

How Can We Ensure the Supply of More Sustainable Palm Oil

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Abstract:

Purpose: Due to the increasing population growth, the consumption and quantity of produced food, cosmetic products and relevant products, which people need in everyday life, are also increasing. Most people do not realize that many products contain palm oil, which acquisition and production has a bad effect on the environment and for some endangered animal species. Scientists have been warning about the problematic of acquisition and production of palm oil for many years, and over the years, businesses have come to realize that something needs to be done in this direction. They introduced measures to control how the palm oil, that they use, is produced and supplied.

Design/methodology/approach: Paper is designed to first review available literature on palm oil sustainability issues and then comparatively analyze different major companies using palm oil in their products and their activities to establish more sustainable palm oil supply chain. Study is based on internationally recognized scorecards.

Findings: This paper analyses and compares how different companies have tackled these issues, what is their palm oil policy and how were they assessed from WWF organization regarding this matter. There are substantial differences among specific companies regarding their approach and measures taken. **Practical implications:** Paper presents cases of approaches and measures taken by different companies from different sectors, motivated to make their palm oil supply chain more sustainable. Comparative analysis as well as presented measures are of significant importance for companies dealing with palm oil. One of practical implications of this paper is also establishing guidelines for companies that have not yet responded in this field.

Originality: This paper contributes to the knowledge database new insights into sustainable palm oil supply chain management monitoring, comparison, measures and activities.

Keywords: Supply chain management, Sustainability, Measures, Palm oil, Environmental protection

Paper Type: research paper

1. Introduction

Companies are aware that their success depends on customer satisfaction, since without customers there is no demand and consequential earnings. Because of this, companies must measure the satisfaction of their customers, identify the gaps and introduce improvements. To find out how satisfied the customers are, the company must first obtain precise information, because the precise flow of information is of great importance in the improvement of its products or services, thus ensuring that the company maintains its customers and demand for their products also in the future. It is also important that companies have an overview of competition and the supply chain (Suchánek and Králová, 2015).

In the supply chain, as the name suggests, we are dealing with the chain through which materials, parts or finished products are planned, coordinated and controlled from suppliers, production and distribution to customers. However, the supply chain must be managed to meet customer demands with the flow of material (Stevens, 1989). In the supply chain, it is important that business functions such as marketing, sales, development, forecasting, production, purchasing, logistics, information support, finance and customer services manage the flow of products, services, financial resources and information in the supply chain, since only in this way the company can beat the competition (Mentzer et al., 2001).

Nowadays, when people are becoming more and more aware of environmental issues, sustainable development is becoming increasingly important. Sustainable development is defined as "meeting the need of the current without, compromising the ability of future generations to meet their own needs (WCED, 1987)." The tool with which this can be achieved, thus protecting the environment for the next generations, is Green marketing. Customers are ready to pay more for green products, so green marketing is also a marketing strategy (Kaur and Kaur, 2018) . Companies should also adapt green marketing if they want to maintain or acquire customers. The step towards more environmentally friendly operation means that the company must improve environmental management through its entire supply chain, whereby the cooperation between the stakeholders is of a great importance. For the company, cooperation with suppliers means superior delivery and flexibility, and cooperation with customers can lead to quality improvement. Further upstream collaboration helps to improve processes, leading to fast and reliable delivery and a quick response to unpredictable events, and downstream collaboration leads to product improvement, compliance with specification and persistence (Vachon and Klassen, 2008). In addition to cooperating with stakeholders, control over stakeholders is also important. Therefore, if any raw material or component forming part of their production or supply chain has a negative impact on the environment and society, companies must introduce measures to control, reduce and, at best, eliminate the negative impact.

Many companies had to introduce measures to control the acquisition and production of palm oil. Scientists have been warning of the problematic of palm oil for a long time because it is used in many products and is the main source for deforestation of rain forests and for the destruction of the habitat of endangered species such as Orangutans, pygmy elephant and Sumatran rhino. The acquisition of palm oil is also controversial from the point of view of generating huge greenhouse gas emissions and consequently affecting climate change. There is also controversy in the exploitation of workers and children for work (WWF, 2020).

