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Social Responsibility in Tobacco Production? Tobacco Companies Use of Green Supply Chains to Obscure the Real Costs of Tobacco Farming

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Abstract

Background—Tobacco companies have come under increased criticism because of environmental and labor practices related to growing tobacco in developing countries.

Methods—Analysis of tobacco industry documents, industry web sites and interviews with tobacco farmers in Tanzania and tobacco farm workers, farm authorities, trade unionists, government officials and corporate executives from global tobacco leaf companies in Malawi.

Results—British American Tobacco and Philip Morris created supply chains in the 1990s to improve production efficiency, control, access to markets, and profits. In the 2000s, the companies used their supply chains in an attempt to legitimize their portrayals of tobacco farming as socially and environmentally friendly, rather than take meaningful steps to eliminate child labor and reduce deforestation in developing countries. The tobacco companies used nominal self-evaluation (not truly independent evaluators) and public relations to create the impression of social responsibility. The companies benefit from \$1.2 billion in unpaid labor costs due to child labor and more than \$64 million annually in costs that would have been made to avoid tobacco related deforestation in the top twelve tobacco growing developing countries, far exceeding the money they spend nominally working to change these practices.

Conclusions—The tobacco industry uses green supply chains to make tobacco farming in developing countries appear sustainable while continuing to purchase leaf produced with child labor and high rates of deforestation. Strategies to counter green supply chain schemes include securing implementing protocols for the WHO Framework Convention on Tobacco Control to regulate the companies' practices at the farm level.

World Health Organization Framework Convention on Tobacco Control¹ (FCTC) Articles 17 and 18 require the development of economically sustainable alternatives to tobacco

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growing. Policy options and recommendations to implement these articles will be presented at the fifth session of the Conference of the Parties in fall 2012.² Articles 17 and 18 seek to address economic concerns of people and communities growing tobacco and ameliorate tobacco growing's social and environmental costs, including deforestation, soil depletion and erosion, water table pollution,^{3, 4} pesticide and nicotine poisoning of workers and child labor, particularly in developing countries.⁵⁻⁸ Tobacco farming occupies about four million hectares⁹ globally and is responsible for 4% of annual global deforestation, about 200,000 hectares annually.⁴ In addition, tobacco companies concerned with economic performance often negotiate such low prices with leaf companies that production requires child labor and debt servitude.^{5, 10, 11}

In response to growing public awareness of these issues, the tobacco industry integrated these issues into the "corporate social responsibility" (CSR) campaigns they use to build goodwill to protect their power to influence policymaking^{8, 12-20} and open and protect markets.²¹ In the 1990s, the companies created supply chains to procure tobacco leaf and improve production efficiency, and control access to markets and profits. (Before the 1990s, PM and BAT were not concerned with the tobacco growing practices for the leaf they procured from leaf buying companies.) In this paper we show that PM and BAT adapted and "greened" their supply chain practices by integrating environmental and labor considerations in the 2000s to serve their CSR campaigns in an effort to legitimize portrayals of tobacco farming as socially and environmentally friendly, while keeping actual practices essentially unchanged.

METHODS

We used the tobacco industry documents released as of August 2010 in the Legacy Tobacco Documents Library (legacy.library.ucsf.edu), initially searched with the terms "supply chain(s)," "tobacco farming," "environment," and "social responsibility in tobacco production" using standard snowball approaches,^{22, 23} including examining adjacent documents (Bates numbers) and searching names of key individuals and organizations. We screened 3,211 documents for this analysis. We searched Lexus Nexus, World Cat, the University of California library catalog, internet search engines, and tobacco industry websites for annual reports and information on social responsibility in tobacco production schemes.

Dr. Otañez conducted semi-structured interviews with 124 tobacco farm workers, farm authorities, trade unionists, government officials and corporate executives from global tobacco leaf companies during six visits to Malawi between 1998 and 2006. Semi-structured interviews were also conducted with 36 tobacco farmers in Tanzania in 2009. Interviews were conducted in accordance with protocols approved by the University of Colorado at Denver and University of California San Francisco Committees on Human Research.

