

# THE IMPACT OF FOREST STEWARDSHIP COUNCIL® (FSC) CERTIFICATION



*President of the Asheninka Federation views logs from FSC-certified community forests, Peru. © Diego Perez / WWF-Peru*

## INTRODUCTION

Established in 1994, the Forest Stewardship Council (FSC) was the first forest certification scheme, setting the standard for a new model of market-based conservation tool to promote responsible forest management and trade. Now in its 20th year, FSC has inspired a number of other certification schemes, and remains the sole one with broad support from environmental and social NGOs.

FSC's aim is to improve forest management globally and, through certification, create an incentive for forest owners, managers, and buyers of wood products, to follow best social and environmental practices. Today, over 180 million hectares of forests worldwide

are managed according to FSC standards. These include boreal, temperate and tropical forests owned publicly, privately and by communities.

A handful of credible and scientific studies have been conducted to assess the impact of FSC certification. A meta-analysis of these studies reveals that there is limited but concrete evidence suggesting that FSC certification is likely to have a multitude of positive impacts on the environment, social development and governance. There are little or no credible and scientific studies assessing the impact of other forest certification schemes.

## WWF & FSC

After the 1992 Earth Summit in Rio de Janeiro, Brazil, failed to produce legally binding commitments on forest management, WWF collaborated with businesses, environmentalists, and community leaders to establish the Forest Stewardship Council, a non-governmental, independent and international forest certification scheme.

Following intensive consultations in ten countries to build support for the idea of a worldwide certification scheme, the FSC Founding Assembly was held in Toronto, Canada in 1993. The following year, FSC was established as a legal entity.

WWF is an active stakeholder in FSC, which remains, to date, the scheme that best fulfills WWF's requirements of a credible certification scheme.

## ENVIRONMENTAL IMPACTS

### Forest degradation

*The application of FSC's Principles and Criteria has been found to mitigate forest degradation within the certified area, compared to conventional logging.*

Logging directly disturbs forests, but the FSC standard requires operators to minimize forest damage during harvesting and road construction, as well as to protect forest ecosystems. An empirical research study in Gabon that compared an FSC-certified concession with an adjacent, conventionally logged concession confirmed the positive effects of FSC on forest management. In the FSC-certified concession, the number of other trees damaged for every tree felled was less than half of that in the conventional logging site. The FSC concession also had better road design and construction. These factors are critical for maintaining the health of production forests, allowing them to serve as important carbon sinks and habitat for wildlife (*Medjibe et al, 2013*).

### Biodiversity

*FSC certification has better measures to protect biodiversity and wildlife habitat than conventional logging.*

A growing body of research has shown that there are fewer negative impacts on species in well-managed production forests, including FSC-certified concessions, than in conventionally logged forests (*Clark et al, 2009; Meijaard and Shell, 2008, Van Kuijk et al, 2009*). There are no rigorous studies comparing the direct impacts of FSC on wildlife, but FSC in general has stricter environmental criteria for wildlife protection than other schemes. In a study in Gabon, FSC-certified concessions were found to have complied with more than 90 per cent of legal requirements and applied most of the elements of the recommended best practices on wildlife management, which is noteworthy given the relatively lax law enforcement in the region. In comparison, non-certified concessions implemented less than a third of the suggested best practices and scored 50 per cent on the compliance rate. (*Rayden & Rawlings, 2010*).

## FSC certification versus protection

*FSC-certified forest concessions have shown to be more effective in halting environmental degradation than protected areas in places where law enforcement is weak and local support for forest protection is lacking.*

Effectively protected areas have the lowest environmental impact, but they are costly and pose restrictions on local people and communities. Additionally, in some places, protected forests are subject to rampant illegal hunting, logging, gold mining and wildfires (*Mannan, 2008; Hughell and Butterfield, 2008*). In these cases, FSC-certified concessions are found to provide a better alternative.

## SOCIAL IMPACTS

### Empowerment of communities and workers and inclusiveness in decision-making

*FSC certification is found to result in increased inclusiveness and gives more power to workers and communities.*

One study by the Center for International Forestry Research (CIFOR) compared nine FSC-certified operations in Cameroon, Gabon and the Republic of Congo to nine non-certified ones, and found that certified concessions had more active, legitimate and effective local institutions for negotiations between the local population and the logging company (*Cerutti et al 2014*).

### Workers safety and health

*FSC-certified operations are found to have better working and living conditions than conventional logging concessions.*

Reviews of FSC audit reports show that the vast majority of companies pursuing FSC certification are required to improve their worker safety measures before a certificate can be issued (*Pena-Claros et al 2009*). Field research by CIFOR comparing FSC and non-FSC certified forest management units (FMU)s in three Congo Basin countries confirms this finding. FSC certified FMUs were found to provide better housing and living conditions, health insurance, and access to medical facilities for workers (*Cerutti et al 2014*).



