From: Barbara Bramble <Bramble@nwf.org>
Sent: 1. juni 2016 23:56
To: NORAD-Postmottak - Arkiv; Skjæraasen, Frida Linnéa
Cc: Nathalie Walker; David Burns; Karen Brewster; Amanda Mason; Raymond Barnes; Matt Hansen
Subject: NWF's 2013-2015 Final Norad Report
Attachments: NWF Deforestation-Free Commodities and REDD+ 2015 Norad Report_FINAL.doc; NWF Deforestation-Free Commodities and REDD+ 2015 Norad Report_FINAL.pdf; NWF-NORAD 2015-12 AUDIT Final FS.pdf; NWF 2015 menu of common indicators final report.doc; NWF 2015 menu of common indicators final report.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Frida,

We are pleased to submit our final report for your review. We have included it in both Word and PDF formats. You will also find a copy of our audit and financial report for 2015 (which you already received from us last month), as well as a revised version of the Common Indicators worksheet, updated to reflect the indefinite extension of the soy moratorium announced last month.

It has been a pleasure working with you over the past two years, and we hope to see you at REDDX in Oslo later this month.

Please don't hesitate to let us know if you have any questions.

Kind regards,

BJB

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Norad

Template for report and accounts for organisations under the Climate and Forest Initiative funding scheme for civil society

2013-2015

1. General Project Information:

1.1 Name of recipient organisation: National Wildlife Federation

1.2 Reporting year: 2015

1.3 Agreement Number: QZA-0465 QZA-13/0075

1.4 Name of project: Promoting Deforestation-free Agricultural Commodity Supply Chains and the Link to Jurisdictional REDD+ Frameworks (Deforestation-Free Commodities and REDD+)

1.5 Country and region in the(se) country if applicable: US, Brazil, Mexico, Indonesia

1.6 Financial support to the project from Norad for last calendar year 2015: NOK 8,170,000

1.7 Thematic area: REDD+ relevant commodity supply chains

2 Please describe the project's progress for the whole grant period

2.1 Please repeat the **project's target group(s)** and the baseline for the target group at the start of the project (from the approved project document).

- **Agricultural producers:** Agricultural production is the largest driver of deforestation in the tropics and therefore agricultural producers in Brazil, Indonesia and Mexico are a target group. At the start of the project, roundtables and moratoria were focused on large producers, but it is unclear whether these initiatives are actually helping to reduce deforestation. Smallholders are often excluded from these initiatives, either because they lack the financing and technical capacity to comply or because the major traders and meatpackers prefer to buy from larger farms and ranches.
- **Commodity roundtables:** Roundtables are multistakeholder bodies that develop voluntary environmental and social sustainability standards for the commodities most linked with deforestation. However, these standards have been criticised as being uneven in application, failing to protect key wildlife corridors, increasing forest fragmentation and have thus far failed to align with land-use planning and governance efforts. So far, there have not been robust studies to test whether these standards have resulted in landscape-level reductions in deforestation.
- **Private Sector (manufacturers and retailers):** Retailers are consumer-facing companies that are vulnerable to reputational risk if products they sell are linked to deforestation. At the start of the project, many large retailers have adopted zero deforestation policies but don't know how to implement them, are not sure which standards and agreements they can source from with confidence, or are unsure whether they are worth the investment. To source deforestation-free products, retailers need to find manufacturers that can supply products adhering to a voluntary initiative (roundtables' standards or moratoria). Some manufacturers do not have concerns about sourcing products from farms with deforestation but others do

participate in roundtables and source products complying with moratoria and roundtables' standards.

- **Policy makers:** These include national and state governments as well as relevant ministries and agencies. The baseline for these actors is that many are not aware of the details of the voluntary mechanisms, do not involve the private sector in policy development and are unaware of the benefits or of how these mechanisms could be integrated into jurisdictional REDD+. There are some exceptions, such as Brazilian Public Prosecutors, who have developed mechanisms to encourage action throughout the supply chain to support deforestation-free ranching.
- **Scientific community:** These actors play an important role in helping to develop tools and to study the changes in land-use actually happening and helping determine what the impacts of voluntary and political policy measures are in terms of affecting deforestation. While voluntary standards such as RSPO have been certifying products since 2008, there are not robust, scientific assessments of how RSPO has affected deforestation at the start of this project. Our partners include leading scientists who will analyse the impacts of voluntary mechanisms and engage with their peers. This can help encourage advancements in remote sensing and other technical fields to better measure supply chain performance across various scales.
- **Civil society:** This includes international, national and local environmental and social organizations. At the start of the project, several did not understand the benefits of, or are opposed to jurisdictional REDD+. Some groups have strong views about roundtables based on their policies but without analysing how their actual implementation is impacting forests. Civil society is an important bridge in communications between the public and private sectors and between actors on the ground with those at the final end of supply chains.

2.2 Please repeat the project's **desired impact** (from the approved project document).

This project will contribute towards protecting threatened tropical forests in Brazil, Indonesia, and Mexico, by supporting and strengthening both: market-driven efforts to develop and expand deforestation-free supply chains; and government-led jurisdictional REDD+ mechanisms. The project will facilitate smallholders becoming able to improve their livelihoods by accessing support to help them learn about methods to improve productivity and ultimately meet certification standards. Implementation of more sustainable agricultural practices and enhanced productivity will help countries to meet growing demand for food production and export without the need to expand into forest lands. The contribution of this project will be to make it easier, more efficient and cost effective to measure, monitor and incentivize reductions in the loss of tropical forests, and the emissions of greenhouse gases that contribute to climate change.

2.3 Is the project still relevant for the desired impact? (Yes/No) If No, please give a short explanation.

Yes, the project is still highly relevant for the desired impact, and significant progress has been made.

2.4 **Main outcome(s).**

a) Please repeat the project's planned outcome(s) (effect on project´s target group(s), beneficiary (-ies)) (from the approved project document).