RESULTS

The Tobacco Supply Chain

The supply chain consists of companies engaged in seed and crop science, tobacco growing, harvesting, leaf selling, transportation, storage, ingredient (additive) supply, cigarette manufacturing and retailing (Figure 1^{24, 25}). PM, BAT, Japan Tobacco International (JTI) and Imperial Tobacco represented 80% of leaf company Universal Corporation's business in 2006²⁶ and 68% of Alliance One's in 2008.²⁷ In 2010, BAT purchased 400,000 tons of tobacco through contracts with 250,000 farmers in developing countries through 100 BAT leaf suppliers, making BAT the world's third largest leaf company.^{28, 29}

Supply Chain Initiatives—In the 1990s, both PM and BAT reorganized their supply chains to streamline production and increase profits (Figure 1). Modeled on a successful cost-cutting initiative in its Kraft Foods subsidiary, in 1991 PM created its “supply chain initiative,”^{30,31} which by 1996-1998 sought to “manage the complete [worldwide] *leaf supply chain*, focus on reasonable margins *at all stages* to ensure continuous leaf production, balanced market conditions and to avoid further dealer concentration [emphasis in original].”³² BAT launched supply chain activities in 1995 focused on reducing costs, increasing information access, increasing control over leaf purchases.^{25, 33-39} In 1996 BAT concluded that its efforts reduced the supply chain cost 7% while increasing availability of BAT cigarettes worldwide.⁴⁰

In 2000, PM launched its “Tobacco Identity Preservation Program” (TIPP) to trace tobacco from farm to cigarette and ensure cigarettes were free from genetically modified tobacco and non-tobacco materials.⁴¹ In 2004, PM launched “Good Agricultural Practices” (GAPS), a program previously adopted by other industry groups,^{42, 43} to encourage farmers participating in the Tobacco Farmer Partnering Program to reduce tobacco-related environmental harm to water and land.⁴⁴ (We were unable to determine this initiative’s effect.)

Integrating Leaf Supply Chain into CSR

In July 1998, the BAT External Affairs Manager in Group Public Affairs reported to BAT Chairman Martin Broughton that the company’s Leaf Department had successfully publicized BAT’s environmental and agricultural performance.⁴⁵ At this point, BAT had not yet decided what to focus on in its CSR activities, but did want to do something different from other tobacco companies.⁴⁵ She noted, “Both Rothmans and Philip Morris International focus attention on the Arts and on Motor Sports sponsorship -- thus providing BAT an incentive and opportunity to do something different” in CSR.⁴⁵ In February 1999, the head of the company’s Leaf Department, in his annual “Future Business Environment” report stated, “The whole area of “social responsibility” (Agricultural Chemicals, Genetically Modified Tobaccos, afforestation, employment practices, etc) will become Global issues with escalating Global consequences.”⁴⁶ This was the first time “social responsibility” appeared in the “Future Business Environment” and contributed to the momentum for integrating tobacco production into CSR.

Similarly, in 2001 PM’s Corporate Responsibility Taskforce recommended supply chain management as a strategic priority for PM.⁴⁷ PM hired Business for Social Responsibility (BSR) to study its CSR reputation from the perspective of environmental groups, among other stakeholders, and identify external partners.⁴⁸ BSR’s confidential report concluded that environmental groups respect companies that put a high value on supply chain management.⁴⁸ These conclusions were integrated into PM’s CSR approach. At the launch of PM’s Corporate Responsibility Taskforce in October 2000, PM’s chairman stated that PM’s “goal is to redefine the role of a corporation in American society. ...To deal with our product issues and figure out how to deliver social value on a large scale.”⁴⁹ The company used external social reports to disseminate information on reductions in environmental emissions and child labor and improvements in worker safety.⁵⁰

