement, the Business Control Division and operating units within the purchasing unit.

We seek to treat our suppliers fairly and ethically, particularly with respect to the prompt payment of bills. Unless otherwise agreed, our payment terms are within 30 days of receipt of a complete and proper invoice, which includes VAT tax form and completion of works or goods received notice. When a supplier presents the invoice at our Head Office or regional office, our treasury officer checks for the completeness of the documentation and informs the supplier if any documents are missing or inaccurate, so that the supplier can make the necessary corrections promptly and resubmit the documents. We have implemented a "One-Day Service" to notify suppliers within 24 hours if their invoice is incomplete or inaccurate. This demonstrates our commitment to pay our suppliers on time and their importance to our business.

If the invoice is complete and accurate, our treasury officer provides a payment advice slip stating when payment will be made. We endeavour to meet the 30-day deadline, and should any supplier inform us of delayed payment, we follow up quickly. In rural areas, we help small suppliers with their cash flow by giving them cash advances for certain types of projects. This helps overcome any shortage of operating capital that they may face.

PROMOTING COMPLIANCE WITH LAWS AND REGULATIONS

We provide guidance to our small suppliers and contractors to help ensure proper documentation, invoicing and, if necessary, appropriate tax matters. We conduct training to help local contractors understand the national tax requirements and encourage them to be a registered tax entity as required by law. If needed, we assign staff to work with local contractors to ensure that they prepare their invoices properly.

Our contract terms specify that suppliers must comply with the Indonesian labour laws. We also audit certain categories of suppliers, especially those supplying packaging and raw materials for our products, for compliance with food safety standards. If a supplier is found to have breached Indonesian laws, including labour laws such as those pertaining to health and safety, their contract is immediately terminated.

We are conscious that we must take our suppliers with us on our journey towards higher standards of sustainability, and we are committed to working with them to ensure that they adopt the appropriate social and environmental standards. Increasingly, we are working with our suppliers to encourage environmentally friendly practices such as the proper collection and recycling of empty grease and oil containers where possible.

CAPACITY BUILDING

As a large business, GAR assists the economic development of Indonesia by actively helping to promote enterprise and improve the production capacity of small and medium-sized businesses in the country. This approach is encouraged by the Indonesian government as part of the national strategy to develop enterprise and employment. We fully support this goal, which also helps us to obtain the range and quality of goods and services we require, particularly in remote areas.

Our various operations and plantations play an important role as an economic driver and have led to the development of various businesses in the remote areas of Indonesia. One of the sectors that has been experiencing significant growth is the freight forwarding business that transports oil palm FFB from our plantations to the mills.

Riding on our growth, the transportation businesses owned by local entrepreneurs have been expanding very rapidly in recent years. To cater to a higher FFB volume, these businesses have been expanding their operations and vehicle fleets. This in turn has led to higher demand for vehicle repair workshops, gas stations and businesses that offer vehicle spare parts. More importantly, employment opportunities have been created for many in the local communities to become drivers, technicians and service staff.

Similarly, we also recognise that suppliers are a key success factor in our downstream business. Currently, we are in the process of setting up a Supplier Quality and Development Department to oversee and improve supplier performance and relationships, and widen the supplier base.



Transportation businesses owned by local entrepreneurs have been growing in line with our expansion.

CUSTOMER RELATIONS

Unlike consumers who buy our branded products for own consumption, our customers refer to traders, distributors, wholesalers, retailers, businesses in the food, catering, restaurant and bakery industries, and manufacturers who procure our products for commercial production of secondary products.

Our products of palm oil, palm kernel oil, palm kernel meal and oleochemicals such as glycerine and methyl esters have a wide range of uses. Chart 9.1 shows some of these uses.

CHART 9.1 Uses for palm products

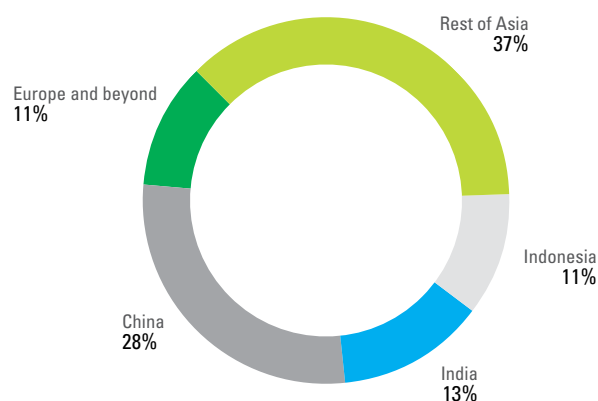
Palm oil	Palm kernel oil	Oleochemicals
<ul style="list-style-type: none"> • Bakery fats • Biodiesel • Biscuit cream fats • Chocolate and coatings • Cocoa-butter extender • Cooking oil • Dry soup mixes • Ice-cream • Instant noodles • Lubrication • Margarine • Shortening • Soap and detergents • Specialty fats • Sugar confectionery • Textile oils • Vegetable ghee • Vitamins 	<ul style="list-style-type: none"> • Biscuit cream fats • Cocoa-butter substitute • Coffee whiteners • Cosmetics • Ice-cream • Imitation cream • Shampoo • Shortening • Specialty fats • Sugar confectionery 	Glycerine <ul style="list-style-type: none"> • Cosmetics • Explosives • Food protective coatings • Pharmaceutical products
	Palm kernel meal <ul style="list-style-type: none"> • Animal feed 	Methyl Esters <ul style="list-style-type: none"> • Detergents • Emulsifiers • Lubricants • Metal processing • Pharmaceutical products • Plasticisers • Plastics • Textile processing

Traders buy various volumes of bulk product to market to a wide range of users, while industrial customers like Nestlé and Unilever purchase our products for manufacturing of secondary products. While we may not have full knowledge of how our products are ultimately used, especially those sold through bulk traders, we maintain direct relationships with industrial customers to continually meet their specific requirements.

