

Understanding illegal logging in Ghana: A socio-legal study on (non)compliance with logging regulations

Boakye, J.

Citation

Boakye, J. (2020, October 14). Understanding illegal logging in Ghana: A socio-legal study on (non)compliance with logging regulations. Meijers-reeks. Retrieved from https://hdl.handle.net/1887/137750

Version:	Publisher's Version
License:	<u>Licence agreement concerning inclusion of doctoral thesis in the</u> <u>Institutional Repository of the University of Leiden</u>
Downloaded from:	https://hdl.handle.net/1887/137750

Note: To cite this publication please use the final published version (if applicable).

- Adam, K.A., Pinard, M.A., Swaine, M.D., 2006. Nine decades of regulating timber harvest from forest reserves and the status of residual forests in Ghana. *International Forestry Review 8 (3): 280-296*
- Adam, K.A., Nsenkyire, R. 2014. Challenges to timber business operations in Ghana. Presentation at the First National Forest Conference on the Contribution of Forests to Ghana's Economic Development. Organised by the Forestry Research Institute of Ghana (FORIG) in Collaboration with the Forestry Commission, Ghana, September 2002. Kumasi-Ghana.
- Affum-Baffoe, K., 2002. Results of the 2001 multi-resource inventory project. Presentation at Resource Management Support Centre, Kumasi, September 2002. Resource Management Support Centre, Kumasi-Ghana.
- Affum-Baffoe, K., 2008. The status of Ghana's forest (timber) resources. Report presented at Forestry Commission's Seminar, March 2008. Kumasi-Ghana.
- Affum-Baffoe, K., 2011. The status of Ghana's forest (timber) resources. Report presented at Forestry Commission's Seminar, November 2011. Kumasi-Ghana.
- Akella, A.S., Cannon, J.B., 2004. Strengthening the weakest links: Strategies for improving the enforcement of environmental laws globally: Center for conservation and government at conservation international.
- Alder, D., 1989. Natural forest increment, growth and yield in Ghana. In Wong, J.L.G (ed.) Proceedings of Forest Inventory Project, 29-30 March 1998, Accra. Forestry Department. Kumasi-Ghana. Pp. 47-52
- Ameyaw, J., Arts, B., Wals, A., 2016. Challenges to responsible forest governance in Ghana and its implications for professional education. *Forest Policy and Economics* 62, 78-87.
- Anin-Bonsu, E., 1970. What do we do with over-mature timber trees in Ghana? Report presented at Forestry Department's Seminar, November, 1970. Sunyani, Ghana.
- Anon, 1950. Forestry Department Annual Report, Accra, Ghana
- Anon, 1970. Forestry Department Annual Report, Accra, Ghana
- Anon, 1980. Forestry Department Annual Report, Accra, Ghana
- Anon, 1990. Forestry Department Annual Report, Accra, Ghana
- Anon, 1995. Forestry Commission Manual of Procedures, Accra, Ghana
- Anon, 2005. Forestry Commission Annual Report, Accra, Ghana
- Appiah, M., Blay, D., Damnyag, L., Dwomoh, F.K., Pappinen, A., Luukkanen, O., 2007. Dependence on forest resources and tropical deforestation in Ghana. *Environment, Development and Sustainability* 11 (3): 311-318
- Arias, A., 2015. Understanding and managing compliance in the nature conservation context. *Journal of. Environmental Management* 153, 134-143.
- Ascher, W., 2000. Understanding why governments in developing countries waste natural resources. *Environment: Science and policy for sustainable development*, 42 (2), 8-18.