BAT created the Eliminate Child Labor in Tobacco (ECLT) foundation in 2000 in response to criticism of its child labor practices in Malawi and elsewhere.⁵¹ PM joined ECLT after BAT created it. Referencing ECLT in 2002, PM’s Vice President of Corporate Affairs, Strategy and Social Responsibility, stated that PM’s “New Corporate Issue Management Process: came up with a new global policy [on] child labor, particularly in the supply chain[.] New understanding [in PM] that it is not just about products and the marketing-about corporate citizenship and about the whole value chain.”⁵²

Self-Reporting through Leaf Companies—In addition to internal changes, the companies also presented themselves as socially and environmentally responsible by developing self-reporting mechanisms for their leaf suppliers. Starting in 2002, and continuing through at least 2010,⁵³ PM launched the “Good Agricultural Program: Guidelines and Assessment” that presented expectations of its leaf suppliers and a method for measuring, through self-report, suppliers’ performance in six areas: mission and values (including addressing child labor), variety management and integrity, crop management, integrated pest management, sustainability (including participation in reforestation projects), and product integrity.⁵⁴

BAT’s “roadmap” for supplier self-reporting on social and environmental responsibility started in the Leaf Department. The initiative, titled “Leaf Social Responsibility Program” (Leaf SRP), was based on a similar approach BAT used beginning in Germany⁵⁵ in 1996 to maintain cigarette blend integrity and supply security.⁵⁵ In 2000, BAT expanded Leaf SRP into a company-wide CSR program, “Social Responsibility in Tobacco Production” (SRTP), nominally to ensure that the global suppliers who provided BAT with 40% of its leaf^{56, 57} to “score the social responsibility aspects of tobacco production through a road mapping approach.”⁵⁸ The roadmap, consisted of guidelines, rating criteria, and an action plan for BAT leaf suppliers, including addressing child labor, rural development and deforestation⁵⁹ (Figure 2⁶⁰). On December 8, 2000, Robin Crellin, head of BAT’s Leaf Department, emailed BAT’s Corporate Communication Manager, reporting that “all 120 or so external Leaf Merchant Companies that BAT use or may in future choose to use for Leaf Supply have been personally briefed by members of Leaf Technology in the self-assessment Map and Action Plan, and 110 or so responses have been received so far.”⁶¹

The rating criteria fail to address issues of living wages or freedom of association to form trade unions. Rather than using truly independent assessors, BAT has the leaf suppliers rate themselves as through a voluntarily self-assessment. Self-assessment may produce data that are unreliable, subjective and superficial.⁸

Use of “Independent” Partners

BAT, PM and other tobacco companies also promoted their image of social responsibility by partnering with nominally independent, but affiliated, organizations for green supply chain initiatives and evaluations.

BAT: LeafTc (Leaf Technology Consultancy)—BAT’s webpage “Our SRTP Reviews” where BAT listed leaf suppliers’ scores as of May 15, 2010, stated that “the reviews are carried out for us by an independent consultancy, LeafTc” (Leaf Technology Consultancy) and provides a link to LeafTc’s website.⁶² Established in April 2002, LeafTc manages CSR for several clients with a “mission to improve standards in the agribusiness supply chain as they relate to crop production and processing.”⁶³

LeafTc’s co-founders and co-directors, Robin Crellin and Adrian Barnes, worked for BAT from 1972 to 2002 and 1976 to 2001, respectively, where they developed BAT’s SRTP roadmap.⁶⁴ LeafTc’s website did not mention their work history with BAT as of May 15, 2010, but did state that “The SRTP Programme was designed to complement and further enhance the ‘SRTP Roadmaps’ as developed by British American Tobacco”⁶⁵ In 2005, BAT in “Roadmaps and our SRTP reviews” in its *Social Report 2004/5* stated that, “roadmaps stimulate self-driven continuous improvement. They help suppliers to progress at rates suited to particular development, financial and technical circumstances.”⁶⁶ (While BAT was LeafTc’s first tobacco client, other companies followed.^{67, 68})

Public relations statements about SRTP success did not mean behavior change by leaf suppliers. Ethnographic data obtained by Otañez from tobacco farmers in Malawi and Tanzania and literature on the socio-ecological costs of tobacco^{3, 69, 70} show US-based Universal Corporation and Alliance One International continuing to purchase leaf produced by child labor, perpetuate debt servitude schemes for tobacco farmers, and contributing to deforestation through tobacco growing.

