Market for Eco-certified rubber and rubber wood

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Summary

The world consumption of natural rubber is poised to increase in the coming years. To meet this market demand, production levels have to be increased in existing plantations and newer areas brought under rubber cultivation. An increasing intensity of farming in an ecologically unsustainable way could lead to a number of negative impacts on the environment which in turn will affect the long term sustainability of the rubber industry. A considerably large proportion of the rubber growing areas in India falls in regions of high biodiversity, biological endemism and areas providing important ecosystem services. Eco-certification ensures an unbiased validation of any sustainable initiatives undertaken against a set International standard, certifying and confirming the same to the end user, thus improving the credibility of the producer. For processors, manufacturers, dealer, and others down the supply chain, a chain of custody certification confirms their conformation to the same set of standards and in ensuring that they use certified or materials from producers who follow the same set of standards. Eco-certification thus offers a win-win option for the environment and the industry.

The objective of this market research was to understand the level of awareness of and interest in eco-certification across the rubber supply chain, identify the existing market for eco-certified rubber, rubber wood, and products derived from them, and identify the potential market that can be tapped into. Often, the consumer demand is the likely driver for players further up the supply chain to decide on a new business initiative. Hence, the final objective was to determine consumer awareness and a willingness to procure products made of rubber that has been grown sustainably.

The key findings of this research were that awareness of eco-certification across all sectors of the rubber industry was poor. There was some interest in the industry to learn more about eco-certification, while a majority of the urban consumers who were interviewed were interested in learning more and were willing to pay a premium for such environmentally friendly products. FSC certification especially by the rubber wood sector appears to be the most common amongst the various available certifications for rubber in India. A fairly large global market exists for eco-certified rubber and is increasing, while the Indian market is just emerging. Most of these are FSC certified entities dealing with rubber wood with a small number dealing with rubber and latex. The study has identified potential markets which should be explored further.

The study recommends that, to market certified rubber and rubber wood, a well thought out marketing strategy that addresses issues of quantity, quality, and assurance of conformity to specific sustainable standards needs to be put into place. This should also include more visibility for certified materials and establishing an exclusive platform for the various players in the supply chain of the certified rubber ad rubber wood to meet. This should be promoted by the Rubber Board of India to ensure maximum reach and acceptance.

In conclusion, the rubber industry in India and across the globe has acknowledged the necessity for ecological sustainability in today's world. They have been taking some steps towards making the industry more sustainable. This coupled with a fast growing market for eco-certified goods are causes for us to take an optimistic view for eco-certification of

rubber and rubber wood. Adoption of appropriate local interpretation guidelines within these certification standards which focus on biodiversity can in turn promote biodiversity conservation and result in more biodiversity rich rubber plantations.

Summary _____ *i*

Introduction and Background _____ *1*

Why ecologically and sustainably grown rubber _____ 1
Why eco-certification? _____ 1
From raw material to end-product _____ 2

Market for eco-certified rubber and rubber wood _____ *5*

The current market _____ 5
FSC certified organizations in the export market: _____ 6
The potential market _____ 8
Market survey of the rubber industry _____ 11
Current rubber market scenario in India and its likely impact on eco-certification _____ 14
What would marketing eco-certified rubber involve _____ 15

Concluding Remarks _____ *16*

References _____ *18*

Appendix _____ *19*

Appendix 1: Rubber Market Statistics _____ 19
Appendix 2: Industries and companies _____ 23
Appendix 3: Certified Organizations and buyers _____ 30
Appendix 4: Market survey Report _____ 36

Introduction and Background

Why ecologically and sustainably grown rubber

The world consumption of natural rubber is reported to be about 11 million metric tonnes in 2012 and poised to increase in the coming years. This demand is met mainly from the plantations of *Hevea brasiliensis* in a few key countries including Indonesia, Thailand, Malaysia, India, Vietnam, Brazil, Sri Lanka, Nigeria, Liberia, Myanmar, Cote d Ivoire, Philippines, Cameroon, D.R. of Congo, and China.

India contributes to more than 10% of this and in 2009-10 the total production was 831,400 tonnes of natural rubber. More than 90% of this comes from the state of Kerala which has an area of more than 517,000 Hectares under production. The area under production has increased over the years with the demand. The current projections for the rubber industry is that the global demand is likely to increase and there will be less surplus available which will result in an increase in the market price for rubber. Thus to meet this market demand, there will be two objectives - first, increase the levels of production in existing plantations and second, to bring newer areas under rubber cultivation.

Given this scenario of increasing the farming intensity of existing plantations, when not managed sustainably, can have severe negative impacts on the land. This includes over - exploitation of natural resources like water, depleting the soils of nutrients resulting in larger requirements of chemical fertilizers and possibly an increase in pests and disease attack which will require larger doses of pesticides. These could over the years result in a reduction in production and profits.

A large proportion of the rubber plantations in Kerala, especially the larger holdings are located in the Western Ghats, a biodiversity hotspot area, and critical watersheds for the region. Given this, it is in the interest of all stakeholders that these areas are not polluted, resources are sustainably managed and not depleted, and the endemic and endangered denizens of these forests are well protected.

Why eco-certification?

When an entity undertakes sustainable initiatives, a third party certification helps to validate and inform the end users that the claims of sustainably grown rubber conform to a set international environmental and most often social standards. Studies have shown that market access can be improved as a result of the certification, especially in the export market (Amaraseker et al, 2006). This leads to a win-win situation where the environment is protected, whilst the company also benefits. To ensure there is a market for these certified rubber produced, demand from the other players along the supply chain is essential. The entities in these sectors could go for a certification called the chain of custody certification where they ensure they comply with the standards and also procure their required materials from certified producers or processors, or those that follow the standards set by the certification system. The benefits of the certification are also passed down the chain making eco-certification pertinent to all the sectors of the industry.

The production of natural rubber in India has been steadily increasing in the past years and the local consumption has also increased. The quantum of rubber exported is however very low (Appendix 1). For the five year period starting 2008-2009 up to 2012-2013, the exports on an average accounted for 3.65% of the annual production, while the local consumption exceeded the annual production by an average of 7% (Appendix 1).

Bulk of the rubber produced is consumed within India. Producers hold the perception that there is no market for eco-certified rubber in India, and hence are hesitant to explore the possibilities of eco-certification.

Thus, the objectives of this market research was to understand the level of awareness of eco-certification across the rubber supply chain, identify the existing market for eco-certified rubber, rubber wood, and products derived from them, and identify the potential market that can be tapped into, both locally and internationally. Often, the consumer demand is the likely driver for players further in the supply chain to decide on a new business initiative. Hence, the final objective was to determine consumer awareness and a willingness to procure products made of rubber that has been grown sustainably.

From raw material to end-product

Natural rubber is marketed as either latex, or coagulated latex which is converted into either sheet rubber or crepe rubber depending on availability of factory and requirement of the manufacturer.

The preserved field latex is available in three varieties:

High Ammonia grade is used for foam products, dipped goods, adhesives, elastic threads, household and industrial gloves, balloons, rubber bands and finger caps. The Low ammonia grade is used for all applications where de-ammoniation is necessary for product use, for example, balloons, gloves, etc. The third grade that is available in India is the single and double centrifuged latex and the radiation vulcanized natural rubber latex which are used in high technology dipped products such as condoms, examination gloves, surgical gloves, catheters, etc.

Sheet rubber comes in 6 grades in India. These include, RSS 1X, RSS 1, RSS 2, RSS 3, RSS 4, RSS 5, each differing in it technical specification. The market for these includes tyres and tubes, footwear, pipes and hoses, and retreading materials (Appendix 2).

The third type of rubber is the Crepe rubber which is typically used for sole of footwear, pharmaceutical and plastic industry, baby bottle feeding tips, floor mats, etc. There are six types of crepe rubber – Pale latex crepe, sole crepe, Estate brown crepe which comes in three grades, remilled crepe, smoked blanket crepe, and flat bark crepe, each differing in the starting material and the processing method.

The various direct stakeholders in the supply chain in the rubber industry (Figure 1) start from the producers, which includes small and larger rubber growers who are involved in growing and tapping the latex. The Primary and secondary processors process the latex appropriately for use by the manufacturers of rubber based goods for the final consumers. Dealers and suppliers play an intermediary role between these other stakeholders.

About 70% of the natural rubber is utilized by the tyre industry, of which the three largest namely, Michelin, Goodyear and Bridgestone, account for more than 40%. Latex based goods account for only 10% of the consumption of natural rubber. The remaining rubber is utilized by miscellaneous consumer goods and industrial goods like automotive parts (Gouyon, 2003).

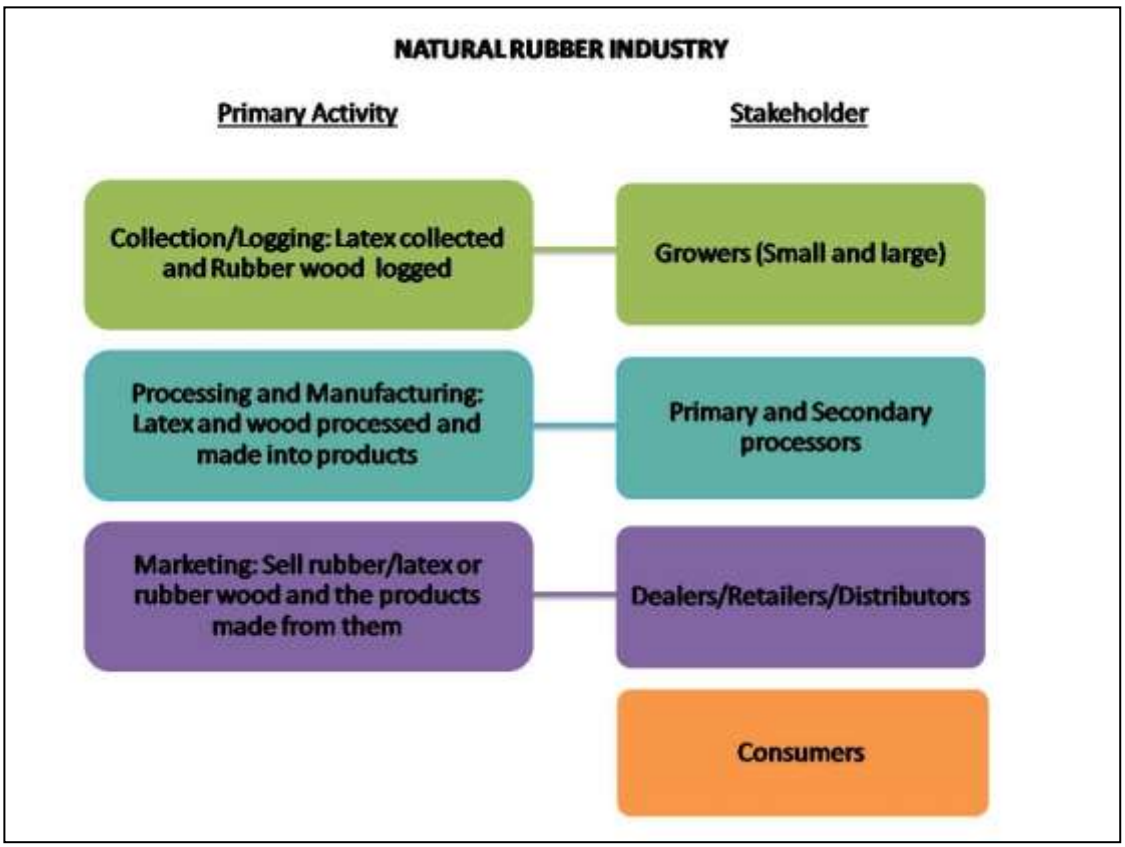


Figure 1: Various stakeholders in the rubber industry

WHY SHOULD A MANUFACTURER GO FOR SUSTAINABLY GROWN RUBBER

Meet CSR goals and inspire consumer confidence. *By switching to certified products, a company demonstrates a commitment to improve the natural habitat in the area -- in several cases an area of rich biodiversity of global importance.*

Work through differences in government regulation and lack of enforcement. *Regardless of the strength of the law or enforcement in an area, participating in this system means you are procuring from a business that is voluntarily complying with and being held accountable for a set of rigorous, international environmental and social standards.*

Ensure a long-term supply of high quality rubber. *Monoculture plantations that douse their fields with chemicals and have little to no plant diversity are extremely vulnerable to the impacts of soil erosion and nutrient loss. Rubber plantations cannot operate without healthy soil. When farmers get certified and improve their land management practices, they are helping their soil recover and rehabilitate.*

Steady supply of high quality rubber. *Under the sustainable agriculture where the plantations are certified for their pro-active initiatives, long-term success of the farm is ensured by improved working conditions and community relations along with ensuring stability in both land and operations. These more often than not will result in a steady supply of high-quality rubber.*

Market for eco-certified rubber and rubber wood

The current market

Several eco-labels are available for forestry operations, forest products and agricultural products. These include, the Forest Stewardship Council (FSC); Sustainable Agricultural Standards (SAN); Programme for the Endorsement of Forest Certification (PEFC) schemes, and the recently launched Global Organic Latex Standard (GOLS) and the still more recent Sustainable Natural Rubber Initiative (SNR-i).

To identify the potential market for certified rubber, we undertook an online research for organizations certified by these standards that dealt with rubber. We were unable to find any dealing with rubber that were certified by PEFC or GOLS, hence these are not discussed further in this report.

Rainforest Alliance market place (rubber: https://ra.eximware.net/RA/) lists 18 entities of which four have indicated that they are producers, and two companies have explicitly indicated their interest in procuring eco-certified rubber (Details in Appendix 3A)

The SNR-i is a new initiative, launched in 2015. The working group and member list (Appendix 3B) includes representatives of all levels of the stakeholder chain of the rubber industry, including the global leaders in the tyre industry (Bridgestone, Continental, Michelin, Goodyear and Pirelli).

Of all these certifications, FSC had the most organizations[1] certified (Number of certificates, not counting group members and sites separately was 588) that were dealing with rubber/latex, products made of rubber/latex, rubber wood, and rubber wood products.

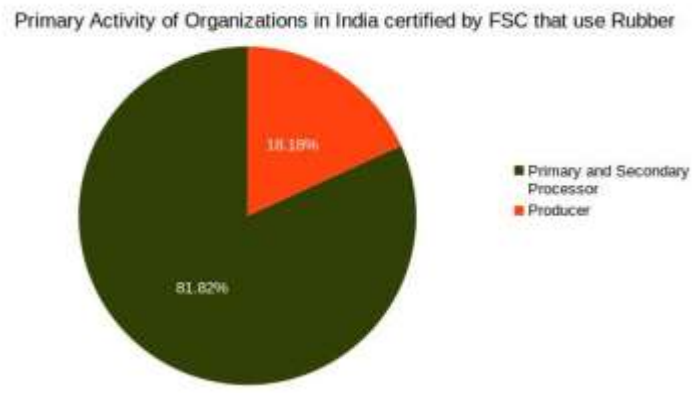


Figure 2: Organisations dealing with rubber and rubber wood that have been certified by the FSC in India were mostly primary and secondary processors.

Globally, 34 countries have one or more organizations that deal with rubber or rubber wood that have been certified by FSC (Appendix 3C).

In India, a total of 13 organizations (Appendix D) have been certified - less than 20% were producers and the remaining were primary and secondary processors. No dealers or suppliers have been certified in India (Figure 2). Majority of the primary and secondary processors

[1] The term "Organisations" includes producers, primary and secondary processors, brokers/traders and distributors /wholesalers.

dealt with rubber wood and rubber wood products (78%).

FSC certified organizations in the export market:

India exports a small percentage of the Natural rubber (about 3% of the annual production for the year 2011-12; Appendix 1). The top ten countries which imported rubber from India in the year 2011-12 were Sri Lanka, Malaysia, China, Germany, Brazil, Italy, Belgium, Spain, Nepal, and Indonesia. Of these China has the most number of FSC certified organizations that deal with rubber and rubberwood, followed by Sri Lanka. Spain and Nepal have none. A majority of these organization deal with rubber wood.