- Ayres, I., Braithwaite, J., 1992. Responsive regulation: Transcending the deregulation debate. Oxford University Press.
- Baldwin, K., 2016. The paradox of traditional chiefs in democratic Africa. New York, Cambridge University Press, 253 pp.
- Bardach, E., Kagan, R. 1982. Going by the book. In: The problem of regulatory unreasonableness. Temple Univ. Press, Philadelphia.
- Becker, G.S., 1968. Crime and punishment: An economic approach. *Journal of Political Economy* 76 (2): 169-217.
- Beeko, C., Arts, B., 2010. The EU-Ghana VPA: A comprehensive policy analysis of its design. *International Forestry Review* 12(3): 221-230.
- Bernard, H.R., 2011. Research methods in Anthropology: Qualitative and quantitative approaches. 5th ed. AltaMira Press, Rowman and Littlefield Publishers, Lanham.
- Birikorang, G., Hansen, C.P., Treue, T., 2007. Fiscal study report. Validation of legal timber programme. Forestry Commission, Accra.
- Birikorang, G., Okai, R., Asenso-Okyere, K., Afrane, S., Robinson, G., 2001. Ghana wood industry and log export ban study. Forestry Commission report to the Ministry of Lands and Forestry, Forestry Commission, Accra.
- Birikorang, G., Rhein, M., 2005. Reforming Ghana's Forest Fiscal Regime Draft Status Report- Phase 1. Forest Sector Development Project. Accra, Ghana.
- Blay, D., Appiah, M., Damnyag, L., Dwomoh, F.K., Luukkanen, O., Pappinen, A., 2007. Involving local farmers in the rehabilitation of degraded tropical forests: some lessons from Ghana. *Environment, Development and Sustainability* 10: 503-518
- Blundo, G., Olivier de Sardan, J. P., 2001. La corruption quotidienne en Afrique de L'Ouest are. Politique Africaine 83, 8-37.
- Blundo, G., Olivier de Sardan, J. P., 2006. Everyday corruption and the state: Citizens and public officials in Africa. London &New York: Zed Books
- Boakye, J., 2003. Training needs analysis in Forest Services Division, Ghana. MA thesis. Kwame Nkrumah University of Science and Technology, Kumasi-Ghana 132pp
- Boakye, J., 2015. Estimation of illegal logging by the formal logging firms in Ghana: Implications for forest law compliance, enforcement and the Ghana-EU voluntary partnership agreement. *International Forestry Review* 17(2): 1-11
- Boakye, J., 2018. Understanding motivations for violation of timber harvesting regulations: The case of chainsaw operators in Ghana. *Forest Policy and Economics* 87, 85-92
- Boittin, M.L., 2013. New perspectives from the oldest profession: Abuse and the legal consequences of sex workers in China. *Law & Society Review* 47:245-78
- Brack, D., 2003. Illegal logging and the illegal trade in forest and timber products. *International Forestry Review* 5(3): 195-198
- Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. Qualitative Research in *Psychology*, *3* (2): 77-101
- Catedrilla, L.C., Espectato, L.N., Serofia, G.D., Jimenez, C.N., 2012. Fisheries law enforcement and compliance in District 1, Iloilo Province, Philippines. *Ocean and Coastal Management* 60, 31-37
- Cerutti, P.O., Tacconi, L., Lescuyer, G., Nasi, R., 2013. Cameroon's hidden harvest:commercial chainsaw logging, corruption and livelihood. *Society and Natural Resources* 26(5):539-553

