

Connect Through Life
SARAYA

Progress Report Saraya

2015/2016

**On the Leadership Declaration of
the 'Biodiversity in Good Company' Initiative**

It is generally understood that when a company is founded, there are hopes and ambitions for continued growth decades into the future. In this sense, at Saraya we believe a company should be responsible for the natural habitats it derives its resources from and for pursuing the conservation of biodiversity through its corporate activities, both for ecological reasons and for preservation of the company's business model.

Sustainable raw materials are essential in finding coexistence between consumers, the modern economy and the ecosystem. Supporting the development of sustainable goods while directly pursuing preservation of biodiversity where our raw materials originate is at the center of Saraya's corporate DNA. As a member of the 'Biodiversity in Good Company' Initiative, Saraya has adopted the Leadership Declaration and is committed, in its entirety, to the seven points. Saraya's activities in 2015 and 2016 in support of the Leadership Declaration are outlined below.

Leadership Declaration

All signatory companies acknowledge and support the three objectives of the international "Convention on Biological Diversity":

1. Conservation of biological diversity
2. Sustainable use of its components
3. Fair and equitable sharing of the benefits that arise out of the utilization of genetic resources.

and commit themselves to:

1. Analyzing corporate activities with regard to their impacts on biological diversity;
2. Including the protection of biological diversity within their environmental management system;
3. Appointing a responsible individual within the company to steer all activities in the biodiversity sector and report to the Management Board;
4. Defining realistic, measurable objectives that are monitored and adjusted every two to three years;
5. Publishing activities and achievements in the biodiversity sector in the company's annual, environmental, and/or corporate social responsibility report;
6. Informing suppliers about the company's biodiversity objectives and integrating suppliers accordingly and step by step;
7. Exploring the potential for cooperation with scientific institutions, non-governmental organizations (NGOs) and/or governmental institutions with the aim of deepening dialogue and continuously improving the corporate management system vis-à-vis the biodiversity domain.

To demonstrate ongoing commitment, member companies will provide the Initiative with a progress report every two years.

1. Analyzing corporate activities with regard to their impact on biological diversity

Saraya makes hand soap and detergents with ingredients* derived from palm kernel oil produced in Sabah, Malaysia. Palm kernel oil is extracted from the seeds that remain after pressing the palm fruit to extract palm oil. Palm oil is the most widely consumed vegetable oil with about 626 million tons being produced in 2015. Because large plantations are necessary for palm oil and palm kernel oil production, clearing of rainforest affects the biodiversity where palm oil is produced. Based on analyzing our

corporate activities, many years ago Saraya came to the conclusion to address the use of palm kernel oil as one key aspect. In 2015 and 2016 Saraya has continued these activities:

*Higher alcohols (these containing 4 to 10 carbon atoms)

Activities in 2015 and 2016

All of our oil palm-related raw materials for our household products – except B to B – have been certified as sustainably produced by either RSPO (Roundtable on Sustainable Palm Oil) or Green Palm certificates for certified sustainable palm oil (CSPO).

Why didn't we decide to use CSPO for B to B products? The raw material used in these products is primarily derived from palm kernel oil, and certified sustainable palm kernel oil (CSPKO) is not yet widely available. Palm plantations that are themselves certified can sell credits as offsets for use elsewhere in the supply chain. However, due to low demand for CSPKO these credits have become artificially inflated. Saraya made the decision in 2013 to invest directly in the conservation of the rainforest rather than purchase the unnecessarily high priced credits for B to B products. However, for household products Saraya purchases credits through RSPO to show our support for sustainable palm oil and to encourage ethical consumption.