Most of these organizations are involved in primary and secondary processing while about 34% are involved as brokers/traders. Sri Lanka followed by Germany has the most number of FSC certified organizations dealing with rubber/latex. Of these, most in Sri Lanka and about a third in Germany are primary and secondary processors. Only in Sri Lanka, there are FSC certified organizations dealing with both rubber and rubber wood, the bulk of them being collectors and the rest being primary and secondary processors.

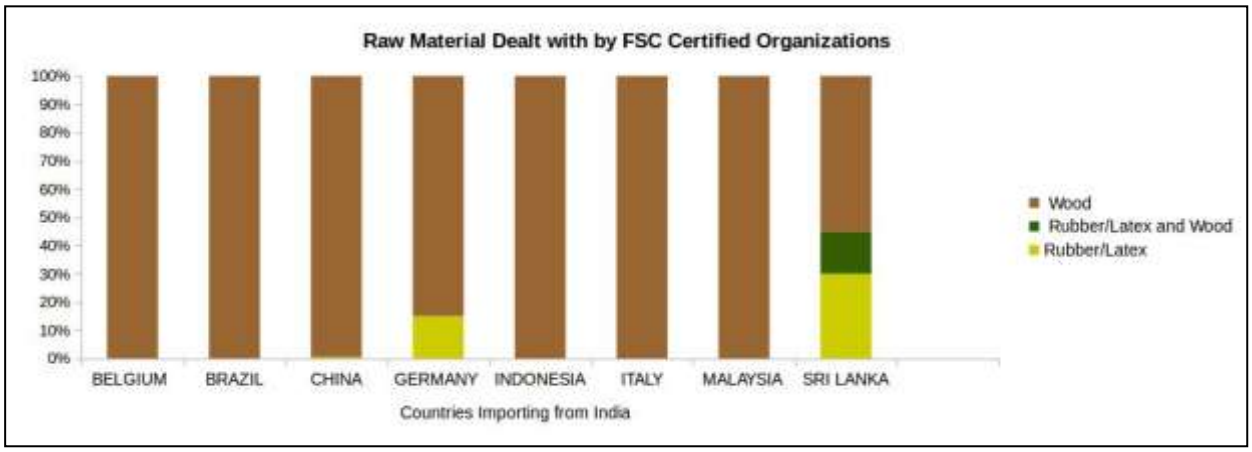
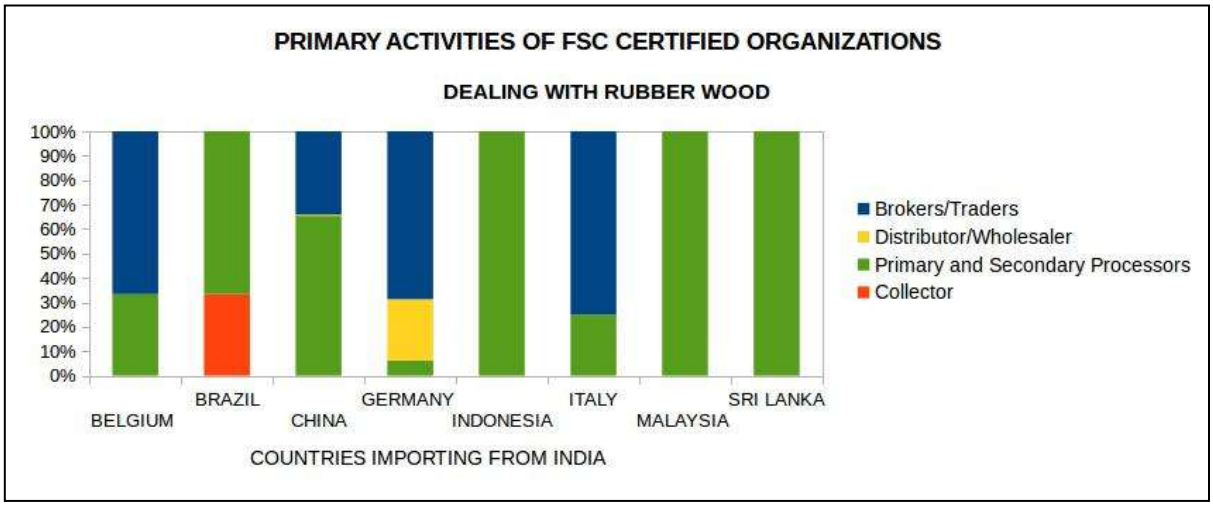
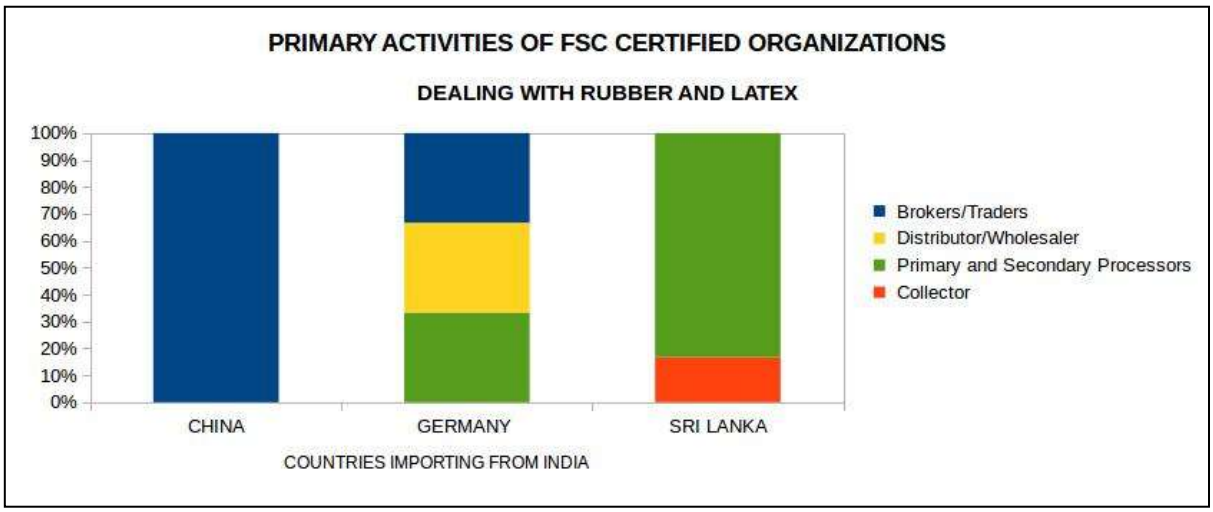


Figure 3: Rubber wood was the main raw material dealt with by FSC certified organisations in countries that were major importers from India





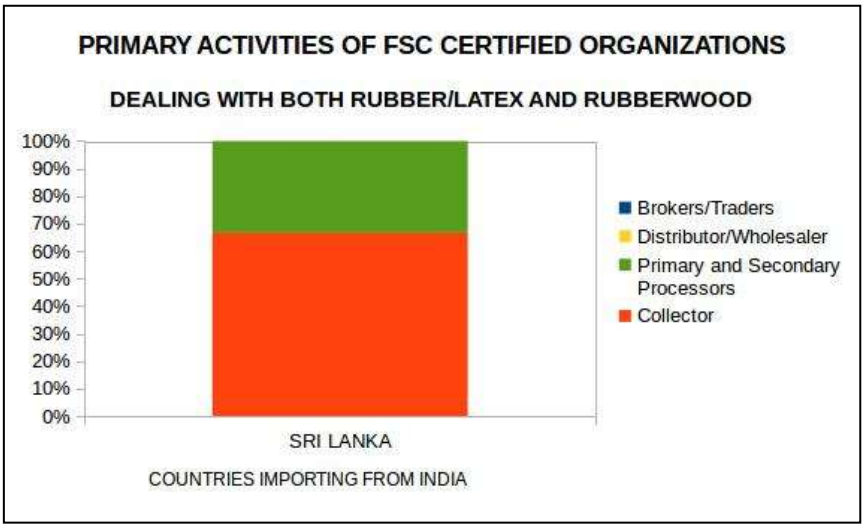


Figure 4: Primary activities of FSC certified organizations in countries that are major importers from India.

The potential market

Tyre industry

Being the most important consumers of natural rubber, if the tyre industry makes a demand for eco-certified rubber, this could potentially be a very large market. Currently, a Green tyre refers to "tyres optimised for low rolling resistance and/or which uses materials, especially elastomers, which are from renewable (sustainable) resources". The largest sector of the green tyre market is for low rolling resistance tyres, and are referred to as "energy tyres". The market for green tyre is expected to reach $70.6 billion by 2017. This market should be made aware of ecologically and sustainably grown natural rubber and convinced to include these as an important part of its "green tyre" sector.

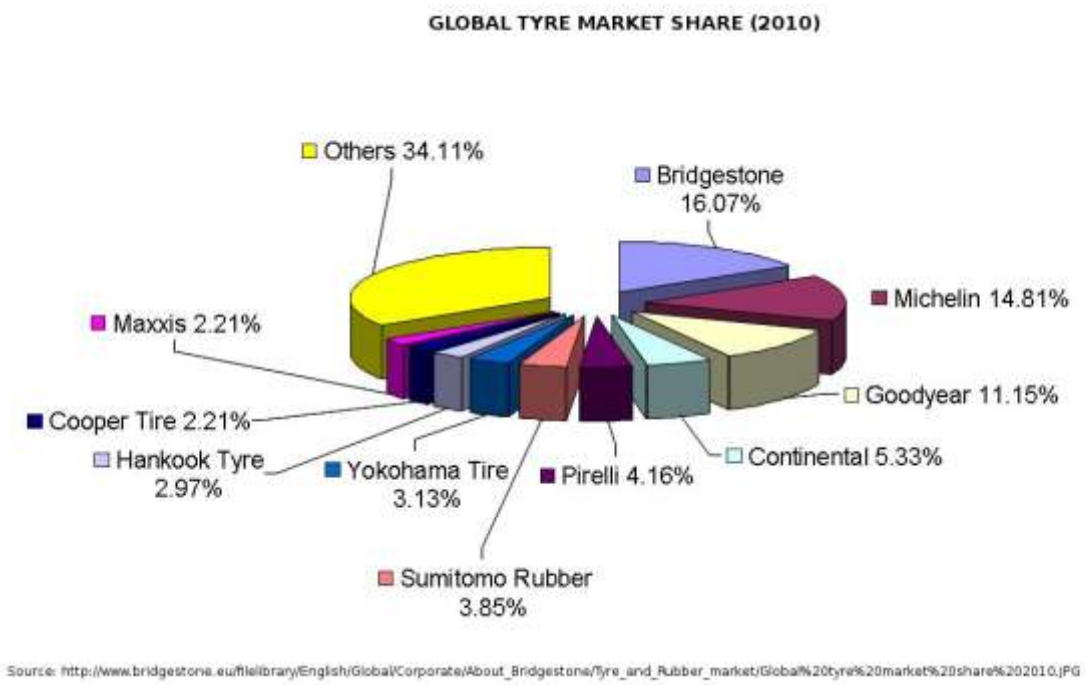


Figure 5: The global tyre market is dominated by a handful of companies

More than 40% of the global tyre market is shared between three companies, Bridgestone, Michelin and Goodyear. The environmental and relevant CSR policies of these companies are detailed below.

Bridgestone: "To help ensure a healthy environment for current and future generations…"and this is achieved by focusing on three objectives namely, a) To contribute to biodiversity through habitat enhancement, and thorough environmental education and research; b) To continually improve natural resource conservation through operational improvements and product design; and c) To continually reduce emissions of greenhouse gases, including CO_2, from our products' complete life cycle. As part of their procurement policy, the company states that "we have particular focus on making our tyre procurement both environmentally mindful and ethically responsible." A large part of their environment related activities are based in the Americas. Currently, the bulk of their natural rubber is procured from Liberia and their support has focused on human rights rather than the

environment per se. But given their stated mission for biodiversity conservation and social responsibility, if certified rubber was available in sufficient quantity and quality, this company may not be averse to procuring them.

Goodyear has a policy of reduce reuse and recycle and their current CSR to the environment includes zero waste facilities, certified green buildings, reduction in the use of water in their units. Currently they do not have a program that can address conservation issues in biodiversity rich rubber growing countries. However, their sustainability executive, Mr. Dennis McGavis, indicated that Goodyear is planning to explore use and procuring eco-certified rubber around 2014-15.

Michelin has a published statement[2] for purchasing. According to this document, the company has a set of principles based on which suppliers are selected. This includes environmental, social and ethical aspects. With a strong statements on environmental protection, it is likely that Michelin might also be interested in eco-certified rubber.

Non-tyre industries:

Other industries that use rubber can be further classified into health, hygiene and personal products which include products such as surgical gloves, condoms, catheters, footwear. The products that do not fall into the above two categories include household articles, mattresses, pillows, toys, balloons, sports goods, footwear, etc.

Some major companies in this category are discussed below and others are listed in Appendix #.

Condom companies such as Durex and TTK-LIG: TTK-LIG has been recently certified by FSC for its Skore condoms. Durex is one of the largest condom manufacturers and could be interested in certified latex. Some of the major mattress companies internationally and in India include, Tempur Sealy International, Inc., Sleepwell mattresses, and Duroflex mattresses in India. The level of commitment of these companies to environmental protection is not know. In the sporting goods and footwear sector, some key companies known to be pro-environment include, Brooks sports Inc.: Company states that it uses recycled post-consumer raw material, biodegradable insoles, and collar foams. Vivobarefoot, known for its eco-footwear, this company makes most of its shoes in China and label themselves as eco-friendly by saving production miles (i.e. producing in a place where raw material, skills and labour are readily available. All their factories are independently audited to the highest international labour and environmental standards. Alice and Whittle have recently launched a new line of rubber boots which they claim are ethically manufactured. They primarily procure from Sri Lanka. Ethletic sports goods is a company that has fair trade and FSC certifications. They produce eco-football, rugby, volleyball etc. Sustainable sports balls have a market in EU countries. India exports a small percentage of sports balls. For balls, fair trade and FSC are the main eco-labels. At the present time in India, there are no sports ball manufacturers certified by either of these systems. However, some of the major exporters from India including Bihari lal and Co., Cosco, Ranson sports Industry, Mayor and Company, and Soccer International, have fair labour practices, but no known environment related policies.

[2] http://en.purchasing.michelin.com/content/download/540/5813/file/Michelin-Purchasing-Principles.pdf)

In toys sector, companies such as Green rubber toys company Pvt. Ltd., a Sri Lanka based enterprise manufactures non-toxic natural rubber molded toys. They export to the EU, and other countries, and hence could potentially be interested in eco-certified rubber. Rubbabu is an International company manufacturing molded toys made of natural rubber. They state their toys are green and they have high standards for safety and welfare for their workforce.

Rubber wood:

The other major use of rubber is the wood, which is used extensively in the furniture industry, for building material, to make brooms, wooden toys, household articles, etc..

Ikea, is a well known furniture company with presence all over the world including India who use rubber wood as a raw material. Ikea has a stated commitment to sustainability and to achieve 100% use of FSC certified materials in all of their products. Also, they are one of the largest furniture manufacturers to use and produce FSC certified wood..

In the building material sector, the Confederation for Indian Industries (CII) has established an Indian green building council that certifies green buildings. Today, more than 500 buildings have been certified ad some of these have used rubber wood as a green option to wood sourced from forests. These could be a potential market for certified rubber wood and wood products.

Market survey of the rubber industry

We undertook a survey of the rubber industry covering all stakeholders from the primary processors, dealers to exporters to understand the awareness and market for eco-certified rubber/latex and rubber wood. We used a questionnaire based approach. Below are the key findings of the survey, a complete report is attached as Annexure 4.

