

An aerial photograph of a vast, dense green forest. The trees are tightly packed, creating a textured canopy. In the background, the forest meets a bright, hazy sky with some light clouds. The overall tone is natural and serene.

India's Pulp & Paper Fiber Sources

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Forest Trends /UK Aid
Pulp and Paper Legality Validation
March 19 – 20, 2014

India: Key Forest Statistics

- India has 1.85% the world's forest area; 17% of its population and 18% of its livestock
- Of 76 million ha classed as forest, 2005 SOF report concluded only 68 million ha had forest cover
- 41% of forest classed as “degraded”
- ***There is heavy use pressure on the forest***

India: Key Forest Statistics

- 275 million people live in forest areas, including 88 million “tribals” (94%)
- 100 million cattle graze in forests, well above the sustainable level of 31 million
- 175 – 200 million tonnes of green fodder also collected from forests annually
- Fuel wood harvest = 300 million m³/yr versus industrial harvest of 23 million m³/yr
- ***Key sources of degradation – fuel & cattle***

India: Key Industry Statistics

- Industry grew in last 20 years off small base
- Avg paper consumption was 4 kg/person/yr in 2000, versus global avg of 45 kg/person/yr
- In 2000, India produced 1.25% of world supply
- Significant proportion of pulp and paper from bagasse (33%), agri-fiber (8%), recycled (21%) and wood & bamboo (38%)
- Many small players – largest company 85-th in industry as measured by sales
- ***Much of industry is traditional /inefficient***

India: Wood Supply & Demand

- Timber demand estimated at 58 - 64 million m³ circa 2000; forecast to reach 153 million m³ in 2020
- Timber supply estimated at 29 million m³ in 2000, rising to 60 million m³ in 2020
- Wood supply gap now 30 million m³, rising to 93 million m³ in 2020
- ***Industry desperate for fiber***