Outcome 1) Strengthened deforestation-free beef, leather and soy supply chain monitoring and implementation in the Brazilian Amazon

We will establish and implement an independent system of property-level forest monitoring for Brazil's two largest meatpackers who are signatories to the "Cattle Moratorium" in Acre, Mato Grosso and Pará states. We will promote implementation and supply chain support through the GRSB-GTPS Working Group and the Consumer Goods Forum. We will also provide the first property-level audit and supply chain mapping for soy in Querencia, a prominent soy-producing municipality in Mato Grosso.

a) The main groups for the cattle industry are Brazil's two largest meatpackers, Marfrig and JBS, who control over a quarter of Brazil's national slaughter[1] and own 64% of slaughterhouse facilities with export licences[2], as well as the GRSB-GTPS Working Group and both groups' members, the Consumer Goods Forum and the Leather Working Group. For soy, the project would target large soy producers in the Brazilian Amazon, the major soy traders (ADM, Bunge, Cargill and Grupo Maggi), key food retailers currently supporting the soy moratorium (e.g., McDonald's) and members of the Roundtable on Responsible Soy.

b) Once the project has been completed, the new state will be that all of the direct supplying ranchers to JBS and Marfrig can be demonstrated to be compliant with zero-deforestation. The GRSB-GTPS Working Group will agree to a plan to trace indirect suppliers and work with the meatpackers to offer fully deforestation-free supplies of beef and leather. The Consumer Goods Forum and Leather Working Group's members will support the efforts of the meatpackers and the GRSB-GTPS Working Group by preferentially purchasing from these companies which can demonstrate deforestation-free supplies. Soy producers and traders in the Brazilian Amazon would commit to zero-deforestation over the long-term (instead of the current moratorium, which has been renewed in one or two year increments). The deforestation monitoring systems we will use for both cattle and soy will be the Brazilian government's Amazon-wide systems, Prodes and Deter, which are the agreed systems of the soy and cattle moratoria.

c) Key indicators are that the deforestation-monitoring of ranches is showing compliance with meatpackers' zero-deforestation policies; the GRSB-GTPS Working Group garners increased participation from industry and involvement of government to become the foremost forum for addressing deforestation driven by cattle ranching; increasing number of companies in the Consumer Goods Forum commit to purchase from supply chains that can be demonstrated as deforestation-free; interest from other meatpackers in participating in the program.

Outcome 2) Deforestation Monitoring System for Roundtables designed

a) RSB, RSPO and their members, especially producers, will be the key targets for the new, satellite-based deforestation monitoring systems. We will also demonstrate the deforestation monitoring approach and results to other commodity roundtables such as Roundtable on Responsible Soy and Bonsucro (sugar cane).

b) At present, none of the commodity roundtables have implemented an operational landscape level deforestation-monitoring system. As a result, it has not been possible to determine the impact of roundtables on deforestation rates. In addition, all monitoring of deforestation on certified properties relies on expensive site visits. NWF holds the position of chair of the RSB and discussed this situation with other leaders of the roundtable, who have agreed on the importance of a more efficient system, which will enable it to identify its wider impacts in reducing deforestation, and reduce the costs associated with certification (establishment, monitoring) and verification of compliance with roundtable guidelines.

We will also develop a deforestation monitoring system for RSPO in Kalimantan, Indonesia, which will allow us to test whether RSPO's forest conversion rules are still allowing detectable deforestation on certified operations. In addition this project will explore methods of jurisdiction-wide assessment to reduce costs of its certification system, as well as to reduce costs of becoming certified, and to verify compliance. We will work with government, industry, and civil society to build necessary capacities for implementing such internationally recognized jurisdictional certification of forest emissions reductions.

A combination of optical, radar, and lidar satellite data records is typically required to generate long time series of deforestation activity, especially for regions with persistent cloud cover such

[1] Walker *et al. in press. From Amazon Pasture to the High Street: Deforestation and the Brazilian Cattle Product Supply Chain. TCS*
[2] ABIEC 2012. Mapa das Plantas Frigoríficas. Associação Brasileira das Indústrias Exportadoras de Carnes. http://abiec.com.br/2_mapa.asp

as Indonesia. Monitoring and analysis using multiple lines of satellite-based evidence also provides additional confidence in deforestation assessments and redundancy for potential data continuity issues from existing satellite instruments. Dr. Morton will utlise remote sensing analyses developed by Matt Hansen (University of Maryland), because his are the most thorough, available analyses; his system, which is used by WRI's "Forest Cover Analyzer", was developed in consultation with RSPO[3], so it already has a level of credibility and acceptance by the RSPO. For Mexico, changes in forest cover over time will be monitored with Landsat, MODIS and PALSAR data, and deforestation estimates will be validated using high resolution airborne optical and LiDAR data. These methods have been tried and tested by NASA and found to be effective.

c) We will establish a satellite-based deforestation monitoring system in a jurisdiction in southeastern Mexico with RSB-certified operations, capable of evaluating: 1) whether there has been any deforestation on such properties after the RSB cut-off date and 2) the regional impact on deforestation within the larger jurisdiction. A key indicator will be the review and adoption of the monitoring system by the RSB Secretariat. We will design a similar system for the RSPO in Kalimantan building on existing deforestation datasets. We will provide direct feedback on the regional impacts of roundtable certification on deforestation in southeastern Mexico and Kalimantan and to outline a framework for linking roundtables with REDD+.

Outcome 3) Roundtables, moratoria and deforestation monitoring integrated into REDD+
Data-driven policy proposal is developed for integrating state and federal REDD+ systems and voluntary supply chain mechanisms in Brazil (soy and cattle moratoria, roundtables), Indonesia (palm oil, RSPO) and Mexico (biofuels, RSB). We will analyze and model economic and environmental outcomes for REDD+ policies and voluntary mechanisms (using outputs generated by UW's analysis and our own data) and build stakeholder support for integrating REDD+ systems and voluntary mechanisms in all 3 countries.

a) EDF, in coordination with UW, NASA and NWF, will develop specific policy recommendations based on the findings of this project, and will work in close coordination to implement the results. We will make specific, time-bound recommendations to the private sector and governments, identifying how companies can improve the effectiveness of multistakeholder initiatives in reducing deforestation, and how governments can implement successful jurisdictional REDD programs by coordinating with the private sector and integrating their efforts, where possible. Main groups targeted in Brazil include the relevant state and federal government ministries, state and national federations of agriculture, meatpackers, Wal-Mart, Pão de Açucar, Carrefour, major cattlemen's and farmers' associations in Acre, Pará, and Mato Grosso, NGOs and the scientific community.