As at 31 December 2012, about 90% of our revenue came from customers located in Asia while the rest was contributed by buyers from Europe and beyond. Our sales are mainly through traders and multi-national companies buying in Indonesia before the products are shipped to their affiliates around the world.



CHART 9.2 Revenue by geographical location in 2012



We continue to strengthen our existing foothold in international markets and penetrate new potential export destination markets. Our products are sold in more than 70 countries, such as in Asia, Africa, Middle East, Europe and South America. In 2012, our export volume sales increased significantly by 12% compared to the previous year. This earned our subsidiary, PT Sinar Mas Agro Resources and Technology Tbk ("SMART"), the Primaniyarta Award from the Ministry of Trade of the Republic of Indonesia as an extraordinary exporter for three consecutive years.

MANAGING THE TRADE WITH CUSTOMERS

The wholesale trade of palm oil is facilitated by buyers, brokers and traders. At GAR, our traders either meet brokers who introduce us to buyers of our palm products or approach buyers directly.

The financial status of the buyers is then assessed to ensure that they are credible and financially solvent. The negotiation phase starts soon after, with us using either the spot or forward market price for the transaction or a specific price formula if the buyer is interested in a long-term contract with us. In our business, the crude palm oil price is the key factor in our negotiations with customers. Refer to Chart 2.10 in the About GAR section on the price of palm oil over the past five years.

After all negotiations are completed and the contracts are concluded, we start nominating the vessels needed to transport our palm oil to their final destinations, and the buyers provide letters of credit if needed. Depending on the payment scheme and contract, the oil is shipped out either by us or the buyer.

DELIVERING THROUGH LOGISTICS EXCELLENCE

GAR has formed joint ventures with global transportation players, Stena Weco A/S and Stena Bulk AB to extend our distribution and logistics capabilities in reaching out to destination markets. This initiative will provide a holistic solution for GAR international transportation and secure greater and more flexible access to large shipping capacities. In addition, GAR has also built its own jetties and continues to expand its bulking facilities in strategic locations.

As safety and product integrity are important in our management of storage and bulk distribution of palm oil products, we adhere to the ISO 9001:2008 Quality Management System and the ISO 22000:2005 Food Management System. These requirements are integrated into our standard operating procedures, with all relevant monitoring and sampling processes in place. In addition, on-site inspections may be carried out by major customers such as Nestlé.

MAINTAINING TRANSPARENCY WITH OUR CUSTOMERS

SMART is a member of the London-based Supplier Ethical Data Exchange ("SEDEX"). SEDEX is an online database of socially responsible suppliers supported by a number of global multinationals that access and analyse information on ethical and responsible business practices by various suppliers.

Through continual customer engagement, we keep our customers abreast of our initiatives and offer solutions to meet their specific needs and requirements that may evolve from time to time.

ENSURING SUSTAINABLE AND TRACEABLE PALM OIL

We continue to strengthen our capabilities and standard operating procedures as we cater to the demand for certified sustainable palm oil in the supply chain.

Together with The Forest Trust ("TFT"), GAR made progress in our Roundtable on Sustainable Palm Oil ("RSPO") certification plans. As at 30 June 2013, 121,122 hectares of plantations including smallholder plantations of 21,418 hectares and 11 mills have received RSPO certification. This brings GAR closer to our overall target of obtaining RSPO certification for all our existing 433,200 hectares of oil palm plantations and 42 mills (as at June 2010) by December 2015.

In addition, 171,586 hectares of our plantations, 14 mills, eight bulking stations and three refineries have obtained International Sustainability and Carbon Certification. In December 2012, our

subsidiary PT Ivo Mas Tunggal received the Company's first Indonesia Sustainable Palm Oil certification for 9,721 hectares of plantations and one mill in Riau, Sumatra.

While we remain committed to palm oil certification, we continue to engage our customers to find solutions to produce palm oil in a sustainable, environmentally and socially responsible manner.

Traceability marks an important milestone in our journey towards achieving sustainable palm oil production. We have developed the necessary standard operating procedures and work instructions for achieving traceability and segregation from estate through to refinery. The option for traceability and segregation can be applied as required by customers.

ENSURING DEFORESTATION FREE PALM OIL

Increasingly, companies are becoming aware that they can make an impact by introducing zero-deforestation policies requiring suppliers to produce commodities such as palm oil in a way that has a minimal impact on forests and the climate. A good example would be the 'no deforestation' commitments enforced by Nestlé in its Responsible Sourcing Guidelines for palm oil. More recently, oil refining and marketing company Neste Oil has pledged to work proactively with palm oil producers and other stakeholders to identify ways to prevent deforestation.

