

Sanctions, social norms, political legitimacy and their impact on forest rule compliance

Summary:

This paper examines the effect of deterrence and sanctions, social norms and legitimacy, on the compliance behavior of forest farmers with laws that regulate tree felling, farming and use of fire in Ghana. The paper applies a recently developed analytical framework for forest law compliance. The results are based on an interview survey with 226 heads of farming households. The paper suggests that forest users respond differently to different forest laws in different contexts. There is a substantial difference in terms of the level of compliance, where the tree-felling is largely violated, while the rules regulating farming practices and use of fire are comparatively well complied with. Compliance with the tree-felling rule appears to be driven by instrumental factors (detection and fear of sanction); while compliance with the fire and farming rules are linked to normative and intrinsic motivations, notably social norms, peer behaviour and the perceived fairness of rules.

Extended abstract

Legal and regulatory compliance plays a central role in good governance, democratic stability and sustainable development. Zaelke et al. (2005:30) propose a straightforward relationship between these concepts, as follows: “*sustainable development depends upon good governance, good governance depends upon the rule of law, and the rule of law depends upon effective compliance*”. Formal laws, informal rules and social conventions – which include social norms, principles and values – are important mechanisms and sources of social capital that guide human behaviour in situations where individual and collective interests diverge. These situations are particularly prominent in the context of common-pool resources such as forests, where individual payoffs are inextricably linked to the actions of a group (Gibson et al., 2000; Ostrom, 1990; Rayner 2010). Recognizing the importance of the rule of law in promoting good governance and sustainability, a core question for scholars of social-ecological systems is how to encourage compliance at multiple levels (i.e. individual, community, nation, global) and in different contexts. With the emergence of international forest initiatives, such as the EU Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan (EC, 2003), issues concerning compliance in the forestry have become increasingly salient (Blaser, 2010; Ramcilovic-Suominen and Hansen, 2012). However compliance theory, particularly with regards to forestry remains underdeveloped and requires greater attention from social scientists, such that scholars and policymakers are better equipped to predict likely outcomes from alternative policy choices (Bernstein, 2005; Cashore, 2002; Hansen, 2011).

High levels of non-compliance and other illegal forest activities (IFA) are known to occur in many developing tropical countries (Tacconi, 2007). In recognition of this problem, the European Commission coordinated discussions that culminated in the EU FLEGT Action Plan (EC FLEGT briefing notes, 2004-2007). The Action Plan aims to combat illegal logging by strengthening the enforcement of forestry laws in timber-producing countries, and addressing the import of illegal timber into the EU border zone. Moreover, through legal reforms the EU FLEGT Action Plan also aims to strengthen forest governance and build capacity in partner countries with the long-term goal of generating positive social impacts and poverty reduction in forest communities (EC, 2003, 2005). In September 2008 Ghana, where illegal logging accounts for between 60% and 70% of harvested timber (Hansen and Treue, 2008), conclude negotiations of a voluntary partnership agreement (VPA) with the EU (EC-Ghana, 2009).

The performance of this agreement will ultimately depend upon its ability to shift behaviour towards regulatory compliance. A theoretical understanding of the factors that influence compliance behaviour is therefore a crucial component in the design and implementation of effective and equitable forest policy instruments (Ramcilovic-Suominen and Epstein, 2012; Ramcilovic-

Suominen and Hansen, 2012). This paper explores how multiple motivations affect compliance with forest rules in Ghana; including: (i) deterrence (i.e. the likelihood of detection and sanctions), (ii) social norms (i.e. peer behaviour/pressure), (iii) the perceived fairness of forestry rules, and (iv) political legitimacy (i.e. satisfaction with the work, conduct and behaviour of forest authorities). It assesses the effects of these motivations on the likelihood of compliance by forest farmers in Ghana with three specific forest rules. These rules include: (i) prohibitions on the felling of trees without permit (tree-felling rule), (ii) prohibitions on farming in forest reserves (farming rule) and (iii) restrictions on the use of fire to manage and clear land (bushfire rule).

The paper proceeds as follow. First we begin by providing some background and context concerning forest governance and the specific forest rules in Ghana. Second, we discuss the theoretical perspectives on rule compliance and the analytical framework used in this study. Third we report the data collection and analytical methods that were used to complete this analysis. Finally, we present the main results and discuss them with regards to theories of regulatory compliance and the design of forest policies.

Results (part of it)

Deterrence and compliance: the role of monitoring and sanctioning

Monitoring and sanctioning strategies are often cited in the commons literature as an important influence on the performance of environmental governance systems (Gibson et al. 2005; Chhatre and Agrawal 2008; Ostrom and Nagendra 2006; Coleman 2008) Moreover, the use of punishment to maintain social order possesses an equally strong theoretical basis in behavioural economics and the compliance literature (Becker 1968; Henrich et al. 2006). Nonetheless, the results of our three statistical models suggest that the effect of deterrence on the farmer' compliance decision is minimal. First of all, the combination of perceived probability of detection and a belief that one will be sanctioned if detected has no effect on the likelihood of compliance with either the bushfire or farming rule. Although, deterrence does have an impact on the likelihood of compliance with a tree-felling rule, the likelihood of compliance for an individual that believes that detection is very likely and expects to be sanctioned is only 37.5%¹. This compares to approximately 22% when no sanctions are expected.