In Indonesia, we will identify and reach out to key government and industry stakeholders to identify sustainable ways to reduce emissions from conversion of forests and peatlands to palm plantations. Developing these relationships will help us understand the technical gaps for forest monitoring, including forest carbon accounting, at the government level. We will request data from the Indonesian national and district governments for use in developing the policy proposal to integrate jurisdictional REDD and green supply chains. To understand the challenges of implementing "green" supply chain corporate goals and the extent to which the RSPO is addressing these challenges, we will conduct outreach to companies throughout the palm oil supply chain, some that are and others that are not members of the RSPO. In Mexico, we will target similar stakeholders in southeastern Mexican states and in the RSB.

b) The desired new state we seek is that major stakeholders support the integration of voluntary mechanisms, such as roundtables and voluntary moratoria, into jurisdictional REDD+ systems in

[3] WRI 2012. Two New Online Mapping Applications Launched to Support Sustainable Palm Oil in Indonesia. Avaiable online at:www.wri.org/press/2012/10/release-two-new-online-mapping-applications-launched-support-sustainable-palm-oil-indo

all three countries, based on the policy proposal and recommendations developed by EDF under this project. Adoption of such proposed policy for integrated action would contribute to overall reductions in deforestation, first at the jurisdictional level and quickly scaling up to national-level reductions, while offering positive incentives to producers and other stakeholders and reducing producers' market access costs. Ultimately, deforestation-free commodities would become identified with specific landscapes, as in the "appelation controleé" for wine. Quantitative analysis will support a transition to this state by showing the benefits of jurisdictional REDD programs, their potential for lowering monitoring and verification costs, and their environmental effectiveness. It is essential that the private sector understands how integrating their corporate efforts into REDD programs, and vice versa, will make business sense by making it easier and cheaper to meet their corporate goals.

c) The major indicator of change will be that REDD+ and functioning state/federal deforestation goals in all three countries are supported by commodity roundtables, moratoria and/or major private sector actors who also support the concept of integrating REDD+ and voluntary mechanisms into a phased system. A goal set by one or more companies to purchase all or a large share of their agricultural commodities from jurisdictions that have robust and functioning REDD programs will be a major step toward the desired change. We will select at least one jurisdiction in each country in which to monitor and document developments, as a means of determining progress toward the successful implementation of jurisdictional REDD programs in those countries.

b) Please report on all outcomes from the project document:
    i. What changes have been achieved with reference to the baseline? Use common indicators'

Outcome 1)

At the start of the project: a) we were unsure whether the G4 Cattle Moratorium was being implemented effectively, or whether it would continue; b) no meatpackers or supermarkets intended to consider deforestation on indirect-supplying ranches, and: c) the Soy Moratorium was set to end, and there were no thorough soy supply chain studies.

a) UW established a property-level monitoring system in Mato Grosso and Pará states (data availability prevented a robust assessment in Acre state). In 2015, we published the first robust analysis of the Cattle Moratorium conducted by UW, which used sophisticated econometrics to demonstrate that JBS were effectively implementing the Moratorium in Pará state. The results were published in a scientific journal and on a website we created and have shared with many international beef and leather retailers and brands. The awareness of the effectiveness of the Agreement has helped to ensure that the G4 meatpackers plan to continue it, and other meatpackers (such as members of the Brazilian Beef Export Association) are in the process of adopting similar systems. The GRSB-GTPS Joint Working Group on Forests has continued to show support for the Cattle Moratorium, as has the Consumer Goods Forum (CGF). At our request, the CGF wrote letters to the three meatpackers supporting the Cattle Moratorium, while also asking for improvements in transparency and for it to be extended to incorporate indirect suppliers.

b) We held the first ever workshop on indirect supplying ranchers in June 2015, with government, meatpackers, supermarkets, leather brands, ranchers and Brazilian civil society present. We showcased a range of projects that have piloted traceability to indirect suppliers, and produced a report comparing these, which highlighted that they all made use of the Animal Transit Guide (GTA), a document verifying vaccination against foot and mouth disease. As a result, at a follow-up meeting, we established a "Working Group on Indirect Suppliers" (GTFI in Portuguese), whose members include the Cattle Moratorium meatpackers, the Brazilian Association of Beef Exporters, major supermarkets and leather brands as well as civil society

groups. The GTFI agreed on the importance of addressing indirect suppliers and that the GTA is the tool that should be used to do this. So we have agreement on expanding monitoring to indirect suppliers and how to do this.

c) UW has mapped nearly 80% of all soy property boundaries across the Amazon, tracked land use histories, identified buyers of soy in 80% of properties in Querencia, fully mapped soy in a neighbouring municipality, and presented this to the RTRS. Following the publication of our paper in the journal *Science* demonstrating the important role played by the Soy Moratorium, we continued to ask soy traders and retailers to continue the Moratorium beyond its 2016 cut-off date. Earlier this month, we were very pleased with the announcement that the Soy Moratorium would be continued indefinitely.

In regards to common indicators, the Cattle and Soy Moratoria spanned farmland of 10.3 million and 45 million ha respectively. The total emissions reduced by these Moratoria over the three years of the grant period for Cattle and Soy were 1.86 and 13.8 billion tons of CO_2 emissions avoided respectively.

Outcome 2)

At the start of the project, none of the commodity roundtables had implemented an operational landscape-level deforestation-monitoring system. As a result, it was not possible to determine the impact of roundtables on deforestation and discussions merely focused on the stringency of applicable Principles and Criteria, without being informed by quantified impact assessments.

During the project period, NWF, NASA, and collaborators from the University of Hawaii-Manoa developed deforestation monitoring systems for both the RSB and the RSPO. For the RSB, we developed a pilot deforestation monitoring system in southeastern Mexico (State of Yucatan) capable of determining whether there was deforestation on an RSB-certified property. Ultimately, our system determined that deforestation occurred in the operation between 2008 and 2012. Findings have been presented to the RSB Secretariat, and are being used to inform the Standard's revision process. The Secretariat is actively reviewing the standard and its current definition of forest and deforestation to determine whether the certifying body (i.e. auditor) acted correctly in approving the property; or whether the standard's definition was too vague and in need of further guidance. In the revision, the definition of forest is being changed to one which is able to be clearly monitored via remote sensing, utilizing a conservative canopy cover threshold of 10%. Our demonstration of deforestation in Mexico also prompted the Secretariat to agree to develop a new Monitoring and Evaluation plan, under which they will collect shapefiles of high-risk operations, allowing them to i) run an annual report of compliance, ii) improve the Standard's transparency, and iii) aid researchers in better quantifying the Standard's impact. The Secretariat has asked NWF to continue advising them during this process.