120

- Cialdini, R. B., 2007. Descriptive social norms as underappreciated sources of social control. *Psychometrika* 72 (2):263-268.
- Cohen, M.A., 2000. Empirical research on the deterrence effect of environmental monitoring and enforcement. *Environmental Law Reporter* 30(4), 10245-10252
- Coleman, J.W., 1987. "Towards an integrated theory of white-collar crime" American Journal of Sociology 93:406-39
- Contreras-Hermosilla, A., 2001. Law compliance in the forestry sector. An Overview. World Bank Institute, Washington DC.
- Contreras-Hermosilla, A., 2007. Forest law enforcement and governance programme: Review of implementation. The World Bank, Washington, D.C.
- Contreras-Hermosilla, A., Peter, E., 2005. Best practices for improving law compliance in the forestry sector. FAO Forestry Paper 145. Rome.
- Cooney, S., 2007. China's labour law, compliance and flaws in implementing institutions. *Journal of Industrial Relations* 49, 673-686
- Derkyi, M.A., 2012. Fighting over forest-Interactive governance of conflicts over forest and tree resources in Ghana's high forest zone. Ph.D. dissertation. African Studies Centre, Leiden.
- Eberhardt, S., 2013. The Lacey Act Amendments and United States' policing of international trade. *Houston Journal of International Law* 35:397-430.
- Edgar et al., 2016. The Ghana poverty and inequality report: Using the 6th Ghana living standard survey report. UNCEF
- Ehrlich, I., 1972. The deterrent effect of criminal law enforcement. *The Journal of Legal Studies* 1: 259-76
- Elster, J., 1989. Social norms and economic theory. *Journal of Economic Perspectives* 3(4): 99-117
- FAO, 2005. Best practices for improving law compliance in the forest sector. FAO Forestry Paper 145, Rome.
- FAO, 2010. Global forest resources assessment 2010. Forestry paper 163, Food and Agricultural Organization of the United Nations, Rome.
- FAO, 2014. Global forest resource assessment 2014. Food and Agricultural Organization of the United Nations, Rome.
- FAO, 2015. Towards effective national forest funds. FAO Forestry paper 174. Rome.
- FAO, 2016. Global Forest Products, Facts and figures 2016. Food and Agricultural Organization of the United Nations, Rome
- FC, 1995. Interim procedures for felling timber off-reserve. Forestry Commission, Accra
- FC, 1998. Logging manual for Ghana: Guidance to companies operating timber utilization contracts in the high forest of Ghana, Accra
- FC, 2016. Ghana forest plantation strategy: 1916-1940. Ministry of Lands and Natural Resources/Forestry Commission, Accra.
- Fisse, W.B., Braithwaite, J., 1983. The impact of publicity on corporate offences. Albany, NY: State University of New York
- Franck, M., Hansen, C.P., 2014. How effective are timber task forces in tackling illegal logging? Empirical evidence from Ghana. *International Forestry Review 16*(3), 354-362
- Genn, H., 1993. Business responses to the regulation of health and safety in England. *Law & Policy*, 15 (3):219-33

- Ghartey, K.K.F. 1989. Results of the Inventory Project. In Wong, J.L.G (ed.) Ghana Forest Inventory Project Seminar Proceedings 29-30 March 1998, Accra. Forestry Department of Ghana, Kumasi. Pp. 32-46
- GoG-EU, 2009. Voluntary partnership agreement between European Community and the Republic of Ghana on forest law enforcement governance and trade in timber products into the Community Government of Ghana. Downloaded on 20.12.13 from http://www.fcghana.org/VPA_2/asset/file/Downloads/ Signed_Agreement_EC-Ghana_FLEGT_EN[1].pdf
- GoG, 2012. Revised forest and wildlife policy of Ghana. Government Printer, Assembly Press, Accra.
- Grasmick, H.G., Bursik, R.J. Jr., 1990. Conscience, significant others, and rational choice: Extending the deterrence model. *Law & Society Review* 24 (3): 837-61
- Gray, G.C., Silby, S.S., 2011. The other side of the compliance relationship. Responsive regulation and beyond. In: Parker C and Nielsen, V (Eds). Explaining compliance: Business responses to regulation. Cheltenham: Edward Elgar. Pp. 123-139
- Gray, W.B., Scholz, J.T., 1991. Analyzing the equity and efficiency of OSHA enforcement. *Law & Policy* 13, 185-214.
- GSS, 2014. Ghana living standard survey round 6 (GLSS-6). Main report. Published by the Ghana Statistical Services. August 2014, Accra
- Gunningham N. 1987. Negotiated non-compliance: A case of regulatory failure. *Law & Policy* 9, 69-91
- Gunningham N., 2011. Strategizing compliance and enforcement: Responsive regulation and beyond. In: Parker C and Nielsen, V (Eds). Explaining compliance: Business responses to regulation. Cheltenham: Edward Elgar. Pp.327-360
- Gunningham, N., Kagan, R.A., Thornton, D., 2003. Shades of green: regulation, business, environment. Stanford University Press. Standford, CA
- Gyimah, R., Adu, G.A., 2009. A pilot study on sawn wood conversion efficiency in selected sawmills in Ghana. (Unpublished). 52pp
- Hall, J.B., Swaine, M.D., 1976. Classification and ecology of closed canopy forest in Ghana *Journal of Ecology* 64: 913-951.
- Hansen, C.P., Treue, T., 2008. Assessing illegal logging in Ghana. International Forestry Review 10(4):573-590
- Hansen, C.P., 2011. Forest law compliance and enforcement: The case of on-farm timber extraction in Ghana. *Journal of Environmental Management* 92: 575-586
- Hansen, C.P., Damnyag, L. Obiri, B.D., Carlsen, K., 2012. Revisiting illegal logging and the size of the domestic timber market: the case of Ghana. *International Forestry Review* 14 (1):39-49
- Hansen, C.P., Pouliot, M., Marfo, E., Obiri-Darko, B., Treue, T., 2015. Forests, timber and rural livelihood: Implications for social safeguards in the Ghana-EU voluntary partnership agreement. DOI 10.1007/s11842-015-9295-9
- Harrison, K., 1995. "Is cooperation the answer? Canadian environmental enforcement in comparative context" *Journal of Policy Analysis and Management* 14, 221-316
- Hawthorne, W.D., Abu-Juam, M., 1995. Forest protection in Ghana. IUCN, Gland, Switzerland and Cambridge, UK. 203 pp.
- Honneland, G., 1999. A model of compliance in fisheries. Theoretical foundations and practical application. *Ocean and Coastal Management* 42: 699-716

