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Creating Demand for Sustainable Palm Oil through Tariff Policies in India & Indonesia

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GIST Advisory is a specialist environmental and sustainability consulting firm, based in India and the UK. Founded by the core team of Green Indian States Trust (GIST) – the research NGO that pioneered the Green Accounting for Indian States Project (GAISP) – our aim is to enable governments and corporations to discover, measure, value and manage their impacts on natural and human capital: helping optimize government policy and corporate strategy.

Executive Summary

The production of unsustainable palm oil is one of the chief causes of large-scale deforestation, which seriously damages ecosystems and biodiversity, affects human welfare, and exacerbates climate change. Indonesia today is the world's largest producer of palm oil, producing over 28.5 million MT (51% of global production). India is the largest consumer and importer of palm oil in the world, importing over 8 million MT of palm oil (or 20% of global imports) in 2012. India's demand is estimated to grow at ~3-4% per annum in the near future. Together, India and Indonesia determine global market dynamics for palm oil, making them prime drivers in building demand for sustainable production in this sector.

This report looks at the market dynamics between Indonesia and India with respect to their trade of palm oil, and seeks to estimate whether there is potential for a policy-led market mechanism that would help create demand for sustainable palm oil in India. To enable this, we analyse various scenarios under a differential tariff approach that favours RSPO certified sustainable palm oil in order to make it price-competitive with business-as-usual (BAU) palm oil.

In our opinion, such an approach provides the necessary stimulus to generate enough demand in India to absorb the current stock of sustainable oil produced in Indonesia (of ~3.8 million MT). The US$ 97.35 million estimated costs of one such approach are, in our opinion, justified given the large-scale economic benefits stemming from the natural, human and social capital benefits associated with sustainable practices. Furthermore, such tariff adjustment costs may find suitable international funding as they are explicitly targeting a transition from unsustainable to certified palm oil. A full sectoral analysis of the economic benefits of sustainable practices in the palm oil industry would, in our opinion, substantiate the rationale for moving towards sustainability for both national policy and business.

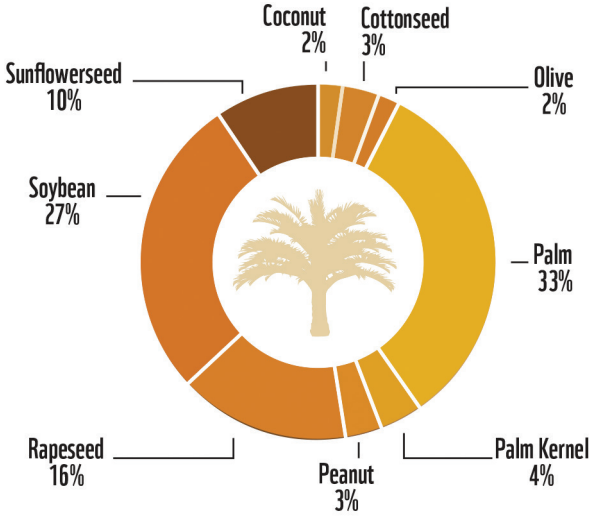
Introduction

Palm oil has emerged as the main source of vegetable oil globally, constituting around 33% of total global vegetable oil production in 2011-2012 (Figure 1). In conjunction with historically low prices, relative shelf stability, and reported nutritional benefits (Bethe, 2010), this increase in market share can be attributed to the following natural characteristics of oil palm:

- Oil palms, with an average yield of 3.8-5 tonnes/ha, generate the highest yield amongst competing oil crops.
- Oil palms have an economic lifecycle of 20-25 years, and are a relatively easy to cultivate crop that bears fruit all year round.

Currently global edible oil consumption is increasing at a CAGR of ~4.9% (i.e., from 121.5 million MT in 2007 to 155.6 million MT in 2012); and as populations and incomes (particularly in India and China) increase, the demand for palm oil is only set to grow in the foreseeable future.

Figure 1: Global Vegetable Production Mix (2011–2012) – Total Global Production: 155.6 Mn MT