We also developed a deforestation monitoring system for the RSPO. Partnering with researchers at the University of Hawaii-Manoa, we have created the first ever national-scale analysis evaluating the influence of roundtable sustainability certification on deforestation and fire occurrence for a forest-risk commodity crop. We assembled a new, comprehensive database of certified and non-certified palm oil plantations in Indonesia (expanding the scope beyond Kalimantan), then combined this database with remotely sensed deforestation and fire incidence and compared land use dynamics among certified and non-certified plantations. Our analysis relied on cutting-edge, quasi-experimental econometric techniques to control for selection bias and variation of critical variables over both time and space. We find that RSPO certification

reduces deforestation embodied within supply chains, but largely because RSPO member companies avoid certifying plantations containing forest. We also detected a significant, though small protection effect; certified plantations *are* conserving residual forest areas within their boundaries. We recently received an invitation to submit our research to the prestigious peer-reviewed journal *Science*, and we have shared our analysis with the RSPO Secretariat. We will provide them with the complete database following publication, which will greatly enhance their capacity to carry out further monitoring work in-house. We will also partner with Global Forest Watch to make this data available online following publication.

Building on our deforestation monitoring development work for RSB and RSPO, NWF created a deforestation monitoring working group for the High Carbon Stock Approach Steering Group. At the last meeting of the Steering Group, we decided to merge with the Quality Assurance working group, to better mainstream ongoing monitoring into the QA process. We have also begun developing indicative HCS maps in collaboration with the University of Hawaii, utilizing Google Earth Engine, which has the support of the HCSA Steering Group (including member companies from the palm oil, rubber, and pulp/paper sectors).

Cross-cutting lessons-learned have been captured in a policy report recently presented at the 44th session of the Subsidiary Bodies to the UNFCCC in Bonn, Germany. This report demonstrates how voluntary supply chain governance initiatives, including *inter alia*, roundtable certification, can contribute to functional jurisdictional REDD programs. Feedback collected during Bonn will be incorporated into the report and we will send a finalized version to Norad by the end of the month.

Outcome 3)

Initially, there was no research about whether the moratoria and roundtables were helping REDD goals at the jurisdictional or national scale. Our research has demonstrated that the Soy and Cattle Moratoria in states in the Brazilian Amazon, and RSPO certification in Indonesia are supporting jurisdictional efforts to address deforestation.

Additionally, since the start of the grant support period, over 100 target private sector companies have adopted zero-deforestation commitments. Moreover, at the start of our project, there were no companies considering jurisdictional sourcing. In December 2015, Marks & Spencer, Unilever and Mondelez all announced in Paris at COP21 their intentions to implement jurisdictional approaches to supplement their voluntary zero-deforestation commitments.

In addition, the baseline situation was that jurisdictions were not linking their efforts to roundtables or moratoria. The RSPO has recently initiated a jurisdictional certification initiative in Kalimantan, Indonesia, and aims to work with sub-national governments around the world. Our analysis has shown that scaling-up mill-based certification throughout a subnational jurisdiction could have a significant impact on deforestation rates, functioning as a bridge to achieving broader deforestation reductions within that jurisdiction.

EDF's statistical analysis of deforestation in Mato Grosso was incorporated in Mato Grosso's new zero-deforestation rural development growth strategy, "Produce, Conserve, Include" (PCI), launched by Governor Pedro Taques at COP21 in Paris. The strategy incorporates the Zero Deforestation Zone concept as part of an ambitious set of goals premised on conserving the 60% of the state covered in native vegetation, increasing agriculture commodity production and significantly increasing small-famer family incomes.

ii. Please report on the key indicators used to document that the desired change has occurred.

Outcome 1)

We have demonstrated, through a robust analysis, that meatpackers are successfully complying with the G4 Cattle Moratorium by identifying and dropping suppliers with recent deforestation. The G4 Moratorium covers around 50% of cattle slaughter in the Amazon biome. We have over 100 corporate and civil society organization members in the GRSB-GTPS Working Group, and have held events and workshops at major international meetings such as the Global Conference on Sustainable Beef in São Paulo. The Consumer Goods Forum (CGF) has demonstrated increased interest in sourcing from deforestation-free supply chains: eight members have improved their policies and sourcing efforts; and the CGF wrote a letter to G4 meatpackers supporting the Cattle Moratorium. Twenty-nine companies have newly-disclosed efforts to address deforestation in beef and leather supply chains to CDP.

With soy, the key indicator of success was the recent announcement that the Moratorium has been extended indefinitely. In addition, the major international soy traders, ADM, Bunge and Cargill, have all announced commodity-wide zero deforestation policies.

Outcome 2)

Per the Project Document, a key indicator was the review and adoption of our recommended monitoring system by the RSB and RSPO Secretariats; which has taken place. The subsequent support for this monitoring approach by the High Carbon Stock Approach Steering Group is another indicator, which shows acceptance of forest monitoring systems, both by NGOs that have traditionally promoted only "boots on the ground" approaches, and by the broader soft commodity industries.

Increased participation in the voluntary certification roundtables, measured in both volume of certified products and membership numbers, are also indicators of success. Currently, 21% of global palm oil supply is RSPO certified, up from only 15% in 2013. Membership has more than doubled during this time.

Outcome 3)

A key indicator was that state deforestation goals are supported by commodity roundtables, moratoria and/or major private sector actors who also support the concept of integrating REDD+ and voluntary mechanisms into a synergistic system. As noted in the section above, our research, led by UW, has demonstrated that this is the case. In particular, we see that the Moratoria have impacted producer behaviour and are supporting state-level efforts to enhance enforcement of Brazil's Forest Code and reduce deforestation.