We received a total of 51 responses from these surveys which included two producers, 27 manufacturers (primary and secondary processors), 25 dealers and suppliers, and 21

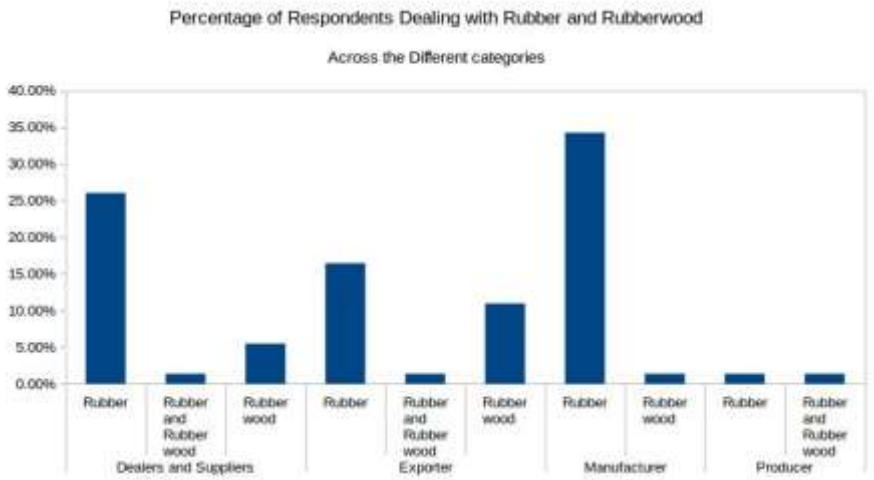


Figure 6: Percentage of respondents dealing with rubber and rubber wood across the various sectors of the industry

exporters, with many organizations taking up more than one activity. Of those contacted, two indicated that they were not using natural rubber or rubber wood currently. More than 70% of the others dealt with rubber and latex and the rest with rubber wood. Figure 6 gives the profile of respondents based on the activity they were involved in and the raw material they dealt with.

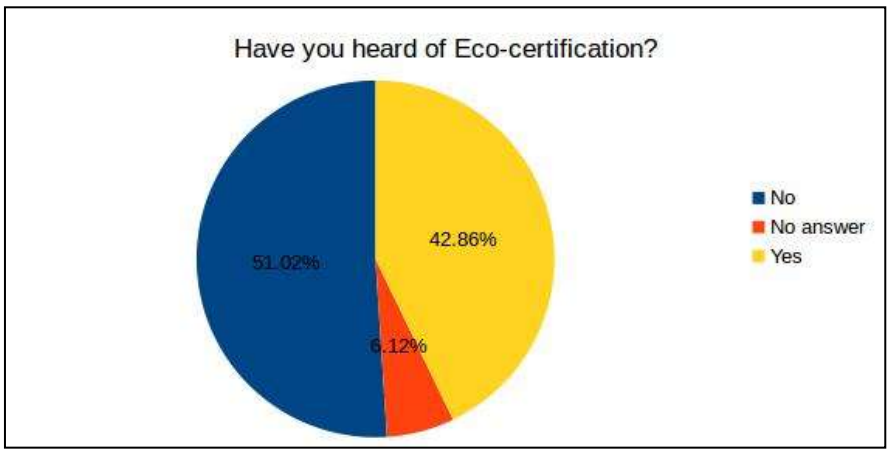


Figure 7: Awareness about eco-certification

Awareness about eco-certification: Overall, the majority of the rubber industry was not aware of eco-certification (Figure 7). Those dealing with rubberwood were more aware (78%) than those dealing with rubber/latex (32%). Awareness amongst exporters was highest (67%) followed by producers (50%) and Dealers and suppliers (29%).

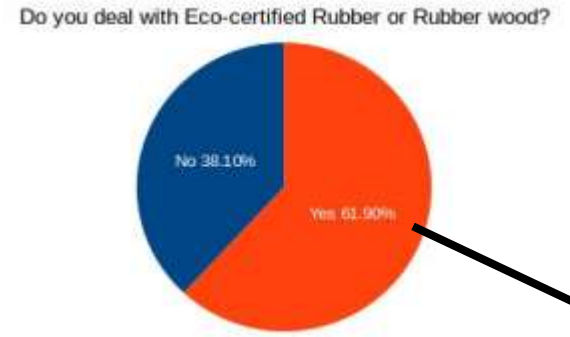


Figure 8:

Eco-certification at Present: About two- thirds of the respondents who were aware of eco-certification were currently dealing with eco-certified rubber or rubber wood (Figure 8). These were certified under the Forest Stewardship Council certification, the SNR-i and certification by the Rainforest Alliance (unclear if the certification was under the FSC standard or the Sustainable Agriculture Network (SAN) Standard) (Figure 9).

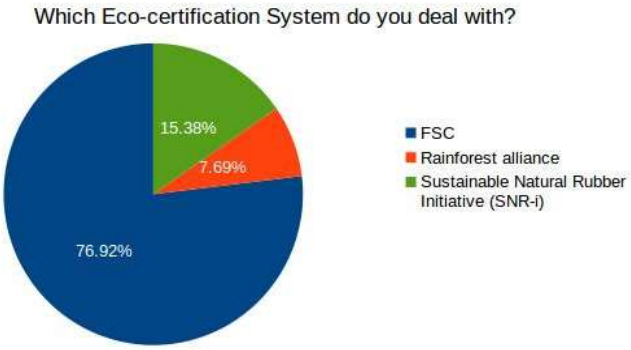


Figure 9:

Of those who indicated they were dealing with eco-certified products currently, 64% were dealing with rubber wood, 79% were exporters and the rest (21%) were manufacturers.

Interest in dealing with and learning more about eco-certified products in the near future: Nearly 47% of the respondents indicated that they would be interested in dealing with eco-certified rubber/latex, rubber wood and products in the near future and more than three-fourths of the respondents (79%) were interested in learning more about eco-certification (Figures 10 and 11). Of those interested in dealing, 64% were dealing with rubber wood. Of this 75% were exporters. Of those interested in dealing with eco-certified rubber/latex, 41% were manufacturers and 32% were dealers and suppliers.

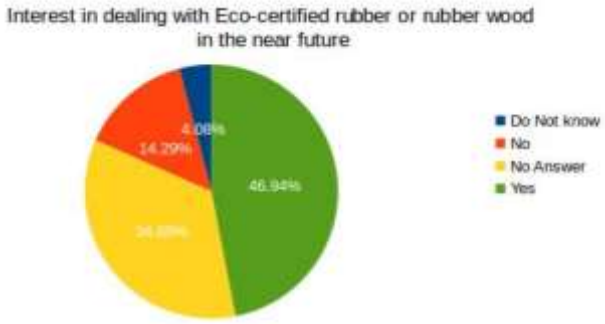


Figure 10:

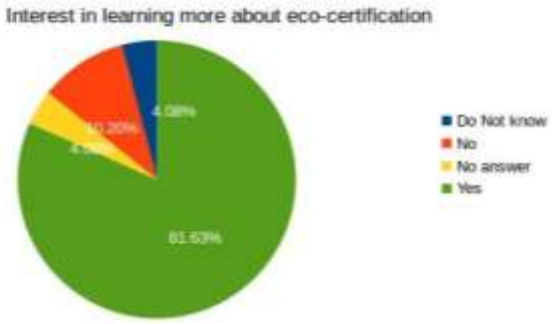


Figure 11:

Consumer Survey

At the consumer level, we undertook a survey to assess the likely demand for eco-certified rubber-based goods and eco-certified goods in general. We interviewed 116 individuals all of whom were from an urban background.

To understand the awareness of eco-certified products amongst consumers, we asked the respondents about their awareness of both rubber based and other products that were

certified as being environmentally friendly and socially just. More than three-fourths of the respondents (Figure 12) were not aware of eco-certification.

When shown the FSC and the Frog logo of the Rainforest Alliance, and asked if they had seen these on any products in the market, a small percentage of 18% answered positively.

Most of the respondents (88%) were interested in learning more about environmentally friendly products and eco-certification and as many as 80% of the respondents were willing to pay a premium rate for eco-certified goods.

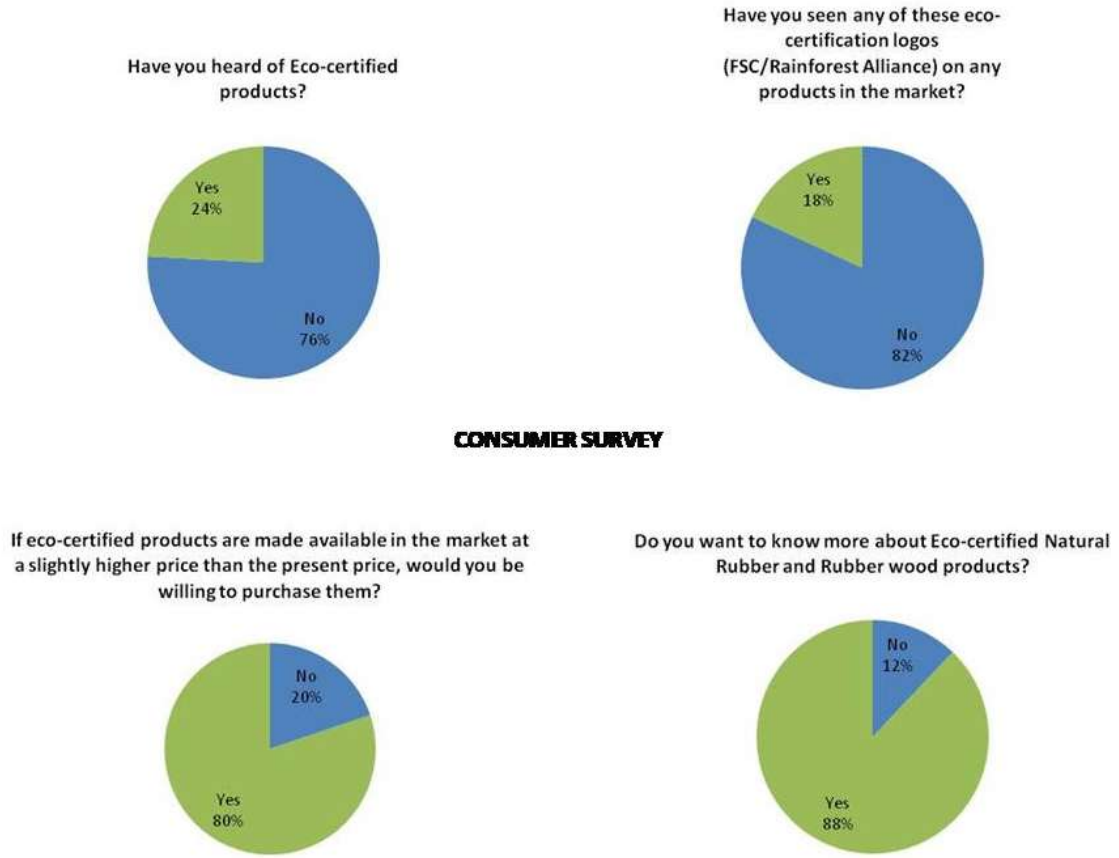


Figure 12:

Results from the consumer survey suggests that awareness about environmentally friendly and socially just products that have been certified as such is very poor. There is a clear willingness to pay a little more for these products, and hence a potential market.

Current rubber market scenario in India and its likely impact on eco-certification

In the last two years, the price for rubber has been steadily falling (Appendix 1). There is a clear increase in the quantity of rubber consumed in India over the years, along with an increase in production and import. Although the proportion of production to consumption has not changed much until last year, there has been a steady increase in the proportion of import of rubber to the local demand (Appendix 1). The import duty on NR in India is low. Lower global rates (Appendix 1), along with quality of available NR in India is being cited as the cause for manufacturers preferring to import the bulk of their raw material requirement from other countries. Reports from the field indicate that with rubber prices on the decline many small growers have stopped tapping, and many are considering expanding to other crops.

If there is a demand for eco-certified rubber where the farmers get a small premium over the market rate, there is a chance for more growers to go the certification way. In the present market scenario, where the rate of rubber in India is nearly 30 USD per 100kg more (About 20% more) than the international rate, it is unlikely that manufacturers will agree to pay a premium over the local market rate for eco-certified rubber.

Factors influencing Rubber Price

International Factors:

- → International rubber supply and demand
- → Price movements in TOCOM, SICOM and SHFE
- → Spot prices from Bangkok
- → Crude oil prices and synthetic rubber prices
- → Fluctuation in exchange rates of US Dollar and Yen
- → Growth of the automobile industry
- → Economic growth in China and India

Domestic Factors

- → Seasonal factor: low production in summer and rainy seasons
- → Economic growth: stronger the economy greater the demand for natural rubber
- → Government policies: import duties, export duties etc
- → Demand from major tyre companies
- → Rubber stock at sellers and buyers
- → Speculation in future markets

*TOCOM: Tokyo commodity market; SICOM: Singapore commodity market; SHFE: Shanghai future exchange

Source: http://rubberindiaonline.com/sample-page/

What would marketing eco-certified rubber involve

Currently, there are very few manufacturers who procure certified rubber from India. However, the demand for certified rubber wood (FSC certified) appears to be much higher.

The following should be taken note of while planning the marketing strategy for such a product:

a) Assurance of required quantity: From discussions with different players in the rubber industry, we learnt that the two likely issues are quality and quantity. Quantity can be addressed only if sufficient area is certified. The majority of the rubber producers in India and elsewhere are small growers. To ensure a good supply of certified rubber, they need to brought under the certification scheme. Although most certification systems have an option for group certification, the costs can remain prohibitively high especially when compared to the monetary returns. Educating these small growers on the long term benefits of ecologically sustainably methods of cultivation and providing some means of reducing the costs involved in obtaining these certifications is essential. Also, helping the certified small growers develop a steady hassle free supply chain, can reduce the number of intermediaries which could result in receipt of a slightly higher price and could also impact the end costs of products.

b) Assurance of quality: Quality will have to be checked, while it is unlikely to be a problem with larger plantations, this is considered a major problem in the case of small growers and if small rubber growers go in for group certification, the group has to ensure the quality as per requirement of the procurer. Although it is believed that green rubber will be better in quality, appropriate and available tests should be done and reports made available in support of this.

c) Appeal to the CSR and environmental policy of the company.

d) Assurance that when they procure certified goods, the standards are strictly adhered to. Showcasing of certified farms might help.

e) A common platform for growers and manufacturers to meet and exchange notes on requirements and availability of certified rubber. This is a new idea and does not have visibility, hence market can be enhanced if this can be provided.

f) Similar to any commodity trade, market volatility is considered an issue for natural rubber. If, the rubber board or any other authority/body can come up with a way to ensure stable prices for certified rubber, this might encourage more farmers to become certified and will give confidence to the manufacturers for regular supply of raw material.

To highlight some of these points, in a study of FSC as a market tool for rubber wood and timber in Sri Lanka (Amarasekera, 2006), it was inferred that companies do not enjoy a premium price. The wood is sold to the highest bidder, and are often sold to industries requiring fuel wood for processing that are able to pay a better price than furniture/MDF/and wooden flooring companies. Some of the companies in their study have stated that the lack of premium rate makes it difficult to justify the cost of certification. At the manufacturing company level, the study found that sometimes there

is a dearth of FSC certified timber and plantations are unable to supply significant quantities.

Concluding Remarks

a) Current market: At present, the certification systems that have a presence in India are the Forest Stewardship Council (FSC), the Rainforest Alliance certification and the Sustainable Natural Rubber Initiative (SNR-i), in the order of the most number of entities currently certified. A total of 588 entities who deal with rubber or rubber wood across 34 countries have been certified. The majority of the FSC certified entities are processors of rubber wood. Of the 13 in India, majority were primary and secondary processors of rubber wood and rubber wood products. On examining the existing FSC certified entities in countries that have been major importers from India, again most deal with rubber wood. Sri Lanka, followed by Germany, and China to a small extent are the only three countries dealing with rubber. The primary and secondary processor sector is the majority followed by brokers and traders. It is interesting to note the number of entities that deal with rubber and rubber wood who have been certified has been increasing in the last few years. This is showcased even in India where 54% of the entities were certified in 2015. To conclude, there is a good existing market for certified rubber wood, and an emerging market for rubber and latex.

b) Potential market: The large tyre and related industries are a major potential market. Most already have a strong CSR and environment policy and there is a great potential to tap this market. However, in recent times, many of them have been exploring alternatives such as Natural Guayule Rubber to *Hevea*. This is being promoted as a more eco-friendly option as tropical forest areas are not converted to monoculture rubber stands. The developments in this need to be watched to assess how the rubber market will be impacted. In the non-tyre sector there is a great potential in the health industry which includes condoms, and in the footwear, sports goods and the toy industry. These need to be explored more thoroughly. Eco-certified rubber wood is a market sector that has not been explored efficiently and fully. In an earlier research on market for FSC certification for rubber wood, commissioned by the Rubber Research Institute of India[3], the authors indicate that the green building industry along with the patronage of the Confederation of Indian Industries is exploring the use of FSC certified wood and that it is left to the rubber wood industry to take advantage of this. There does not appear to be much progress on this front on the rubber industry side. However, today, India has about 671 certified green buildings under the Indian green building council and CII's initiative. Although some of these buildings have used rubber wood as a green alternative to wood from forest-sources, this example, points out the requirement for a more proactive involvement of the rubber and rubber wood industry to eco-certification and value enhancement.