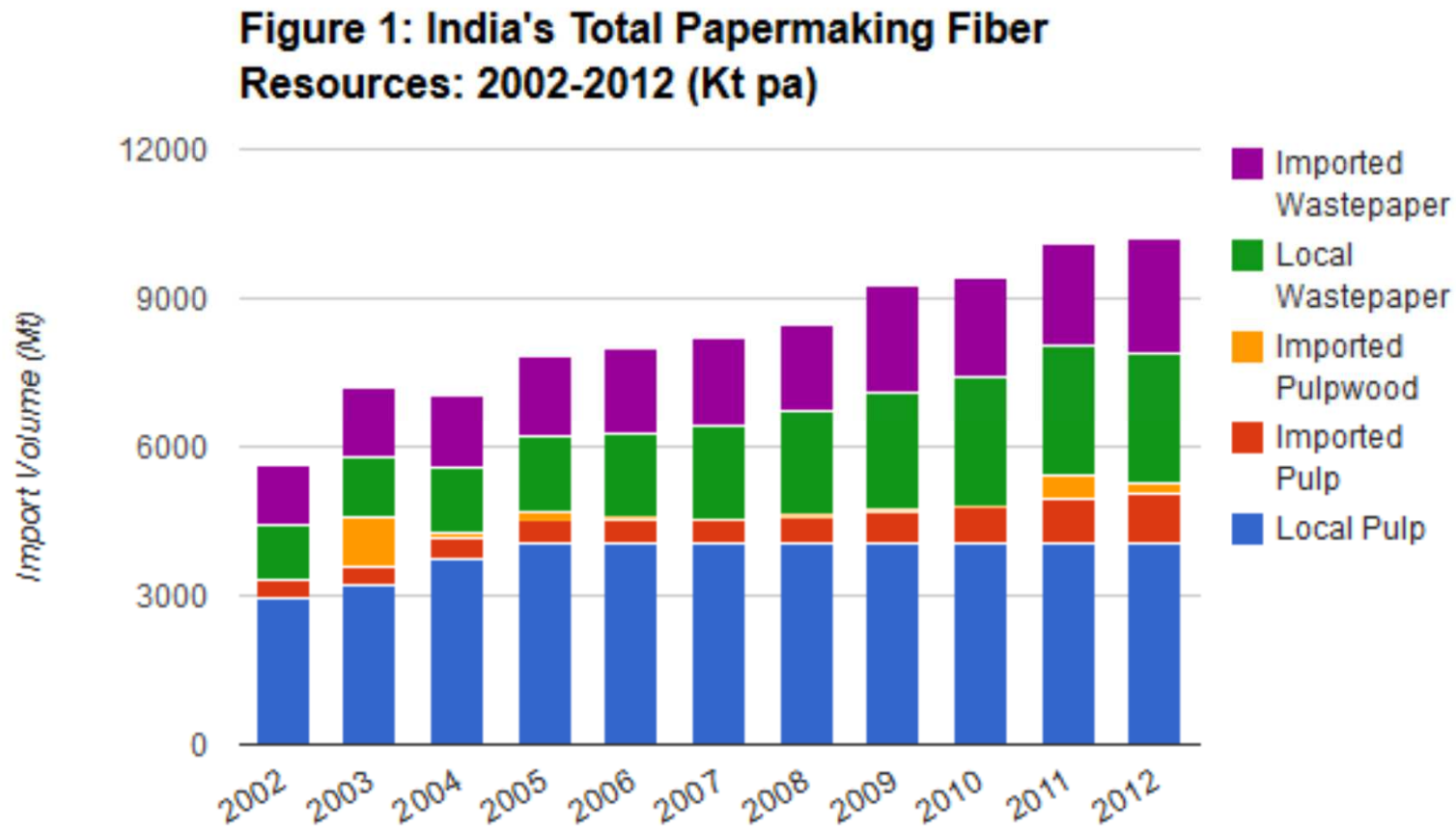
India: Wood Supply & Demand

- Forest harvest is declining; plantations should boost harvest as they become merchantable
- Most timber is used for lumber & veneer
- Of estimated 64 million m³ timber demand, forests provided 12 M m³, other (incl imports) provided 31 M m³, remainder “missing”
- ***Potentially large amount of illegal felling in country, maybe unreported imports***

India: Statistical Quality

- Numerous reporting gaps /shortfalls
- Some states do not report harvest
- Harvests from non-government land not reported or grossly underestimated
- Imported fiber poorly categorized - “other”
- “missing” fiber mentioned earlier
- More questionable numbers as we go
- ***Poor data reporting creates opportunities***