Several indicators show that our efforts to link deforestation-free supply chains with jurisdictional governance are having an impact. For example, we held a workshop at UNFCCC SBs' session in June of 2015 to encourage the inclusion of the land sector in the ADP, attended by over 20 REDD+ negotiators. EDF contributed to advancing Jurisdictional REDD and the engagement of the Private Sector through advocacy in the UN-REDD, Forest Carbon Partnership Facility, and UNFCCC discussions.

Another indicator was dissemination of a data-driven policy proposal for integrating state and federal REDD+ systems and voluntary supply chain mechanisms. EDF wrote a policy proposal, focusing on Kalimantan provinces, explaining how they could become Zero Deforestation Zones. This proposal was included in Ecosystem Marketplace's newsletter *The Carbon Chronicle*, which went out to 7,000 subscribers. Workshops on this topic were supported at the national level (through The Forest Dialogue) and sub-national level in Palangkaraya in conjunction with local partners.

To highlight the synergies between voluntary supply chain governance mechanisms and jurisdictional REDD+, while building support for enhanced integration between the two, EDF ensured that both zero deforestation supply chains and the concept of jurisdictional sourcing were included in the New York Declaration of Forests. The latter can help reduce overall risk for companies sourcing zero-deforestation agricultural commodities, and so it was also integrated into The Sustainability Consortium's (TSC) Key Performance Indicators. Both of these proposals used multi-stakeholder processes with feedback loops before finalizing the end products. The Sustainability Consortium's Key Performance Indicators are the only ones used by Walmart, and EDF worked closely with them to ensure the inclusion of a jurisdictional approach indicator for deforestation caused by beef and seed oils (including both palm and soy), which are important drivers of deforestation in Brazil (beef and soy) and Indonesia (palm oil). We worked closely with Walmart and McDonalds, amongst other important companies, to convince them to join the New York Declaration on Forests.

iii. Please reflect on whether targets that were originally set have been achieved, and what project outputs were key to achieving them. If relevant reflect on why outputs delivered as planned did not help meet the targets.

Outcome 1)

We have successfully achieved our key targets for both cattle and soy, with evidence for the Soy Moratorium greatly reducing soy as a driver of deforestation, and the Cattle Moratorium working well by JBS in Pará state. However, we have not been able to demonstrate similar success in other states and among other meatpackers, partly because of lack of data (poor traceability information, reduction in transparency with the national CAR, which doesn't contain identifying information) and because results in Mato Grosso are not as clear cut. UW continues to analyze in depth the data from Mato Grosso and anticipates publication this year.

The GRSB-GTPS Working Group remains an important forum for discussing deforestation in cattle supply chains. But because some members do not support full implementation of zero deforestation policies, we have set up the GTFI (indirect suppliers' working group) separately from the roundtables. This will allow us to work with those who support this effort, and thus focus on how to address indirect suppliers rather than simply discuss whether to do so.

While UW and NWF have brought to the attention of the meatpackers examples of properties they buy from that are out of compliance with the Cattle Moratorium, the meatpackers have not been as open with us about sharing details of how these errors could be occurring; this has limited our ability to help make improvements.

Outcome 2)

Targets set for Outcome 2 have been successfully achieved. We developed a monitoring system for the RSB, which informed the revision of their standard. Additionally, the smallholder RSB

workshop (in 2013) informed the development of RSB's specially adapted smallholder standard. This adapted standard is now being implemented with thousands of smallholder producers in Brazil, South Africa and Sri Lanka, and the initiative has been folded into the United Nations' Sustainable Energy for All platform (SE4All). The Sustainable Bioenergy section of SE4All now references the RSB standards for all projects developed under its auspices. For the RSPO, due to delays in obtaining the necessary shapefile data for certified producers in Year 1, we were not able to submit a finalized manuscript for publication in a peer reviewed journal prior to the end of the grant period. However our manuscript was subsequently invited for submission to *Science*. We expect this to be a high-impact publication. In the interim, we provided our findings to the RSPO Secretariat and we will transfer our database to them for further analysis following publication. We will also work with Global Forest Watch to make this data more widely available.

Outcome 3)
As noted above, we successfully developed a data-driven policy proposal for integrating jurisdictional REDD+ systems and supply chain commitments in Brazil. Mato Grosso's announcement at the Paris COP of its new "Produce, Conserve, and Include" policy for reducing greenhouse gas emissions was a significant accomplishment. Substantial progress was also made in Indonesia, where we shared a draft proposal with stakeholders in the province of Central Kalimantan. The announcement by the RSPO to pilot jurisdictional approaches in Central Kalimantan (a target of our data and policy efforts) and Sabah, Malaysia was a significant achievement.

iv. If outcomes are not yet achieved, please explain why, and in addition, how the outputs will lead to the desired outcome and when.

Outcome 1)
The outcomes have been successfully achieved. While further challenges remain, especially as there is no certainty in data availability (such as the CAR, now that there is a new, national system), there is wide support across supply chains for the achievements to date.

Outcome 2)
The outcomes have been successfully achieved; however completion of the RSPO deforestation monitoring system was delayed and finished outside of the project period. We will submit a manuscript to peer-reviewed publications within the next month. Our database will be transferred to the RSPO following publication (anticipated within 1-3 months). High Carbon Stock indicative maps, while not part of the original project document, should be completed by the fourth quarter of 2016.

Outcome 3)
In Indonesia, significant early progress was made in creating the necessary data, sharing and improving the data, and sharing a draft of EDF's Zero Deforestation Zone policy proposal with stakeholders in the province of Central Kalimantan. However, high exchange rate losses necessitated a reduction in focus on Indonesia, and thus on achieving the ultimate goal of a sub-national jurisdiction adopting the policy. Therefore we were not able to integrate RSPO's jurisdictional pilot with the draft policy proposal in a meaningful manner. In Mexico, during the first year, initial progress was made in modelling efforts; but in subsequent years efforts were discontinued because of budget constraints caused by depreciation of the NOK and in the case of Indonesia, the prioritization of Brazil.

v. Are the outcomes expected to be sustainable?

Outcome 1)

The zero-deforestation policies of the major meatpackers and soy traders serve to ensure the continuity of the outcomes. These have no end date and because of continued demand signals from major purchasing companies these supply chain governance efforts are considered to be sustainable.

Outcome 2)

The adoption of and industry support for RSPO Next, a more stringent standard with a zero-deforestation and zero-burning principle, alongside a majority of the supply chain committing to zero deforestation, is evidence that the outcomes are expected to be sustainable.