- Huisman, W., 2001. Tussen Winst en Moraal, Achtergronden van Regelovertreding door Ondernemingen [Between profit and morality, the backgrounds to enterprise compliance and violation]. The Hague: Boom juridischeUitgevers.
- Hutter, B.M., 1997. Compliance: Regulation and environment. Oxford. Clarendon Press
- IUCN, 2013. International Union for the Conservation for Nature Red List of Threatened Species. Version 2013.2 [online]. Available from: www.iucnredlist. org. Downloaded on 27 April 2018
- Kaimowitz, D., 2003. Forest law enforcement and rural livelihoods. International Forestry Review 5(3):199-210
- Kagan, R. A., 1994. Regulatory enforcement. In: D. H. Rosenbloom & R.D., Schwartz (Eds.), Handbook of regulation and administrative law, New York: Marcel Decker.
- Kagan, R.A., Gunningham, N., Thornton, D., 2003. "Explaining corporate environmental performance: How does regulation matters?" *Law & society Review 37*, 51-90
- Kagan, R.A., Gunningham, N., Thornton, D., 2011. Fear, duty and regulatory compliance: lessons from three research projects: Responsive regulation and beyond. In: Parker C and Nielsen, V (Eds). Explaining compliance: Business responses to regulation. Cheltenham: Edward Elgar. Cheltenham, UK. Pp 327-360
- Kagan, R. A., Scholz, J., 1984. The criminology of the corporation and regulatory enforcement strategies. In: K. Hawkins & J. Thomas (Eds.), Enforcing regulation, Kluwer-Nijhoff Publishing, Boston
- Kishor, N., Damania, R., 2007. Crime and justice in the Garden of Eden. Improving governance and reducing corruption in the forestry sector. The many faces of corruption. The World Bank, Washington, DC
- Kuperan, K., Sutinen, J.G., 1998. Blue water crime: deterrence, legitimacy, and compliance in fisheries. *Law & Society Review* 32, 309-38
- Kuperan, K., Sutinen, J.G., 1999. A Socio-economic theory of regulatory compliance. *International Journal of Social Economics* 26 (1) 174-93.
- Lavrakas, T., 2008. Encyclopedia of survey research methods, Thousand Oaks, California.
- Lawson, S., MacFaul, L., 2010. Illegal logging and related trade, Indicators of the global response. Chatham House (The Royal Institute of International Affairs), London
- Leedy, D.P., Ormrod, J.E., 2013. Practical research: Planning and design. 11th ed. Pearson Plc, London
- Levi, M., Tyler, T. R, Sacks, A., 2008. The Reasons for compliance with law. Paper presented at the workshop on the rule of law, March 28-29, Yale University, New Haven.
- Lipsky, M., 1980. Street level bureaucracy: Dilemmas of the individual in public services. Russell Sage Foundation. New York
- Logman, W.E.M., 1945. Timber exploitation in Gold Coast. *Empire Forestry Review* 26: 30-53
- Longman, K.A., Jenik, J., 1987. Tropical forests and its environment. 2nd edition. Harlow, London, UK.
- Marfo, E., 2010. Chainsaw milling in Ghana: Context, drivers and impacts. Tropenbos International, Wageningen, the Netherlands.