2. Theoretical background

Palm oil is an edible oil of vegetable origin, made from the fruit of the oil palm that is yellow or orange. After the harvest, the fruit is sterilized, and the oil is extracted from it (FONAP, 2020). There are produced two types of oils from the fruit. The first one is from the flesh and the second from the seed or kernel (Basiron, 2007). Palm trees originally came from western and southwestern Africa, and later in the late 19th and 20th centuries they were planted in Indonesia and Malaysia. Trees naturally grow in rain forests, but due to increased demand they are additionally planted and grown (BBC, 2018). They can grow up to 20 meters and fruits appear on trees after three years. Fruits can be harvested for twelve months a year, that is, throughout the year, and each tree can produce yearly 10 tons of fruit per hectare (Green Palm, 2016)..

The use of palm oil is widespread mostly because of the low cost and because people look at palm oil as a healthier alternative to trans fats and animal fats (Robins, 2019). Palm oil is the ingredient of many products. It is found, for example, in food such as chocolate, pizza, ice cream, margarine, biscuits and packaged bread. Palm oil is also a component of shampoos, lipsticks, detergents and soaps. Furthermore, it is a component of biodiesel (WWF, 2021). One of the reasons why palm oil is so popular is that palm oil is a great choice for fried food. The palm oil has high oxidative stability, which means that the products have longer shelf life, compared to conventional oil and it is without taste and smell (Matthäus, 2007). Another advantage of palm oil is that it is semi-solid, therefore it can be used in a wide range of products. The advantage is also that natural palm oil is trans-free and genetic modifications free (Gee, 2007). In the European Union we have the data that 61% of palm oil in year 2017 was used for energy, nearly half of which was spent on biofuels. The remaining 39% was spent on food, chemical production and animal feed Rainforest Rescue, 2019).

Palm oil grows in tropical climatic conditions. Due to high demand of palm oil, rainforests are cut off and burn down for the purpose of making space to plant a new palm tree. During this process the greenhouse gases are generated. NASA calculated that 600 million tons of greenhouse gases were released to the atmosphere from the August to October in 2015 due to the burning of trees. The problem is most present in Malaysia and Indonesia, which are the largest producer of palm oil. Due to the latter, both are losing rain forests faster than any other country in the world. The fire also poses a threat to the local community as it affects air pollution. It is also controversial from a social point of view, since plantation workers often live-in plantations, and thus have no contact with external world. For this reason, it is important that children living in plantations have access to education and that workers have at least a minimum wage (Nachhaltiges Palmöl, 2019a). Also interesting is the fact that palm trees can live for 28-30 years, but they are cut off earlier because otherwise they grow too high, so the workers consequently cannot reach the fruit. Cutting the trees down also makes space for new trees, which again has a negative impact on the environment. According to estimates, in the last 16 years, 100.00 orangutans have been killed due to the production and production of palm oil (Ritschel, 2020).

Given the negative effects of palm oil on the environment, endangered animal species and society, the question arises as to why companies simply do not replace palm oil for any other oil. In doing so, it is important to note the benefits of palm oil compared to other oils. The greatest advantage of palm oil is that it produces a higher amount of oil compared to other oils, and that two types of oil are produced, palm oil and palm kernel oil. Palm trees require less space than other oils and at the same time account for the largest share of oil production worldwide. With replacing the palm oil with others, the situation could get worse. The environmental effects could be worse, as it

would require more land for cultivation of oil, which would also mean more greenhouse gases. It should also be noted that soya or coconut oil is produced in sensitive regions, which could lead to endangering animal species. From this we can conclude that the abolition or replacement of palm oil with other oils would not be a solution to the problem (Nachhaltiges Palmöl, 2019b). The advantage of palm oil, in comparison with others, is also low cost, and palm oil production is cheaper compared to alternative oils. Production costs cover field cost and the cost of processing in the factory (Carter et al. 2020).

Due to the problem of Palm Oil, a non-profit organization called Roundtable on sustainable palm oil (RSPO) was established in 2004. Companies wishing to certify must comply with the organization's environmental and social criteria. One of the most important criteria is that it should not interfere with primary forests or areas that are rich in biodiversity or in areas that are important because of the cultural and other needs of the local community. The RSPO principles also concern the reduction of pesticide use, fires and a fair attitude towards workers and the local community (About RSPO, 2020). There were also created other certification schemes such as International sustainability and carbon certification (ISCC), which are related to environmental and social criteria in the field of biomass, Roundtable on sustainable biomaterials (RSB), with the main purpose of promoting sustainable production and processing of biomaterials and Rainforest alliance certification, which was actively involved in the development of the RSPO standard and has coordinated the ISCC standard with the goal of maximizing uniformity between standards (Certification standards, 2020).