This trend in the marketplace points to the same direction which our Forest Conservation Policy is taking us, i.e. to meet the market demand for no deforestation palm oil. To ensure continual alignment with the needs of our customers, we will keep engaging them as we develop solutions for sustainable development.

PROGRESSING WITH CUSTOMERS THROUGH R&D

To ensure we continually progress and meet the needs of our customers, we set up a Global Research and Development Centre ("GRDC") at our refinery in Marunda, Jakarta in 2012. GRDC focuses on identifying new uses for palm oil in food through research and product innovation. By the end of 2012, GRDC was supported by a team of 28 experts in edible fat products, culinary, and various food industries.

To enhance our capacity in research and development, we are building a new R&D facility in Marunda. The facility is expected to be ready in 2014.



Analysing refined product at our refinery in South Kalimantan.

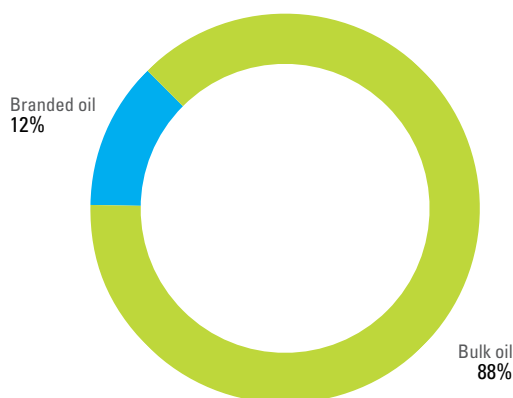
CONSUMER RELATIONS

A key part of our business strategy is to be a vertically integrated business, one that develops our own plantations, produces palm oil, refines it and ultimately sells it directly to customers and consumers in the form of branded products. Palm oil is consumed by millions of consumers around the world, and we are increasingly growing our consumer business in Indonesia and abroad.

Being vertically integrated enables the Company to capture the full value of our business while creating job opportunities across the supply chain. Indonesia and China remain our main and secondary markets respectively for our branded products. Meanwhile, we continue to extend our branded product offerings in new markets such as the Philippines and further afield in Africa and South America.

In Indonesia, the main use of palm oil is for cooking, and about 88% of cooking oil used by consumers is bought in unpackaged bulk form, as Chart 10.1 shows.

CHART 10.1 Cooking oil sales in Indonesia



Note: Estimates by the Company

The Indonesian Government is phasing out the bulk purchase of cooking oil for a number of reasons including hygiene, stability of prices of packaged oil, accountability and uniformity of sales tax. The Government is targeting to achieve this goal by 2015, making packaged and branded products like ours more important in the marketplace.

In September 2011, the Indonesian Government revised its export tax regulation, providing more support to producers of refined palm oil products. Thus, our strategy to expand our downstream facilities is in line with the Government's policy of encouraging higher value-added products.



ENSURING QUALITY AT OUR REFINERIES

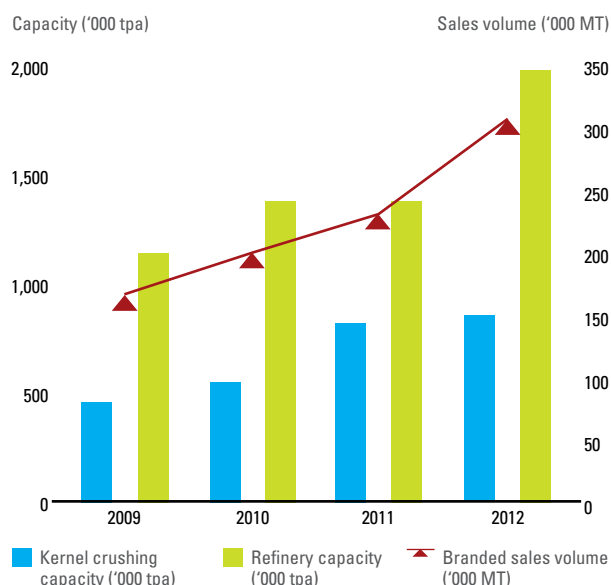
To capitalise on these opportunities, we have been enhancing the capacity of our refineries and kernel crushing plants where crude palm oil ("CPO") and palm kernel ("PK") are further processed into finished goods. Currently, GAR has four refineries and eight kernel crushing plants strategically located in Indonesia.

At the end of 2012, we completed the expansion of our refinery in South Kalimantan, bringing the total capacity of the four refineries to 1.98 million tonnes of CPO per annum. We also expanded our kernel crushing capacity to 855,000 tonnes of PK per annum. From these facilities, we generate higher value-added products such as cooking oil, margarine, shortening and fats, palm kernel oil and palm kernel meal.

All of our four existing refineries are ISO22000 certified, an international recognition that our refined products (including cooking oil, margarine and shortening) meet food safety standards. Three of our refineries have received International Sustainability and Carbon Certification ("ISCC") and we are in the process of obtaining ISCC for the remaining refinery in Surabaya. We also plan to obtain Roundtable on Sustainable Palm Oil ("RSPO") certification for our refineries. With ISCC and RSPO certification, our consumers can be further assured that the palm oil found in their products is sustainably produced.

Chart 10.2 shows how our downstream capacity has been expanding with consumer demand from 2009 to 2012.