Total Papermaking Fiber by Source

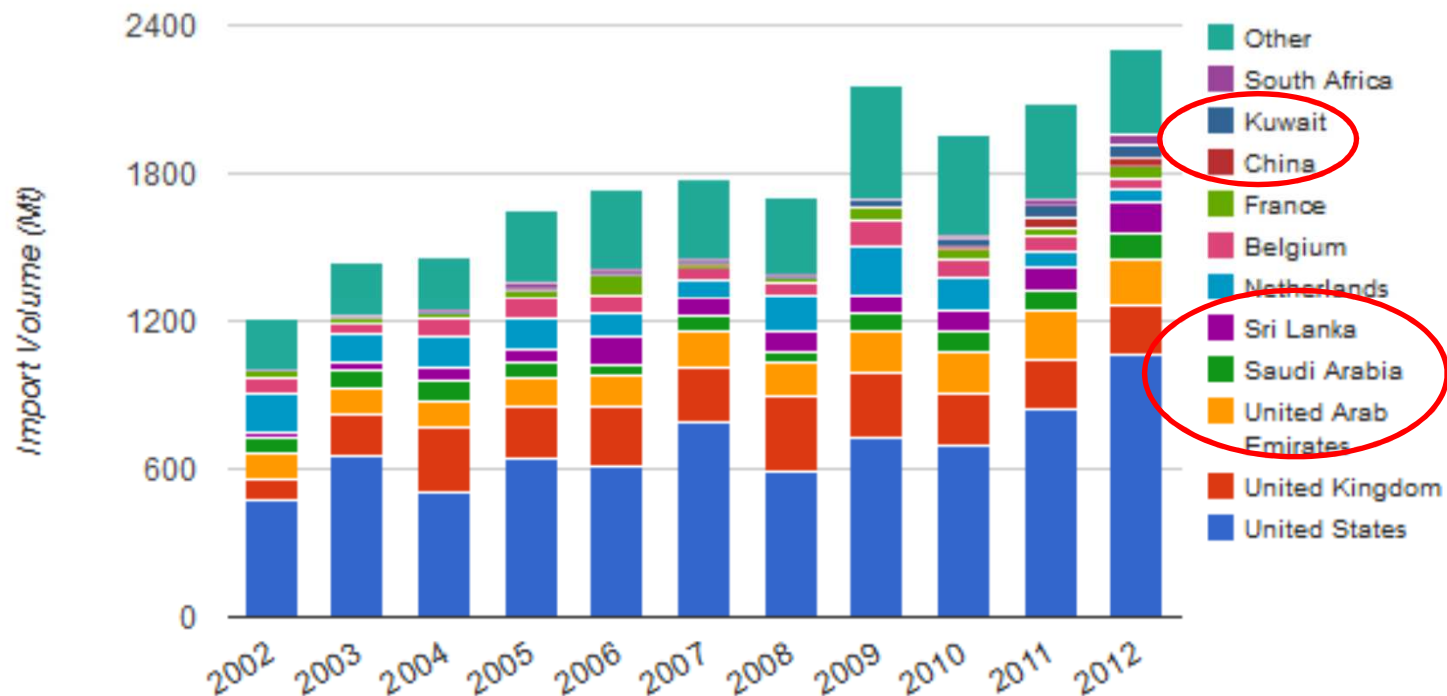


Total Papermaking Fiber by Source

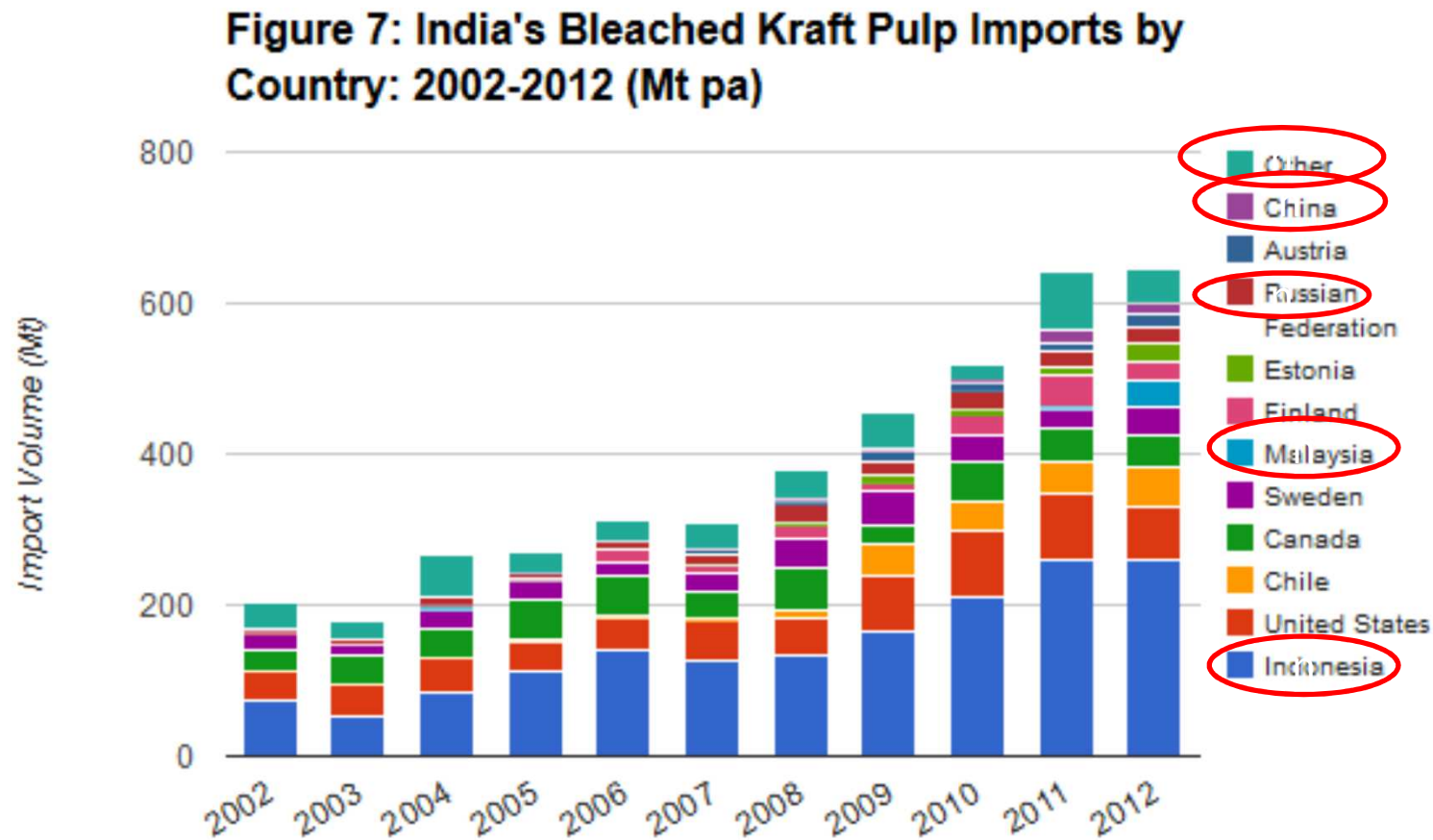
- Local pulp production reported as 4047 kt/yr from 2005 – 2012 – why no real data here?
- Little use of imported pulpwood at present
- Most “Imported Wastepaper” classed “Other”
- Sources with greatest potential for illegality include imported pulp and local pulp
- First (and only) natural forest in India was certified in Feb 2013