The organization WWF (World Wildlife Fund) dealing with environmental protection and investigating also the impact of palm oil supply on deforestation, monitoring supply sustainability etc. has published Palm oil scorecard. In the scorecard the 137 companies are represented and scored based on their use of certified sustainable palm oil (WWF, 2016).

3. Methods

This paper is divided into two parts: the theoretical and practical part. In the first, theoretical part, study of the existing theory about the palm oil is performed to get familiar with the thematic and to learn as much as possible about the theme. To obtain the information about the theme the database such as ResearchGate, ScienceDirect, Web of Science and other similar pages with published articles were used. This study was focused on articles with key words such as: Palm oil, production of palm oil, use of palm oil, problematic of palm oil, negative effects of palm oil and solutions to palm oil problematic. In this part descriptive method to describe how the palm oil is being produced and supplied to the end consumer is being applied.

The second part represents the comparative analysis of palm oil users. In this part information about the palm oil policy of the selected eight large multinationals is being analyzed. Paper also examines approaches applied in different companies to make sure that the supplied and/or used palm oil is produced more sustainable. To gather and study this information we have looked for the palm oil policy on their official sites with the key words: palm oil policy. After that we study and analysis on scoring them by the WWF organization in their official site, where the scorecards 2016 are published, was made. Summarized data are gather and cross-compared in one table to summarize findings and propose future outlook for companies that did not respond to this issue yet.

4. Findings and Discussion

Companies respond differently when it comes to dealing with the issues and finding the solutions to mitigate or eliminate them. In this chapter we represent how various well-known companies responded to palm oil problems, what measurement did they take to ensure that they use sustainable palm oil. Furthermore, we also included how WWF organization scored this companies regarding their commitment on palm oil because we wanted to compare what is the companies palm oil policy and what was done. At the end the table with the results is presented

Johnson & Johnson

At Johnson & Johnson they are committed to improve transparency in their palm oil supply chains. Their goal is to implement the sourcing criteria across their top suppliers by year- end 2020. The suppliers must meet their responsibility standards for suppliers and share the same values among them are social and environmental responsibility, a drive for full transparency across the supply chain, partnership and collaboration and a commitment to improvement. The company has with the collaboration of The Forest Trust (TFT) developed and implemented sourcing requirements for their suppliers. Suppliers must ensure that the palm oil is from a legal source, also the criteria and principles of Roundtable for Sustainable Palm Oil (RSPO) or other equivalent certification must be met. Furthermore, the plantation must be in line with High Carbon Stock (HCS) Approach methodology and supplier must protect peatlands, HCV areas and HCS forests. The supplier also must assure that they do not use burning to clear land for development or replanting. Suppliers must respect the rights of workers and be socially responsible, so do not use forced, bonded or child labor. And finally, suppliers must respect and include smallholders in their supply chain. Company is working closely with their direct suppliers to implement the sourcing criteria. Company is using different technologies and partners for verification of responsible palm oil sourcing, one of them is TFT. The following gives company the access to sensitive and confidential information from suppliers. The company has also prepared different actions when it comes to the nonconformance (Johnson & Johnson, 2021).

Johnson & Johnson has received score 8 out of 9 on the WWF scorecard 2016. The company has a good score based on the following: company is RSPO member, the company has submitted its Annual Communication on Progress (ACOP) to the RSPO for 2015, the company has promised to only use CSPO from one of the approved RSPO trading options till 2015 and company has a commitment to globally use CSPO, so on global market. In 2015 company was supplied with 86,686t of palm oil derivatives and fractions from which 61% was certified sustainable palm oil (CSPO) and the other 39% of uncertified palm oil. The certified palm oil was traded by book and claim (B&C) method. Regarding the additional actions taken the company does not meet all the actions because it is not member of Palm Oil Innovation Group (POIG) and the company does not fulfill the additional sourcing requirements that WWF asks. On the other hand, the company has a great score regarding the book & claim certificates that they bought from independent smallholders. Furthermore, the company promises to use only CSPO from approved physical RSPO trading option and to stop using the book& claim system till year 2020. The company was rated as well on the path regarding the progress on the core actions such as: joining and reporting to the RSPO, committing to responsible sourcing and buying CSPO. The company was rated at not yet in starting blocks regarding the progress in ensuring that all their palm oil comes from segregated supplies of CSPO (WWF, 2016a).