CHART 10.2 Growth in GAR's downstream operations in Indonesia



BRANDED PRODUCTS

Our branded products are produced to meet the varied tastes and income levels of Indonesian consumers. Chart 10.3 shows all the brands that we offer in the Indonesian market by product type. Our prominent cooking oil brands, Filma and Kunci Mas, are among the market leaders in Indonesia and have nationwide coverage through an extensive network of distributors and retailers spanning the entire Indonesian archipelago.

Despite intense competition, our domestic branded products recorded a 20% increase in sales volume in 2012 as compared

to the previous year, largely due to our prudent and precise marketing strategy.

China is our second major consumer market, and we offer several brands of cooking oil and other food products there. We are continually optimising our oil refining and soybean crushing capacity in China to meet consumer demand, and developing new consumer distribution channels to take our products to new underserved areas there.

BRAND RECOGNITION

Our branded products are widely used by commercial and domestic users in Indonesia. While our industrial margarine and shortening products such as Filma, Palmboom, Menara and Goodfry have been well received by the bakery, hotel, restaurant, café and catering industries for over 20 years, Filma and Kunci Mas are trusted brands amongst Indonesian women for almost 25 years.

As a testament to the high quality and strong awareness of our prominent cooking oil brand, FILMA, we have received the following prestigious awards:

- “No. 1 Choice Brand” in the premium cooking oil category, according to the Indonesian Women’s Survey 2012 by Kartini women’s magazine and the Women’s Insight Centre;
- “5-Star Global Customer Satisfaction Standard 2012” in the cooking oil and margarine category, based on a survey by PT MARS Indonesia;
- “Indonesia Original Brands 2012” in the cooking oil category, based on a survey by SWA magazine and Business Digest; and
- World record from Museum Rekor-Dunia Indonesia or MURI as the first cooking oil and margarine product to have educational facilities about its production process.

CHART 10.3 Key brands in Indonesia by product category

Cooking oil

Our cooking oil brands consistently rank in the top five brands of cooking oil sold in Indonesia.

FILMA® Kunci Mas® mitra®
Masku® Bissu Oil

Margarine

Margarine

Our margarine brands consistently rank in the top ten brands of margarine sold in Indonesia.

FILMA® Palmboom® MENARA®
PALOMA® PALMVITA® mitra®
SMARTBaker®

Shortening

Our shortening brands consistently rank in the top ten brands of shortening sold in Indonesia.

FILMA® PALMVITA® MENARA® PALOMA®
mitra® PUSAKA® DELICIO® GOODFRY®
RED ROSE® PALMVITA GOLD

Specialty fat

Our specialty fat brands consistently rank in the top ten brands of specialty fats sold in Indonesia.

DELICIO® i-SOC

CONSUMER RELATIONS

CONSUMER PROTECTION AND ENGAGEMENT

Through the packaging and bar code system, we create and maintain traceability records of our products. We know where and when a product is manufactured and are clear about the product's expiry date. There was no product recall in 2012, and we remained compliant with the applicable rules and requirements related to product labelling, sales and marketing.

We provide care lines for our consumers to contact us with feedback on our brands. We receive very few complaints each year and none are considered health threatening. They tend to be about cooking oil going cloudy when refrigerated or the occasional discolouration which can occur in margarine.

We educate consumers about our cooking oil and margarine products, for example through community outreach programmes such as Filma Club cooking demonstrations and the online platform www.sukamasak.com.

Similarly, through the Filma Factory Visit programme at our refinery in Marunda, we provide the public with educative information on the production and proper use of cooking oil and margarine. Some 270 participants including students have undergone this experiential programme.

COMMUNITY CONTRIBUTIONS

We recognise that the price of food staples for the poor is a vital issue. As part of our efforts to assist the poor, we have been

running Operasi Pasar (Operation Market), a programme that we initiated in Indonesia in mid-2007 when prices of commodities, especially cooking oil, started to increase.

Under this programme, we sell our branded cooking oil at a subsidised rate (15% to 25% lower than the market price) in the rural and under-developed areas of Indonesia. Our community efforts in 2012 included the sale of more than 185,000 litres of subsidised cooking oil, mainly in Jakarta, Greater Jakarta, South Sulawesi and several cities in Java island. To date, we have distributed more than 1 million litres of cooking oil through Operasi Pasar.

To promote entrepreneurship, we started an initiative in 2012 called Filma Entrepreneurship. This programme, extended to family members of our employees from the downstream business, is designed to help participants start a bakery business. Participants learn the skills of baking and presenting their cakes and pastries, as well as marketing and best business practices. So far, 12 participants have completed the programme and are preparing to start their own bakeries.

STAYING ENVIRONMENTALLY FRIENDLY

We are environmentally conscious in our operations. To minimise waste, we have reduced the materials used for the bottle and pouch packaging of Filma cooking oil. We have also improved our transportation logistics with an optimally designed carton packaging that maximises load capacity and enhances efficiency.

GRI Reference Table







Corporate Citizenship assisted Golden Agri-Resources in setting the framework for its sustainability reporting, advising on best practice and standards, such as the Global Reporting Initiative and AA1000, as well as the practical challenges of collecting, verifying and benchmarking the data presented to stakeholders. The goal of the reporting is to provide the reader with a report that meets international standards in its coverage of all the Company's material sustainability issues; presenting them in a clear and direct manner with the best possible supporting data, such that the reader can fully understand the business, its total value chain, the nature of the sustainability challenges it faces and how it is responding to them.