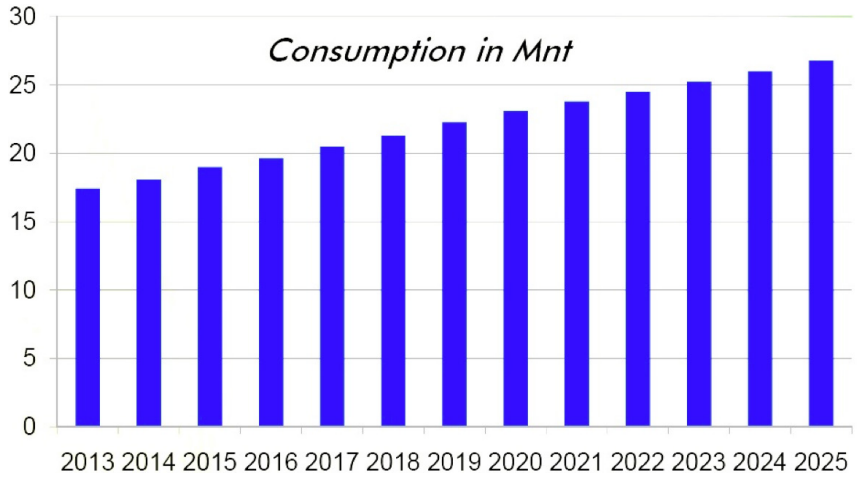


Source: WWF-India (2013) from USDA FAS

India's Palm Oil Demand

India is the world's largest importer of palm oil, having imported over 8,342,285 MT of palm oil (i.e., 19.90% of global imports) in 2013. The total demand of edible vegetable oils in India was 17.5 million MT in 2012-13, which is further estimated to rise at a rate of ~3-4% per annum to 26.78 million MT by 2025 (Figure 2).

Figure 2: Consumption of edible oils in India (2013–2025)



Source: The Solvent Extractors Association of India (2013)

India remains heavily dependent on imports of edible oil to meet domestic demand. At present around 48% of current domestic demand is being met with imports (Table 1). Also, palm oil constitutes around 80% of imported oil in India, with soft oils (i.e., soybean oil, sunflower oil and other oils) constituting the remaining 20% (Table 2).

Table 1: Net availability, imports, total availability and percentage of imported oil in total consumption for India (2005-2012)

YEAR	NET AVAILABILITY OF EDIBLE OILS FROM ALL OILSEEDS (MILLION MT)	IMPORT OF EDIBLE OIL (MILLION MT)	TOTAL AVAILABILITY/ CONSUMPTION (MILLION MT)	PROPORTION OF IMPORTED OIL IN TOTAL CONSUMPTION IN PERCENTAGE (%)
2005-06	8.32	4.48	12.73	34.69
2006-07	7.37	4.72	12.09	39.02
2007-08	8.65	5.61	14.26	39.32
2008-09	8.46	8.19	16.64	49.18
2009-10	7.95	7.96	15.90	50.03
2010-11	9.78	6.9	16.68	41.34
2011-12	9.02	8.39	17.41	48.10

Source: The Solvent Extractors Association of India Dataset

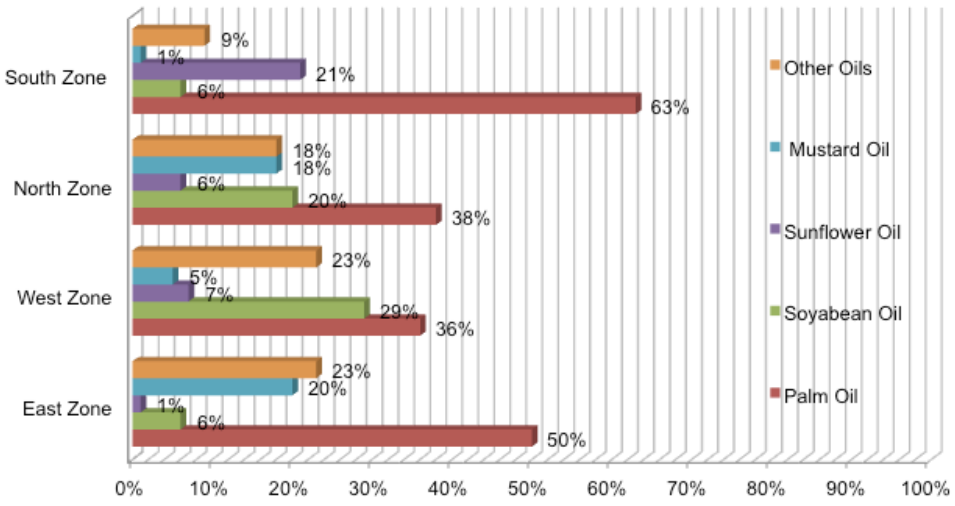
Table 2: Composition of Palm Oil in Total Edible Oils Imports of India (2009–2013)

YEAR	TOTAL IMPORTS OF PALM OIL (MILLION MT)	PROPORTION OF PALM OIL IN TOTAL EDIBLE OIL IMPORTS IN PERCENTAGE (%)	TOTAL IMPORTS OF SOFT OILS (MILLION MT)	PROPORTION OF SOFT OIL IN TOTAL EDIBLE OIL IMPORTS IN PERCENTAGE (%)
2009-10	6.49	74	2.32	26
2010-11	6.54	78	1.82	22
2011-12	7.66	77	2.31	23
2012-13	8.29	80	2.09	20