Worker sitting amongst a pile of FSC coded logs, Akamba Handicrafts, Kenya.  
© Brent Stirton / Getty Images

## Relationships with communities

*The application of FSC's criteria is found to result in improved relationships between companies and communities.*

In Russia, one study found that FSC requirements, coupled with pressure from NGOs, forced companies to interact more with local communities. FSC certification also encourages benefit-sharing mechanisms and a more equitable redistribution of profits to local communities (*Cashore et al 2006; De Lima 2008; Tysiachniouk 2012; Cerutti et al 2014*).

## IMPACT ON GOVERNANCE

### Legal compliance

*In many countries, forest legislation is fairly strict but enforcement is weak. FSC certification has been shown to lead to improved monitoring and legal compliance.*

For example, a study by CIFOR in the Congo Basin, found that legal compliance of environmental legislation is much higher in FSC-certified concessions than in non-certified concessions (*Cerutti et al, 2014*). The results are comparable for Bolivia and Brazil, as well as Russia. In Congo Basin, studies have shown that certification serves as an incentive to comply with the law or even to help enforce the law. The carrot-and-stick approach that exists in certification schemes is missing in the implementation of the legal frameworks (*Cashore et al, 2006; Rayden & Rawlings, 2010; Price 2010*).

### Improving legislation

*FSC has been shown to have positive effects on regional and national regulations, thereby having an effect well beyond the certified operations.*

For example, in Russia, the previous national forest policy focused on maximizing economic output rather than striking a balance between economic, social, and environmental benefits. As a result, some of FSC's requirements were not compatible with the Russian forest law, thus creating a friction between forest legislation and FSC certification. This disparity, however, led to broad-based discussions and consultations on legal reform, resulting in a new law that includes a number of "innovations" that were not legal in the old policy. These include public involvement in forest planning, protection of intact forest landscapes and ecological functions and mimicking of natural processes. (*Tysiachniouk, 2012*).

## GAPS IN THE LITERATURE

Most of the studies conducted so far on the impacts of FSC certification have been based on Corrective Action Requests (CARs), stakeholders' perceptions and small-scale field data collection. With the exception of a few, many of these studies do not compare on-the-ground impacts in FSC-certified concessions to those in non-certified concessions. Different authors have made the case that surveys and desk studies (including research based on CARs) are not scientifically rigorous. Field studies only looking at effects in a certified operation fall short as well, as impacts found in the field cannot, with certainty, be attributed to certification alone.

Additionally, there are very few long-term environmental studies, since it takes years, or even decades, before the effects of logging on species abundance and composition become apparent. There is also a lack of evidence on FSC's impacts on other environmental indicators, such as ecosystem functions, carbon, soil and water quality or downstream effects.

## WWF'S FSC IMPACTS EVALUATION WORK

Given FSC's important role in guiding responsible forest management, a scientifically defensible and replicable evaluation of its impacts is urgently required. WWF, in partnership and collaboration with leading NGOs and research institutions is evaluating the environmental and social impact of FSC using the latest statistical counter-factual matching approaches. WWF is also working with the ISEAL Alliance to develop rigorous approaches to evaluating voluntary standards like FSC.

The research is designed to draw a more robust and scientifically plausible picture of FSC's impact on forest cover and ecosystem services, biodiversity and welfare of local communities. Additionally, it aims to fill in critical gaps in the literature, particularly when it comes to FSC's impact on biodiversity conservation.

WWF and partners are building a learning platform to better align different research efforts and engage broader scientific and conservation communities. This learning platform will not only ensure the credibility and quality of the research, but also produce replicable framework and methods for robust monitoring and evaluation of FSC and other terrestrial commodity certification schemes.



Logging company employee measuring felled wood, East province, Cameroon. © Brent Stirton / Getty Images / WWF-UK

For more information, contact:

**Karen Mo**  
*Research & Development Specialist*  
[Karen.Mo@wwfus.org](mailto:Karen.Mo@wwfus.org)

**Huma Khan, Communications Manager,**  
*WWF Global Forest Programme*  
[Huma.Khan@wwfus.org](mailto:Huma.Khan@wwfus.org)

For more information on WWF's work on transforming commodity markets go to: [panda.org/markets](http://panda.org/markets) and for more on GFTN, visit [gftn.panda.org](http://gftn.panda.org)