- Marfo, E., Acheampong, E., 2011. Estimating the number of jobs created by chainsaw activities in Ghana. *Ghana Journal of Forestry* 27, 1-11
- Marfo, E, Mckeown, J. P., 2013. Negotiating the supply of legal timber to the domestic market in Ghana: Explaining policy change intent using the advocacy coalition framework. *Forest Policy and Economics* 32, 23-31
- Marfo, E., Owusu, F.W., Damnyag, L., Adeyiga, G., Karambiri, M., 2017. Domestic timber market and trade in Ghana. Kumasi, Ghana: Tropenbos International, Ghana.
- May, P.J., Winter, S., 1999. Regulatory enforcement and compliance: Examining Danish Agro-environmental policy. *Journal of Policy Analysis and Management* 18 (4), 265-651.
- McCarthy, J.F., 2000. The changing regime: Forest property and reforms in Indonesia. *Development and Change 3: 91-129*
- McCarthy, J.F., Zen, Z. 2010. Regulating the oil palm boom: Assessing the effectiveness of environmental governance approaches to Agro-Industrial pollution in Indonesia. *Law & Policy* 32(1): 153-179
- McClanahan, T.R., Marnane, M.J., Cinner, J.E., Kiene, W.E., 2006. A comparison
 of marine protected areas and alternative approaches to coral-reef management. *Current Biology* 16, 1408-1413
- McCook, L.J., Ayling, T., Cappo, M., Choat, J.H., Evans, R.D., 2010. Adaptive management of the Great Barrier Reef: a globally significant demonstration of the benefits of networks of marine reserves. Proceedings of National Academy of Science 107 (43), 18278-18285. US
- McKenney, S., van den Akker, J., Nieveen, N., 2006. Design research from the curriculum perspective. In:Van den Akker, J., Gravemeijer, K., McKenney, S., Nieveen, N. (Eds.), Educational design research. Routledge, London, pp 67-90.
- MCPFE, 2007. Combating illegal harvesting and related trade of forest products in Europe. Report for the MCPFE workshop held on 3-4 November, 2005 in Madrid, Spain
- McShane, T.O., Hirsch, P.D., Trung, T.C., Songorwa, A.N., Kinzig, A., Monteferri, B., 2011. Hard choices: making trade-offs between biodiversity conservation and human well-being. *Biological Conservation* 144: 966-972
- Nielson, V.L., 2006. Are street-level bureaucrats enticed or compelled to cope? *Public Administration 84, 861-889*
- Obiri-Darko, B., Damnyag, L., 2011. Socio-economic contribution of illegal chainsaw milling to the Ghanaian rural economy. *Ghana Journal of Forestry* 27: 50-65
- Ochieng, R. M., Visseren-Hamakers, I. J., Nketiah, K.S., 2013. Interaction between the FLEGT-VPA and REDD+ in Ghana: Recommendations for interaction management. *Forest Policy and Economics* 32: 32-39
- Odoom, K. F., 2004. A Study of chainsawing in the natural forests of Ghana. Food and Agriculture Organization of the United Nations, Rome.76 pp.
- Oposa, A. 1996. A socio-cultural approach to environmental law compliance: A Philippine scenario. In Fifth international conference on environmental compliance and enforcement, INECE.
- Osei-Tutu, P., Nketiah, K.S., Kyereh, B., Owusu-Ansah, M., Faniyan, J. 2010. Hidden forestry revealed: Characteristics, constraints and opportunities for small and medium forest enterprises in Ghana. IIED small and medium forest enterprise Series No. 27. Tropenbos International and International Institute for Environment and Development, London, UK.