[3] http://www.rubberboard.org.in/tenders/FSCLogo.pdf

c) To be able to market certified rubber and rubber wood, a well thought out marketing strategy that addresses issues of quantity, quality, assurance of conformity to specific sustainable standards needs to be put into place. This should also include more visibility for certified materials and establishing an exclusive platform for the various players in the supply chain of the certified rubber ad rubber wood to meet. This should be promoted by the Rubber Board of India to ensure maximum reach and acceptance.

   Our market survey showed that awareness about eco-certification across all sectors of the rubber industry in India was poor. Steps to make available more information on certified rubber is required to educate on the importance of ecological sustainability and on how they can contribute to a better and a more ecologically responsible industry and the potentials of this "green" market.

d) On the consumer side, there is a keen interest to know more about eco-certification and information should be made available to this sector. This is especially important given their strong willingness to procure eco-certified products at a premium rate. This urban market could be tapped.

To conclude, ecological sustainability is not an option, but a necessity in today's world. The rubber industry in India and across the globe have acknowledged this, with many global level gatherings of the industry having exclusive sessions to discuss sustainability and the future both from the business perspective and in terms of natural resources and the environment. Further, voluntary initiatives such as the SNR-i being launched which involves all the major Governments of rubber growing countries, producers, and large manufacturers of rubber goods are a positive sign. These coupled with a fast growing market for eco-certified goods are causes for us to take an optimistic view for eco-certification of rubber and rubber wood. Adoption of appropriate local interpretation guidelines within these certification standards which focus on biodiversity can in turn promote biodiversity conservation and result in more biodiversity rich rubber plantations.

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Appendix

Appendix 1: Rubber Market Statistics

A: Rubber Production

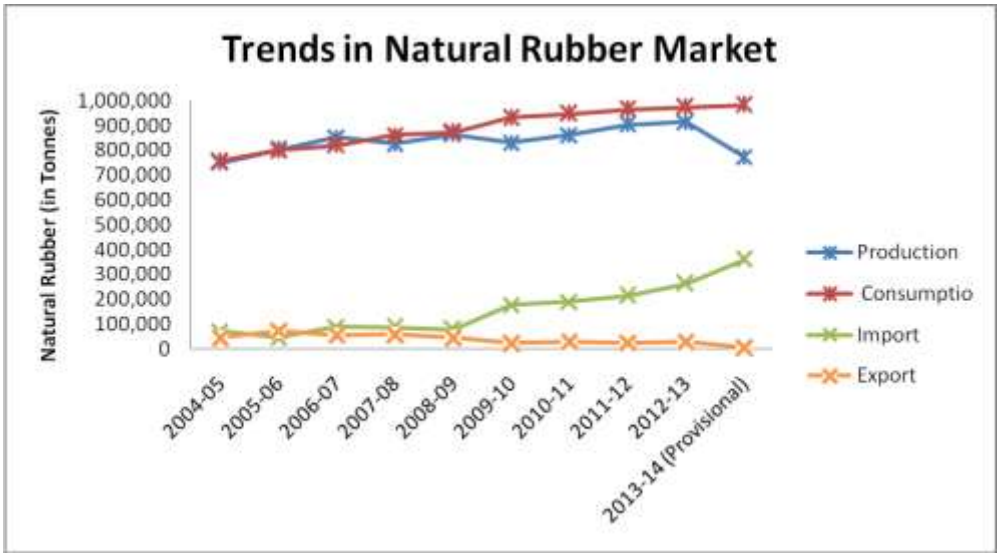
More than 90% of the natural rubber produced by India comes from the state of Kerala, of which about 8% comes from the District of Kollam, where the study area is located.

TYPE-WISE PRODUCTION OF NATURAL RUBBER (Tonnes)											
Type	**1999-00**	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**
RSS Grades	454180	455175	453465	441875	490070	532155	566445	612735	583875	617125	578650
Latex Concentrates(DRC)	60640	65975	62990	76205	81860	78795	90950	86780	88305	88070	85760
Solid Block Rubber	60095	60225	65650	81405	87665	84275	92540	98500	100705	110275	120780
Others	47350	49030	49295	49950	52055	54440	52690	54880	52460	49030	46210
Total	622265	630405	631400	649435	711650	749665	802625	852895	825345	864500	831400

Source: Rubber Board of India

B: Trends in the Natural Rubber Market

Yearwise statistics for natural rubber production, consumption, import and export. There has been a steady increase in consumption. While production and exports are a declining



trend, imports have been increasing steadily.

Source: Rubber Board of India

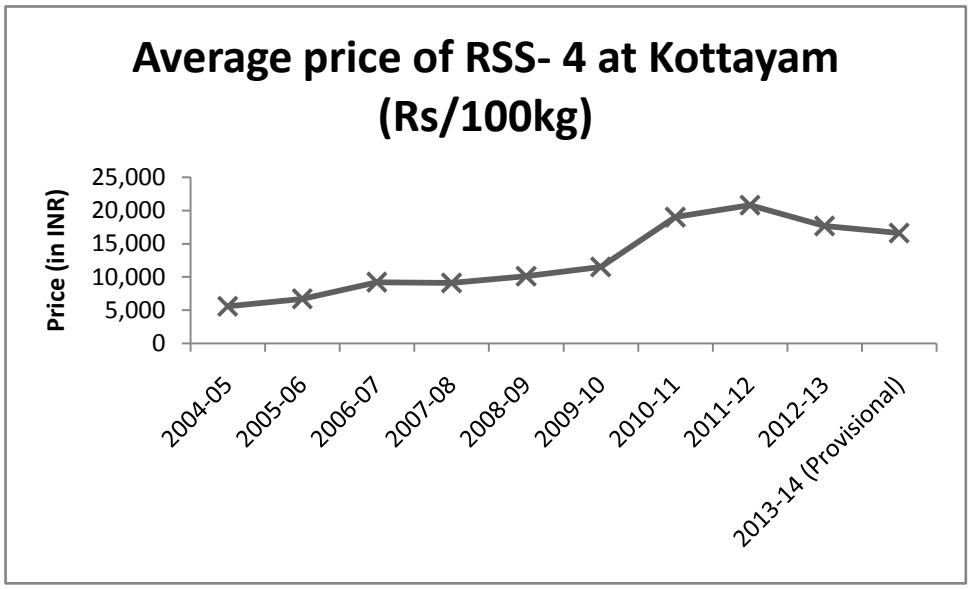
C: Rubber Export

India Exports a small quantity of rubber. The top ten countries that imported rubber from India in 2011-12 is given below. 2011-12 was also the year when rubber price per 100 kg for RSS-4 was at its peak of Rs.20805.per 100 Kg.

Top ten countries to which India exported natural rubber to in 2011-12 and their procurement in the previous years
Source: Rubber Board of India

Country	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Sri Lanka									6623.1
Malaysia	7775.3	4387.8	6362.7	10412.0	12092.0	13510.1	6925.1	6555.0	4272.9
China	31226.1	16485.0	26520.6	16592.3	20222.2	5517.7	1747.1	8463.2	2890.1
Germany	2469.4	2778.6	5680.2	2658.2	2480.4	1295.8	1275.9	1374.9	2732.1
Brazil	758.5	58.9	1700.4	639.0	1176.5	1102.4	1772.5	1405.6	2598.2
Italy	0.0	0.0	1939.2	1502.6	2589.2	1214.6	1278.4	1035.0	2365.9
Belgium	1650.6	211.7	2500.5	2323.8	2873.5	2046.1	875.6	950.3	1613.1
Spain	3221.6	2153.0	1634.0	1203.9	1052.1	1106.3	384.3	643.6	982.1
Nepal	1797.8	1585.4	1200.9	655.9	684.8	983.2	308.5	409.1	431.6
Indonesia	1444.0	0.0	0.0	0.0	0.0	0.0	410.8	312.5	414.5

D: Natural Rubber Price Trend (Source: Rubber Board of India)



E: Comparison of International Rubber Price with price in India

Natural Rubber Prices on the 27th February 2014 in the domestic market and the international market. Prices in the Indian market are higher, and many companies have been importing natural rubber. This also might be an issue for exports, as companies can procure for less from other countries.

Rubber Price as on 27/2/2014
per 100 Kg
KOTTAYAM

CATEGORY		IN RS		IN USD	
		Price	Change	Price	Change
RSS-4	▲	14,700.00	+100.00	237.35	+1.61
RSS-5	▲	14,500.00	+50.00	234.10	+0.81
ISNR-20	◆	14,350.00	0.00	231.70	0.00
Latex(60% drc)	◆	12,050.00	0.00	194.55	0.00

Rubber Price as on 27/2/2014
per 100 Kg
BANGKOK

CATEGORY		IN RS		IN USD	
		Price	Change	Price	Change
RSS-1	▼	13,496.00	-27.00	217.90	-0.30
RSS-2	▼	13,382.00	-27.00	216.05	-0.30
RSS-3	▼	13,277.00	-27.00	214.35	-0.30
RSS-4	▼	13,220.00	-27.00	213.45	-0.30
RSS-5	▼	13,134.00	-27.00	212.05	-0.30
SMR-20	◆	*	0.00	*	0.00
Latex(60% drc)	◆	*	0.00	*	0.00

Rubber Price as on 27/2/2014
per 100 Kg
COCHIN

CATEGORY		IN RS		IN USD	
		Price	Change	Price	Change
RSS-4	▲	14,700.00	+100.00	237.35	+1.61
RSS-5	▲	14,500.00	+50.00	234.10	+0.81
ISNR-20	◆	*	0.00	*	0.00
Latex(60% drc)	◆	*	0.00	*	0.00

Rubber Price as on 27/2/2014
per 100 Kg
KUALA LUMPUR

CATEGORY		IN RS		IN USD	
		Price	Change	Price	Change
RSS-1	◆	*	0.00	*	0.00
SMR-20	▼	11,270.00	-131.00	181.95	-2.00
Latex(60% drc)	▼	9,117.00	-44.00	147.20	-0.62

F. Price of rubber wood logs (per tonne) and sawn wood (per cft)

Year	Log Price/Tonne (Rs.)	Price of sawn wood/cft (Rs.)
2002-03	2,300	375
2003-04	2,400	375
2004-05	2,800	375
2005-06	3,200	475
2006-07	3,300	475
2007-08	3,400	**475**

Source: Dhamodaran, T. K. 2008. Status of Rubber Wood Processing and Utilization in India: A Country Report In: Promotion of Rubberwood Processing Technology in the Asia-Pacific Region. Zhao Youke (ed.) Proceedings of the ITTO/CFC International Rubberwood Workshop December 8-10, 2008 Haikou, China.

The rubber wood price from 2013 -15

(Source: http://www.indiannaturalrubber.com/rubwoodprice.aspx)

Rubber wood Price for the month of August 2013

Date	Average price per MT
01.08.2013	5350
06.08.2013	5400
08.08.2013	5600
13.08.2013	5450
15.08.2013	5450
20.08.2013	5400
22.08.2013	5350
27.08.2013	5350
29.08.2013	5350

Rubber wood price for the month of August 2014

Date	Average price per MT
26.08.2014	5650
28.08.2014	5450

Rubber wood price for the month of August 2015

Date	Average price per MT
04.08.2015	5300
06.08.2015	5250
11.08.2015	5600
13.08.2015	5650
18.08.2015	5450
20.08.2015	5400

Appendix 2: Industries and companies

A: Industries which use Natural Rubber

Grade	Areas of consumption
Ribbed Smoked Sheets	
RSS1X	Aero tyres
RSS1	Tubes
RSS2	Extruded hoses, quality footwear items, Tyres, Tubes, tread carcasses
RSS3	Tyres and ADV tyres, extruded hoses, footwear
RSS4	Tyres and ADV tyres, extruded hoses, footwear
RSS5	handmade hoses, retreaded material
Block rubber -Indian Standard Natural Rubber	
ISNR 3CV	High quality products with superior dynamic properties, tyres, injection bottle caps, adhesives
ISNR 3L	transparent products, injection bottle caps, syringe heads, large industrial rollers, aero tyres, water bottles, adhesive solutions, sports footwear, tennis balls
ISNR 5	moulded and extruded products like auto components, engine mountings, bridge bearings, rubber linings, conveyor belts, tubes, engines mountings, tank linkings, brake seals, hoses
ISNR 10	Cushion gum stocks, joint rings by injection moulding, raincoat proofing, microcellular sheets for upholstery and packing, conveyor belts, footwear, tyre tread materials
ISNR 20	all types of automotive tyres and retreading material, bicycle tyres, raincoat proofing, microcellular sheets for upholstery and packing, conveyor belts, footwear, mats
ISNR 50	Handmade hoses, footwear, cycle tyres, mats
Latex - Centrifuges latex	
High Ammonia	Foam products, dipped goods, adhesives, elastic thread, household and industrial gloves, balloons, rubber bands, finger caps
Low ammonia	Preferred for a ll applications where de-ammoniation is necessary for product manufacturing
Single and double centrifuge latex and radiation vulcanised natural rubber latex (RVNR latex)	High technology dipped products such as condoms, examination gloves, surgical gloves, catheters etc.
Rubber wood	
Rubber wood	Furniture industry
	Doors, woods, partitions, etc.
	Wide spectrum of interior decoration applications
Source: www.indiannaturalrubber.com	

B: Some Tyre and Non-tyre companies that use natural rubber as a raw material

Company	Products	CSR status	Comments
Tyres and automotive Industry			
Bridgestone	Tyres, rubber tracks, conveyer belts	Its mission statement includes biodiversity conservation. A "key activity": We will contribute to biodiversity conservation through active habitat preservation and enhancement at our operating locations and beyond our property lines.	Good candidate - one of the biggest tyre companies and mentions biodiversity conservation in its environmental mission. Has a large India branch
Goodyear	Tyre	Includes biodiversity conservation in its mission. Established a wildlife habitat refuge in Ohio. Other branches have tree plantings, etc.	Good candidate, same reasons as for Bridgestone. Has a large India branch
Continental Corp	4th largest manufacturer of tyres	Fairly detailed environmental CSR policy, with goals for GHG reductions, etc.	Germany. Taken over by Schaeffler group.
Carlisle	Diversified manufacturing company that includes tyres	No mention of anything environment-related	USA. Office in Chennai
Michelin	tyres	Has published GHS emissions and has sustainable development goals. Member of Tyre Industry Project under World Business Council of Sustainable Development. Evaluates impact of tyre debris and recovering end-of-life tyres.	Good candidate, same reasons as for Bridgestone, member of Tyre Industry Project. Branch in India
Alliance Tyre	tyres	Mention of environment restricted to performance	Started in Israel but has large branch in India
Cooper Tyres		Emphasizes environment performance. ISO Certified.	
Hankook	8th largest tyre company	no mention of anything environment-related	South Korea
Hutchinson	bike tyres, insulation etc	no mention of anything environment-related	France
Kumho tyres			South Korea
Nokian Tyres		ISO, EMAS certified. Follows EU's REACH regs. very little mention of biodiversity.	Finland
Pirelli	5th largest tyre manufacturer	Has sustainability goals, but to improve its environmental performance. No mention of biodiversity.	Italy
Sumimoto	Tyres, sports products, etc	Strong biodiversity conservation program; good candidate	Japan, good candidate: Active biodiversity conservation program
Toyo Tyres		mention of environment restricted to performance	Japan

Company	Products	CSR status	Comments
Trelleborg		Produces tyres for agriculture vehicles, so has some programs/mention on sustainable farming.	Good candidate -- CSR mission includes sustainable farming, preserving soil quality, etc.
Yomohama		Has worldwide forest planting program	Japan, good candidate: Active biodiversity conservation program
AN Rubber	Auto parts		
Balkrishna Industries	tyres		no mention of CSR
JK Tyres		launched India's first "eco-friendly tyre" in 2005	
RUIA Group		has branches all over India. Corporate office in Kolkata. Major manufacturer or tyres and other rubber products. Mentions. Has CSR page but details more social than environmental activities.	
Trelleborg	Specialized tyres:		
Alke	Utility vehicles	Mentioned improved packaging, labor standards	Italian utility vehicle company
Kona	Bicycles	no mention on website	Mountain biking
Giant Bicycles	Bicycles	no mention on website	Multinational biking company
Trek	Bicycles	no mention on website	Multinational biking company
Specialized	Bicycle components	Uses Higg Index developed by Sustainable Apparell Coalition, has bike tyre recycling program, wrote its own Specialized sustainable innovation policy, that includes social/labor standards and working with entire supply chain	Seems like good candidate
GT Bicycles	Bicycles	no mention on website	
Cannondale	Bicycles	no mention on website	No CSR program publicized but it seems like a nontraditional company open to new ideas
K2 bikes	Bicycles	no mention on website	
Marin	Bicycles	no mention on website	But does mention bike riding as an environmentally friendly alternative. Might be worth checking out.
Yeti	Bicycles	no mention on website	Young company, might be open to idea
Non-Tyre industries			
Birla		CSR emphasizes social development over environment protection. Mentioned integrated agricultural development.	Indian but MNC. Highly diversified, rubber is a small part.