Corporate Citizenship confirms that in its view GAR's Sustainability Report 2012 meets the requirements of the Global Reporting Initiative Application Level B.

Colour Key	ABBREVIATIONS
<div> <div></div> Company profile disclosures </div> <div> <div></div> Management approach disclosures </div> <div> <div></div> Core performance indicators </div> <div> <div></div> Additional performance indicators </div>	<div> <div></div> Fully meets GRI detailed requirements </div> <div> <div></div> Addresses but does not fully meet GRI detailed requirements </div>
	AR2012 GAR Annual Report 2012 SR2012 GAR Sustainability Report 2012

GRI G3 Guidelines	Level of reporting	Comment
1.1 Statement from the CEO		<i>Chairman's Statement</i> pages 2-3 <i>SR2012</i>
1.2 Description of key risks and opportunities		Group financial risks given at Note 4 pages 76-79 of <i>AR2012</i> , for non-financial risks, see <i>Risk Factors</i> page 46-47 <i>SMART Annual Report 2012</i>
2.1 Name of reporting organisation		Golden Agri-Resources Ltd
2.2 Primary brands products and/or services, The reporting organisation should indicate the nature of its role in providing these products and services, and the degree to which it utilises outsourcing		<i>Indonesia Operations</i> and <i>China Operations</i> pages 14-20 <i>AR2012</i> <i>Consumer Relations</i> page 54-55 <i>SR2012</i>
2.3 Operating structure of the organisation and major divisions, operating companies, subsidiaries and joint ventures		<i>Group Companies</i> Note 45 pages 115-126 <i>AR2012</i> Chart 2.3 <i>Corporate structure of GAR</i> page 5 <i>SR2012</i>
2.4 Location of organisation's headquarters		c/o 108 Pasir Panjang Road, #06-00 Golden Agri Plaza Singapore 118535
2.5 Number of countries where the organisation operates, and the names of the countries with either major operations or that are specifically relevant to the sustainability issues covered in the report		<i>Group Companies</i> Note 45 pages 115-126 <i>AR2012</i> <i>About GAR</i> page 4-7 <i>SR2012</i>
2.6 Nature of ownership and legal form		Limited company incorporated under law of Mauritius
2.7 Markets served (including geographical breakdown, sectors served, types of customers/beneficiaries)		<i>Customer Relations</i> pages 52-53 <i>SR2012</i>
2.8 Scale of reporting organisation, including number of employees, net sales (for private sector organisations) or net revenues (for public sector organisations; and total capitalisation broken down in terms of debt and equity (for private sector organisations) and quantity of products and services provided and companies encouraged to provide further information, total assets and breakdowns by country/region of sales/revenues by country/region that make up 5% or more of total revenues/costs and employees		Information throughout pages 7-8, 14-23 <i>AR2012</i> <i>Corporate Profile</i> page 1 <i>AR2012</i> for information on capacity Charts throughout <i>About GAR</i> pages 4-14 <i>SR2012</i> Charts regarding Employees pages 36-37 <i>SR2012</i> Chart 9.1 <i>Revenue by geographical location in 2012</i> page 52 <i>SR2012</i>
2.9 Significant changes during the reporting period regarding size, structure or ownership, including: the location of, or changes in operations including facility openings, closings and expansions and changes in the share capital structure and other capital formation, maintenance and alteration operations		None
2.10 Awards received in the reporting period		<i>Awards Won</i> page 13 <i>SR2012</i>

Colour Key

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	Core performance indicators		
	Additional performance indicators		







ABBREVIATIONS

AR2012 GAR Annual Report 2012

SR2012 GAR Sustainability Report 2012

GRI G3 Guidelines		Level of reporting	Comment
3.1	Reporting period for information provided		Calendar year 2012
3.2	Date of most recent report if any		2011
3.3	Reporting cycle		<i>Reporting Cycle</i> Inside Front Cover <i>SR2012</i>
3.4	Contact point for questions regarding the report and its context		Inside Back Cover <i>SR2012</i>
3.5	Process for defining report content, including determining materiality, prioritising topics within the report and identifying the stakeholders that the organisation expects to use the report. Include an explanation of how the organisation has applied the Guidance on Defining Report Content and the associated principles		<i>Scope, Reporting Standards, Inclusivity, Materiality, Responsiveness</i> , Inside Front Cover <i>SR2012</i>
3.6	Boundary of the report (e.g. countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers) See GRI Boundary Protocol for further guidance		<i>Scope</i> Inside Front Cover <i>SR2012</i>
3.7	State any specific limitations on the scope of the report. If boundary and scope do not address the full range of material economic, environmental, and social impacts of the organisation, state the strategy and the projected timeline for providing complete coverage		All material issues addressed
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organisations		<i>Scope</i> Inside Front Cover <i>SR2012</i>
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols		Some estimated data Chart 4.5 <i>Recycling of waste</i> page 21 <i>SR2012</i> ; Chart 6.5 <i>Estimated annual total benefit value per employee in 2012</i> page 38 <i>SR2012</i>
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such restatement (e.g. mergers/acquisitions, change of base year/periods, nature of business, measurement methods)		None
3.11	Significant changes from previous reporting periods in the scope, boundary or measurement methods applied in the report		None
3.12	GRI Context Index Table identifying the location of the Standard Disclosures in the report. Identify the page number or weblinks where the following can be found: Strategy and analysis 1.1-1.2; Organisational profile 2.1-2.10; Report parameters 3.1-3.13; Governance, commitments and engagement 4.1-4.17; Disclosure of management approach per category, Core performance indicators, Any additional GRI indicators that were included, any GRI sector supplement indicators included in the report		This is the table
3.13	Policy and current practice with regard to seeking independent assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any independent assurance provided. Also explain the relationship between the reporting organisation and the assurance provider(s)		<i>Assurance</i> Inside Front Cover <i>SR2012</i>