124

- Ostermann, L.S., 2016. Rule of law against the odds: Overcoming poverty and high cost of compliance in the developing world. *Law & Policy 38* (2): 101-123
- Parker, C., Nielson, V., 2009a. The challenge of empirical research on business compliance in regulatory capitalism. *Annual Review of Law and Social Science* 5:45-70
- Passas, N., 2002. Cross-Border crime and the interface between legal and illegal actors. In Duyne, P.V, Lampe, K.V and Passas, N (Eds.), Upper world and Underworld in Cross-border Crime. Wolf Legal Publishers. Nijmegen. Pp.11-41
- Paternoster, R., Simpson, S., 1993. A rational choice theory of corporate crime. *Routine Activity and Rational Choice* 5:37-58
- Raakjaer Nielson, J., Mathiesen, C., 2003. Important factors influencing rule compliance in fisheries. Lessons from Denmark. *Marine Policy* 27: 409-419
- Ramcilovic-Suominen, S., Hansen, C.P., 2012. Why some forest rules are obeyed and other violated by farmers in Ghana: Instrumental and normative perspectives of forest law compliance. *Forest Policy and Economics* 23: 46-54
- RMSC, 2000-2011. Summary of tree information form 2000/01/02/03/04/05/0 6/07/08/09/10/11. Resource Management Support Centre, Forestry Commission, Kumasi, Ghana
- Robinson, E.J.Z., Kumar, A.M., Albers, H.J., 2010. Protecting developing countries' forests: enforcement in theory and practice. *Journal of Natural Resource Policy* 2 25-38.
- Rooij, B. van, 2006. Regulating land and pollution in China. Law making, compliance and enforcement: Theory and cases. Leiden University Press, Leiden
- Rooij, B. van, 2012. The peoples' regulation: Citizens and implementation of law in China. *Columbia Journal of Asian Law* 25(2):117-179
- Rooij, B. van, 2016. Weak enforcement strong deterrence: Dialogues with Chinese lawyers about tax evasion and compliance. *Law & Social Inquiry* 41 (2): 288-310.
- Sampson, S., Rorie, M. 2011. Motivating compliance: Economic and material motives for compliance. In: C. Parker, & V. Nielsen (Eds.), Explaining compliance: Business responses to regulation. pp. 59-77. Cheltenham: Edward Elgar.
- Satterlund, T.D., Lee, J.P., Moore, R.S., Antin, T.M.J., 2009. Challenges to implementing and enforcing California's smoke-free workplace Act in bars. *Drugs* (*Abingdon Engl*) 16 (5): 422-435
- Schmidt, C.A., Mcdermott, C.L., 2015. "Deforestation in the Brazilian Amazon: Local explanations for forestry law compliance." *Social & Legal Studies* 24: 3-24
- Scholz, J., Gray, W. 1990. OSHA enforcement and workplace injuries: A behavioral approach to risk assessment. *Journal of Law and Uncertainty* 3:283-98
- Seawright, J., Gerring, J., 2008. Case selection techniques in case study research. A menu of qualitative and quantitative options. *Political Research Quarterly 16* (2): 294-308
- Seva, M., Jaggers, S.C., 2013. Inspecting environmental management from within: The role of street-level bureaucrats in environmental policy implementation. Journal of Environmental Management 128, 1060-1070
- Sheikh, A. P., 2008. Congressional Research Service Report for Congress. Illegal logging: Background and Issues. A report prepared for members and committees of congress, USA.
- Smith, W., 2004. Undercutting sustainability. *Journal of Sustainable Forestry* 19: 7-30