Saraya household products are LAS free

Zinc and nonyl phenyl ethers are known to have endocrine disrupting actions. In addition to these chemicals, in 2013 the Japanese Ministry of the Environment added environmental standards relating to water pollution due to linear alkylbenzene sulfonate (LAS) pollution in order to protect aquatic life. The Ministry of the Environment reported that aquatic organisms such as salmon and trout, which inhabit relatively lower temperature fresh water in Japan, can be impacted by LAS levels greater than 0.03 mg/l, and the environment for spawning should have LAS levels lower

than 0.02 mg/l. The ministry also reported that saltwater aquatic organisms can be impacted by LAS levels higher than 0.01 mg/l, and LAS levels higher than 0.006 mg/l could affect spawning waters.

The Japan Soap and Detergent Association reports that about 4 million tons of LAS was used worldwide in 2014.. The Japanese Ministry of the Environment’s reports that 45,784 tons of LAS was shipped throughout Japan in FY 2014 (1 April to 31 March), with an estimated 36,952 tons of the surfactant going through sewage treatment, and 8,682 tons released to the environment without going through sewage treatment. Household laundry and cleaning detergents accounted for 81.4% of this volume. The Japanese Ministry of Economy, Trade and Industry also reported on the country’s LAS use in detail. The data is shown in the pie charts below.

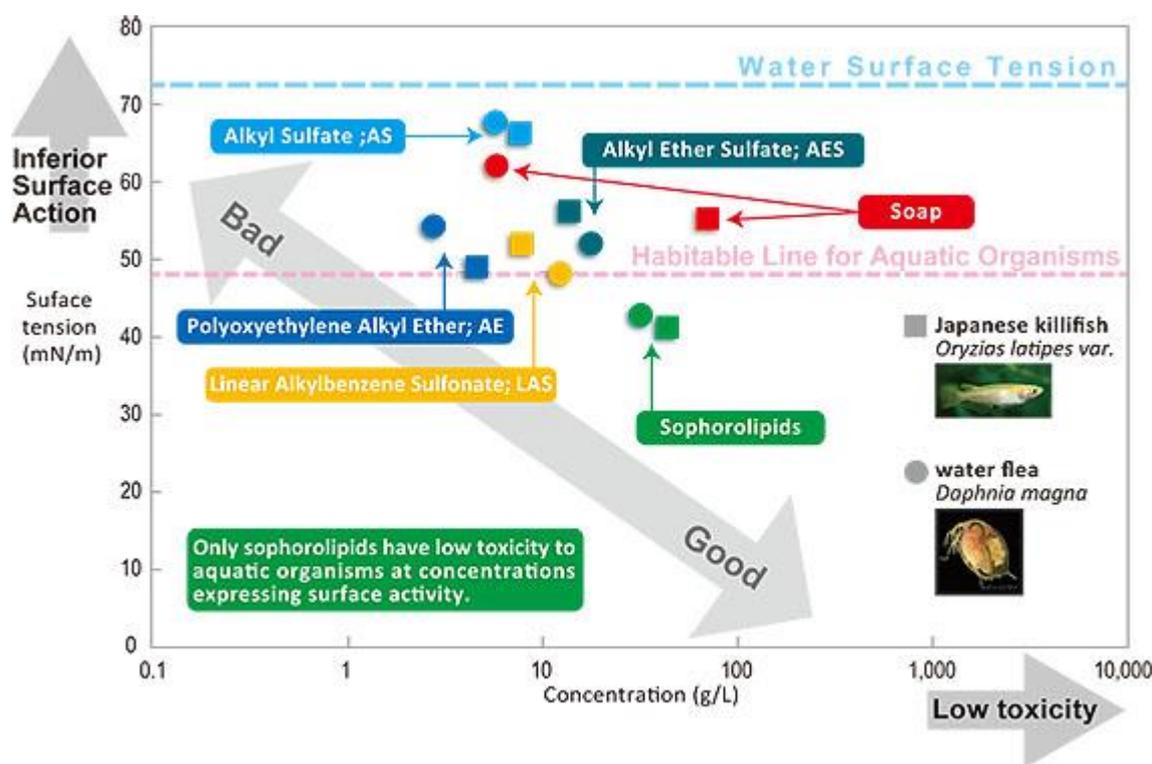
Saraya has never used LAS in its household products and has started using novel sophorolipids in its flagship products, such as the Happy Elephant series of household detergents.