Outcome 3)

The outcomes we have achieved include announcements of jurisdiction-wide policies (such as Mato Grosso's "Produce, Conserve, and Include" initiative), and RSPO's jurisdictional certification in Kalimantan, which will continue beyond this project. In addition, the New York Declaration has deadlines of 2020 and 2030, and implementation is being tracked and publicized. The Paris Agreement should help to accelerate REDD+ implementation, and alongside many private sector efforts towards zero deforestation, we see many opportunities to expand current initiatives to link public and private sector efforts addressing drivers of deforestation.

2.5 Are there any internal and/ or external factors that have affected the project in any significant way?

a) Please specify deviations from plans.

The loss in value of the NOK against the dollar did have a serious impact as it limited our ability to conduct workshops and attend meetings. For example, AdT had to limit some of their planned workshops with ranchers and government in the Amazon. NWF had to drop its deforestation monitoring workshop in Indonesia, and EDF dropped their planned work in Mexico and had to severely limit their work in Indonesia due to the exchange rate loss.

Access to data in Brazil was limited by new laws and judicial decisions; the 'lista suja' of properties prosecuted for having working conditions analogous to slavery was made confidential. The new national CAR has a lot less identifying information, which makes cross-referencing with meatpackers' traceability websites difficult and the national CAR has not been made available at all yet. This reduced our ability to analyze supply chains in states such as Acre.

Assessing the impact of RSPO on deforestation for oil palm was slower than anticipated because it took longer than we planned to access the property data of certified properties from the RSPO.

Finally, since the start of the support period, we have witnessed the rapid proliferation of corporate zero-deforestation policies that go beyond the High Conservation Value requirements of the RSPO. Since 2013, over 85 target private sector companies adopted zero-deforestation commitments for palm oil (and an additional 15 adopted zero-net deforestation commitments). As a result, NWF began promoting zero-deforestation commitments, and joined the High Carbon Stock Approach Steering Committee to help define how target companies should monitor deforestation and implement these policies.

b) Please provide a short assessment of the risks occurred

We anticipated that data availability may be limited and indeed, this has impacted our efforts, largely in slowing down or limiting the geographic scope of our analyses. We were not able to assess the Cattle Moratorium in Acre and efforts to asses Marfrig's progress were limited. The longer than anticipated time to obtain data from the RSPO slowed down our analysis of the

impact of certification on deforestation for oil palm. Therefore, our study will not be published until 2016.

Implementation of REDD activities were slower than we had anticipated, which also slowed our ability to encourage companies to purchase from jurisdictions implementing REDD schemes. For instance, the Indonesian REDD+ agency (BP REDD) was dissolved during the project period. However, following the Rio Branco Agreement of the Governors' Climate and Forest Initiative, and the Paris Agreement, we are hopeful that such efforts will be accelerated.

2.6 **Cross cutting concerns.** Please report on whether the project has had any effect (positive or negative) on

a) Corruption

Transparency and traceability in supply chains can help reduce corruption because transactions cannot be secretive. Because the TAC agreements require meatpackers to display all of their suppliers, it would be much more difficult to hide corrupt practices (such as not paying taxes on all business transactions). The Cattle Moratorium has greatly increased CAR uptake, which is a key tool for transparency in Brazil, which can in turn help reduce corruption by making it harder to launder products, or to use bribes to appropriate land.

Both the RSPO and RSB include provisions requiring companies to implement policies countering corruption. The RSB in particular has set out risk factors and ways to indentify and address corroption in its guidance regarding land rights. By supporting uptake of voluntary certification via these roundtables, and hence the application of these provisions, we have contributed to reducing corruption.

b) Gender equality

RSPO and RSB both include provisions within their standards promoting gender equality and include a variety of specific safeguards against gender-based discrimination and harassment. RSPO Next, a more stringent standard adopted in November 2015, specifically includes a new requirement that compliant companies establish a gender committee to address areas of concern to women, and that management representatives responsible for communication with this committee be women. Similarly, the High Carbon Stock Approach calls for special consideration of women in the FPIC process. By promoting wider adoption of robust roundtable standards, we have helped to increase gender equality in commodity agriculture production.

c) Respect for human rights

The Cattle and Soy Moratoria include provisions prohibiting the purchase from farms prosecuted for keeping workers in conditions analogous to slavery (National Pact against Slave Labour). While the list of prosecuted properties is no longer public, a transparency law in Brazil has enabled companies to access a similar list monthly, and therefore, the Moratoria continue to support respect for human rights.

Also in Brazil, our efforts supporting the Mato Grosso PCI strategy will help smallholders, both by improving their income and through respecting their land rights.

We have encouraged many companies to adopt and implement zero deforestation policies, and many of these company-specific policies (e.g. Cargill) include provisions that support human rights, through pledges to: respect the rights of workers; facilitate the inclusion of smallholders into the supply chain; respect the rights of indigenous and local communities to give or withhold their free, prior, and informed consent (FPIC) to operations on lands to which they hold legal, communal or customary rights; and resolve all complaints and conflicts through an open, transparent and consultative process. The High Carbon Stock Approach toolkit also includes a strong focus on human rights, customary rights, and FPIC.

Certification roundtable standards, such as the RSB and the new RSPO requirements, as well as the GRSB and the GTPS for cattle, include a wide range of safeguards for human rights, especially

indigenous peoples, ethnic minorities, and the recognition of formal and customary land rights, including FPIC. By supporting increased uptake of these standards, we have contributed to respect for human rights.

2.9 **Lessons learned**. For final report, please summarize lessons learned for the whole agreement period. Both internal and external factors are relevant. What could have been done differently? How can lessons learned be incorporated in future plans? We are interested in learning based on positive and negative experiences.

UW's research has shown that the Moratorium model, as followed by the Zero Deforestation Cattle and Soy Moratoria, can successfully result in deforestation-free supply chains and dramatically influence farmer deforestation behaviour. Therefore, we have demonstrated that market demand for deforestation-free commodities can not only influence trader and meatpacker policies but also can lead to significant changes to their purchasing policies. These serve as important examples for companies who have newly adopted zero deforestation policies, because the Moratorium model uses remote sensing and a robust national forest monitoring system, in contrast to certification systems which normally require site assessments.