Company	Products	CSR status	Comments
General Rubber	products for piping for power plants, wastewater treatment facilities, etc.	ISO certified, but no CSR page. Not as large a company as some of the others.	USA. No presence in India
Sempertrans	wide range	no mention of anything environment-related	Austria. Production site in Northern India
Lego	Lego blocks	Detailed CSR agenda, includes 100% renewable energy and zero waste, but no mention of biodiversity.	Denmark
Durex	condoms	Has CSR program in India educating young men on safe sex.	Large multinational, uses natural rubber
The Original Condom	condoms	CSR program includes offsetting GHGs through planting trees.	French, unclear what materials they use
Moods	condoms	not seen on website	Made by Gov't of India (HHL Lifestyles. Uses natural rubber.
Cupid Condoms	condoms	not seen on website	not confirmed if they use NR. Indian company.
Beyond Seven	condoms	not seen on website	Japanese - not confirmed if they use NR>
L Condoms	condoms	Sell condoms, proceeds goes toward female social entrepreneurs who distribute condoms in Africa.	Source their NR from Malaysia, but might have contacts, etc.
One Condoms	condoms	HIV/AIDS relief support	US. not confirmed if they use NR. But "hip" brand
Sir Richard's	condoms	PETA-certified.	US, confirmed to use NR.
Fusion Condoms	condoms	advertised as "Vegan and cruelty-free" and aims to be more affordable to reach more people	
TTk /TTK-LIG	Condoms	Skore-FSC certified	
NJC Condoms	condoms	not seen on website	not sure if they use NR. Denmark.
Rucanor	Sporting goods/wear	not seen on website	
Splay	Sporting goods/wear	not seen on website	
Mitre	Sporting goods/wear	Has solid CSR program. Requires payment of living wage to workers. as well as other workers' rights protections, conduct environment impact assessments, "progressively reduce" environment impact and protect local communities from damage caused by company.	
Mizuno	Sporting goods/wear	Published a CSR report on website. Created Green Grade system to produce environmentally friendlier practices. Waste control, river clean up days etc.	

Company	Products	CSR status	Comments
Amer Sports	Finnish sports goods	Detailed CSR strategy; Environment focuses on improvement of environmental efficiency/performance	
Saloman	French company that sells skiing, racing and running gear	mention of environment but not much	
Dainese	Italian skiing, horsebackriding, biking (tyres)	no mention on website	
Diadora	Sports goods and sportswear	no mention on website	Italian
Umbro	Sportswear		UK based company
Elastrex	Footwear	no mention of CSR	Based in Bangalore
Paragon	tyres, schoolbags, footwear	no mention of CSR	Bangalore
Kurlon	foam rubber	no own website	
Poddar	tyres for cycles, rickshaws, etc.	None	
Vikas Rubber	Hoses, moulded products, rubber mats	Talks about responsible rubber purchasing, paying fair wages to 90 percent women workforce, etc. on website: http://www.vikasrubbers.com/quality-rubber-mats-uk-CSR.html. Based in Kottayam and UK.	
Mardec	Large supplier to condom and mattress manufacturers. Also gloves, latex thread, balloons, adhesives, carpet	"Suitable species of trees and curtain plants are planted and maintained within and along the periphery of the premises forming a green belt to improve the environment. All the Units have effective Effluent Treatment Plants (ETP). Each ETP has a capacity of treating 40,000 Ltrs of effluent per day. The treated water from the final holding pond is used for irrigating the crops like Coconut, Cocoa, Plantain etc. cultivated in the factory premises itself."	
Kurian Abraham Private Limited	Rubber processor	Calls itself a "green company" -- uses wind energy, talks about waste treatment. ISO certified.	based in Kerala

C. List of Rubber wood processors

Company	Details
Andamans Timber Industries	Are promoting rubber wood as being eco-friendly
Borax Morarji Ltd.	Borax Morarji Limited strives to be a socially responsible, environmentally sensitive and quality supplier of chemicals and timber products.
Delta Plywood & Boards	-
Emess Industries	-
Feroke Boards Pvt. Ltd	-
Fulcrum Corporation	-
Gomma Wood Products	Promotes rubber wood as "The Eco-friendly" Alternative When you choose Gomma Wood Products, you are helping to reduce the pressure on tropical forests as a source for timber. • Rubber wood scores over other timbers because it replenishes itself every 25 years. • It is a sustainable timber source. • The economically harvestable volume of rubber wood logs form an area of about 0.6 million hectares of plantations
Highrange Wood Treats Pvt. Ltd.	-
Indroyal Crafts (P) Ltd.	-
Jacteek Furniture	-
Malankara Wood Ltd.	-
Nilambur Good Wood Ltd.	-
Prestige Boards Pvt. Ltd.	-
Meenachil Rubberwood Ltd; (METROWOOD)	This company was established as a joint venture with 49 RPSs in Meenachil taluk and promoted by the Rubber Board. The factory is located at Peringalam, about 6 kms from Poonjar in Kottayam district. It has a capacity to process about 2300 cu.m of rubber wood per year and has facilities to make some down stream products like furniture, flooring, finger jointed edge glued boards etc.
Rubber wood India Pvt. Ltd. (INDIAWOOD)	This company was established under the World Bank Aided Rubber Project and is promoted by the Rubber Board, Andamans Timber Industries Ltd; and the Kerala State Industrial Development Corporation Ltd (KSIDC) to serve as a demonstration and training centre for the development of the rubber wood processing industry. The factory is located at Manganam, about 5 km from Kottayam with an installed capacity to process 8250 cu.m of rubber wood in terms of rough sawn kiln dried (RSKD) timber. It also has the facility to convert the processed timber into various

Company	Details
	value added products like door frames and shutters, mouldings, laminated section, S4S sections etc..
Rubco Huat Woods (P) Ltd.	Government of Kerala – deal with rubber wood
Shilpi Wood Links India (P) Ltd.	-
Starowood Industries	-
Unique Wood Industries	-
Uniwood Products	-
Woodtech Industries	-
Kutty Flush Doors & Furniture Co. Pvt. Ltd.	Promoting themselves as a green company – recycling appears to be something that they are interested in

Appendix 3: Certified Organizations and buyers

A: FSC-Certified Wood Buyers

Company	Country	Product	Comments
Fair Deal Trading	Germany	Rubber/latex	buys from Sri Lanka and India.
Prolana GmbH	Germany	Rubber/latex	
Fairtradecenter Breisgau GmbH	Germany	Rubber/latex	
Klickski	UK	Indoor furniture	
Downes Timber & Garden	UK	Indoor furniture	
FV Duggan and Son	UK	Office furniture	
Dispano Alfortville	France	Solid wood	
Dispano Schweighouse	France	Solid wood	
Tonge Bridge	UK	Office furniture	majority of stock is FSC Certified
Paperun	UK	paper products	

B: FSC certified companies in India (Source: fsc.org/search)

Certificate Code	License Number	Organisation	Issue Date	Expiry Date
CU-COC-815081	FSC-C126367	Cocolatex Exports P Ltd.	2015-07-22	2020-07-21
CU-COC-815081	FSC-C126367	Cocolatex Exports P Ltd.	2015-07-22	2020-07-21
RA-COC-004689	FSC-C047304	Teddy Exports	2015-02-16	2020-02-15
SW-COC-005107	FSC-C058906	ARICIA India International (P) Limited	2010-09-15	2015-09-14
SW-COC-005386	FSC-C095376	GPL Exports Ltd	2011-03-22	2016-03-21
SCS-COC-003424	FSC-C101509	A.K. Panels	2010-08-27	2015-08-26
CU-COC-815550	FSC-C102815	Mayur Ply Industries (P) Ltd.	2010-11-16	2015-11-15
SCS-COC-004011	FSC-C109288	Maple Mouldings Pvt. Ltd.	2012-01-11	2017-01-10
SCS-COC-004048	FSC-C109564	Palghar Plywood Product Pvt. Ltd.	2012-01-31	2017-01-30
SGS-COC-009834	FSC-C115864	REGAL VENEERS	2013-04-04	2018-04-03
SGS-COC-009972	FSC-C117933	Pacific Panels	2013-08-08	2018-08-07
SCS-FM/COC-004839	FSC-C119478	Tripura Forest Development and Plantation Corporation Ltd.	2015-02-23	2020-02-22
SGS-COC-010381	FSC-C123989	Indian Timber Products Pvt. Ltd.	2015-01-12	2020-01-11

C: Country-wise summary of number of organizations dealing with rubber (Hevea sp.) and certified by FSC

Country	FSC certified Organizations dealing with *Hevea sp.* (As of August 2015)
China	288
Vietnam	56
Hongkong	43
Germany	34
UK	19
Thailand	18
Sri Lanka	18
France	18
India	10
Japan	10
Indonesia	8
Singapore	7
Malaysia	7
UAE	5
Netherland	5
Australia	5
US	4
Taiwan	4
Italy	4
Austria	4
Brazil	3
Belgium	3
Poland	2
Pakistan	2
Guatemala	2
Czech Republic	2
Turkey	1
Switzerland	1
South Africa	1
Korea, Republic of	1
Ireland	1
Denmark	1
Cyprus	1
Canada	1
Source: http://info.fsc.org/certificate.php	

D: Rainforest Alliance Market place: Membership Directory: Companies listed int eh Rainforest Alliance market place for eco-certified goods

Rubber/Producer

Company	**Cambuhy Agrícola Ltda.**
Office Address	Rodovia Washington Luiz (SP 310), km 307,3; CEP. 15.995-900; Matão; SP; Brasil, Matão, Sul de Minas, São Paulo, Brazil
Primary Contact	Carlos Jose Dantas
	cdantas@cambuhy.com.br.
Phone	(16) 3383-3000
Fax	
Business Type	Producer
Brands	
Distribution Range	

Company	**Colresin**
	www.colresin.com
Office Address	Tv 32 Sur No 32 Sur-64, Envigado, Antioquia, Colombia
Primary Contact	Camilo Alvarez
	colresin@une.net.co
Phone	574 4446869
Fax	
Business Type	Exporter, Importer, Ingredient Supplier (e.g. cocoa powder, coffee extract, fruit puree), Producer
Brands	green chemical products
Distribution Range	Colombia

Company	**Finca Entre Ríos**
Office Address	2 calle 23-80 zona 15 V.H. II, Edificio Avante oficina 902, Guatemala, Guatemala, Guatemala
Primary Contact	Evelyn N. Escobar González
	eescobar@grupoentrerios.com
Phone	(502) 50181018
Fax	
Business Type	Producer
Brands	
Distribution Range	

Company	Finlays Matale
Office Address	No 95A, Nambapana, Ingiriya, Sri Lanka, Matale, Sri Lanka
Primary Contact	Dhayan Madawala
	manori@finlaysteaestates.LK
Phone	+ 94 (0)344297500
Fax	+ 94 (0)344297555
Business Type	Producer
Brands	Madulkelle (Madulkelle / Richlands), Duckwari (Duckwari / Ellagolla),
Distribution Range	

Company Description:

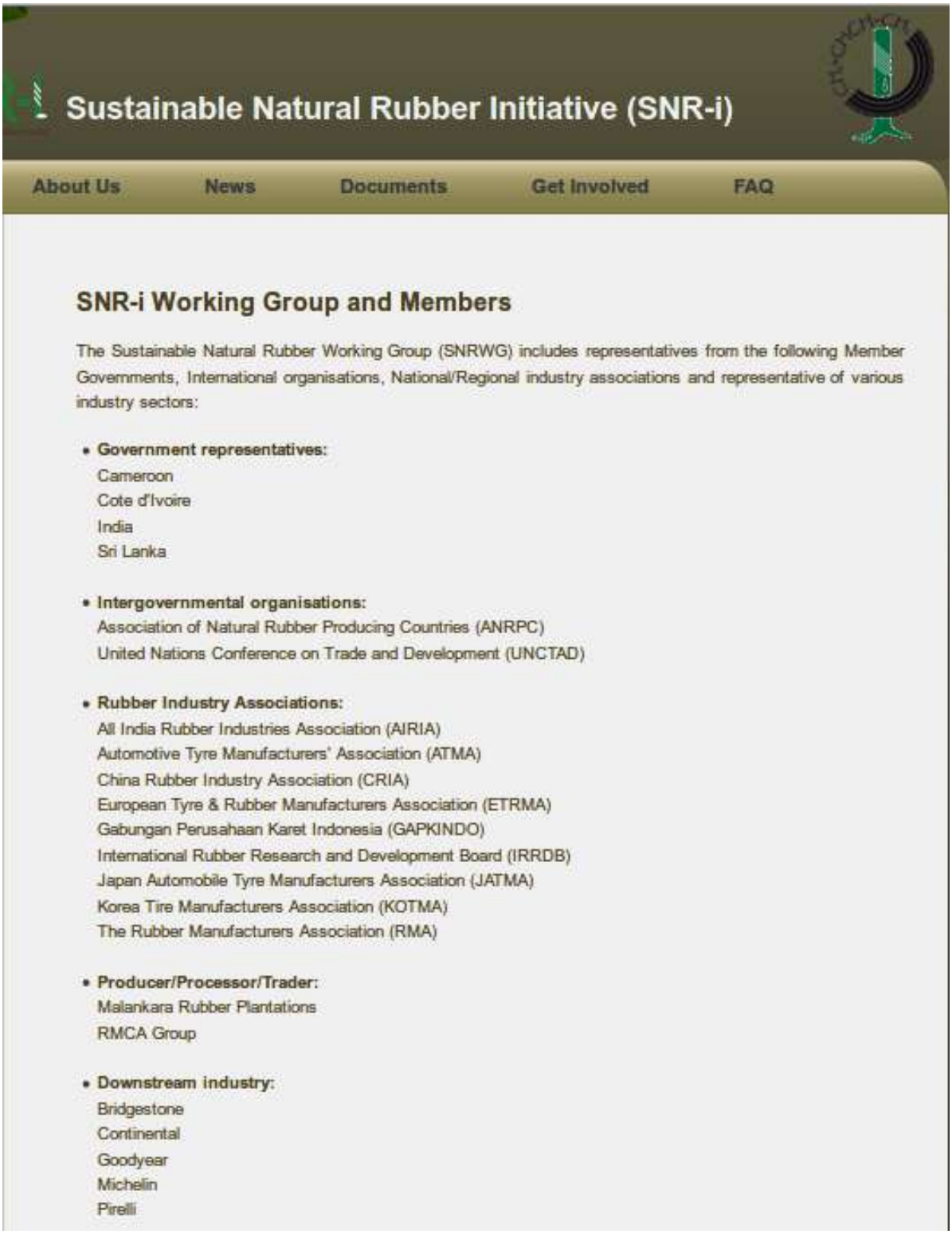
Company	ESCO
Office Address	Rue J28 Deux Plateaux Quartier ENA Abidjan Cote d'Ivoire, ABIDJAN, Belgium
Primary Contact	AIME DAKOURI
	aime.dakoury@telenet.be
Phone	0032494419481
Fax	003234492996
Business Type	Business & Institutional (Offices), Ingredient Supplier (e.g. cocoa powder, coffee extract, fruit puree), Wholesale/Distributor
Brands	coffee, Cocoa, Natural rubber, Palm oil
Distribution Range	Algeria, China, Germany, Ivory Coast, Netherlands

Company Description: Trade and consultancy company Dealing with those products above

Company	Latexco
	www.latexco.com
Office Address	Sin-Amandstraat 8 bis 8700 Tielt Belgium, Tielt8700, Belgium
Primary Contact	Alexander Bolliou
	alexander.bolliou@latexco.com
Phone	+ 32 51 40 14 31
Fax	+ 32 51 40 55 66
Business Type	Food Processor/Manufacturer
Brands	Pulse, Latexco, Innergetic
Distribution Range	

Company Description: Latexco, with headoffice in Belgium and production units in Belgium, Spain, Sweden and USA is the world's biggest producer of natural latex foam bedding components. We produce natural latex mattresses, toppers and pillows. We want to produce a high quality bedding product in an efficient and sustainable way, take care of all stakeholders and the whole environment starting with the selection of qualitative natural rubber produced and harvested in a sustainable way.