Source: The Solvent Extractors Association of India Dataset

Edible oil consumption in India is traditionally region specific (see Figure 3), with East, West, North and South Zones accounting for 25.8%, 31.2%, 22.8% and 20.2% of total edible oils consumption respectively, in India. A large part of the oil purchased in India is for household consumption or institutional uses (food processors, restaurants, and hotels). Oil in India is sold primarily (89%) in loose form and a small percentage (11%) in the branded and packaged form (WWF, 2013). In association with the fact that Indian consumers are highly price-sensitive; the pricing in international markets and governmental policies towards palm oil imports have played a major role in driving demand in India. Palm oil has dominated Indian imports since the mid-1990s – given its logistical advantages, contractual flexibility and consumer acceptance as the lowest priced oil – growing at a CAGR of ~17.09% to reach ~7.4 million MT in 2011-2012 (WWF, 2013). Palm oil is currently the single largest consumed vegetable oil in India.

Figure 3: Regional Composition of Consumption of Edible Oils in India



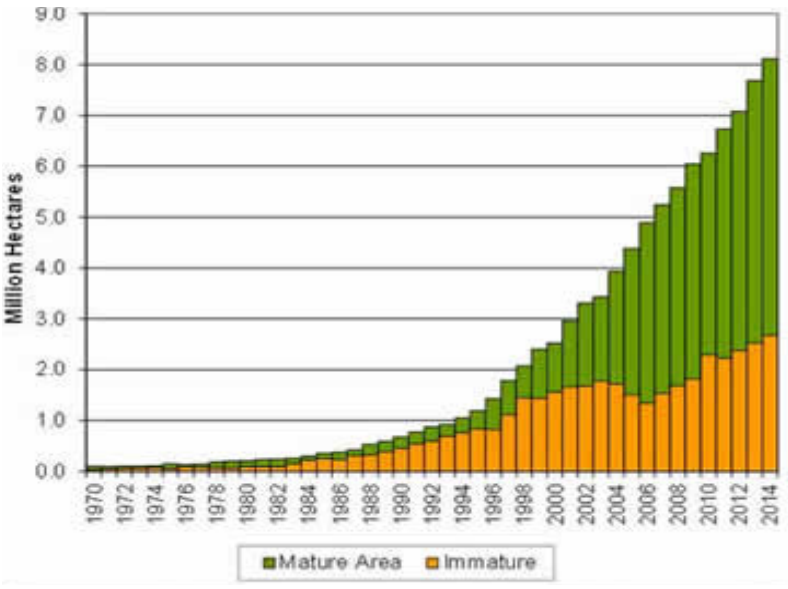
Source: Created by Author from Solvent Extractors Association of India Dataset

The Indonesian Scenario

This growth in demand for palm oil is leading to an increase in its production, primarily in Indonesia – currently the top global producer of palm oil, having produced over 28,500,000 MT of palm oil (i.e., 51.10% of global production) in 2012. Palm cultivation and production has emerged as a significant contributor to Indonesia's economic growth, with the sector accounting for 7% of national GDP and employing over 3.7 million people. With ~45% of production coming from smallholders, palm plantations have grown exponentially in the last four decades in Indonesia. In 2011, oil palm plantations covered 7.8 million ha, out of which 6.1 million ha were productive plantations under harvest (See Figure 4).

Palm oil cultivation is a primary driver behind large-scale deforestation, and as per WWF's estimates expansion of palm oil plantations is likely to cause 4 million ha of forest loss globally by 2020 (WWF-India, 2013). The impacts of such large-scale deforestation include adverse impacts on people's health and disruption of local livelihoods. At the global level, the impacts of forest loss are even more dramatic, including the release of greenhouse gases into the atmosphere that contribute to global warming.

Figure 4: Historial Area under Palm Oil Production in Indonesia (1970–2014)



Source: U.S. Department of Agriculture (2013)

Moving towards sustainable palm oil

Established in 2004, the Roundtable on Sustainable Palm Oil (RSPO) has emerged as the leading mainstream standard for palm oil. It brings together palm oil growers, oil processors, manufacturers, retailers, NGOs and palm oil investors, who have one goal in common—promoting the growth and use of sustainable oil palm. RSPO has set standards for responsible oil palm plantations, coupled with an independent system for auditing plantations, mills and the supply chain right up to the end users. At the heart of the RSPO's standards is the requirement not to clear primary forest or any land that is important for wildlife and communities. There are also standards that address soil erosion, pollution, health and safety, labour conditions and others that make up the definition of sustainable palm oil (WWF 2013).

Improving production standards and increasing production efficiency on existing land via adoption of RSPO principles can reduce the need to convert forests; thereby reducing illegality and also increasing the supply of legal, sustainable certified palm. Moreover, the benefits accruing from compliance with RSPO principles is significantly greater than the costs of compliance to sustainable production practices (Table 3), especially due to the massive scale of large oil palm operations, wherein even small gains due to improved documentation, reduced input use, etc., multiply into larger savings across the bottom line (WWF, 2012).