Nestle

Nestle is one of the largest foods and beverage providers committed to using 100% responsibly sourced palm oil by 2020. They require from their suppliers to source oil that complies with the local laws and regulations, do not come from areas that were cleared of natural forest after December 31, 2015, respect the Free, Prior and Informed Consent (FPIC) of local and indigenous communities. The suppliers also must commit to protect high carbon stock (HCS)land, peatlands. The palm oil from the suppliers also must comply with the principles and criteria of the Roundtable of Sustainable Palm Oil (RSPO). The company made the commitment about not being associated with the deforestation by 2020. Regarding the problematic of deforestation, they also thought about other approaches to mitigate the problematic like conducting risk mapping to identify areas at risk, monitor the supply chain to identify the origin of their ingredients, conduct assessment, remote monitoring of projects or hands-on approach to mitigate deforestation risk. The company supports smallholders, furthermore, includes and guides them in the supply chain. The company also focuses on the human rights, therefore it collaborated in 2018 with the stakeholders for protection of children, they organized several workshops to strengthen workers right, they helped to protect land rights in Indonesia, employed more workers and made the impact assessment on human rights. In addition, they stream for improvement (Nestle, n.d.). As an additional measurement company implements surveillance with satellites to monitor their progress on deforestation in their supply chain. With the use of satellites company increases transparency, involvement, and cooperation in the supply chain. The data, that is collected, is very useful since with them the company manages risks and develops strategy for development of changes /Askew, 2018).

Nestle scored 6 out of 9 on the WWF scorecard 2016. The company is RSPO member, the company has submitted its Annual Communication on Progress (ACOP) to the RSPO for 2015, the company has promised to only use CSPO from one of the approved RSPO trading options till 2013 and company has a commitment to globally use CSPO. In 2015 company was supplied with 166,020 t of crude palm oil from which only 18% was from segregated supply chain method, the other 82% was from uncertified. Furthermore 136,758 t of palm kernel oil was supplied, from that 3% was traded with segregated method, 5% with book & claim method and the other 92% was uncertified. From other palm oil derivates and fractions 37% was traded with segregation method, 16% with book & claim method and the remaining 47% with uncertified method. The total amount of palm oil and palm products used by company was 417,834 t, 19% of the certified palm oil was traded with the segregated method, 5% was traded with book& claim method and 76% was uncertified. Regarding the additional actions taken from the company they claim that they purchased 130 t from the independent smallholders in 2015, but the claim was not confirmed by Green Palm. Company is not a member of Palm Oil Innovation Group (POIG) and the company partially fulfills the additional sourcing requirements from WWF. The company promises to use only CSPO from approved physical RSPO trading option and to stop using the book& claim system till year 2020. The company was marked as well on the path regarding the progress on the core actions such as: joining and reporting to the RSPO, committing to responsible sourcing and buying CSPO. The company was rated at not yet in starting blocks regarding the progress in ensuring that all their palm oil comes from segregated supplies of CSPO (WWF, 2016c).

Hershey

Hershey is known as the company with the chocolate products. The company joined the Roundtable on Sustainable Palm Oil (RSPO). Company made sure that by 2014 all their purchased

palm oil was 100% mass balance RSPO certified palm oil and they remain committed to do the same in the future. The company is also a member of non-profit organization called The Forest Trust (TFT). The organization is helping them to achieve a traceable supply chain that complies with their Responsible Palm Oil Sourcing Policy. The company requests and pushes their stakeholders towards traceability and transparency to supply chain. They expect from their partners to act in compliance with the Supplier Code of Conduct, Responsible Palm Oil Sourcing Policy and remain compliant to NDPE commitments. In case of violations company acts and removes the company that is not acting in compliance with their policy (Hershey, 2020).