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GRI G3 Guidelines		Level of reporting	Comment
4.1	Governance structure of the organisation including committees under the highest governance body responsible for specific tasks such as setting strategy or oversight for the organisation. Describe the mandate and composition (including the number of independent members and/or non-executive members) of such committees and indicate any direct responsibility for economic, social and environmental performance)		<i>Report on Corporate Governance</i> section pages 24-31 in AR2012 <i>Management of Sustainability</i> pages 13-14 SR2012
4.2	Indicate if the Chair of the highest governance body is also an executive officer and if so their function within the organisation's management and the reasons for this arrangement)		The Chair is also CEO. The reason behind this is given on page 26 <i>Report on Corporate Governance</i> section of AR2012
4.3	For organisations that have a unitary board structure state the number of members of the highest governance body that are independent and/or non-executive directors. State how the organisation defines 'independent' and 'non-executive'. This element applies only for organisations that have unitary board structures.		Table on page 25 <i>Report on Corporate Governance</i> section of AR2012. In determining whether a director is an 'independent director', the Company adopts the definition set out in the Code of Corporate Governance 2005. A 'non-executive' director is one who does not hold any executive function in the Company or in any of its related field corporations.
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body. Include references to processes regarding: the use of shareholder resolutions or other mechanisms for enabling minority shareholders to express opinions to the highest governance body; and informing and consulting employees about working relationships with formal representation bodies such as organisation level works councils and representation of employees in the highest governance body. Identify topics related to economic, environmental and social performance raised through these mechanisms during the reporting period.		Under the Company's Constitution, any member or members holding not less than one-tenth of the issued share capital of the Company may call a members meeting.
4.5	Linkage between compensation for members of the highest governance body, senior managers and executives (including departure arrangements) and the organisation's performance (including social and environmental performance)		<i>Remuneration Committee</i> pages 29-30 of AR2012
4.6	Processes of the highest governance body to ensure conflicts of interest are avoided		The Board is also governed under the Constitution of the Company, which disallows a director to vote or be counted in the quorum, in respect of any proposal in which that director has any interest, whether direct or indirect. Such proposals extend to Interested Person Transactions, involving directors and their associates where the "interested director" is debarred from voting at the shareholders' meeting held to seek shareholders approval. Further, under the Company's code of corporate governance, a director is not to be involved in the decision of his own remuneration. The directors are also required to disclose to the Board of Directors, their interest in any transaction/proposed transaction; as well as any other office/ position which might create conflicts with their duties as a director.
4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organisation's strategy on economic, environmental and social topics		The Company's code of corporate governance has stipulated board composition. Further, the Board reviews its size annually and, during that time, has the opportunity to examine its composition. It also conducts an annual review of the Board's performance, and the contribution of each director to the Board's effectiveness.
4.8	Internally developed mission and values statements, codes of conduct, and principles relevant to economic, environmental and social performance and the status of their implementation Explain the degree to which these: are applied across the organisation in different regions and department/units; and, relate to internationally agreed standards		<i>Developing Culture</i> page 32 AR2012 <i>Our Shared Values, Corporate Vision and Values</i> page 11 SR2012 <i>International Stakeholders and Standards</i> page 12 SR2012