* source: Japan Soap and Detergent Association and Japan Surfactant Industry Association



* Sophorolipids

A new line of sustainable products made with a unique type of biosurfactant developed by Saraya. Sophorolipids are a biosurfactant (naturally-based cleaning agents) made by fermenting vegetable oil with yeast. In Saraya's case, this is palm oil. Detergents made with this cleaning agent rinse away with less water while maintaining stronger cleaning efficacy (detergency) than other products on the market. In addition, Saraya has developed a way to produce sophorolipids from crude palm oil, removing the need for extensive purification to reach its currently traded state. Saraya's sophorolipids potentially allow palm oil to be bought directly from small plantation owners, supporting the local economy and rewarding these small owners for participating in the RSPO.



Biodiversity is interrelated with many pressures. Analyzing the environmental impacts of our business, which also affect biological diversity, is an ongoing and comprehensive responsibility for Saraya. It is the basis for further developing the environmental management system and for defining clear objectives. Additional information regarding the analysis of corporate activities can be found below under points 2 and 4 of the Leadership Declaration.

2. Including the protection of biological diversity within their environmental management system

Saraya has been ISO 14001 certified since 2001. Saraya's environmental policy contains 4 articles, of which articles 2 and 4 relate to sustainability and compliance with laws and regulations. Specifically they are:

Article 2: Realizing a sustainable society.

“Through our business activities we will strive to conserve biodiversity, promote action against global warming, and actively utilize sustainable resources. To achieve this we will work closely with stakeholders including NPOs and other organizations.”

Article 4: Legal compliance.

“We will comply with local and national environmental laws and ordinances related to

business operations and management. Furthermore, we will proactively address international regulations and engage in international environmental initiatives.”

Saraya works closely with the Borneo Conservation Trust (BCT) in Malaysia and with the local offshoot, BCT Japan. Saraya donates 1% of the total sales of palm oil based products to BCT. This commitment to conservation of biological diversity is the company’s most visible cause-related marketing and consumer education campaign.

Saraya’s products are designed and engineered to inspire sustainability while aspiring to be sustainable themselves. Products promoted under the Happy Elephant brand contain sophorolipids, Saraya’s highly biodegradable surfactant made using RSPO-certified palm oil, reducing the negative environmental impact of detergents used every day.

Since 2007 Saraya has been supporting BCT’s activities to protect the rainforest and extend the Sabah Mega Ecological Corridor where more than 85% of Sabah’s orangutan, elephant and rhinoceros populations are living.

3. Appointing a responsible individual within the company to steer all activities in the biodiversity sector and report to the Management Board

Saraya’s CSR objectives are managed and implemented by Mr. Hirotsugu Daishima, the Chief Officer of the Social Relations Department, who also acts as a board member of BCT Japan. He is responsible for planning and initiating activities in the biodiversity sector with the assistance of Mr. Nobuo Nakanishi, a key correspondent for relations with Saraya’s NPO partners around the world.

The General Affairs and Human Resources Department at Saraya maintains relations with participating initiatives such as the 'Biodiversity in Good Company' Initiative, the Global Compact, and the Japan Business Initiative for Biodiversity. Ms. Atsuko Takahashi works exclusively to provide regular updates to the annual sustainability report. All official reporting and record keeping is maintained by Ms. Takahashi and the CSR promotion team in the General Affairs and Human Resources Department.

Saraya takes an active role in the NPOs it supports. The company president, Mr. Yusuke Saraya, is Vice Chairman of BCT and an active participant in the company’s CSR initiatives. Mr. Daishima himself is a Board Director at Saraya. Mr. Saraya, Mr.

Daishima and Mr. Nakanishi are visible to the public in most CSR-related activities and are all board members of BCT Japan, allowing Saraya to work directly and efficiently with related NPOs.