With the score of 9 out of 9 on the WWF scorecard 2016 is Hershey one of the leading companies. The company is RSPO member, the company has submitted its Annual Communication on Progress (ACOP) to the RSPO for 2015, the company has promised to only use CSPO from one of the approved RSPO trading options till 2014 and company has a commitment to globally use CSPO. In 2015 company was supplied with 8,816 t of crude palm oil from which 100% was traded with mass balance method, so 0% was uncertified. Furthermore 13,594 t of palm kernel oil was supplied also 100% was traded with mass balance method. The total amount of palm oil and palm products used by company was 22,410 t and 100% of the certified palm oil was traded with the mass balance method. The company did in 2015 not purchase book & claim certificates from the smallholders, is not a member of Palm Oil Innovation Group (POIG), company does not meet the additional sourcing requirements from WWF and the company promised to use only CSPO from approved physical RSPO trading option and to stop using the book& claim system till year 2014. The company was scored as the leading the way regarding the progress on the core actions such as: joining and reporting to the RSPO, committing to responsible sourcing and buying CSPO and as started the journey in starting blocks regarding the progress in ensuring that all their palm oil comes from segregated supplies of CSPO (WWF, 2016c).

Walmart

Walmart is an American retail chain that owns thousands of stores. The company's aim is that by 2020 the products with palm oil are sourced with no effect on deforestation and in accordance with the principles of the RSPO, or another equivalent standard. They ask from their suppliers to use palm oil in accordance with the RSPO, using mass balance and segregated supply chain method, or another equivalent standard. Another requirement is to improve processes in line with RSPO standards to protect the high carbon stock forests, peat lands reducing greenhouse gas emissions and improving quality control. Suppliers also must maintain comprehensive information about the volume of the crude oil and verification on sustainable palm oil used in the products on an annual basis. Also, suppliers must provide the origin by 2020 (Walmart, n.d.).

Walmart is another company with the score of 9 out of 9 on the WWF scorecard 2016. The company is RSPO member, the company has submitted its Annual Communication on Progress (ACOP) to the RSPO for 2015, the company has promised to only use CSPO from one of the approved RSPO trading options till 2015 and company has a commitment to globally use CSPO. Company traded in 2015 only crude palm oil in the quantity of 85,602 t from which 1% was traded with identity preserved supply chain method, 10% with segregation method, 18% with mass balance supply chain method and 71% with book & claim supply chain method. Company claims that in 2015 they purchased 23,324 t of book& claim certificates from smallholders. The company is not a Palm Oil Innovation Group (POIG) member, company does not meet the additional sourcing requirements from WWF and the company promised to use only CSPO from approved

physical RSPO trading option and to stop using the book& claim system till year 2015. The company was scored as the leading the way regarding the progress on the core actions such as: joining and reporting to the RSPO, committing to responsible sourcing and buying CSPO and as not yet in starting blocks regarding the progress in ensuring that all their palm oil comes from segregated supplies of CSPO (WWF, 2016d).

McDonald's

McDonald's is dedicated to eliminating deforestation from their supply chain. The company is devoted to sourcing RSPO certified palm oil through the whole supply chain. They also expect from their suppliers to share the same concerns regarding the deforestation and human rights and act in line with that. In year 2017 they used 100% certified RSPO palm oil and their goal by 2020 is to use 100% palm oil that supports sustainable production. Suppliers must be active members of the RSPO and report about their progress. They also must have a public commitment to eliminate deforestation and supporting strategy, have a strategy for traceability, be committed not to source from peatlands, high conservation value land and high carbon stock forests. The suppliers also must be committed to uphold human rights and Free and Prior Informed Consent, they must have a third- party verification process and have a strategy to solve any open matters (McDonalds, 2019).

With the score of 9 out of 9 on the WWF scorecard 2016 is McDonald's one of the leading companies. The company is RSPO member, has submitted its Annual Communication on Progress (ACOP) to the RSPO for 2015, the company has promised to only use CSPO from one of the approved RSPO trading options till 2015 and company has a commitment to globally use CSPO. In 2015 company was supplied with 119,732 t of crude palm oil from which 9% was traded with mass balance method, 86% with book and claim method and 5% was uncertified. Furthermore 2,752 t of palm kernel oil was supplied from which 7% was traded with mass balance supply chain method, 80% with book and claim method and 14% was uncertified. The company purchased 185 t of other palm oil derivatives and fractions with 32% of segregation method, 1% of mass balance method and 67% with book and claim method. The total amount of palm oil and palm products used by company was 122,669 t. From the total amount 9% was traded with mass balance supply chain method, 86% with book and claim method and 5% was uncertified. The company did in 2015 not purchase book & claim certificates from the smallholders, is not a member of Palm Oil Innovation Group (POIG), company fully meets the additional sourcing requirements from WWF and the company promised to use only CSPO from approved physical RSPO trading option and to stop using the book& claim system till year 2020. The company was scored as the leading the way regarding the progress on the core actions such as: joining and reporting to the RSPO, committing to responsible sourcing and buying CSPO and as not yet in starting blocks regarding the progress in ensuring that all their palm oil comes from segregated supplies of CSPO (WWF, 2016e).