E: Sustainable Natural Rubber Initiative (SNR-i):
http://www.snr-i.org/SNR-i Working Group and Members_6_1.htm



Sustainable Natural Rubber Initiative (SNR-i)

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SNR-i Working Group and Members

The Sustainable Natural Rubber Working Group (SNRWG) includes representatives from the following Member Governments, International organisations, National/Regional industry associations and representative of various industry sectors:

- **Government representatives:**
  Cameroon
  Cote d'Ivoire
  India
  Sri Lanka

- **Intergovernmental organisations:**
  Association of Natural Rubber Producing Countries (ANRPC)
  United Nations Conference on Trade and Development (UNCTAD)

- **Rubber Industry Associations:**
  All India Rubber Industries Association (AIRIA)
  Automotive Tyre Manufacturers' Association (ATMA)
  China Rubber Industry Association (CRIA)
  European Tyre & Rubber Manufacturers Association (ETRMA)
  Gabungan Perusahaan Karet Indonesia (GAPKINDO)
  International Rubber Research and Development Board (IRRDB)
  Japan Automobile Tyre Manufacturers Association (JATMA)
  Korea Tire Manufacturers Association (KOTMA)
  The Rubber Manufacturers Association (RMA)

- **Producer/Processor/Trader:**
  Malankara Rubber Plantations
  RMCA Group

- **Downstream industry:**
  Bridgestone
  Continental
  Goodyear
  Michelin
  Pirelli

Appendix 4: Market survey Report

Study on Eco-certified Rubber and Rubber wood in India

Final Report

2015

Flavia Abraham

2065, Sobha Suncrest, Manavarthekaval, Uttarahalli Hobli,Off Kanakapura Road, Bangalore-560 062

Summary of the Study

There are several critically endangered bio zones in the world. One among them is the Western Ghats which supports more than 90% of the Rubber plantations in India. Rubber has been a highly successful commercial crop since its initiation in 1902 in India. As large areas of the rubber plantations are located in the Western Ghats, a global biodiversity hotspot region and a natural habitat for several endemic flora and fauna, it becomes all the more important to take adequate actions for its continual and optimal sustainability and for the growth of the rubber industry at large. Any pro-developmental activity would first commence with the creation of awareness of effective alternative methods of sustainability. In this study we undertook to understand the current status on the awareness of, interest in and the market for eco-certified rubber /rubber wood products in India. This study broadly focused on two sections of the rubber industry, namely, the primary stakeholders which included the producers, manufacturers, suppliers, dealers and exporters of rubber/rubber wood products and the urban consumers, who invariably are the end users of any industrial or agricultural products in their daily lives. The study showed that awareness of eco-certified rubber and rubber wood was poor across all sectors of the industry. However, there is a growing interest predominantly amongst the exporters followed by dealers and manufacturers in wanting to be informed about eco-certification and many wanting to deal with eco-certified rubber products. The consumers were keen to learn more about eco-certifid products and majority of them indicated a willingness to pay a premium rate for eco-certified products in the interest of environmental conservation. The study recommends that it is imperative to share information about eco-certification with all the primary stakeholders in the rubber industry as also the public at large.

CONTENTS

Summary of the Study ***I***

Introduction to Indian Rubber Industry ***III***

Importance of Rubber Industry in India ***IV***

Importance of Eco-certification Awareness in the rubber industry ***IV***

Advantage of Eco-certification for various stakeholders ***V***

Meaning of the word 'Eco-Certification' ***VI***

Objectives ***VI***

Methods ***VII***

Primary Stakeholder Survey **VII**

Urban Consumer (End-User) Survey **VIII**

RESULTS ***VIII***

Primary Stakeholder Survey **VIII**

Awareness about eco-certification X

Involvement with Eco-certified rubber products XI

Interest in dealing/continuing to deal with eco-certified rubber in near future XIII

Interest in learning more about eco-certification XIV

Consumer Survey **XV**

Recognition of FSC/ Rainforest Alliance Logo XV

Willingness to pay premium price for eco-certified rubber products XVI

Interest in seeking information on Eco-certified rubber products XVI

CONCLUSIONS ***XVII***

REFERENCES ***XVII***

Appendix ***XVIII***

Questionnaire for primary Stakeholders **XVIII**

Questionnaire for Consumers **XXI**

Introduction to Indian Rubber Industry

Natural Rubber is one of the important cash crops in the country that support the life of more than ten lakh growers. As a key industrial raw material, natural rubber provides livelihood to thousands of workers in the industrial sector.

But parallel to this there is another allied industry shaping up in the country, namely, the rubber wood industry. Natural rubber or *Hevea brasiliensis*, which has its origin in the Amazon River Basin, was introduced to Asia by the end of the 19^{th} century. The crop grows well in the warm and humid tropical climate (between 21 to 35^{o}C) and requires well distributed annual rainfall. The bark of the tree secretes latex which when treated and smoked becomes the thick ribbed, smoked sheet (RSS). But after the economic life of the plantation the trees are cut and used as raw material for the rubber wood industry. The freshly cut rubber wood, after seasoning and processing, becomes an ideal wood for a variety of uses.

With a total area of 5.83 lakh hectares, India is the fourth largest producer of natural rubber and a rich source of timber of plantation origin. Among the different industry segments it is the automobile tyres and tubes that account for the bulk of the consumption of natural rubber, nearly 50%. Another 12.42% is consumed by the cycle tyre and tube industry. The other main consumer of natural rubber is the footwear industry, which accounts for 10.50% of the production. Surgical gloves, condoms, electrical grade rubber mats, latex threads, medical equipment are some of the other products made from rubber. Honey from rubber plantations is the other main revenue source of growers. Apart from these, toy, balloon and coir industry have been the traditional buyers of rubber, the latter for making rubber based coir products. The non-traditional use of rubber includes rubberisation of roads and as seismic bearings. Rubber is used widely in soil stabilization and vibration absorption. Reclaimed rubber manufactured from old and worn out tyres and tubes is extensively used in the manufacture of many products which blends with either natural or synthetic rubber. While these products are made using natural rubber, the sector has by now discovered the potential of the tree as such in timber industry. The plantation –based timber produced from the stem wood of rubber is both eco-friendly and cheap. The treated wood is ideal for furniture, for paneling, flooring and for office furnishing.

Rubber tree has in more ways than one revolutionized man's life. It touches the life of an individual in different ways .Use of rubber in transport and automobile sector redrew the map of travel industry and helped mankind to overcome the barriers of time and space. Its use in the health and family planning has given mankind a new hope for survival. Post-economic life of the rubber tree, the wood serves as timber and offers additional income to the growers. From the point of view of the national economy, the rubber wood processing industry performs the vital function of saving precious foreign exchange used up in the import of timber. Processing and value addition also helps in wealth creation in the economy and employment generation in the sector. Though rubber is an agriculture product it is consumed entirely by the industrial sector as a raw material. But on the other hand, being an agricultural product the supply of rubber cannot be increased all of a sudden. It is this mismatch between the supply and demand that generates roller-coaster waves as far as price is concerned. It is this "Assured" demand that has prompted enterprising farmers to adopt rubber cultivation. And nearly 88% of the area is organized as small holdings while the

production is 91% from small growers. In this respect rubber can be called a people's crop as 10.1 lakh growers in this sector fall under the small grower category as against 275 large growers. Apart from growers and tappers, the agricultural labourers employed in the field, the nursery owners, the rubber dealers, the traders of fertilizers and other equipment needed in the estate, the slaughter tapping contractors, the extension workers form the large community of people who work in the rubber sector. The rubber wood industry performs the other vital function of being an additional source of revenue to the small growers .The advantage of opting for rubber plantation is that the cost of rubber wood maintenance is 30% lesser than other woods, like teak wood. Rubber wood gives better colour and finish to the user too. The working characteristics of rubber wood are comparable to soft woods. Its smooth texture and uniform grain structure make it easy to work on. Rubber thus touches the life of an individual in more ways than one.

Importance of Rubber Industry in India

Ever since the establishment of its first rubber goods manufacturing unit in Kolkota in 1921, the Indian Rubber Industry has been progressing very well. It has achieved an overall expansion through increase in the range of products manufactured, in the number of units, in technological sophistication and self-sufficiency. Besides catering to the entire domestic demand, the industry is breaking new barriers on the export front. It projects tremendous growth in the 21st century. The factors responsible for this phenomenal expansion are vast internal market, rapid industrialization, on-going economic reforms, and improved living standards of the masses and availability of almost all types of raw materials within the country.

Importance of Eco-certification Awareness in the rubber industry

Although rubber plantations are a major driver of the local economy and employ a large workforce, the large scale conversion of a multi-species forest ecosystem to a simple monoculture ecosystem results in the loss and degradation of many ecological services. A large proportion of the rubber plantations in southern India are located in the biodiversity rich Western Ghats which is a major source for numerous rivers and streams that supply water to estates, human settlements and industries in the plains. In addition, these hotspots are home to several endemic and endangered flora and fauna. Without the active participation and involvement of all stakeholders in their conservation, biodiversity and ecosystem services will be lost forever. Soil erosion and reduced soil fertility are other problems that could result from rubber monocultures. This directly impacts the production of rubber and also increases production costs. Also, without the agricultural security that comes from a diverse mix of species and crops, these monoculture plantations are vulnerable to market fluctuations, disease and other stressors, ultimately threatening themselves. As such it becomes imperative for all the stakeholders involved to be aware and be better prepared for potential threats in the near future and opt for sustainable cultivation and management practices whose benefits are long lasting. Some of the major benefits of Eco-Certification are listed below.

Advantage of Eco-certification for various stakeholders

1. With customers increasingly concerned about the sustainability of the products they buy, companies demand higher environmental and social standards from their suppliers, and are often willing to pay a premium to suppliers who meet higher social and environmental standards. Certification enhances consumer confidence while purchasing products from the market.
2. Third party certification facilitates in meeting higher quality standards and access premium markets (and in turn higher profits), while also improving management operations and enhancing the prestige of the plantation. (third party certification refers to a collaboration between various stakeholders to establish a voluntary set of farm standards that improve management practices, conserve resources and improve working conditions, while also recognizing the farm's need to sustain yield levels)
3. By dealing with only eco-certified products, every stakeholder demonstrates a commitment to improve the natural habitat in the area of origin of raw materials. In the case of India, most of the raw material originates from Western Ghats, which is a rich biodiversity zone of global importance and also houses endemic and endangered species of plants and animals. Certification automatically contributes towards achieving company's CSR (Corporate Social Responsibility) objectives.
4. Regardless of the strength of the law or enforcement in an area, participation in certification projects reflects that the stakeholder is procuring from a business that is voluntarily complying with and being held accountable for a set of rigorous, international environmental and social standards.
5. Monoculture plantations that douse their fields with chemicals and have little to no plant diversity are extremely vulnerable to the impacts of soil erosion and nutrient loss. Rubber plantations cannot operate without healthy soil. Most eco-certification standards include efficient implementation of better land management practices and complying with these standards help in restoration and rehabilitation of soil.
6. Improved working conditions and community relations ensures stability in both, land and operations. It leads to a steady regular supply of high quality rubber for the assured market and thus helps in guaranteeing long term success of the farm.
7. Payment of reasonable wages and assurance of safety of their workers ensures long term commitment from the workers as livelihood is assured by the plantations.
8. Conserve water resources.
9. Increase the efficiency of their operation along with efficient waste/pest management.
10. Creation of wildlife refuges along streams, rivers help in conserving water sources and act as a good vegetative cover for wildlife. Native vegetation as wind barrier in areas affected by high velocity of winds also provide excellent habitat for local wildlife. Linking smaller unproductive patches of land with forest patches help in increasing the biodiversity of the farms and help create various important ecosystems. It must be noted that often even narrow stretches of indigenous vegetation act very well as refuges for wildlife.

Meaning of the word 'Eco-Certification'

Environmental or Eco-certification is a form of environmental regulation where a company voluntarily complied with a set of standards set by a certification service. Usually, a logo is attached to each certification which can be applied to the products from a certified farm. Eco-certification is viewed as a form of Corporate Social Responsibility where the company takes pro-active steps to prevent, reduce or negate any disturbance to the environment as a result of its activities. Two certification standards are relevant for rubber plantations, namely, Rainforest Alliance Sustainable Agriculture Network and the Forest Stewardship Council. For further reference please refer to the below links:-

→ The Rainforest Alliance : http://rainforest-alliance.org/

→ Forest Stewardship Council : http://ic.fsc.org/

→ Sustainable Agriculture Network : http://sanstandards.org/sitio/

Objectives

The objective of this study was to undertake a survey of rubber industry to assess the awareness, of eco-certification and the market for Eco-certified rubber and rubberwood and products derived from them.

The specific objectives of the Primary Stakeholders'[4] survey are given below.

1. To understand the extent of awareness of Eco-certification (SAN/ FSC) of rubber/ Rubber wood amongst various sectors of the rubber industry.
2. Amongst those aware, to determine if any are currently dealing with any eco-certification system and if so which ones
3. Determine the extent of interest amongst various sectors in seeking further information on SAN/ FSC certification of Rubber/ Rubber wood Products and in dealing with them in the near future

[4] We define Primary Stakeholders as follows:- Various parties directly and indirectly involved with plantation and distribution of rubber/rubber wood products. It included producers, manufacturers, dealers, suppliers and exporters.

Producers: Small growers and plantations who grow rubber, collect latex and who log rubber wood

Manufacturers: Those who use latex and rubber wood from the producers and convert /transform the raw material into usable products, *i.e.*, semi /finished product as per their market demand. This includes primary and secondary processors also.

Dealers: Intermediaries involved in the distribution and marketing of rubber products between the producers and manufacturers or manufacturers and suppliers/exporters

Suppliers: Parties involved in transporting rubber products from the source of availability to the area of demand.

Exporters: Parties involved in the supply of rubber, rubber wood and products derived from them outside the country of production.