To learn about the relationship between biodiversity and palm oil, a total of 18 management board members have gone on study excursions in Sabah, Borneo during 2009 and 2010.

4. Defining realistic, measurable objectives that are monitored and adjusted every two to three years

Changing PRTRs (Pollutant Release and Transfer Register) reductions to a new environmental barometer

Our mission is to be a truly sustainable company with high aspirations. We aim to provide our customers with quality products, which meet the OECD requirements for biodegradability* and reduce reliance on fossil carbon sources.

* According to the OECD, a chemical is considered “readily biodegradable” if the biodegradation percentage is greater than 60% after 28 days

Replacement PRTRs

Up until 2009, as part of our environmental management system (EMS), we made concerted efforts to avoid the use of chemicals listed on PRTRs – an emission inventory that collects and disseminates data on specific chemical releases.

During the last several years, however, there have been a series of amendments to the Law on Confirmation of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management (PRTR Law). As a result, the PRTR Law contradicts our mission to provide customers with quality products with high biodegradability.

To give an example, polyoxyalkylene alkyl ether, one of the major substitutes for PRTR-designated polyoxyethylene alkyl ether (AE), is less biodegradable than AE, meaning that products containing polyoxyalkylene alkyl ether instead of AE have more impact on the environment (see later sections for more details). With respect to polyoxyethylene alkyl ether sulphate (AES), which has recently been classified as a PRTR substance, there is no one substitute available as of now.

What Is Carbon Balance?

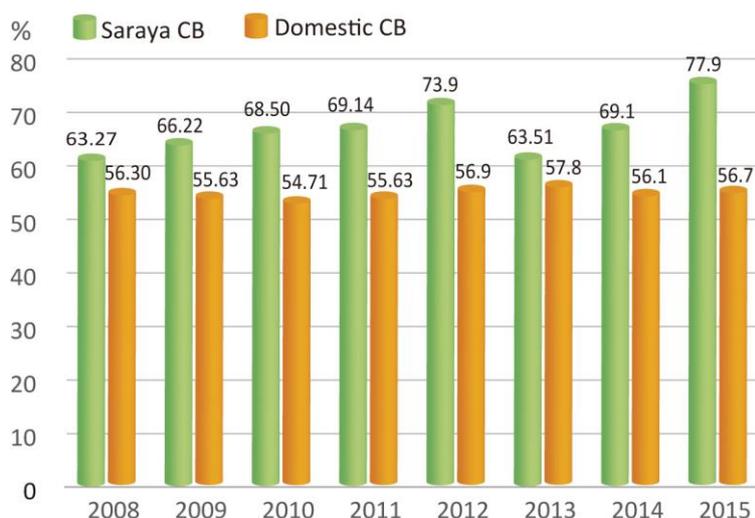
Against this backdrop, Saraya has developed a new environmental barometer called the Carbon Balance (CB) which is designed to indicate the fossil and non-fossil carbon content of surfactants. The Carbon Balance (%) of a surfactant is the proportion of total carbon content which comes from a non-fossil source (i.e. a CB of 100% indicates an entirely non-fossil derived surfactant; and a CB of 0% indicates the carbon source is entirely fossil based).. We calculate the total CB of surfactants used in our products for each year and try to maintain it above 60% as part of our EMS targets. In 2015, 11 surfactants made up most of those produced in Japan. The total CB of the 11 most frequently traded surfactants was approximately 56.7%.

The CB of Surfactant A (PRTR-designated AE) is approximately 40%, while those of Surfactant B and C, two major substitutes for AE, are about 20% and 12%, respectively. Generally, the higher the CB or non-fossil carbon content of a surfactant, the higher the biodegradability. For these reasons, instead of avoiding PRTR chemicals which could end up with less biodegradability, we have decided to use chemicals with higher CB values.

The following is the Carbon Balance of AES as an example:



$$CB: 12 \div (2 \times 3 + 12) \times 100 = 66.7\%$$



The domestic CB was calculated from the 11 most frequently traded surfactants listed in the 2008 - 2015 Yearbook of Chemical Industry Statistics published by the Japanese Ministry of Economy, Trade and Industry.