Issues and Challenges for Sustainable Palm Oil

Currently, approximately, half of the 'green' (certified sustainable) palm produced remains unsold because of its slightly higher cost to buyers. Moreover existing premiums are not sufficient to meet the costs of transition for producers. Hence, the fundamental rules of the game need to be changed to create systemic demand for 'green growth' palm across the sector. This needs to provide a stimulus for equitable, economic, green growth and also offers a major climate mitigation opportunity. Demand side solutions are required to match the supply side measures (such as changes in production practices, supply chain, etc.) in order for sustainable palm oil to be economically viable.

Possible solutions include establishing a differentiated tariff policy in favor of green-growth / sustainable palm oil in major markets. In order to estimate the viability of such alternative measures, it is first necessary to undertake a detailed cost-benefit analysis of the impacts of any such measure. This is necessary in order to determine how such a policy can be in the interests of both parties (the exporting and importing nations), and how to distribute the role and costs of implementation of such a policy amongst both parties.

Table 3: Costs and Benefits of Sustainable Palm Oil Production

PARTICULARS	VALUE
COSTS OF COMPLIANCE	**US$ PER HA**
Land Assessment & Management	
Identification & preparation of High Conservation Value (HCV) areas within plantations	$0.80-$5.00
Setting-aside of HCV areas within plantations	$0.00-$13.41
Environmental Impact Assessment (EIA) costs*	$1.00-$11.67
Social Impact Assessment (SIA) costs	$.0.47-$1.00
Certification Costs	
Initial Certification with necessary staffing	$2.13–$3.54
Corrective Actions	$3.74–$10.99
Training of staff, implementers, and smallholders	$0.09–$23.10
Ongoing Certification & Maintenance**	$2.43–$13.03
Segregation Costs (including required supply chain certification)	$0.30
BENEFITS OF COMPLIANCE	**US$ / %**
Operations Benefits	
Annual pesticide cost reduction	$250,000
Annual herbicide cost reduction	$73,859
Accident rate reduction	42%
Community Relations	
Reduction in social conflict and associated costs***	$1,056,000
Return on Investment (ROI) for Community Engagement	880%
Staff & Labour Benefits	
Labour turnover reduction	6%
Revenues & Market Access Benefits	
Green Palm Book and Claim premiums	$0.0-$10.0
UTZ Mass Balance premiums	$10.0-$25.0
UTZ Segregated premiums	$15.0-$50.0

*EIA is a legal requirement and is not considered an incremental cost of producing CSPO
** Typically 33–57% lower than initial certification costs
***For a period of 4 days for a typical 10,000-hectare plantation requiring a 60 MT mill.

Source: WWF, FMO and CDC, 2012

Tariffs Regimes for Palm Oil in India and Indonesia

In India, historically there have been frequent adjustments in tariffs to protect domestic oilseed producers and processors and to smooth the effect of fluctuating world prices on domestic consumers. Currently, as per the WTO norms, India has fixed its bound rate of tariffs at a high level of 300% for most oils, with the exception of soybean oil for which the bound rate was fixed at 45%. Also, from 1999, a duty difference was established between crude and refined imported oils – targeted at encouraging value addition and prompt modernisation and capacity addition in the domestic processing/refining industry. This duty difference was maintained at 27.4% until April 2003, when it was further reduced to 7.5% duty on refined palm oil imports in order to control domestic oil prices in the aftermath of a decline in domestic production of oilseeds in the country.

In January 2013, the Indian government reduced the duty difference between crude palm oil (CPO) and refined bleached and deodorised (RBD) palm oil to just 5% (from the previous 7.5%), by setting a 2.5% duty on all crude edible oils (an additional 3% education cess[1] is levied on the tariff for both CPO and RBD). This hike in tariff duty for CPO was aimed at protecting local farmers and domestic producers from a recent decline in international prices (FAO, 2013). This reduction in duty-differential between CPO and RBD has resulted in a stimulus for trade in favour of RBD (see Table 4). The same is reflected in the ratio of RBD and CPO imports of India over the past two years (Table 5).