Wastepaper Sources

**Figure 5: India's Wastepaper Imports by Country
2002-2012 (Mt pa)**



Bleached Kraft Pulp Imports (kt)

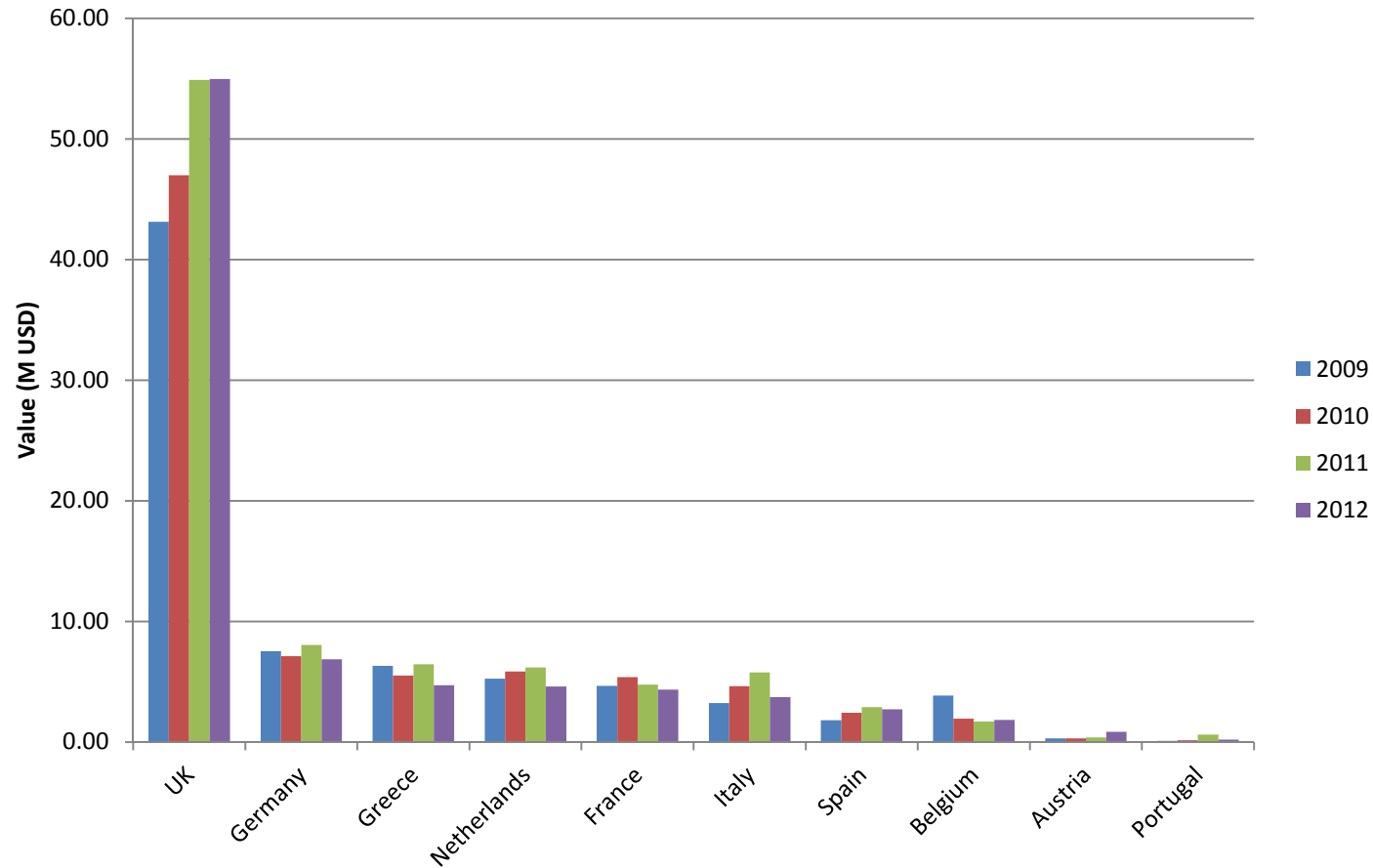


Bleached Kraft Pulp Imports (kt)

<i>Origin Country</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>% + / - pa</i>	<i>% 2012</i>
Indonesia	72	54	85	112	139	128	134	166	211	261	258	14%	40%
United States	39	41	45	40	44	50	49	74	87	86	72	6%	11%
Chile	1	1	1	1	2	4	9	42	39	42	54	49%	8%
Canada	28	37	39	54	54	36	58	22	54	45	40	4%	6%
Sweden	20	15	23	24	16	25	36	48	33	26	38	1%	6%
Malaysia	-	-	5	1	0	0	-	-	-	4	35	-	5%
Finland	1	1	2	2	19	9	18	8	27	41	25	38%	4%
Estonia	-	-	-	-	-	1	5	13	10	10	24	-	4%
Russian Federation	5	5	11	7	10	14	23	15	22	21	22	16%	3%
Austria	-	0	0	2	1	5	6	16	13	10	17	-	3%
China	1	-	0	0	0	1	2	2	4	19	16	32%	2%
Other	37	25	57	26	27	35	39	50	18	77	46	2%	7%
Total	184	179	238	269	312	308	379	456	518	643	647	13%	100%

- In 2012, suspect sources accounted for 58% of BKP imports

Main EU Importers - 48



Conclusions

- Key potential sources of illegal wood are the domestic harvest and imported pulp
- Estimate local wood based pulp production at say 33% of 4047 kt/year
- Amount of pulp from suspect source countries was 377 kt in 2012
- Estimated amount of fiber at risk of illegality is 1712 kt, or 17% of wood fibre

Conclusions

- In addition to traditional paper fiber, there is a significant import of tropical hardwoods for lumber, especially teak
- Major suppliers in 2000 were Malaysia, Indonesia, Ivory Coast, Nigeria, and Myanmar
- Chips, sawdust and other by-products may end up in supply, another potential source of illegal fiber in the pulp & paper supply chain

A photograph of a dense, misty forest. Sunlight filters through the thick canopy of green trees and foliage, creating a hazy, ethereal atmosphere. The text "Questions ??" is overlaid in white in the center of the image.

Questions ??