Soap or Soap-free?

The CB of soap is 100 %. This, however, does not necessarily mean that soaps have less of a burden on the environment than soap-free detergent products. Generally, the detergency of soap is not as great as that of soap-free products, which results in a greater amount of soap being consumed. Moreover, the biodegradability of, for example, AES is greater than 60% by the OECD criteria, indicating that fossil-based polyoxyethylene too can be decomposed into water and carbon dioxide. Furthermore, production of both soaps and soap-free products requires a variety of outside inputs, which in one way or another require fossil fuels. Hence, soaps are not necessarily more environmentally-friendly than soap-free products. They can be used differently depending on individual circumstances and preferences.

5. Publishing activities and achievements in the biodiversity sector in the company's annual environmental and/or corporate social responsibility report

Saraya has made transparency and education through publications and communication a vital part of spreading its message and committing to set goals. Since 2002 Saraya has made public all achievements in the biodiversity sector as well as environmental performance by releasing a yearly corporate Sustainability Report, which is available online. More than 11,000 copies are distributed every year, and in Japan the report is available for free by request through the company website.

Saraya's Sustainability Report has won awards a total of eight times. Recently, the 2014 report won the 18th Environmental Communication Award for excellence in biodiversity reporting, awarded by the Japanese Ministry of Environment and NPOs.

6. Informing suppliers about the company's biodiversity objectives and integrating suppliers accordingly, step by step

Eighteen of Saraya's suppliers are current members of the Roundtable on Sustainable Palm Oil (RSPO) – an increase of five since Progress Report 2013/2014.

The Purchasing Department promotes the use of RSPO-certified palm oil to our suppliers, and also organized a supplier mission tour to Borneo in 2008.

Mr. Shinichi Yoshikawa, of the Purchasing Department, also spoke at the 'RSPO Japan Day 2016' symposium on the topic of 'How to purchase certified palm oil'.

7. Exploring the potential for cooperation with scientific institutions, non-governmental organizations (NGOs) and/or governmental institutions with the aim of deepening dialogue and continuously improving the corporate management system vis-a-vis the biodiversity domain.

As with every year, marketing campaigns continued using Saraya's products as an educational platform to teach consumers in Japan about the risks that non-sustainable palm oil has towards biodiversity. Saraya's identity is solidified in its frequent public campaigns to bring attention to the Borneo Conservation Trust (BCT). Company President Mr. Yusuke Saraya is a board member of several NPOs, such as BCT and BCT Japan, Zero Emission Research and Initiative Japan, and ECO Design Network, amongst others.

Mr. Saraya makes reference to the importance and value of cooperating with NPOs in his second book, *Idealistic Business Will Go Well!*, in the chapter titled 'Businesses and NPOs complete each other.' (p.168). He writes:

"Saraya is a commercial enterprise and at the same time a positive supporter for NPOs. People often asked me if the pursuit of profit contradicts with supporting NPOs. It is not true. I think companies and NPOs can support each other in positive ways. Both share the roles in society, however approach the market and people differently. Companies find it hard to conduct projects which cannot make a profit, but NPOs find it easier to conduct such projects and also to get support from the public, because they are non-profit. NPOs are also well-placed to respond to people's desire to have a positive social impact, allowing people to realize these desires by contributing to projects. Companies can learn from NPOs about the different views of people, markets and the know-how gained from such initiatives. We, the companies, should learn from and cooperate with NPOs to help achieve our own goals."

In December 2016 Saraya signed the Cancun Business and Biodiversity Pledge at the CBD Business and Biodiversity Forum – part of the thirteenth Conference of the Parties (COP13) in Cancun, Mexico. In addition, Mr. Saraya spoke at the Forum on the topic of supply chains and sustainable production and consumption. A video of his speech is available here: <https://www.youtube.com/watch?v=ZzT4NYOkJB8>