Table 4: Impact of Imposition of Indian Import Duty for Crude Palm Oil (CPO) and Refined Bleached and Deodorised (RBD) Palm Oil

	Current Situation		Earlier Situation	
Particulars	**CPO**	**RBD**	**CPO**	**RBD**
Current price (USD)	691.0	791.7	691.0	791.7
Export duty by Indonesia (%)	16.5	8.0	16.5	8.0
Price after export duty (USD)	805.0	855.0	805.0	855.0
Import duty in India (%)	2.5	7.70	0	7.70
Tariff price for calculating duty	805.0	855.0	0%	484.0
Import duty (USD)	20.1	65.8	0	37.3
Total cost of import to Indian importers (USD)	825.1	920.9	805.0	892.3
Cost per mt. of refined CPO	1,100.0		1,073.3	
Less: By-product realisation	158.9		158.9	
Net cost per mt	941.1	920.9	914.4	892.3

Source: India Ratings; RDB: refined deodorised and bleached palm oil

Source: India Ratings and Research (2013)

1 The Education Cess is a flat tax-on-tax (of 3% of the tax itself) imposed to raise revenues for education in India

Table 5: Import of RBD Palmolein & CPO in India (Ratio)

YEAR	TOTAL IMPORTS OF RBD (MILLION MT)	RATIO OF RBD IN TOTAL PALM OIL IMPORTS (%)	TOTAL IMPORTS OF CPO (MILLION MT)	RATIO OF CPO IN TOTAL PALM OIL IMPORTS (%)
Jan–Dec 2012	1.57	20	6.11	80
Jan–Dec 2013	2.38	29	5.96	71

Source: The Solvent Extractors Association of India Dataset

Indian industry bodies such as the Solvent Extractors Association of India (SEAI) have asked for RBD tariffs and duty differential to be raised to 13.5%. According to SEAI, post-1999, the industry has invested over INR 10,000 crore (~US$ 1.6 billion) in setting up a refining capacity of 15 million tonnes. Due to the lower cost of imported refined palm oil, this capacity is being underutilised; threatening the jobs of over 500,000 people employed in the sector. In 2006, a government committee led by Dr. Ashok Lahiri, former chief economic advisor to the Government of India, recommended that the duty differential between crude and refined edible oils be maintained at 7.5%.

Given that the total demand for edible oils in India is estimated to rise at a rate of 3-4% per annum to touch 26.78 million MT by 2025; there is evidently a strong demand for palm oil in Indian markets for the foreseeable future. Indian policy so far has been to protect its domestic oil seed producers from cheaper international exporters (price declines caused as a result of increasing stocks) and protect against inflation by setting import tariffs of 2.5% on CPO. Encouraged by the recent fall in international prices and increase in domestic agricultural production, as of January 2014, India increased import duties on refined edible oils, including palm oil, to 10% (from 7.5%) to protect local oilseed growers and refiners against cheaper supplies from major exporters.

The government of Indonesia has issued several regulations regarding palm oil export. Before 1978, palm oil was an export-oriented commodity. Production and export volume increased rapidly, and export volume reached 72–99% of the total production (Djauhari and Pasaribu, 1996). In June 1991, the government reversed this policy for a domestic quota of palm oil in order to increase its export and attract more investments to the palm oil sector (Pahan, 2008) and instead issued a new policy by imposing export taxes on palm oil products in September 1994. Starting 2011, the Indonesian government introduced a differential export tax on refined and crude palm oil to guarantee the domestic availability of CPO for producing affordable cooking oil and encourage the development of higher valued added activity in the Indonesian economy. The size of the export tariff on CPO is determined based upon average prices in Kuala Lumpur, Rotterdam and Jakarta on a monthly basis. As per Finance Ministry Decree No.67 /2010, if the price of CPO reaches between US$ 1,200 to US$ 1,299 per MET, the export tariff is set at 20% and a price above this range results in the levying of the

maximum rate of 25%. With the present price hovering around US$ 800 per MET (as of Q1 2014), the tariff heading into 2014 is to remain unchanged from its end of year rate of 12%.2 To further accelerate downstream development, the government simultaneously slashed the export tax levied on refined palm oil products to 5%.

It is important to note that the cost for Indian importers to purchase CPO from Malaysia is at present a better option given that Malaysia imposes a mere 5% export tariff on CPO exports. This stems from the fact that an increase in Indonesia's effective export tax relative to Malaysia's will decrease Indonesia's CPO export assuming Malaysia's CPO export tax remains constant (Rifin Amzul, 2010). As a consequence of Malaysia's constant and lower export tax, the landing cost borne by the importer in India is US$ 848.71 per MT (after paying all Indian and Malaysian taxes) and the market cost post-refining and by-product realisation is US$ 964.71 per MT (Table 6) – making Malaysian CPO economically lucrative to Indian buyers.