The objectives of the consumer[5] awareness Survey were:

4. To ascertain the extent of awareness amongst consumers of any Eco-certified rubber products in the market.
5. To understand if there is an interest in knowing more about Eco-certification and in Eco-certified products.
6. To gauge if there would be a potential market for Eco-certified products in the near future if they are made available at a premium price

In order to meet the above objectives of various stakeholders the following methodologies were adopted.

Methods

Primary Stakeholder Survey

We took three pronged approaches to cover the wide spectrum of primary stakeholders (Manufacturers, Suppliers and Dealers) in the rubber industry. In the first approach we attended 'India Rubber Expo and Tyre Show 2013, held at Mumbai between 22nd – 24th January, 2013. Here, we consulted and discussed the questionnaire with various company representatives. In the second approach, we followed up the research study through an intensive online survey. In this approach, we sent out an exhaustive questionnaire via email and online trade portals to companies listed as major manufacturers, and exporters on the Indian Rubber board website (www.*rubberboard.org.in)* and others from the Member's Directory of All India Rubber Industries Association 2012-13. The number of questionnaires sent out via email were 700. The response to this was poor (less than 1% response), which lead us to take up the third approach of phone surveys, where officials of top companies of various rubber products (Table 1) were contacted over the phone.

[5] Consumer: End user of rubber products in their daily lives

Table 1: The survey covered a wide variety of industries involved with rubber and rubber wood. Table summarises the various industries as those involved with the automotive industry, non-automotive industries and those that deal with rubber wood.

Automotive	Non-automotive	Rubber Wood
Tyre **Tube** **Rubber parts**	Surgical Equipments Condoms Belts Hoses Flooring rubber sheets mats balloons Pillows and mattresses	Furniture Tools Plywood Toys

Urban Consumer (End-User) Survey

Two methods were employed to reach out the urban consumers. In one method, an e-questionnaire was sent across and 100% response from them was recorded. In the second method, face to face interaction was employed, where in the same set of questions were posed to the participants and the answers were recorded and updated in the database.100% response was recorded even in this methodology. Using both the methods, a total of 116 responses were recorded.

RESULTS

Primary Stakeholder Survey

We received a combined total of 51 responses (less than 10% of the individuals contacted) from the primary stakeholder survey. It included two producers, 27 manufacturers (primary and secondary processors), 25 dealers/suppliers and 21 exporters. Many of them were involved in more than one activity. Of those contacted, two indicated that they were not using rubber or rubber wood currently (Figure 1). More than 70% of the others dealt with rubber and latex and the remaining with rubber wood with a small percentage dealing with both materials (Figure 2).

Figure 13

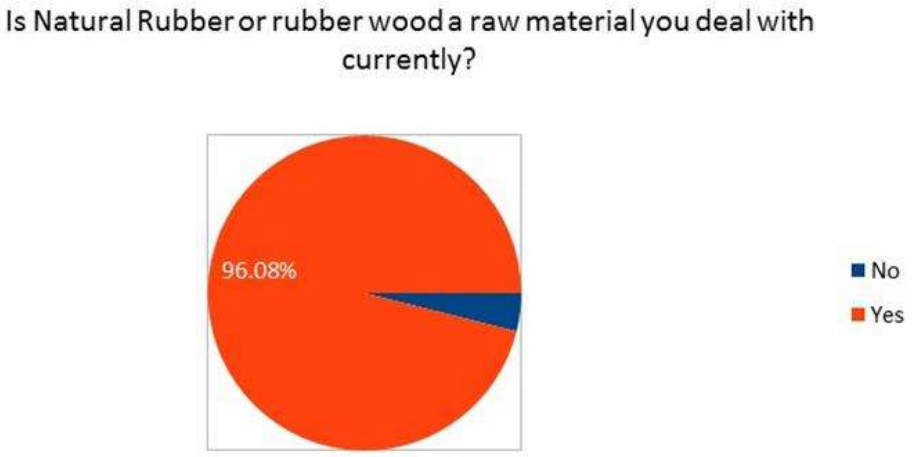


Figure 14

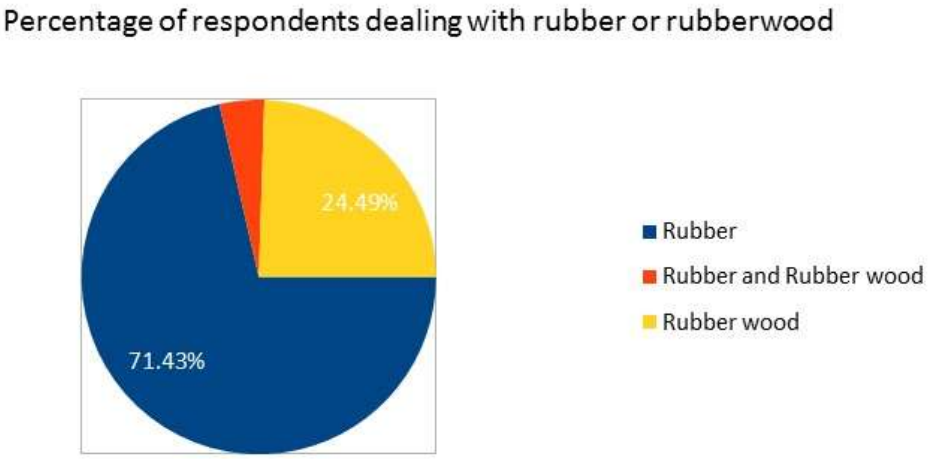
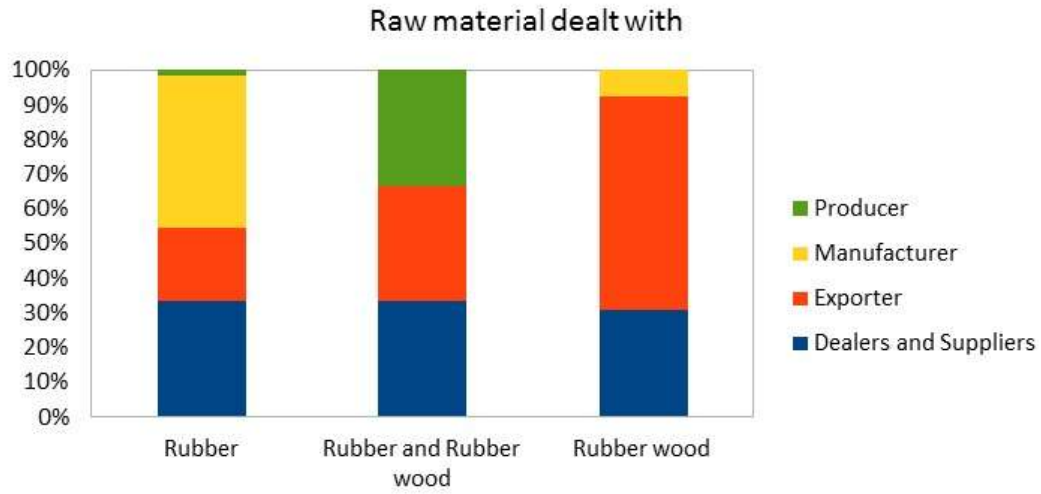


Figure 15



Listed below is the bar graph which depicts the sub-category of various stakeholders who deal with Rubber, Rubber wood and both.

Awareness about eco-certification

The Primary stakeholders were asked if they were aware of Eco-certified rubber/ rubber wood. Nearly half the respondents were unaware of any sort of Eco-certification for rubber .Figure 4 and Figure 5 gives the break-up of the response among various sectors.

66% of the Exporters and 50% Producers were aware of Eco-certification of Rubber products. The awareness amongst dealers, suppliers and manufacturers ranked below 30%.

Figure 17

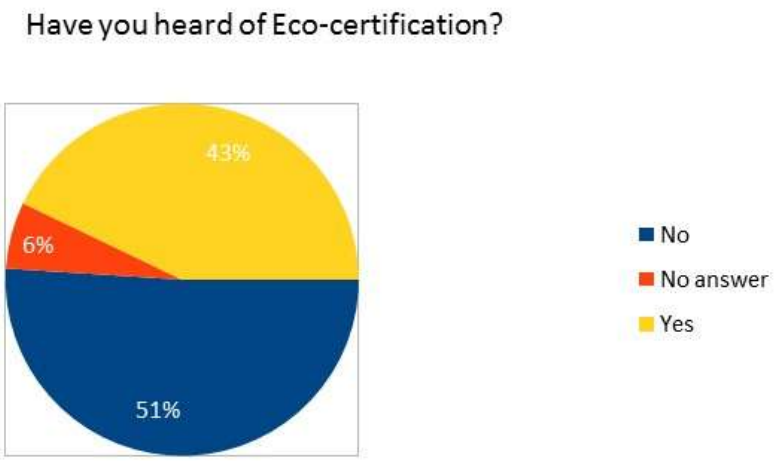
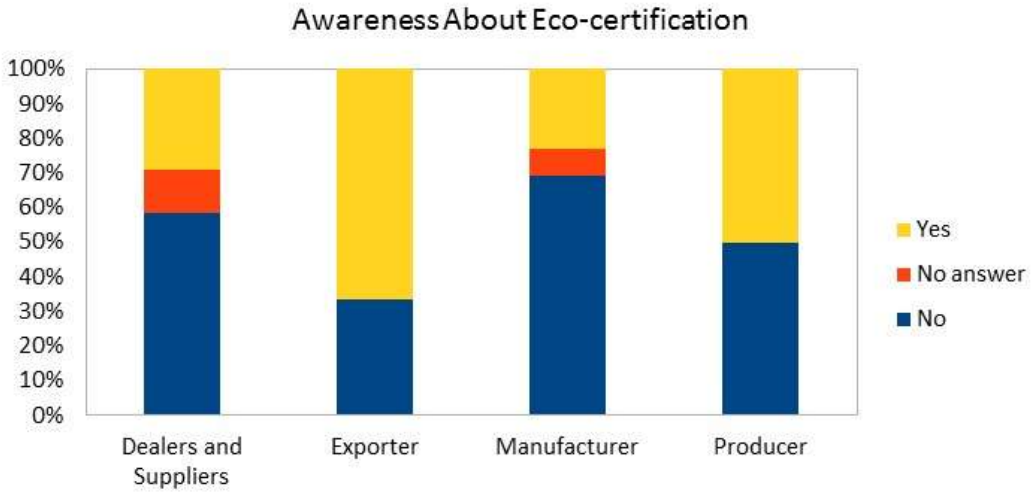


Figure 16



Involvement with Eco-certified rubber products

Out of the respondents who were aware of Eco-certification, almost 62% of them were dealing with Eco-certified rubber /rubber wood products. Exporters (79%) largely dealt with eco-certified products followed by 42% of manufacturers (Figures 6 & 7).

Figure 18

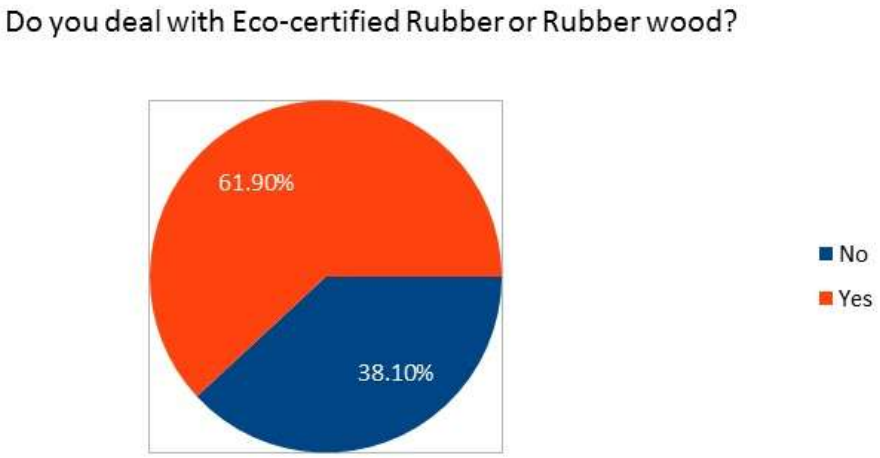


Figure 19

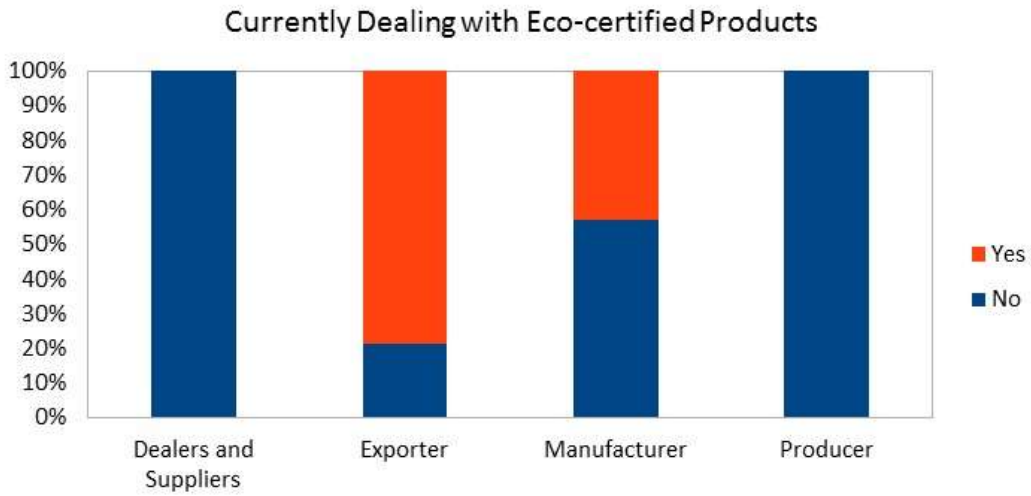


Figure 8 summarizes the certification system followed by these. More than 75% of them deal with Forest Stewardship Council (FSC) certified products, 15% deal with SNRi certified products and the remaining deal with Rainforest Alliance certified products.

Amongst these 9% of the exporters and 67% of manufacturers dealt with SNR-i certified products. More than 30% of manufacturers dealt with Rainforest Alliance certified products. Majority of the exporters dealt with FSC certification (Figure 9).

Figure 20

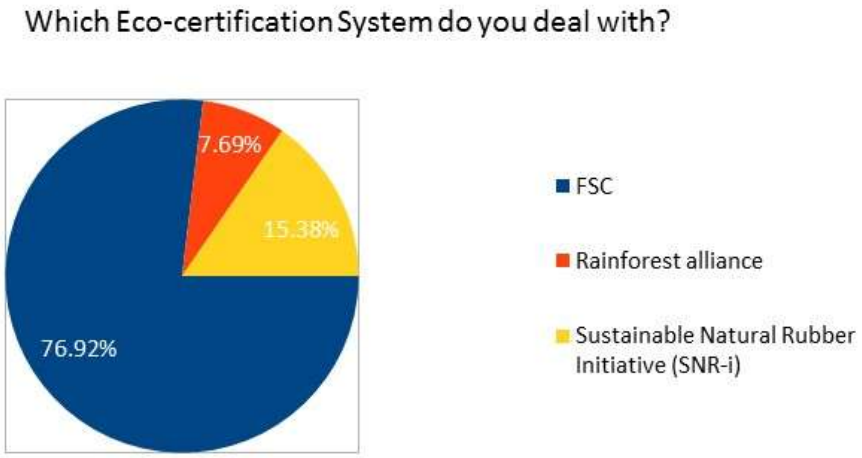
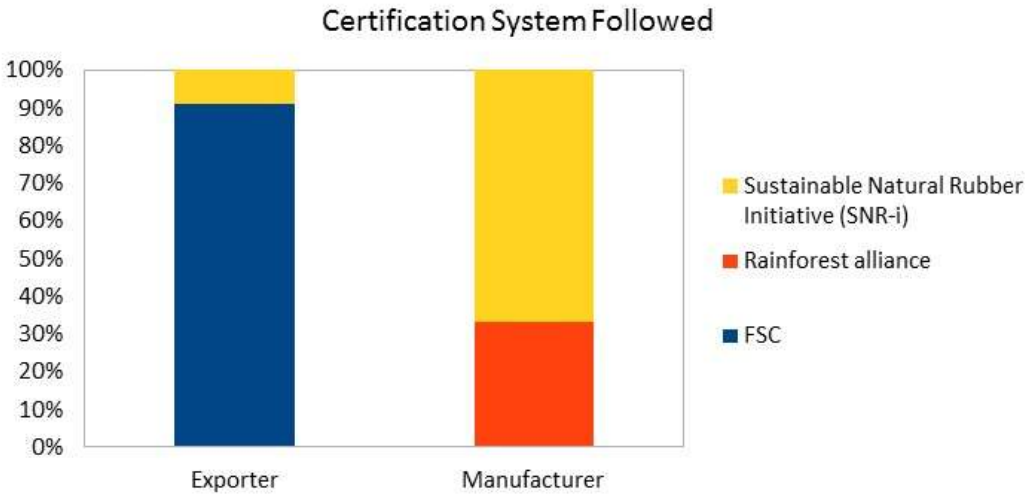


Figure 21



Interest in dealing/continuing to deal with eco-certified rubber in near future

Approximately 47% of the total respondents were interested in dealing and continuing to deal with Eco-certified Rubber/rubber products. 14% did not want any information on the same, 35% did not respond to the question and 4% were uncertain about their response. These are summarized in the figure 10 below.