Social norms and compliance: the influence of social conformity

The influence of social norms on the compliance decision is often highlighted in the literature on the commons, which draws particular attention to the role of trust and reciprocity (Ostrom et al. 1994; Ostrom 1998). Perceptions concerning peer behaviour were used to measure social norms under the assumption that perceived level of compliance corresponds to a latent social expectation (or norm) for that individual to comply. The results suggest that social norms have a positive effect on the likelihood of compliance with two out of three forest rules (farming and bushfire rules). This effect is plotted in figure 1 below, which reveals a general increase in the predicted probability of individual compliance as the perceived level of peer compliance increases from low to high values. It must be noted, however, that at even low levels of peer behaviour that the predicted probability of compliance with farming and bushfire rules is very high, and that increased levels of trust only changes the likelihood of compliance from very high to almost certain.

¹ Note that this is calculated by holding deterrence at its maximum value, and all other independent variables at their mean.

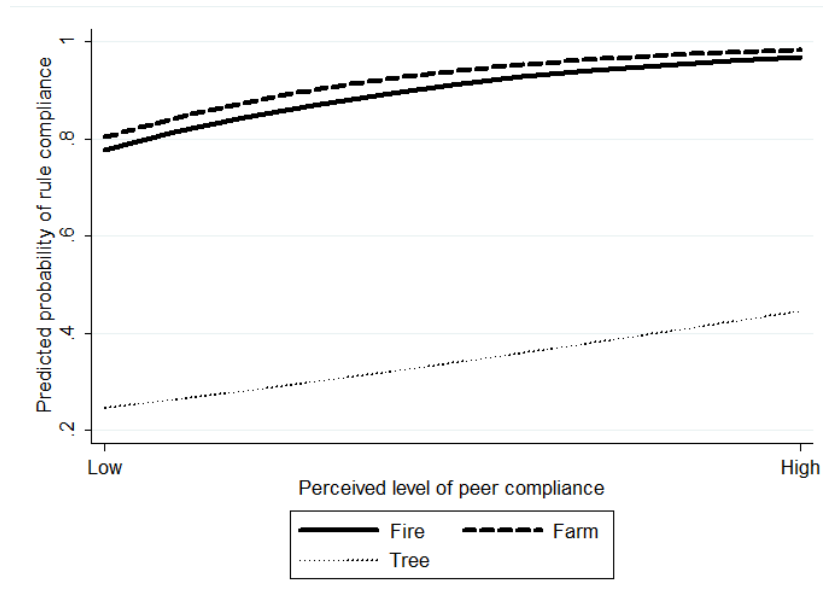


Figure 1: Predicted probability of compliance with forest rule. Note x-axis has been standardized to vary from zero to one for each measure of peer compliance; all other values are held at their mean. Note that values for the tree felling are not significant.

1.1.1 Perceived fairness of rules

The logistic regression results suggest that perceived fairness increases the likelihood of compliance with the farming and bushfire rules, but not the tree-felling rule. The effects of perceived fairness on the likelihood of compliance with these rules are plotted in figure 2. The effect is particularly noteworthy in the context of the bushfire rule with an increase of over thirty percent in the overall likelihood of compliance.

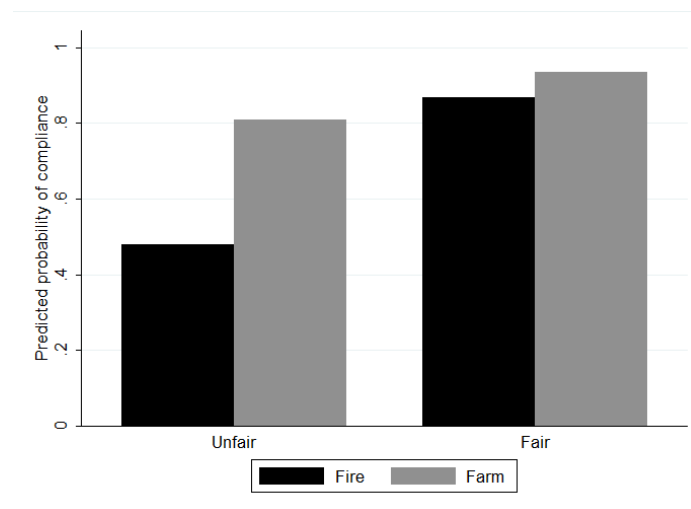


Figure 2: Predicted probability of compliance as a function of the perceived fairness of a rule. All other values are held at their mean.