PepsiCo

PepsiCo is one of the world's largest palm oil buyers because of its availability and stability of shelf life. The company uses palm oil mostly in the production of snacks. Their goal is that their supply chain do not have an impact on deforestation by 2020. They want to achieve that with risk management, supplier involvement, positive impact, transparency and involvement of stakeholders. It is very important for them the certification in accordance with the Round Table of Sustainable Palm Oil (Pepsico, 2021).

Company PepsiCo also scored 9 out of 9 on the WWF scorecard 2016 and is one of the leading companies. The company is RSPO member, has submitted its Annual Communication on Progress (ACOP) to the RSPO for 2015, the company has promised to only use CSPO from one of the approved RSPO trading options till 2015 and company has a commitment to globally use CSPO. In 2015 company was supplied with 447,267 t of crude palm oil from which 12% was traded with mass balance method and 88% with book and claim method. Furthermore 5,476 t of palm kernel oil was supplied from which 6% was traded with mass balance supply chain method and 94% with book and claim method. The total amount of palm oil and palm products used by company was 452,743 t. From the total amount 12% was traded with mass balance supply chain method and 88% with book and claim method. The company did in 2015 not purchase book & claim certificates from the smallholders, is not a member of Palm Oil Innovation Group (POIG), company partially meets the additional sourcing requirements from WWF and the company promised to use only CSPO from approved physical RSPO trading option and to stop using the book& claim system till year 2020. The company was scored as the leading the way regarding the progress on the core actions such as: joining and reporting to the RSPO, committing to responsible sourcing and buying CSPO and as not yet in starting blocks regarding the progress in ensuring that all their palm oil comes from segregated supplies of CSPO (WWF, 2016f).

IKEA

IKEA uses palm oil in smaller quantities, primarily for candles and as an ingredient in food. Company is committed to the use of palm oil that is produced in a responsible manner. Company is a member of the Round Table of Sustainable Palm Oil. The company advertises cooperation within the supply chain and believes that the Round Table of Sustainable Palm Oil is the best option to achieve change in the palm oil matter. The company added two additional measures, which include mapping of all processes in connection with suppliers of candles and confirmation from suppliers that their palm oil does not affect deforestation. The second is that they do not use palm oil from areas that are rich in carbon and that are of high value for biodiversity. They verify and evaluate their compliance with their suppliers. The company believes that small farmers are crucial for the sustainable production of palm oil and therefore support them (IKEA, 2018).

IKEA has also scored 9 out of 9 on the WWF scorecard 2016 and is one of the leading companies. The company is RSPO member, has submitted its Annual Communication on Progress (ACOP) to the RSPO for 2015, the company has promised to only use CSPO from one of the approved RSPO trading options till 2011 and company has a commitment to globally use CSPO. In 2015 company was supplied with 41,686 t of crude palm oil from which 27% was traded with book and claim supply chain method and 73% was traded with segregated supply chain method. The company did in 2015 not purchase book & claim certificates from the smallholders, is not a member of Palm Oil Innovation Group (POIG), company does not meet the additional sourcing requirements from WWF and the company promised to use only CSPO from approved physical RSPO trading option and to stop using the book& claim system till year 2015. The company was scored as the leading the way regarding the progress on the core actions such as: joining and reporting to the RSPO, committing to responsible sourcing and buying CSPO and as well on the path regarding the progress in ensuring that all their palm oil comes from segregated supplies of CSPO (WWF, 2016g).

Mars

Mars is also working on protecting the rainforest. In 2014, they introduced a palm oil policy to achieve traceability in the supply chain. The company, just like the rest of the companies so far presented, is part of the Round Table of Sustainable Palm Oil and is using palm oil from certified manufacturers. Palm oil is supplied only from suppliers that meet criteria such as supply of palm oil from legal source, without cultivating trees in areas that are from high value, and in areas with high carbon stock and peat soils. The palm oil cannot be from the areas that have been burned only for re-planting. They must also act in accordance with the company's code of conduct and respect the rights of the local community. It is also important to support farmers and plantation owners. They also develop traceability from origin and cooperate only with suppliers that have the same values and endeavors (Mars, 2021).