Table 6: Impact of Tariffs for Crude Palm Oil (CPO) in India and Malaysia

PARTICULARS	
Current Price (US$)	788
Export Duty by Malaysia (%)	5.0
Export Duty (US$) per MT	39.4
Price after Duty (US$) per MT	827.4
Import Duty by India (%)	2.58
Tariff Price for Calculating Duty (US$)	827.4
Import Duty (US$) per MT	21.31
TOTAL COST OF IMPORT FOR INDIAN IMPORTER (US$)	**848.71**
Cost per MT of Refined CPO (US$)	1,123.61
Less: By-product of Realisation	158.9
NET COST PER MT (US$)	**964.71**

Source: Compiled by author from data obtained from www.agriwatch.com; www.bloomberg.com

At the same time, given Indonesia and Malaysia's bilateral investment (several Malaysian companies have invested significantly in Indonesia's palm oil sector in the form of opening palm oil estates and refineries) and trade dynamics (Indonesia-based Malaysian companies export CPO to Malaysia in order to process refined palm oil), an increase in Indonesia's refined palm oil export will cause a decrease in CPO export, including exports to Malaysia – leading to Malaysian CPO marked for exports being diverted to domestic refining to replace shortfalls in CPO import from Indonesia (Rifin Amzul, 2010).

2 Global Business Guide Indonesia (2014)

Supporting Differentiated Tariffs for Sustainable Palm Oil in India and Indonesia

Sustainable palm oil requires both demand-side and supply-side measures to make it economically viable in current markets. Currently around 8.2 million tons of palm oil is certified RSPO (i.e. 15% of palm oil globally) – 46.8% of which comes from Indonesia. Awareness for sustainable palm oil is limited in India, but starting to grow. As of January 2014, there are 28 RSPO member companies, organisations and traders in India. Also, there is a visible lack of premium-paying customers for sustainable products as in Europe and other developed countries – making it necessary for regulations binding adherence to sustainable palm oil (similar to the EU regulation binding 10% of all bio-fuel to be certified sustainable) in order to generate demand.

Given the price-sensitivity and low paying-capacity of a large section of Indian consumers, a more prudent demand-generating mechanism would be that of restructuring the prevailing tariff regimes in India and Indonesia to favour sustainable palm oil to make it competitive with BAU palm oil, rather than force limited-paying capacity consumers to pay unattractive higher premiums.

To illustrate this point, we estimate the impact of the imposition of differential duties on Crude Palm Oil (CPO) and Refined Bleached and Deodorised (RBD) Palm Oil in India and Indonesia based on two separate scenarios of palm oil tariffs (Table 7). The aim of differential tariffs is to ensure that landing rates and net cost per MT of sustainable palm oil are equal to that of BAU palm oil – thereby making it ideal for traders and refineries to switch to sustainable palm oil. For simplicity, the following assumptions were made in our exercise:

- According to the Solvent Extractors Association of India (SEAI) current premium price for Indian importers are US$ 20-25 per MT of Indonesian sustainable palm oil. For our analysis we assume US$ 25 premium to obtain the upper range of prices.

- As per industry estimates, domestic refining costs for refining CPO are approximately US$ 274.9 and the by-product realisation from refining process is worth approximately US$ 158.9 (India Ratings and Research, 2013).

- Indonesia imposes a 12% duty on CPO exports and 5% duty on RBD exports as per current tariff policy. Similarly, India imposes a 2.5% (+3% education cess) import tariff on CPO and 10% (+3% education cess) import tariff on RBD imports.

- It is assumed, given that prices of sustainable palm oil are equal to prices of unsustainable palm oil, Indian importers would prefer to import sustainable palm oil.

- The current ratio of crude and refined palm oils in India's total palm oil imports is 71% of CPO and 29% of RBD. In order to maintain parity, we assume that the same ratio will be maintained across all scenarios (i.e., for any quantity of sustainable palm oil being imported by India, the ratio between sustainable CPO and sustainable RBD will be maintained as 71% of CPO and 29% of RBD).

- Any loss in revenues (as compared to current BAU status) as a result of reduction in tariffs for Indonesia and India under Scenarios 1 and 2 will be funded via international funds for the development of a green economy (for example the Norway-Indonesia Forestry Fund of US$ 1 billion[3]).

The cost (as a result of revenues foregone) of such differential tariff policy in favour of sustainable palm oil, under different scenarios for India and Indonesia are listed in Table 8. The different scenarios considered in our analysis include:

- **BAU for unsustainable and sustainable palm oil** currently involves a differential tariff policy for crude (CPO) and refined (RBD) palm oil, but a singular tariff for unsustainable and sustainable palm oil.

- **Scenario 1** constitutes of a case wherein Indonesia subsidises sustainable palm oil exports by reducing its export tariff to allow for market prices of sustainable palm oil to equate with the market prices of unsustainable palm oil under BAU.

- **Scenario 2** constitutes of a case wherein both Indonesia and India make simultaneous reductions in their respective tariff policies (Indonesia being more pro-active and making more significant reductions to encourage demand for its product in Indian markets) to allow for market prices of sustainable palm oil to equate with the market prices of unsustainable palm oil under BAU.