References

- Becker, G.S., 1968. Crime and punishment: an economic approach. *The Journal of Political Economy* 76, 169-217.
- Bernstein, S., 2005. Legitimacy in Global Environmental Governance. *Journal of International Law & International Relations* 1: 139-166.
- Blaser, J., 2010. Forest law compliance and governance in tropical countries. A region-by region assessment of the status of forest law compliance and governance, and recommendations for improvement. FAO and ITTO, 2010. 27 p.
- Cashore, B., 2002. Legitimacy and the Privatization of Environmental Governance: How Non-State Market Driven (NSMD) Governance Systems Gain Rule-Making Authority. *Governance: An International Journal of Policy, Administration and Institutions* 15: 503-529.
- Chhatre, A., Agrawal, A., 2008. Forest Commons and Local Enforcement. *The National Academy of Sciences of the USA*. Vol. 105 (36):13286-13291
- Coleman, Eric A. 2009. Institutional factors affecting biophysical outcomes in forest management. *Journal of Policy Analysis and Management* 28 (1): 122-146.
- EC (European Commission), 2003. Communication from the Commission to the Council and the European Parliament. Forest Law Enforcement, Governance and Trade (FLEGT) Proposal for an EU Action Plan. Brussels, 21 May 2003. Com. 2003/251 final. 32 p.
- EC (European Commission), 2005. Council Regulation (EC) No 2173/2005, of 20 December 2005, on the establishment of a FLEGT licensing scheme for imports of timber into the European Community. *Official Journal of the European Union*. 6 p.
- EC FLEGT notes (European Commission FLEGT Notes), 2004-2007. FLEGT Briefing Notes (2004/5 series and 2007 series). Brussels: EC.
http://ec.europa.eu/development/policies/9interventionareas/environment/forest/flegt_briefing_notes_en.cfm. [Cited 18 Jun 2008].
- Gibson, C.C., J. T. Williams, and E. Ostrom. 2005. Local Enforcement and Better Forests. *World Development* 33 (2): 273-284.
- Gibson, C. C., E.Ostrom, and M.A. McKean. 2000. "Forests, People and Governance: Some Initial Theoretical Lessons." In *People and Forests: Communities, Institutions and Governance*, eds. Clark C. Gibson, Margaret A. McKean and Elinor Ostrom. Cambridge, MA: The MIT Press.
- Hansen, C.P., Treue, T., 2008. Assessing illegal logging in Ghana. *International Forestry Review* 10, 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.
- Henrich, Joseph, Richard McElreath, Abigail Barr, Jean Ensminger, Clark Barrett, Alexander Bolyanatz, Juan Camilo Cardenas, Michael Gurven, Edwins Gwako, Natalie Henrich, Carolyn Lesorogol, Frank Marlowe, David Tracer, and John Ziker. 2006. Costly Punishment Across Human Societies. *Science* 312 (5781): 1767-1770.
- Ostrom, E., Nagendra, H., 2006. Insights on linking forests, trees, and people from the air, on the ground, and in the laboratory. *The National Academy of Sciences of the USA*. 103(51): 19224-19231
- Ostrom, Elinor, Roy Gardner, and James Walker. 1994. *Rules, Games and Common-Pool Resources*. Ann Arbor: University of Michigan Press.
- Ostrom, E., 1998. A Behavioral Approach to the Rational Choice Theory of Collective Action: Presidential Address, American Political Science Association, 1997. *The American Political Science Review* 92 (1): 1-22.
- Ostrom, E., 1990. *Governing the Commons. The Evolution of Institutions for Collective Action*. Cambridge University Press, Cambridge.

- Ramcilovic-Suominen, S., Epstein, G. A Multiple Model Theory of Compliance in the Forest Sector. Forthcoming in the International Forestry Journal.
- Ramcilovic-Suominen, S., Hansen, C., 2012. Why some forest rules are obeyed and others violated: instrumental and normative perspective of forest law compliance in Ghana. *Forest Policy and Economics* Vol.23:46-54.
- Rayner, J., Buck, A., Katila, P., 2010. Embracing complexity: Meeting the challenges of international forest governance. A Global Assessment Report Prepared by the Global Forest Expert Panel on the International Forest Regime. International Union of Forest Research Organizations (IUFRO). 172 p.
- Tacconi, L., (Ed.) 2007. *Illegal logging: Law enforcement, livelihoods and the timber trade*. Earthscan, London.
- Zaelke, D., Stilwell, M., Young, O., 2005. Compliance, rule of law, & good governance. What Reason Demands: Making Law Work for Sustainable Development. In: Zaelke, D., Kaniaru, D., Kruzikova, E. (Eds.) *Making law work: environmental compliance and sustainable development*. Chapter 1. Vol. 1. Cameron May Ltd., London.