Company Mars also scored 9 out of 9 on the WWF scorecard 2016 and is one of the leading companies. The company is RSPO member, has submitted its Annual Communication on Progress (ACOP) to the RSPO for 2015, the company has promised to only use CSPO from one of the approved RSPO trading options till 2013 and company has a commitment to globally use CSPO. In 2015 company was supplied with 59,611 t of crude palm oil from which 100% was traded with mass balance method. Furthermore 14,941 t of palm kernel oil was supplied also 100% was traded with mass balance supply chain method. From all other palm oil derivatives and fractions 7,904 t was traded 100% with mass balance supply chain method. The total amount of palm oil and palm products used by company was 82,456 t, 100% traded with mass balance supply chain method. The company did in 2015 not purchase book & claim certificates from the smallholders, is not a member of Palm Oil Innovation Group (POIG), company partially meets the additional sourcing requirements from WWF and the company promised to use only CSPO from approved physical RSPO trading option and to stop using the book& claim system till year 2013. The company was scored as the leading the way regarding the progress on the core actions such as: joining and reporting to the RSPO, committing to responsible sourcing and buying CSPO and as started the journey regarding the progress in ensuring that all their palm oil comes from segregated supplies of CSPO (WWF, 2016h). Comparative analysis of examined companies is presented also on Table 1.

5. Discussion

After reviewing the measures introduced by companies, it is evident that they have essentially put in place the same measures. These measures were primarily the inclusion in the Roundtable of Sustainable Palm Oil and the procurement of palm oil only from suppliers certified in accordance with the Round Table of Sustainable Palm Oil. Measures in all companies are bound to the goal that their products are not linked to deforestation and consequently extinction of endangered animal species. The focus of companies is also on traceability and connectivity in the supply chain. It is also important to respect human rights and the local community.

The latter shows that companies are aware that the company is efficient and operates in an environmentally friendly way only if it controls and cooperates with all its members in its supply chain. The latter want to improve all companies in the future, as they strive to preserve the environment and consequently have the least impact on it.

Table 1: Comparison of companies' policies and measures related with palm oil supply

| Company | Requirements for suppliers- values | Requirements for suppliers- certification | Supplier has to ensure | Companies additional measures | Grade 1-9 on WWF scorecard |
|------------------------------|---|--|--|--|----------------------------|
| Johnson & Johnson | -Social and environmental responsibility - transparency - Partnership - Collaboration - respect and include SC smallholders | - Roundtable for Sustainable Palm Oil (RSPO) - Other equivalent to RSPO certification | - legal source - plantation with HCS Approach - protect peatlands - protect HCV areas - protect HCS forests - no burning to clear land for development or replanting | - responsibility standard - sourcing requirements for suppliers | 8 |
| Nestle | - respect and include smallholders in their supply chain | -Roundtable for Sustainable Palm Oil (RSPO) | - local law and regulation - respect FPIC - protect HCS land protect peatlands | - risk mapping - SC monitoring - conduct assessment - project monitoring - workshops for workers rights - impact assessment on human rights | 6 |
| Hershey | - traceability - transparency | - Roundtable for Sustainable Palm Oil (RSPO) | - Supplier Code of Conduct - compliant to NDPE commitments | - The Forest Trust (TFT) - Responsible Palm Oil Sourcing Policy | 9 |
| Walmart | / | - Roundtable for Sustainable Palm Oil (RSPO) - Other equivalent to RSPO certification | - using mass balance and segregated supply chain method - protect HCS forests - protect peatlands - reduce greenhouse gas emissions - improve quality control - comprehensive info. | / | 9 |
| McDonald's | - share the same concerns regarding the deforestation and human rights - Social responsibility - transparency | -Roundtable for Sustainable Palm Oil (RSPO) | -active members -RSPO - public commitment to eliminate deforestation - strategy for traceability - protect peatlands - protect HCV areas - protect HCS forests - third- party verification - solving open matters | / | 9 |
| PepsiCo | -transparency | -Roundtable for Sustainable Palm Oil (RSPO) | / | - risk management - supplier involvement - positive impact - involvement of stakeholders | 9 |
| IKEA | - cooperation - support of smallholders | -Roundtable for Sustainable Palm Oil (RSPO) | - protect areas that are rich in carbon and that are of high value for biodiversity | - mapping the processes | 9 |
| Mars | - respect local community, support farmers and plantation owners | -Roundtable for Sustainable Palm Oil (RSPO) | - legal source - protect peatlands - protect HCV areas - protect HCS forests | -code of conduct | 9 |