In 2005, BAT revised its SRTP roadmaps to include use of wood for tobacco barn construction and other biodiversity issues (these issues are unstated but may refer to use of agrochemicals and impact on water tables and soil nutrients).⁷¹ In 2005, Crellin stated in a presentation at the Business and Biodiversity Resource Center, a corporate greenwashing group based in Oxford, UK, that SRTP biodiversity had impacted 150 tobacco suppliers in 50 countries and 1,000,000 growers.⁷¹ (Corporate greenwashing describes practices of corporations to present themselves as promoting environmentally sustainable activities such as reforestation projects in their public relations activities to improve corporate images without fundamentally changing core business practices.⁷²) The results discussed by Crellin refer only to suppliers and growers who agreed to use a LeafTc form to conduct annual self-assessments and report the results to LeafTC.

PM: Total LandCare—One of PM's first public relations supply chain projects was with the International Research and Development Department at Washington State University (WSU) in the United States. In 1999, WSU professors Trent Bunderson and Ian Hayes, and Zwide Jere, an agricultural scientist and former land husbandry officer with Malawi's Ministry of Agriculture and Irrigation, created Total LandCare, a nongovernmental organization operating in Malawi, Mozambique, Zambia, Tanzania, the Philippines and Argentina.⁷³⁻⁷⁵ (We could not determine PM's role, if any, in creating Total LandCare.) According to Philip Morris International's "Grower community program plan year 2000,"⁷⁶ PMI's senior management in Europe approved Total LandCare's agriculture program, which was to "be overseen by the Leaf/Operations department in CEMA [PMI's Central Europe, Middle East and Africa region]."⁷⁶ In June 2001, Total LandCare and PM, launched the Agroforestry Partnership Program, a five-year project to reduce deforestation and soil degradation in Malawi,⁷⁷ with PM providing \$605,000 in 2001-2006.⁷⁸ PM is Total LandCare's largest contributor, providing more than \$14 million since 2001.⁷⁹ Total LandCare is a partner in a forestation project in Malawi funded by the tobacco industry's ECLT,⁵¹ which provided \$900,000 to Total LandCare in 2002-2010.⁸⁰

PM executive Theodor Baseler,⁸¹ because he was a member of WSU Foundation board,⁸² may have played a role in arranging PM funding of Total LandCare. From 2001-2010, PM provided grants to WSU and WSU Foundation for tobacco-related reforestation projects, water and soil conservation, and farm productivity, totaling \$20.9 million for 2006-2013.^{74, 83} In 2006, WSU Foundation honored PM for its commitment to WSU in working to promote sustainable development in Malawi and southern Africa.⁷⁷

Total LandCare also received money from the US Agency for International Development (\$9 million), the Community League of the USA (\$234,000) in 2000-2006⁷⁴ and the government of Norway (\$5.5 million) in 2008-2010.⁸⁴

Between 2005 and 2010 Total LandCare also received money for supply chain social responsibility schemes from Imperial Tobacco,⁸⁵ Alliance One International, Universal, and JTI, including loaning money to Tanzanian farmers to purchase oxen and equipment necessary to grow tobacco^{86, 87} and developing reforestation projects⁸⁸ in Malawi and Tanzania.^{89, 90} These projects had little effect on farmers. Weaknesses of the oxen initiative include the high cost of oxen and the short period to repay loans to buy them.⁹¹ (We have

been unable to determine the interest rates for these loans.) A pair of oxen and associated training costs \$320,⁸⁶ which is beyond the reach of most of the 80,000 tobacco farmers in Tanzania who earn \$200 a year.⁹²