67% of the exporters and 38% of dealers and manufacturers were keen on continuing/wanting to deal with Eco-certified products.

Figure 22

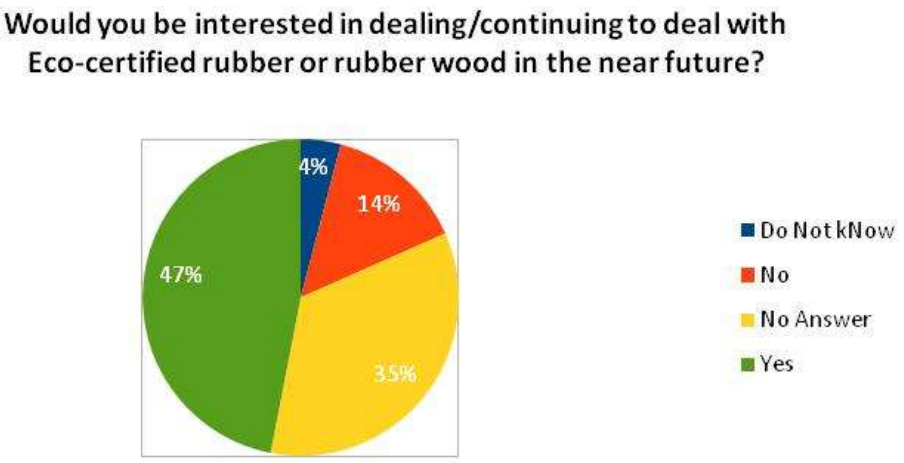
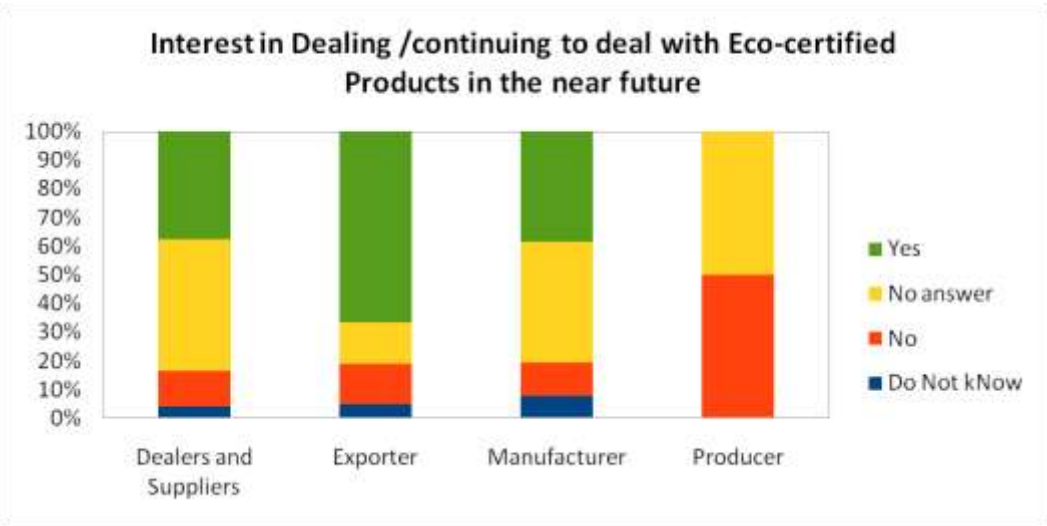


Figure 23



Interest in learning more about eco-certification

81.6% of the respondents were keen on seeking information on eco-certified products. Of them, 88% were manufacturers, 81% were exporters and 75% were dealers/suppliers. They were keen on knowing more about FSC and SAN certification as they wanted to be abreast with any possible demands from their clients in the near future (Figure 13).

Figure 24

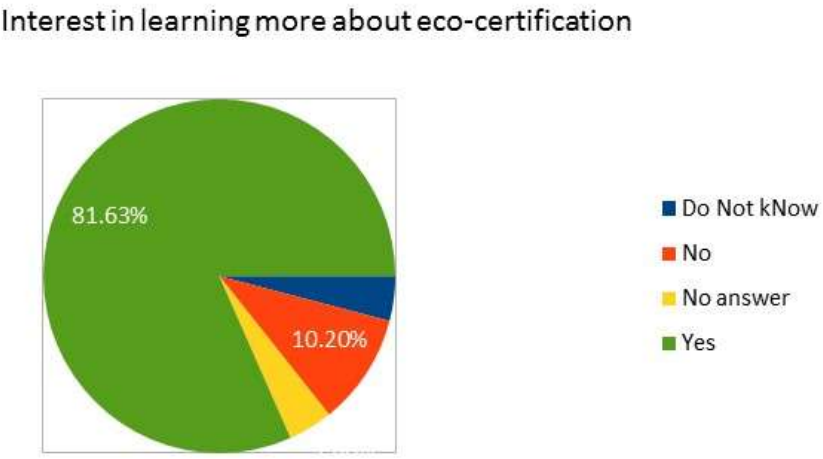


Figure 25

Consumer Survey

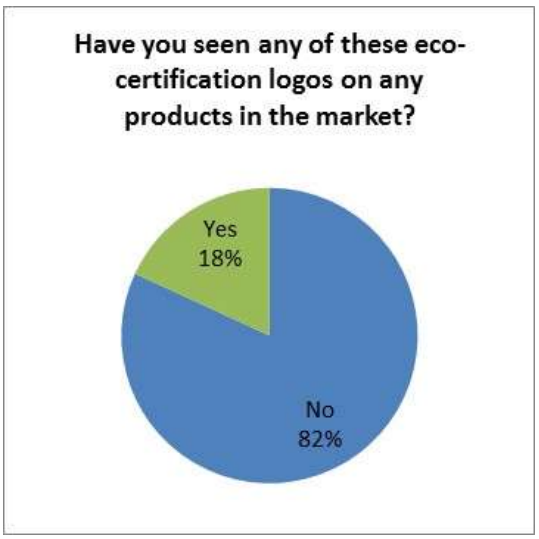
76% of the respondents were not aware of any eco-certified rubber products in the market and the rest 24% of them were aware of eco-certified rubber products in the market.

Figure 26

Recognition of FSC/ Rainforest Alliance Logo

The respondents were shown logos of FSC and Rainforest Alliance to ascertain their familiarity with these. Majority of the respondents could not recognize or associate products with the FSC/ Rainforest Alliance Logos.

Figure 27



Willingness to pay premium price for eco-certified rubber products

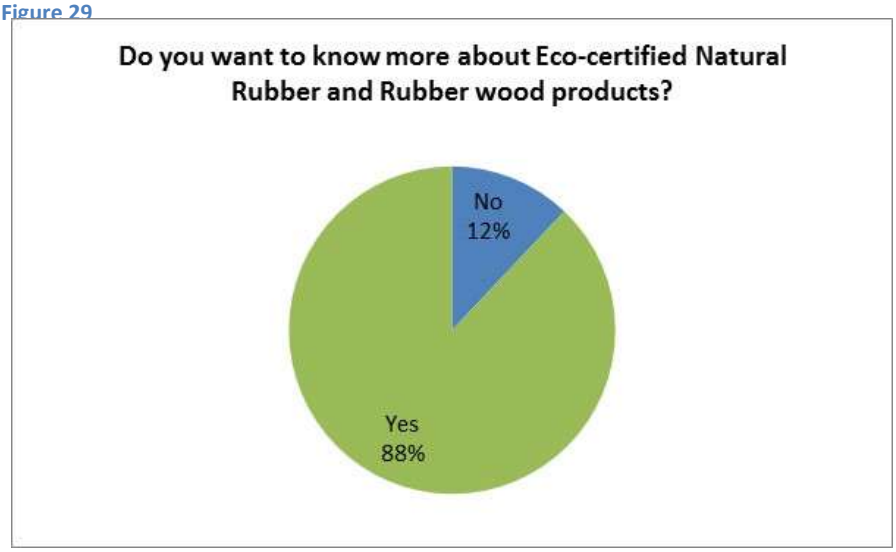
On asked about their willingness to pay a premium rate for eco-certified products, 80% of the respondents responded that they were willing to pay a premium price to buy any eco-certified rubber products as it contributed to the overall sustainability of the environment.

Figure 28

Interest in seeking information on Eco-certified rubber products

The respondents were then asked if they would be interested in knowing more about eco-certification and certified products. Majority (88%) of the respondents replied positively and were curious to know more about eco-certified rubber products.

Figure 29



CONCLUSIONS

From the above two surveys, we conclude that there is a growing interest predominantly amongst the exporters followed by dealers and manufacturers in wanting to be informed about eco-certification of rubber and rubber wood. They also have shown keen interest in wanting to deal with eco-certified rubber products as they believe in preparing themselves for any possible changes in the demands/requirements from their clients in the near future. As such, it would be advisable for more information to be made available on certified rubber across all sectors of the rubber industry. It must be noted that by seeking certification of rubber products, the stakeholders would automatically stand to achieve their CSR objectives in an optimal manner. One of the prime impetus for opting for eco-certification of rubber products by any or all the stakeholders would be the willingness of the final consumers to expend more money on eco-certified/labelled products for their daily consumption. The urban consumer survey provides an answer to this question. It reflects an over whelming positive response on this front. It indicates a good urban market which can be tapped. About 80% of the respondents were willing to pay a premium price to buy any eco-certified rubber products. They felt that any eco-certified product would definitely contribute to the overall sustainability of the environment and therefore would not hesitate towards spending any extra amount on eco-certified rubber products. It must be noted that in today's context, consumers are highly conscious of their environment and are willing to contribute towards protecting it in the least demanding way.

We also reach a conclusion that the majority of the urban consumers are curious and want to know more about eco-certified rubber products. They want more information on the same as awareness amongst them is very low. Awareness amongst the primary stakeholders too is low. As such it becomes imperative to train and engage various stakeholders involved in the Rubber Industry about the benefits of Eco-Certification. Information on the same must be made available and accessible even to the public at large. In doing so, not just the parties involved would stand to benefit economically but also the associated eco-systems would thrive and the natural habitats for various endangered and endemic wildlife would be restored. It would also lead to overall optimal utilization of nature's limited resources and help the environment sustain itself for several more years to come.

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3. *Rubber Board of India, undated. 'Rubber wood be future' A handbook. Rubber Board of India, Cochin.*
4. *The Rainforest Alliance: http://rainforest-alliance.org/*
5. *Forest Stewardship Council: http://ic.fsc.org/*
6. *Sustainable Agriculture Network: http://sanstandards.org/sitio/*
7. *FERAL Eco-agriculture website: www.feralindia.org/ecoag*

Appendix

Questionnaire for primary Stakeholders

Ecologically Sustainable Natural Rubber

Sustainability is the buzz word in the industrial world today! For natural resources, ecological sustainability is an important approach that will ensure that resources are not indiscriminately used leading to damage and destruction of ecological systems and the environment. This will also avoid injudicious depletion of these resources, which would otherwise result in a negative trend in the the long term for that industry.
Natural Rubber is one such resource, grown in the tropical belts and in areas which are known to be biodiversity hotspots and important areas for many ecosystem services. An ecologically sustainable approach to growing rubber would in turn ensure that the biodiversity rich natural ecosystems within and around rubber estates are conserved and protected.
In this survey, we intend to explore the understanding of eco-certified rubber amongst the industry that uses NR as a raw material. Eco-certified rubber are those that come from farms that are certified for following ecologically sustainable methods and in most cases also confirm the socially just practices employed by these growers. A few examples include Forest Stewardship Council (FSC), Sustainable Agriculture Networks Standard (SAN/Rainforest Alliance certified), Sustainable Natural Rubber Initiative (SNR-i).
There are ten questions that you are requested to answer. We thank you for taking the time to participate in this effort and for giving us your valuable inputs.

* Required

1. **Name of the Company** *

   .....

2. **1. Is Natural Rubber or rubber wood a raw material that you deal with?**
   If Yes, please proceed with the questionnaire
   Mark only one oval.

   ◯ Yes
   ◯ No

3. **a. If yes, Please list the products that you manufacture/deal with that uses Natural Rubber and rubber wood**

   .....

4. **2. Have you heard of environmentally certified rubber/rubber wood?**
   (If you have not, do visit http://www.feralindia.org/ecoag to learn more)
   Mark only one oval.

   ◯ Yes
   ◯ No

5. **3. If yes, do you deal with certified rubber/rubber wood**
   Mark only one oval.

   - ◯ Yes
   - ◯ No

6. .....

7. **4. If yes, (i) Which certification system does it follow?**
   Check all that apply.

   - ☐ Forest Stewardship Council (FSC)
   - ☐ SAN Standard/Rainforest Alliance
   - ☐ Sustainable Natural Rubber Initiative (SNR-i)
   - ☐ Other: .....

8. **(ii) What is the quantum dealt with?**
   Please indicate units if not in tonnes

   .....

9. **5. If you are not currently dealing with them, would your company be interested to deal with eco-certified raw materials in the near future?**
   Mark only one oval.

   - ◯ Yes
   - ◯ No

10. **6. Are there any required specifications for the raw material with respect to the following**
    Check all that apply.

    - ☐ Quality
    - ☐ Quantity
    - ☐ Type of rubber (Latex/RSS/etc.)
    - ☐ Other: .....

11. **Please give details**

    .....

    .....

    .....

    .....

    .....

12. **7. Does your company have a stated envionmental policy**
Mark only one oval.

- ◯ Yes
- ◯ No

13. **Can you briefly describe your current environmental policy**

.....

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.....

.....

.....

14. **8. Will your company be interested in learning more about environmentally certified rubber/rubber wood?**
Mark only one oval.

- ◯ Yes
- ◯ No

15. **If yes, please provide name of person to contact and his/her email address**

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Questionnaire for Consumers

Survey on the awareness of eco-certified rubber products

* Required

1. **1. Please enter your name** *

2. **2. Please enter your authentic email id** *

3. **3.Have you heard of Eco-certified rubber products?** *
   (products include furniture,footwear,construction material,condoms,surgical and medical equipments,kitchen appliances,etc)
   Mark only one oval.
   - ◯ Yes
   - ◯ No

4. **4. Have you seen any of these eco-certification logos on any products in the market?** *
   Mark only one oval.
   - ◯ yes
   - ◯ no

5. **5.If eco-certified products are made available in the market at a slightly higher price than the present price, would you be willing to purchase them?** *
   Mark only one oval.
   - ◯ Yes
   - ◯ No

6. **6. Do you want to know more about Eco-certified Natural Rubber and Rubber wood products?** *
   Mark only one oval.
   - ◯ Yes
   - ◯ No

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This report was written as part of the project titled "Exploring Sustainable Land use Practices in Rubber Plantations in a Critical Wildlife Corridor" undertaken by

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