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

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GRI G3 Guidelines		Level of reporting	Comment
4.9	Procedures of the highest governance body for overseeing the organisation's identification and management of economic, environmental and social performance, including the identification and management of relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct and principles Include the frequency with which the highest governance body assesses sustainability performance		<i>Management of Sustainability</i> pages 13-14 SR2012
4.10	Processes for evaluating the performance of the highest governance body, particularly with respect to economic, environmental and social performance		<i>Corporate Governance</i> pages 26-27 AR2012
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organisation Article 15 of the Rio Principles introduced the precautionary approach. A response to 4.11 could address the organisation's approach to risk management in operational planning or the development and introduction of new products		The principle is accepted
4.12	Externally developed, economic, environmental and social charters, sets of principles, or other initiatives to which the organisation subscribes or which it endorses. Include the date of adoption, countries/operations where applied, and the range of stakeholders involved in the development and governance of these initiatives (e.g. multi-stakeholder, etc). Differentiate between non-binding, voluntary initiatives and those with which the organisation has an obligation to comply		<i>International Stakeholders and Standards</i> page 12 SR2012
4.13	Significant memberships in associations (such as industry associations) and or national/international advocacy organisations in which the organisation: has positions on governance bodies, participates in projects or committees, provides substantive funding beyond routine membership dues or views membership as strategic		<i>Relations with Industry, Trade Associations and International Organisations</i> page 12 SR2012
4.14	List of stakeholder groups engaged by organisations. Examples of stakeholder groups are communities, civil society, customers, shareholders and providers of capital, suppliers, and employees, other workers and their trade unions		<i>Stakeholder Engagement</i> pages 15-17 SR2012
4.15	Basis for identification and selection of stakeholders to engage. This includes the organisation's process for defining its stakeholder groups, and for determining the groups with which to engage and not to engage		<i>Stakeholder Engagement</i> pages 15-17 SR2012
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group. This could include surveys, focus groups, community panels, written communication, management/union structures, and other vehicles. The organisation should indicate whether any of the engagement was undertaken as specifically as part of the report preparation process		<i>Sustainable development</i> page 5 AR2012 <i>Continued strong commitment to environmental and social responsibility</i> page 20 AR2012 <i>Advancing multi-stakeholder engagement process</i> pages 37-39 AR2012 <i>Stakeholder Engagement</i> pages 15-17 SR2012 <i>Multi-stakeholder approach to resolving dispute</i> pages 44-45 SR2012
4.17	Key topics and concerns that have been raised through stakeholder engagement and how the organisation has responded to those key issues and concerns, including through its reporting		<i>Stakeholder Engagement</i> pages 15-17 SR2012 <i>Multi-stakeholder approach to resolving dispute</i> pages 44-45 SR2012

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Economic Management Approach			<p>The economic approach is aimed at sustaining a business profitable for investors, beneficial to the countries of operation and employees. This has to be done by acting in a manner that is sustainable. See particularly pages 4-10 SR2012</p> <p>For supplier aspects see pages 49-51 SR2012</p>
EC1	Direct Economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings and payments to capital providers and governments		<p>Revenue Note 6 pages 81-82 AR2012</p> <p>Chart 2.14 <i>Distribution of GAR Indonesia's revenue of US\$4,762 million in 2012</i> page 10 SR2012</p>
EC3	Coverage of organisation's defined benefit plan obligations		<p>Post Employment Benefits Liability and Share-Based Payment Note 39 pages 106-107 AR2012</p>
EC4	Significant financial assistance received from government		<p>Our Singapore trading company was awarded "Global Trader Programme" ("GTP") status by International Enterprise Singapore. Under this programme, income derived from qualifying trading transactions of approved products by our trading company shall be taxed at the concessionary rate of 5%.</p> <p>Note: GTP encourages global trading companies to use Singapore as their regional or global base to conduct activities along the total trade value-add chain from the procurement to distribution, in order to expand into region and beyond.</p>
EC6	Policy, practices and proportion of spending on locally based suppliers at significant locations of operation		<p>Spending on Upstream Suppliers page 49 SR2012</p> <p>Spending on Downstream Suppliers page 50 SR2012</p>
Environmental Management Approach			<p>The nature of GAR's business means that it faces a very distinctive set of environmental challenges particularly with regard to land use and the proper stewardship of forest land. How these challenges are systematically addressed is explained in <i>Managing Sustainability in Our Plantations</i> pages 18-28 SR2012, beginning with the introductory paragraph and very fully supported in charts and consideration of particular aspects e.g. water.</p>
EN3	Direct energy consumption by primary energy source		<p>Reducing greenhouse gas emissions page 22 SR2012</p>
EN4	Indirect energy consumption by primary source		<p>Reducing greenhouse gas emissions page 22 SR2012</p>
EN8	Total water withdrawn by source		<p>Water Management page 21 SR2012</p>
EN11	Location and size of land owned, leased or managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		<p>Chart 4.6 <i>Threatened species identified in our concessions</i> pages 23-25 SR2012</p>
EN12	Description of significant impact of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas		<p>Preserving High Conservation Value Areas pages 22-26 SR2012</p>
EN14	Strategies, current actions, and future plans for managing impacts on diversity		<p>Chart 4.6 <i>Threatened species identified in our concessions</i> pages 23-25 SR2012</p>
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk		<p>Chart 4.6 <i>Threatened species identified in our concessions</i> pages 23-25 SR2012</p>
EN16	Total direct and indirect greenhouse gas emissions by weight		<p>Reducing greenhouse gas emissions page 22 SR2012</p>
