3 Read letter of intent between Norway and Indonesia for setting up US$ 1 billion forestry fund at *www.redd-monitor.org/wordpress/wp-content/uploads/2010/05/Norway-Indonesia-LoI.pdf*

Table 7: Impact of Imposition of Differential Tariffs for BAU and Sustainable Crude Palm Oil (CPO) and Refined Deodorised and Bleached (RBD) Palm Oil in India and Indonesia

PARTICULARS	BAU FOR PALM OIL				SCENARIO 1: INDONESIA REDUCES TARIFFS OF SUSTAINABLE PALM OIL TO MATCH BAU UNSUSTAINABLE PALM OIL PRICES		SCENARIO 2: BOTH INDIA & INDONESIA REDUCE TARIFFS ON SUSTAINABLE PALM OIL TO MATCH BAU UNSUSTAINABLE PALM OIL PRICES	
	BAU UNSUSTAINABLE PALM OIL		BAU SUSTAINABLE PALM OIL					
	CPO	RBD	CPO	RBD	CPO	RBD	CPO	RBD
Current Price (US$)	783	838.3	808	863.3	808	863.3	808	863.3
Export Duty by Indonesia (%)	12.0	5.0	12.0	5.0	8.50	1.90	9.10	2.90
Export Duty (US$) per MT	93.96	41.92	96.96	43.17	68.68	16.40	73.53	25.04
Price after Duty (US$) per MT	876.96	880.22	904.96	906.47	876.68	879.70	881.53	888.34
Import Duty by India (%)	2.58	10.3	2.58	10.3	2.58	10.3	2.06	9.3
Tariff Price for Calculating Duty (US$)	876.96	880.22	904.96	906.47	876.68	879.70	881.53	888.34
Import Duty (US$) per MT	22.58	90.66	23.30	93.37	22.57	90.61	18.16	82.35
Total Cost of Import for Indian Importer (US$) per MT	899.54	970.88	928.26	999.83	899.25	970.31	899.69	970.68
Cost per MT of Refined CPO (US$)	1174.44		1203.16		1174.15		1174.59	
Less: By-product of Realisation	158.9		158.9		158.9		158.9	
Net Cost per MT (US$)	1015.54	970.88	1044.26	999.83	1015.25	970.31	1015.69	970.68

Source: Compiled by author from data availed from Fitch (2013); www.agriwatch.com; www.gbgindonesia.com

Table 8: Total revenue earned from existing sustainable palm oil tariffs and cost of subsidising sustainable palm oil (for 3.8 million MT palm oil) in Indian market via differentiated tariffs.
All figures in US$ Million unless stated otherwise

ITEM		SCENARIOS					
		BAU SUSTAINABLE PALM OIL		SCENARIO 1		SCENARIO 2	
		CPO	RBD	CPO	RBD	CPO	RBD
INDONESIA	Tariff per MT (US$)	96.96	43.17	68.68	16.40	73.53	25.04
	Quantity Sold (Mil MT)	2.725	1.113	2.725	1.113	2.725	1.113
	Tariff Revenue (US$)	264.19	48.04	187.13	18.25	200.34	27.86
	Total Tariff Revenue from Sale of CPO & RBD (US$)	312.23		205.39		228.20	
	Loss/Gain in Revenues as compared to BAU Unsustainable Palm Oil (US$)	9.57		-97.27		-74.46	
INDIA	Tariff per MT (US$)	23.30	93.37	22.57	90.61	18.16	82.35
	Quantity Purchased (Mil MT)	2.725	1.113	2.725	1.113	2.725	1.113
	Total Tariff Revenue (US$)	63.49	103.91	61.51	100.84	49.48	91.65
	Total Tariff Revenue from Purchase of CPO & RBD (US$)	167.40		162.35		141.13	
	Loss/Gain in Revenues as compared to BAU Unsustainable Palm Oil (US$)	4.97		-0.08		-21.30	
	TOTAL REVENUE GAIN/ LOSS FROM DIFFERENTIAL TARIFF POLICY (US$)	**14.54**		**-97.35**		**-95.76**	

Negative (-ve) figures indicate losses in revenue as a result of lowering tariffs on sustainable palm oil
Source: Compiled by author

Under BAU, the potential revenues from current non-sustainability differentiating tariffs regimes in India and Indonesia are US$ 9.57 million for Indonesia and US$ 4.97 million for India for trade of sustainable palm oil (constituting of 2.725 million MT of CPO & 1.113 million MT of RBD). We say 'potential' revenue, since given the price-sensitive nature of Indian consumers there exists at present no market for sustainable palm oil in India – hence in reality the revenues earned are 'zero'.