## REFERENCES

- Blackman, Allen and Jorge Rivera, 2010. The Evidence Base for Environmental and Socioeconomic Impacts of "Sustainable Certification". RFF DP 10-17.
- Broto, L.; Murray, J.; Davide Pettenella, Pettenella, D.; Secco, L.; Masiero, 2010. The Peruvian Amazon: what changes to biodiversity will FSC make? ETRN News 51.
- Cashore, B, F. Gale, E. Meidinger, D. Newsom, 2006. Confronting Sustainability: Forest Certification in Developing and Transitioning Countries. Yale School of Forestry & Environmental Studies.
- Cerutti P.O, Lescuyer G, Tsanga R, Kassa S.N, Mapangou P.R, Mendoula, E.E, Missamba-Lola, A.P, Nasi R, Ekeobil P.P.T and Yembe R.Y. 2014. Social impacts of the Forest Stewardship Council certification: An assessment in the Congo basin. Occasional Paper 103. CIFOR, Bogor, Indonesia.
- Clark, M. R., and J. S. Kozar. 2011. Comparing sustainable forest management certifications standards: a meta-analysis. *Ecology and Society* 16(1): 3.
- De Lima, Ana Carolina B., André Luiz Novaes Keppe, Marcelo Corrêa Alves, Rodrigo Fernando Maule and Gerd Sparovek, 2008. Impact of FSC forest certification on agroextractive communities of the State of Acre , Brazil, Imaflora.
- De Lima, Ana Carolina Barbosa, André Luiz. Novaes Keppe, Fábio Eduardo Maule, Gerd Sparovek, Marcelo Corrêa Alves and Rodrigo Fernando Maule, 2009. Does certification make a difference? Impact assessment study on FSC/SAN certification in Brazil. Imaflora.
- De Pourcq, K., Thomas, E. & Van Damme, P. 2009, "Indigenous community-based forestry in the Bolivian lowlands: some basic challenges for certification", *International Forestry Review*, vol. 11, no. 1, pp. 12-26.
- Gibson, L, Lee, TM, Koh, LP, Brook, BW, Gardner, TA, Barlow, J, Peres, CA, Bradshaw, CJA, Laurance, WF, Lovejoy, TE & Sodhi, NS, 2011. Primary forests are irreplaceable for sustaining tropical biodiversity. *Nature*, vol 478, no. 7369, pp. 378-381.
- Gibson, L., A.J. Lynam, C.J.A. Bradshaw, F. He, D.P. Bickford, D.S. Woodruff, S. Bumrungsri and W.F. Laurance, 2013. Near-complete extinction of native small mammal fauna 25 years after forest fragmentation.
- Hughell, Dave and Rebecca Butterfield, 2008. Impact of FSC Certification on Deforestation and the Incidence of Wildfires in the Maya Biosphere Reserve. Rainforest Alliance.
- Imai N, Samejima H, Langner A, Ong RC, Kita S, et al., 2009. Co-Benefits of Sustainable Forest Management in Biodiversity Conservation and Carbon Sequestration. *PLoS ONE* 4(12): e8267. doi:10.1371/journal.pone.0008267.
- Kreveld, A van and I. Roerhorst, 2009. Great Apes and Logging. Ulucus Consultancy prepared for WWF Netherlands.
- Mannan, Sam & Kitayama, Kanehiro & Lee, Ying Fah & Chung, Arthur & Radin, Albert & Lagan, Peter, 2008. RIL for biodiversity conservation and carbon conservation - Deramakot forest shows positive conservation impacts of reduced impact logging. ITTO tropical forest update 18/2, pag. 7-9.
- Medjibe, V.P., F.E. Putz and C. Romero, 2013. Certified and uncertified logging concessions compared in Gabon: changes in stand structure, tree species, and biomass.
- Newsom, D., Kennedy, E., Miller, J., Bahn, V. and Adhikari, S. 2012 Testing a BMP-based approach for assessing gaps in certification impacts research (Appendix H). In: Steering committee of the state-of-knowledge assessment of standards and certification. Toward sustainability: the roles and limitations of certification. RESOLVE, Inc., Washington, DC.
- Peña-Claros, Marielos & Blommerde, Stijn & Bongers, Frans (2009). Forest management certification in the tropics: an evaluation of its ecological, economical and social impact. Forest Ecology and Forest Management Group, Wageningen University and Research Centre.
- Price, Fran (2010). The Nature Conservancy and tropical forest certification. ETRN News 51.
- Putz, F. E., Zuidema, P. A., Synnott, T., Peña-Claros, M., Pinard, M. A., Sheil, D., Vanclay, J. K., Sist, P., Gourlet-Fleury, S., Griscom, B., Palmer, J. and Zagt, R. (2012), Sustaining conservation values in selectively logged tropical forests: the attained and the attainable. *Conservation Letters*, 5: 296-303.
- Rayden, T and E.E. Rawlings, 2010. Evaluation of the Management of Wildlife in the Forestry Concessions Around the national Parks of Lopé, Waka and Ivindo, Gabon. Wildlife Conservation Society.
- Romero, C., Putz, FE., Guariguata, MR., Sills, EO., Cerutti, PO. and Lescuyer, G. 2013. An overview of current knowledge about the impacts of forest management certification: A proposed framework for its evaluation. Occasional Paper 91. CIFOR, Bogor, Indonesia.
- Tysiachniouk, Maria S., 2012. Transnational governance through private authority - The case of the Forest Stewardship Council certification in Russia. PhD thesis, Wageningen University.
- Van Hensbergen, H.J., K. Bengtsson, M. Miranda and I. Dumas, 2011. Poverty and Forest Certification. The Forest Initiative in corporation with WWF.
- Van Kuijk, M, Putz, F.E. and Zagt, R.J. (2009). Effects of forest certification on biodiversity. Tropenbos International.
- Visseren-Hamakers, Ingrid and Philipp Pattberg. We Can't See the Forest for the Trees. The Environmental Impact of Global Forest Certification Is Unknown. *GAIA* 22/1(2013): 25- 28.