Our research results have demonstrated that the rationale behind a key tenet of our project--integrating the efforts of public and private sector mechanisms to reduce deforestation—is effective in practice. As additional forest-rich countries develop their own forest monitoring systems, and Jurisdictional REDD mechanisms develop in other regions, we would recommend seeking opportunities to integrate supply chain governance with REDD initiatives.

It is always difficult to gather ranchers to discuss environmental issues, especially zero deforestation. In this case, we learned to overcome this difficulty by complementing meetings about "zero deforestation" with other relevant topics such as productivity, quality, and economic incentives towards sustainable beef. As a result, we were able to bring other relevant players (industry, retailers) of the beef and leather supply chains together which helped produce a profitable discussion among the group, both in meetings in the state of Pará, at the Global Conference on Sustainable Beef and at GTFI meetings. All of these discussions demonstrated that identifying incentives for ranchers, showcasing leading projects and demonstrating a concern for their challenges are essential to promoting zero deforestation practices "in the field".

When ABIOVE publicly announced that the Soy Moratorium would end in December 2014, many organisations assumed that the decision was final and focused on alternative options. Our research made us aware of how important the Moratorium is and how other options would not be able to provide the same level of forest protection. The members of our Consortium effectively teamed up to intensify communications relaying our findings to consumer facing companies, soy traders and other civil society groups. We later learned that UW's thorough and robust analysis, combined with our clear explanations of the research findings, was able to move key corporations to reverse their decision. We are using this experience to demonstrate the synergies of aligning voluntary efforts to reduce deforestation in supply chains with Jurisdictional REDD+ mechanisms.

Challenges have included accessing government data and slow implementation of REDD mechanisms. Future endeavours should carefully consider what can be achieved where government progress is slow, or reversed; a "Plan B" will assure that projects don't stall while waiting for delayed public policy and implementation.

3 Case/success story

Supply chain governance is reducing Amazon deforestation

The findings from our rigorous analyses confirmed the importance of the Soy Moratorium and of the zero-deforestation cattle agreements in helping to reduce the role of agriculture and ranching as drivers of deforestation in the Brazilian Amazon, leading to the unexpected indefinite extension

of the Soy Moratorium and prompting crucial improvements in the ongoing implementation of the cattle agreements.

Why: Deforestation reductions by supply chain governance at risk due to lack of evidence

Despite many years of implementation of zero deforestation policies, there was little evidence of their forest conservation outcomes. In order to encourage the continuation of these policies, and expansion to other regions and commodities, we aimed to rigorously assess the impacts of zero deforestation policies for soy and cattle in the Brazilian Amazon. A decade ago, deforestation in Brazil was at a peak (around 25,000 km^2/year), with expansion of pasture and soybean fields the major drivers (Morton et al 2006). Since 2006, a temporary Soy Moratorium by major commodities traders banned soy associated with Amazon deforestation from the market (Abiove; Greenpeace (a); Greenpeace (b)). However, despite this achievement, the Soy Moratorium was set to expire at the end of 2014. In 2009, a similar private-sector zero-deforestation pact was signed between Greenpeace and the four largest meatpacking companies in Brazil. Nearly simultaneously, the Brazilian public attorney's office began to compel actors throughout the supply chain, including ranchers, slaughterhouses, and retailers, to sign legally binding agreements to eliminate deforestation from the beef supply chain (Walker et al 2010). The complexity of the beef supply chain and of the zero deforestation agreements complicated efforts to monitor and audit the efficacy of these agreements, in turn creating challenges for expanding and improving them.

What: rigorous scientific analysis conducted and presented to decision-makers

Our primary objective was to fully analyze the outcomes of the supply chain agreements in the soy and cattle sectors of the Brazilian Amazon, and to then share the results with policy-makers in both sectors in order to improve forest protection efforts. Our novel, property-level analyses of the Soy Moratorium and of the cattle agreements provided new and crucial evidence about how these policies function (because the private and public sector efforts in the beef supply chain overlap both spatially and temporally, we assessed them together). We presented these results during high-level meetings with major meatpacking companies, retailers and brands, and other key stakeholders from the cattle supply chain, including civil society and industry groups, and published the results in high profile scientific journals, *Science* and *Conservation Letters*, which provided the first quantitative evidence of the way that these agreements protect forests, as well as key loopholes that need to be closed.

Investment

Research led by the University of Wisconsin-Madison, and collaborators National Wildlife Federation and NASA, was supported with 4,385,947 NOK from 2013-2015 by Norad. 7,038, 000 NOK in additional funding was provided by the Gordon and Betty Moore Foundation.

Results: Soy Moratorium extended, Cattle Agreements expanded and improved

Our research confirmed that the soy supply chain in the Brazilian Amazon is now deforestation-free under the Soy Moratorium, while clearing for soy continues in the less-protected Cerrado. We also provide the first quantitative comparison of outcomes from the Soy Moratorium and public Forest Code, demonstrating that soy farmers respond to market pressures more than legal pressure (Gibbs et al 2015a). These results, presented to the Soy Moratorium working group in August 2014 and published in the journal *Science* in January 2015, helped to convinced soy traders that the continuation of the Moratorium was necessary to avoid undermining nearly a decade's worth of success (Cargill).

Similarly, by using a cutting-edge, property-level approach to assess the effectiveness of the cattle agreements for forests, we found that these agreements have spurred true changes in behavior among supply chain actors, including the elimination of properties with recent deforestation as suppliers to major companies. We also found that leakage of deforestation to other parts of the supply chain (not currently monitored), including calving ranches and other operations that do not directly supply to slaughterhouses, has accompanied these achievements (Gibbs et al 2015b).

As our major findings about the soy sector show, prior to the implementation of the Soy Moratorium in 2006, up to 30 percent of new soy areas in the Amazon directly replaced forests (Morton et al 2006, Gibbs et al 2015). Since 2006, less than 2 percent of new soy fields in the Brazilian Amazon can be linked to deforestation (Rudorff et al 2011). We presented these findings at meetings with key stakeholders, including major soy traders, prior to the expected expiration of the Soy Moratorium in August 2014, and these results were subsequently published in *Science*. In November 2014, the Soy Moratorium was unexpectedly extended until May 2016 (WWF) and was recently extended indefinitely. Multiple individuals involved in the deliberations about the Soy Moratorium confirmed that our findings about the unique role of the Soy Moratorium in protecting forests from soy expansion were fundamental to the decision to extend the Moratorium.