If a policy of differentiation were to be initiated to favour sustainable palm oil via establishing lower tariffs for sustainable palm oil to incentivise its demand; both the exporting and importing partners' tariff revenues would be affected (since now sustainable palm oil draws less duty as compared to earlier). These losses in revenues are illustrated under Scenarios 1 and 2 in Table 8.

Under Scenario 1, losses to Indonesian exchequer from foregone revenues due to a reducing of export tariffs for sustainable palm oil would be around US$ 97.27 million. Similarly, for the Indian exchequer to sustain a lower import tariff on sustainable palm oil the foregone benefits would be US$ 0.08 million. **The total cost of creating demand for ~3.8 million MT of sustainable palm oil under Scenario 1 would be US$ 97.35 million.**

Under Scenario 2, losses to Indonesian exchequer from foregone revenues due to a reducing of export tariffs for sustainable palm oil would be around US$ 74.46 million. Similarly, for the Indian exchequer to sustain a lower import tariff on sustainable palm oil the foregone benefits would be US$ 21.30 million. **The total cost of creating demand for ~3.8 million MT of sustainable palm oil under Scenario 2 would be US$ 95.76 million.**

Given that the actual benefits from natural capital savings as a result of implementation of RSPO principles impact Indonesia directly via a reduction in deforestation, higher productivity yields, better community management, and increased ecosystems services – the case for positive action by the Indonesian government is stronger[4]. The direct and indirect benefits of sustainable production practices in the Indonesian palm oil sector are significant value addition to the Indonesian economy – from which India, as a mere consumer of palm oil, is bereft. This in conjunction with the fact that Indian consumers are highly price sensitive makes it highly unlikely that the Indian government can accommodate a differential tariffs policy in favor of sustainable palm oil (such as in Scenario 2). Also, given that under Scenario 1 most of the costs of tariff reduction are associated with Indonesian action, it facilitates any international funding effort towards such initiative by simplifying the process. **Hence the onus of creating demand for its product falls on Indonesia, which benefits the most from it – making Scenario 1 the most feasible.**

If such a scenario were indeed implemented, it can be safely assumed that given a national consumption of over ~8 million MT of palm oil, India can very well absorb the current stocks of sustainable palm oil (~3.8 Million MT in Indonesia out of a total of 25.8 million MT production). In fact, with supply of sustainable palm oil being around half of current market demand (~8 million MT), there would exist an excess demand that would still be required to be met by BAU palm oil in immediate future.

4 There needs to be a better understanding of the actual value of benefits accruing to Indonesian people as a result of switching over to sustainable practices in palm oil production – and not just the production cost and market price values. There has to be a holistic understanding of the fact that current prices do not reflect the true cost of producing palm oil in terms of deforestation, loss of biodiversity, health and livelihoods of local populations, climate change, etc. Any increase in costs related to sustainable practices must be offset against these externalities of BAU practices.

Conclusion & Recommendation

The costs associated with such initiatives are not insignificant, but given potential benefits that such a policy can generate – by establishing a demand for sustainable palm oil in Indian markets – it is both economically and ecologically prudent. Moreover, given the relationship between the palm oil industry and deforestation, any move towards establishing sustainable practices in the sector would have a direct impact on Indonesia's forests and global climate change. Hence, there is a case for such policy instruments to be covered and funded by international funds marked for combating climate change and deforestation. One such significant fund, which can cover the costs of creating differential tariff regimes for sustainable palm oil in their entirety, is the Norway-Indonesia forest fund worth US$ 1 billion, signed in May 2010.

Given such dynamics in the international trade of palm oil, a differential tariff system supported by both countries can go a long way in creating demand in a price-sensitive market, such as India, by making sustainable palm oil price-competitive with BAU palm oil. Also, by creating demand in the Indian market for sustainable palm oil, such policy incentivises domestic processors and manufactures in India to integrate sustainability into their business model, in order to remain competitive with their Indonesian counterparts. This becomes essential for inculcating sustainable practices in the palm oil industry in future, as demand and production of palm oil in India grows, and as Indian retailers and distributors become more organised and source directly from manufacturers, at the expense of upstream growers and processors, leading to value chain disintermediation (WWF, 2013).

India is an influential and significant new economy for sustainable palm across the world and by adopting strategic policies towards certified sustainable palm oil it has the potential to set a benchmark towards international sustainable endeavours. By adopting a policy making it mandatory for Indian industries and refineries to consume sustainable palm oil, India has the ability to change market dynamics internationally.

In the case of Indonesia, the natural, social and human capital benefits accruing from switching over to sustainable practices in palm oil production – when estimated – would be significantly larger than the monetary cost of financing subsidies to sustainable palm oil. It is our opinion that a sectoral analysis to evaluate the monetary benefits to both, the industry and the nation, from large-scale implementation of sustainable practices and its impacts on natural, human and social capital externalities, would present a clear case for sustainability in the palm oil industry.

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