Sources: Askew, 2018; Nestle, n.d.; Johnson & Johnson, 2021; Walmart, n.d.; Pepsico, 2021; McDonalds, 2019; Hershey, 2020; IKEA, 2018; Mars, 2021; WWF 2016-2016g

The companies except the Nestle and Johnson & Johnson were scored from the WWF organization with the highest score regarding the efforts during the sustainable palm oil, so this is one of the prove that the studied companies are really making an effort to change things, but the companies were scored for the year 2015, so we would need the fresh scores to check what has happened

regarding this matter since then. There would also have to be explored if there are any articles or other publication for this companies that contain any doubt or critics regarding the sustainability of palm oil.

But green is nowadays a good marketing strategy, so a lot of companies are using the »green label« as a scam just to make profit. People are willing to pay more for green products and they do not even realize that it is a scam, because in general they do not know these labels, monitoring companies' sustainability performance and reliability of their activities, such as presented in the case of green scam from company OLAM International. The company faced a problem because deforestation, environmental contamination and invasion of territories has affected the company image and they feared their sales, business growth and profits, so they imitated other companies and their policies regarding the palm oil and deforestation. Their draft global policy on forests list included the initiatives like Roundtable of Sustainable Palm Oil (RSPO), the concept of High Conservation Value (HCV) forests, High Carbon Stock (HCS) forests, and Free Prior and Informed Consent (FPIC) Principle. However it is arguable that the Roundtable of Sustainable Palm Oil certification is trustworthy since consultants are hired by the company willing to get the certification. This is contrary to the practice of internationally recognized certification schemes. Furthermore, the RSPO has the complaint mechanism that is highly complex for communities to access and use, so even if they succeed with external assessment, it is hard for them to achieve a positive community outcome at the end. Finally, due to highest grades (ranked 9) it is obvious that RSPO is not promoting continuous improvements but can be identified as a marketing tool for some companies to protect their palm oil export and profits (World rainforest movement, 2017). From this it is evident that just because the companies have the palm oil policy in which they emphasize the certification of RSPO this does not automatically mean that the company is actually "green" and environmentally friendly because green has become a great marketing strategy.

6. Conclusion

Palm oil is an indispensable ingredient in the products that a high share of population use daily. Despite all the benefits of using palm oil in comparison with other oils, unfortunately, it has a substantial negative impact on the environment. The negative effects on the environment are mainly reflected in the burning of rainforests to acquire a surface for growing a new tree and the extinction of endangered species such as orangutans, rhinos and elephants that consequently lack of living habitat. The negative impact is also reflected in the exploitation of people and children for work. Companies related with the palm oil production and palm oil supply chain in general are aware of this and, as the abolition of palm oil could lead to even more negative environmental impacts and higher prices of substitutes, they have introduced measures to reduce the impact. The measures introduced are the same for all companies and are integration into the Round Table for sustainable palm oil and palm oil procurement only from suppliers certified in accordance with the Round Table for Sustainable Palm Oil. The measures in all companies are bound to the goal that their products are not related to deforestation. The focus of companies is also on traceability and connectivity in the palm oil supply chain. It is also exposed to respect human rights and the local communities. Companies have already achieved some improvement in recent years and have improved their results, however the way forward still enables plenty of room for environmental and social improvement. We see an opportunity for progress in raising consumer awareness to promote sustainable palm oil production and encouraging as many companies as possible to join and to introduce such measures themselves. But there are companies that are claiming they are

green just because of the marketing strategy without appropriate measures actually applied. Therefore, their trustworthiness is questionable. It is actually obvious that RSPO is a marketing tool for some companies to protect their palm oil profits therefore internationally recognized certification scheme should be established e.g. within the ISO. From this it is evident that just because the companies have the palm oil policy in which they emphasize the certification of RSPO this does not automatically mean that the company is actually “green” and sustainable because “green” is more related to a marketing strategy.

To find to which extent measures taken are actually related to sustainability and to further research and monitor companies’ progress, these is recommended to be controlled by international organizations and updated more frequently.

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