In 2005, Universal Corporation's Malawi subsidiary Limbe Leaf and German Technical Cooperation, a private global group promoting legitimate sustainable development, collaborated to promote rocketbarns that reduce wood use by 50% for curing.⁹³ After 2005, Imperial Tobacco, Alliance One, Japan Tobacco International (JTI), and PM also funded rocketbarns.⁹³ Initial seed funds and some subsequent funding include \$5,000 from Alliance One, \$60,000 from PM, and \$16,000 from JTI.⁹⁴ (Imperial Tobacco does not report funds for the rocket barn project.⁹⁵) The project has had little impact on wood use because each rocketbarn costs \$700,⁹³ too expensive for Malawians, 65% of whom survive on \$2 a day or less.⁹⁶ As of September 2010 about 1,000 barns on approximately 1,000 tobacco farms out of a total of 400,000 tobacco farms in Malawi had been installed.⁹⁷

Participation in Global CSR Business Groups

Tobacco companies participate in truly independent reviews of their supply chain environmental responsibility efforts. UK-based Carbon Disclosure Project (CDP) is an independent not-for-profit organization that helps corporations greenwash their environmental records^{98, 99} founded in 2000, which developed a method¹⁰⁰ to report companies' carbon footprint throughout their supply chains;¹⁰¹ JTI submitted CDP questionnaires in 2003-2007, Imperial in 2004-2007, and Altria (PM) and BAT's Reynolds American starting in 2007.¹⁰⁰

UK-based Imperial Tobacco, the fourth largest cigarette manufacturer, is a pilot member in CDP's "Supply Chain Leadership Collaboration." In 2008, Imperial's manager of social responsibility and occupational health and safety said Imperial collaborates "with the CDP on the development of a simple and effective cross-industry framework to assess climate change risks and opportunities across supply chains, as well as to account for their greenhouse gas emissions. Our aim is to prepare ourselves and our suppliers step by step for a marketplace where measuring and managing carbon is no longer optional, while keeping the administrative burden to a minimum."¹⁰¹ Tobacco industry participation in CDP allowed companies to be listed on CDP website as corporate participants, contributing to the companies' efforts to obtain legitimacy for their environmental responsibility activities, and enabling companies to promote their participation in CDP in their own corporate social and annual reports.

Environmental and Social Costs of Tobacco Production Remain Essentially Unchanged

BAT's SRTP project was flawed from the outset. BAT international development affairs manager Opukah, told delegates at a BAT-organized 2000 child labor conference in Kenya that SRTP "covers all the major areas of tobacco production in the supply chain such as integrated crop management, tobacco processing, workplace environment health and safety, and socioeconomic factors like child labour, farmers' living standards and capacity building."⁵⁹ In contrast, on September 26, 2000, two weeks before the Kenya conference, an official with Malawi Africa Leaf, a subsidiary of Tribac Leaf tobacco supply company in Zimbabwe, responded to BAT's road map questionnaire, reporting that "in a peasant producing environment it often impossible to enforce these [SRTP] commitments on family run units."⁶⁰ Between 2001-2009, BAT conducted 212 SRTP reviews in over 15 countries, reviewing 96% of the 100 operations of BAT's leaf suppliers.⁶² BAT found that leaf suppliers' scores out of a maximum of four points each for "social responsibility policy," "tobacco processing," "agronomy," and "socio-economic factors" increased from an average of 3.04 (out of 4.00) to just 3.14 from 2005 to 2009.⁶² (A score of 3 is "Adequate and

proactive risk management but does not manage all risks systematically” and 4 is “Management to best international practice standards” (score 4).⁷¹) In the 2000s BAT emphasized responsibility in tobacco production and performance reviews of leaf suppliers to make the company and tobacco farming appear socially and environmentally friendly.