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

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GRI G3 Guidelines		Level of reporting	Comment
EN22	Total amount of waste by type and disposal method		<i>Waste management</i> pages 21-22 SR2012
EN28	Monetary value of significant fines and total number of non-monetary sanctions for, non-compliance with environmental laws and regulations		There are no significant fines or sanctions for non-compliance with environment laws and regulations.
Labour practices and decent work: Management Approach			This is comprehensively covered in the <i>Labour Relations</i> section pages 36-42 SR2012
LA1	Total workforce by employment type, employment contract and region		Tables on pages 36-37 SR2012 and <i>Casual Labour</i> section page 38 SR2012
LA3	Benefits provided to full time employees that are not provided to temporary or part time employees, by major operations		Chart 6.5 <i>Estimated total benefit value per employee in 2012</i> and final paragraph of <i>Casual Labour</i> page 38 SR2012
LA4	Percentage of employees covered by collective bargaining agreements		<i>Freedom of Association and Trades Union Membership</i> page 41 SR2012
LA7	Rates of injury, occupational diseases, lost days and absenteeism and number of work related fatalities by region		Chart 6.8 <i>Fatalities in 2012</i> , Chart 6.9 <i>Frequency Rate and Severity Rate of work-related accidents in 2012</i> pages 39-40 SR2012
Human rights: Management Approach			GAR, through SMART, is a signatory of the UN Global Compact. The most significant human rights issues faced are those relating to employment. These are fully covered in the <i>Labour Relations</i> section pages 36-42 SR2012
HR5	Operations identified in which the right to exercise of freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights		<i>Freedom of Association and Trades Union Membership</i> page 41 SR2012
HR6	Operations identified as having significant risk for incidents of child labour and measures taken to contribute to the elimination of child labour		<i>Minimum Age of Employment</i> page 37 SR2012
HR7	Operations identified as having significant risk of forced or compulsory labour, and measures to contribute to the elimination of forced or compulsory labour		<i>Gender and other employment issues</i> page 37 SR2012
HR8	Percentage of security personnel trained in organisation's policies or procedures concerning aspects of human rights that are relevant to operations		<i>Security Guards</i> page 42 SR2012
Society: Management Approach			GAR's approach is based upon strict and respectful adherence to law and a recognition that good relations with the community are mutually beneficial. They are central both to the business and to the Company's aspiration of contributing to the economic and social development of Indonesia.
SO1	Nature, scope and effectiveness of any programmes and practices that assess and manage the impacts of operations on communities, including entering, operating and exiting		Throughout <i>Social and Community Affairs</i> pages 43-48 SR2012
SO5	Public policy positions and participation in public policy and lobbying		<i>Chairman Statement</i> pages 2-3 SR2012 <i>Relations with government</i> page 12 SR2012 <i>Advancing forest conservation</i> pages 15-16 SR2012





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SO6	Total value of financial and in-kind contributions to political parties, politicians and related institutions by country		There are no such contributions
SO7	Total number of legal actions for anti-competitive behaviour, anti-trust and monopoly practices and their outcomes		None in 2012
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations		There are no such fines
Product responsibility: Management Approach			The approach is to deliver high quality product with integrity at a reasonable price
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by outcomes		None for operations within the scope of report
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes		None for operations within the scope of report
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data		None for operations within the scope of report
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services		None for operations within the scope of report

United Nations Global Compact Reference Table

Human rights	
Principle 1 Businesses should support and respect the protection of internationally proclaimed human rights.	As a signatory member through our subsidiary, SMART, we have publicly endorsed the UNGC both for our owned and operated businesses.
Principle 2 Make sure that they are not complicit in human rights abuses.	We take care to work in a way that avoids such abuses. For instance, all our security guards undergo a comprehensive training programme provided by the Bhakti Manunggal Karya Centre of Education and Training ("BMK"). The programme includes a human rights component. Our security guards do not carry firearms.
Labour	
Principle 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	Indonesia's laws are in line with the relevant ILO Conventions. We observe these laws. 80% of our Indonesian permanent workers are union members.
Principle 4 Businesses should uphold the elimination of all forms of forced and compulsory labour.	Employees enter into our employment freely. As a matter of policy, we do not require our employees to deposit identity papers nor deposit money.
Principle 5 Businesses should uphold the effective abolition of child labour.	The minimum age for employment in any capacity is 18 years. We are totally opposed to any form of child labour. We rigorously enforce these principles at all our plantations, mills and other places of work. Our recruitment officers check the identification card against the employees' schooling records such as their school diplomas to ensure that we do not employ children.
Principle 6 Businesses should uphold the elimination of discrimination in respect of employment and occupation.	The Company has an equal opportunities policy on employment, banning discrimination based on race, national origin, religion, disability, gender, sexual orientation, union membership and political affiliation.
Environment	
Principle 7 Businesses should support a precautionary approach to environmental challenges.	We accept the precautionary principle.
Principle 8 Businesses should undertake initiatives to promote greater environmental responsibility.	This issue is addressed particularly in the Managing Sustainability in Our Plantations section and Research and Development section of the Sustainability Report 2012, pages 18-28 and 29-35.
Principle 9 Businesses should encourage the development and diffusion of environmentally friendly technologies.	We invest heavily in research to improve the crop and manage it in a sustainable way. Our research institute, SMARTRI is dedicated to supporting the palm oil industry through innovation, developing best practices and improving the current palm oil breeding programme. We seek to be on the cutting edge of palm oil research and development and work with reputable research institutes and universities, like International Cooperation Centre in Agronomic Research for Development, McGill University, and University of Cambridge.
Anti-corruption	
Principle 10 Businesses should work against corruption in all its forms, including extortion and bribery.	We do not tolerate any instances of improper payments. Any employee found to have engaged in improper payments or corruption is severely dealt with by the Company and to the full extent of the law. We believe that this stance has a positive impact beyond the boundaries of the Company.

Feedback and Point of Contact

We see our Sustainability Report as part of our continuous engagement with our stakeholders and would welcome your feedback.

Please contact our Communications and Sustainability Manager
Ms Shirley Poo at shirleyp@goldenagri.com.sg.

If you prefer, our mailing address is:

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