- Stern, M.J., Predmore, S.A., Mortimer, M.J., Seesholtz, D.N., 2010. From office to the field: areas of tension and consensus in the implementation of the National Environmental Policy Act within the US Forest Services. Journal of Environmental Management 91, 1350-1356
- Sundstrom, A., 2016. Corruption and regulatory compliance: experimental findings from South African small-scale fisheries. *Marine policy* 36: 1255-1264
- Sutinen, J.G., Kuperan, K., 1999. A Socio-economic theory of regulatory compliance. International Journal of Social Economics 26: 174-93.
- Tacconi, L., 2007. Illegal logging: Law enforcement, livelihoods and the timber trade. Earthscan, London
- Tacconi, L., Boscolo, M., Brack, D., 2003. National and international policies to control illegal forest activities. A report to the Ministry of Foreign Affairs, Government of Japan. Center for International Forestry Research, Bogor, Indonesia.
- Thornton, D., Gunningham, N.A., Kagan, R.A., 2005. General deterrence and corporate environmental behavior. *Law & Policy* 27(2):262-288
- Thornton, D., Kagan, R.A., Gunningham, N.A., 2009. When social norms and pressures are not enough: Environmental performance in the tracking industry. *Law & Society Review* 43(2):405-436
- TIDD, 2000-2011. Report on Export of Wood Products 2000/01/02/03/04/05/0 6/07/08/09/10/11. Timber Industry Development Division, Forestry Commission, Takoradi, Ghana
- TIDD, 2000-2011. Summary of log production 2000/01/02/03/04/05/06/07/ 08/09/10/11. Timber Industry Development Division, Forestry Commission, Takoradi, Ghana
- TIDD, 2010. Report on Export of Wood Products 2010. Timber Industry Development Division, Forestry Commission, Takoradi, Ghana.
- TIDD, 2011. Report on Export of Wood Products 2011. Timber Industry Development Division, Forestry Commission, Takoradi, Ghana.
- TIDD, 2012. Report on Export of Wood Products 2012. Timber Industry Development Division, Forestry Commission, Takoradi, Ghana
- TIDD, 2014. Report on Export of Wood Products 2014. Timber Industry Development Division, Forestry Commission, Takoradi, Ghana.
- TIDD, 2015. Report on Export of Wood Products 2015. Timber Industry Development Division, Forestry Commission, Takoradi, Ghana
- Tietenberg, Tom, Washington, D.C., William D. Savedoff, Nolet, G., 1996. Private Enforcement of Environmental Regulations in Latin America and the Caribbean: An Effective Instrument for Environmental Management? Inter-American Development Bank
- Tyler, T. R., 1990. "Why people obey the law"? Princeton, NJ: Princeton Univ. Press.
- UNEP, 2011. The Democratic Republic of the Congo: Post-conflict environmental assessment-synthesis for policy makers. Report by the United Nations Environmental Programme
- Vandenbergh, M., 2003. Beyond elegance: A testable typology of social norms in corporate environmental compliance. *Stanford Environmental Law Journal* 22: 55-144.
- Winter, S., May, P.J., 2001. Motivation for compliance with environmental regulations. *Journal of Policy Analysis and Management* 20 (4): 675-98.
- World Bank, 2009. Roots for good forest outcomes: An analytical framework for governance reforms. The World Bank, Washington DC.

126

- World Bank, 2012. Justice for forests: Improving criminal justice efforts to combat illegal logging. World Bank series R67. Washington, DC.
- Yan, H., Van Rooij, B., Van der Heijden, J., 2015. Contextual compliance: situational and subjective cost-benefit decisions about pesticides by Chinese farmers. *Law & Policy* 37(3): 240-263
- Yapp, C., Fairmann, R., 2004. The evaluation of effective enforcement approaches for food safety in SMEs. Food Standards Agency. London
- Young, O., 1979. Compliance and public authority. A theory with international applications. Resources for the Future Inc., Washington DC.

Referenced laws

- FC, 1999. The Forestry Commission Act 1999 (Act 571). Government Printer, Assembly Press, Accra.
- FPA, 1974. Forest Protection Act 1974 (NRCD 243). Government Printer, Assembly Press, Accra
- TRMA, 1997. Timber Resources Management Act 1997 (Act 547). Government Printer, Assembly Press, Accra
- TRMR, 1998. Timber Resources Management Regulations 1998 (LI 1649). Government Printer, Assembly Press, Accra.