In 2009 during discussions between one of the authors (Otañez) and tobacco farm workers in Tabora, Tanzania, Africa’s third largest tobacco growing country, farm workers revealed that tobacco growing in Tanzania is characterized by child labor, debt servitude of tobacco farmers due to high debts to tobacco companies, and downgrading of (assigning a lower quality to) leaf by tobacco companies. Tabora produces 60% of tobacco grown in Tanzania,¹⁰² and is the site of child labor and reforestation projects funded by through the industry’s ECLT Foundation and administered through Total LandCare. However, farm workers indicated that representatives from Alliance One International, a US-based leaf company with subsidiary operations in Tanzania and that sells through pre-arranged contracts with PM, BAT, JTI and Imperial Tobacco, knowingly buy tobacco from farms where child labor persists in Tanzania and other developing countries.

Tobacco industry reforestation schemes have little or no positive impact because the trees planted are non-native and used for tobacco production. Planting eucalyptus, cypresses and other non-native plants is problematic because the trees absorb excessive amounts of water that harm food crops and reduce drinking water tables. Moreover, the fast-growing trees are used for tobacco curing not replenishing forests destroyed by tobacco growing.¹⁰³ Support from BAT to farmers of tree seedlings for reforestation is limited and inconsistent.¹⁰⁴ In 2010, after three decades of tobacco industry tree-planting initiatives in Kenya, massive deforestation persists in the country’s key tobacco growing areas.¹⁰⁵

Cost Effectiveness of CSR

Through Total LandCare and ECLT, BAT, Philip Morris, Japan Tobacco, and Imperial Tobacco budgeted \$22.2 million over the 13 years from 2001 to 2014 for social responsibility projects aimed at reducing tobacco-related child labor and deforestation in Malawi, Tanzania, Mozambique and Zambia. Total LandCare reported that in 2007-2008, it planted 1.7 million trees in Malawi and 2 million in Tanzania.⁸⁹ JTI’s tree planting project amounts to about 6% of the annual costs of tobacco-related deforestation in Malawi (\$6.4 million) and Tanzania (\$1.4 million) (Table 1). In comparison, tobacco companies benefit from cost savings due to child labor (Table 2) and deforestation (Table 1). (These estimates do not include the benefits to the companies of many other social and environmental costs that they avoid.) These two benefits alone come to \$97.1 million/year for the tobacco companies, about \$1.2 billion over 13 years, over 50 times the \$22.2 million they spent on their CSR supply chain activities in these countries through ECLT and Total LandCare.

DISCUSSION

PM, BAT and other cigarette companies developed supply chain projects in the 1990s to increase control over the production process, which were used to foster images of corporate responsibility in tobacco farming in the 2000s. At the same time, the companies saved and estimated \$1.2 billion/year (Table 2) that could have been used to pay for children’s labor and reforestation in tobacco growing developing countries, far exceeding their expenditures directed at nominally addressing these problems. Tobacco industry programs failed because problems of child labor and deforestation are too intractable for easy solution, and industry programs are inherently flawed.

Critics have attacked such self-proclaimed “ethical and green business” practices as public relations schemes to improve corporate images and expand market shares without

fundamental changes in core business practices.¹²³⁻¹²⁵ Through reforestation, soil protection, and child labor prevention projects in tobacco growing countries, tobacco manufacturers make it more difficult for officials and policymakers in health ministries to argue for crop diversification and alternative livelihoods for tobacco farmers as required by FCTC Articles 17 and 18. Tobacco industry reforestation schemes contribute to a situation where government officials and health policymakers in developing countries without revenues to operate their own reforestation scheme are reluctant to criticize tobacco companies or jeopardize tobacco company money available for reforestation.^{6, 126} Association with social and environmental responsibility may weaken opposition from public health and civil society groups to industry interference in tobacco control policy by making it politically more difficult to criticize tobacco companies.

Tobacco company partnerships with development organizations such as Total LandCare, “independent” consultants such as LeafTC, and corporate ethical groups such as the Carbon Disclosure Project are key elements in CSR in tobacco production schemes. These entities congratulate companies for their environmental improvements and produce positive news stories tobacco companies circulate to legitimize their claims of green supply chains and environmentalism.¹²⁷⁻¹³⁰

Imperial Tobacco and JTI joined CDP to demonstrate the company’s commitment to publicly report greenhouse gas emissions and portray themselves as corporate pioneers in creating green tobacco supply chains. However, disclosure and voluntary partnership with CDP does not mean superior performance¹³¹ because CDP is a commercial organization with no enforcement mechanisms.¹³² Tobacco companies that report their greenhouse gas emissions through CDP may experience a competitive advantage¹³³ and increased shareholder value and better treatment by investors with growing public consciousness of climate change.¹³⁴

In August 2010, the United States Securities and Exchange Commission alleged that Universal Corporation and Alliance One International, companies that purchase leaf from developing countries for Philip Morris and BAT, paid more than \$5 million in bribes to government authorities in Malawi, Mozambique, China, Greece, Indonesia, and Kyrgyzstan, practices inconsistent with CSR claims.¹³⁵

In 2010, the US Department of Labor formally listed tobacco from Malawi as being produced using forced child labor in violation of international standards¹³⁶ over the Malawi government’s 2009 objection that “the damage to Malawi’s image would be enormous.”

Findings from interviews and field research show that future research and policy interventions to prevent the tobacco industry from using CSR in tobacco production supply chains to enhance corporate reputations without making meaningful change require a focus on the farm-level activities of tobacco companies that contradict genuine sustainability as well as transparency and human rights. More research is needed on the experiences of tobacco farmers and farm workers involved in industry-funded social responsibility in tobacco production schemes.

At the fifth session of the Conference of the Parties in South Korea in fall 2012, the WHO Working Group on Economically Sustainable Alternatives to Tobacco Growing plans to submit a working report that may include policy options and recommendations.² Articles 17 and 18 on economically sustainable alternatives to tobacco represent a potential vehicle to systematically document child and bonded labor and deforestation along the tobacco supply chain and reduce economic dependence on tobacco farming over a generation or more in developing countries. Moreover, it is an opportunity to secure implementing protocols for the FCTC that will impose legal restrictions on the tobacco companies’ practices at the farm

level. In particular, it is important to put any CSR projects and claims of progress in the context of the total social and environmental costs of tobacco production rather than accepting industry claims at face value.

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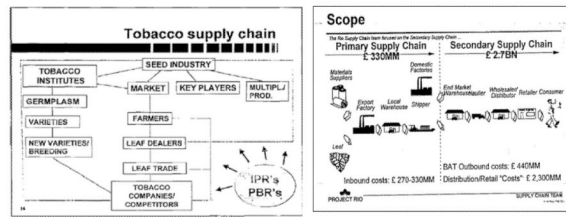


Figure 1. Philip Morris' tobacco supply chain in 1998²⁴ (left) and British American Tobacco's in 1996²⁵ (right). (IPR: Intellectual Property Rights; PBR: Plant Breeder's Rights.)

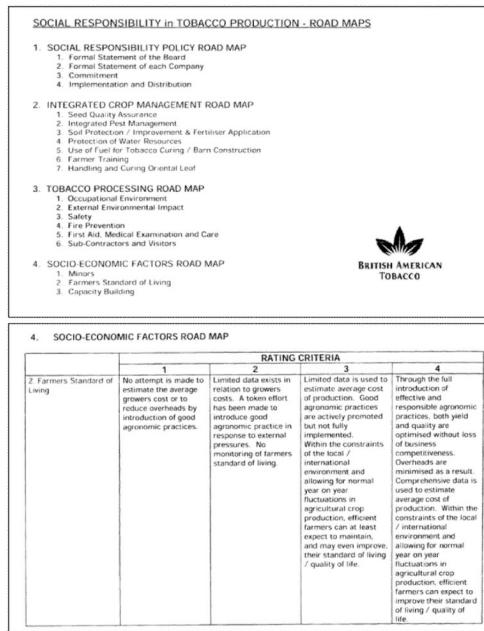


Figure 2. (Top) British American Tobacco’s “Social Responsibility in Tobacco Production: Road Maps” and (bottom) “Socio-Economic Factors Road Map” outline the company’s efforts to integrate supply chain activities and corporate social responsibility schemes to make tobacco farming appear socially and environmentally sustainable.⁶⁰

Table 1

Costs of Deforestation in Selected Tobacco-Growing Developing Countries¹⁰⁶

	Production Metric Tonnes 2008	Global Tobacco Leaf Production % 2008	Land Devoted to Tobacco Production (hectares) 2008	Annual Costs of Tobacco-Related Deforestation* (US\$ millions)	Tobacco-related deforestation rates ¹⁰⁷ (per year)
Brazil	850,000	12	431,000	17.2	NA
India	520,000	8	370,000	14.8	NA
Argentina	170,000	2	92,000	3.6	4
Indonesia	170,000	2	199,000	7.9	NA
Malawi	160,000	2	162,000	6.4	27
Pakistan	108,000	2	51,000	2.0	27
Turkey	100,000	1	121,000	4.8	NA
Zimbabwe	79,000	1	52,000	2.0	27
Thailand	70,000	1	40,000	1.6	1
Mozambique	64,000	1	33,000	1.3	NA
Tanzania	51,000	1	37,000	1.4	4
Zambia	48,000	1	45,000	1.8	1
Total Selected	2,390,000	34	1,632,000	64.8	NA
Total World	6,881,000	100	4,000,000 ⁹	160.0	NA

* Based on an estimated \$40/hectare in non-timber value per hectare.¹⁰⁸ The figure of \$40 of land depleted of trees "comes from adding the value of various services that forests perform, such as providing clean water and absorbing carbon dioxide."¹⁰⁹ The figure does not specifically refer to the economic value of the trees themselves. This cost estimate does not include the value of lost recreation, bioprospecting, watershed protection, or carbon sequestration.¹⁰⁸

NA, Not available.

Table 2

Costs of Child Labor in Selected Tobacco Growing Developing Countries

	Total Employment in Tobacco Growing	Child Laborers in tobacco farming (14 years and younger)	Minimum daily wage, US\$	Unpaid Costs of Child Labor (child laborers X daily wage X 198 days), US\$ (million)
Brazil	910,000 ¹¹⁰	166,400 ¹¹¹	8.40	276.8
India	850,000 ¹¹²	500,000*	3.00	297.0
Argentina	156,000*	34,000*	15.00	100.0
Indonesia	683,603 ¹¹³	170,900 ¹¹⁴	0.40 ¹¹³	13.5
Malawi	586,000 ¹¹²	72,000 ⁵¹	0.75	10.7
Pakistan	80,000 ¹¹⁵	20,000*	2.00	7.9
Turkey	586,616*	117,323*	18.00	418.1
Zimbabwe	100,000 ¹¹²	6,400*	1.00	1.3
Thailand	31,708 ¹¹²	6,341*	4.50	5.6
Mozambique	124,000 ¹¹⁶	96,000 ¹¹⁷	2.00 ¹¹⁸	38.0
Tanzania	200,000 ¹¹⁹	80,000*	1.25	19.8
Zambia	60,000 ¹²⁰	30,000 ¹²¹	3.00 ¹²²	17.8
Total Selected	4,367,927	1,299,364		1,206.6
World Total	40,000,000 ¹¹²	NA		

* Estimate;

NA Not available.