Our major findings in the beef sector show that supply chain-focused efforts can have rapid and transformational effects. Specifically, the slaughterhouses analyzed in our study eliminated over 90% of the deforestation in their direct supply chains within 4 years, and promoted rapid enrollment of suppliers in a state-led effort to map properties for environmental compliance (known as the CAR). However, leakage to the parts of the sector that are not well-covered by agreements (especially calving ranches, which have only an indirect connection to slaughterhouses) can be substantial. The presentation of these results directly to stakeholders in the cattle sector, combined with the high-profile media coverage of the results after their publication in *Conservation Letters* (Herrero 2015, Wilkinson 2015), has led to expansion of the cattle agreements (Petroli 2014) and to renewed attention to closing loopholes for leakage of deforestation to indirect suppliers (JBS; Amazonia.org; Hall et al 2015).

Lessons learned:
Our success in proving the additionality of the Soy Moratorium and of the cattle agreements, beyond the effect of other deforestation policies implemented or strengthened in the Amazon around the same time, was highly dependent on the close cooperation within our Norad-funded partnership, and on our collaborations with other civil society groups, in particular the availability of high quality soy maps and property maps, provided by our collaborators at ICV, Imazon, and AgroSatelite. Timely access to decision-makers ahead of the expiration of the Soy Moratorium was crucial for our findings to have a positive and transformational effect on policy; and access to beef supply chain stakeholders was essential to ensure that our message about the efficacy of, but also the loopholes in, the cattle agreements was heard by decision-makers. Crucially, this access was possible due to the long-term engagement of NWF with other civil society groups and with soy traders and beef-slaughter companies around issues of forest protection.

Partners: University of Wisconsin-Madison, National Wildlife Federation, NASA

Geographic location: the Brazilian Amazon.

4 Project's accounts for last year:

4.1 The accounts must relate to the approved budget for the year in question. All deviations (positive and/ or negative) must be clearly shown and explained.

Attachment: Audited accounts and completed form from the accountant for last year's accounts. Only after a contract expires should unspent funds be returned to Norad.

Date: June 1, 2016

Signature: Barbara Bramble

Attachments: Audited Financial Statements, Menu of Common Indicators Worksheet

NATIONAL WILDLIFE FEDERATION

Statement of Cash Receipts and Disbursements for the Norwegian Agency for Development Cooperation Deforestation-Free Agricultural Commodity Supply Chains and REDD+ Project

For The Year Ended December 31, 2015

and
Report Thereon

NATIONAL WILDLIFE FEDERATION – NORWEGIAN AGENCY FOR DEVELOPMENT COOPERATION PROJECT

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Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of the
National Wildlife Federation

Report on the Financial Statement

We have audited the accompanying statement of cash receipts and disbursements of the National Wildlife Federation (the Federation) for the Norwegian Agency for Development Cooperation (NORAD) Deforestation-Free Agricultural Commodity Supply Chains and REDD+ Project (the Project) for the year ended December 31, 2015, and the related notes to the financial statement.

Management's Responsibility for the Financial Statement

Management is responsible for the preparation and fair presentation of this financial statement in accordance with the cash basis of accounting described in Note 1; this includes determining that the cash basis of accounting is an acceptable basis for the preparation of the financial statement in the circumstances. Management is also responsible for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on this financial statement based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statement is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statement. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statement, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statement in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statement.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statement referred to above presents fairly, in all material respects, the statement of cash receipts and disbursements of the Federation for the Project for the year ended December 31, 2015, in accordance with the cash basis of accounting described in Note 1.

Basis of Accounting

We draw attention to Note 1 of the financial statement, which describes the basis of accounting. This financial statement is prepared on the cash basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to that matter.

Other Matter

Our audit was conducted for the purpose of forming an opinion on the financial statement as a whole. The schedule of budget to actual expenditures by outcome on pages 7 and 8 is presented for purposes of additional analysis and is not a required part of the financial statement. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statement. The information has been subjected to the auditing procedures applied in the audit of the financial statement and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statement or to the financial statement itself, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statement as a whole.

Raffa, P.C.

Raffa, P.C.

Washington, DC
April 29, 2016

NATIONAL WILDLIFE FEDERATION - NORWEGIAN AGENCY FOR DEVELOPMENT COOPERATION PROJECT

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
For the Year Ended December 31, 2015

	National Wildlife Federation	Amigos da Terra	Environmental Defense Fund	University of Wisconsin	Eliminations	Total
CASH RECEIPTS						
Funding received from NORAD	$ 1,007,649	$ 80,692	$ 269,839	$ 319,372	$ (669,903)	$ 1,007,649
Interest income	112	-	-	-	-	112
TOTAL CASH RECEIPTS	1,007,761	80,692	269,839	319,372	(669,903)	1,007,761
CASH DISBURSEMENTS						
Direct Expenses:						
Partners	669,903	-	-	-	(669,903)	-
Personnel	286,639	68,534	166,425	355,867	-	877,465
Consultants and contractors	64,500	-	33,366	6,100	-	103,966
Travel	45,150	1,907	48,289	16,361	-	111,707
Communication and dissemination	1,380	1,487	-	60	-	2,927
Workshops	-	4,379	4,509	-	-	8,888
Miscellaneous	2,664	590	-	2,402	-	5,656
Total Direct Expenses	1,070,236	76,897	252,589	380,790	(669,903)	1,110,609
General and administrative expenses	30,133	5,665	17,250	27,694	-	80,742
TOTAL CASH DISBURSEMENTS	1,100,369	82,562	269,839	408,484	(669,903)	1,191,351
Change in cash position	(92,608)	(1,870)	-	(89,112)	-	(183,590)
CASH POSITION, BEGINNING OF YEAR	92,612	1,870	-	89,112	-	183,594
CASH POSITION, END OF YEAR	$ 4	$ -	$ -	$ -	$ -	$ 4

The accompanying notes are an integral part of this financial statement.

NATIONAL WILDLIFE FEDERATION – NORWEGIAN AGENCY FOR DEVELOPMENT COOPERATION PROJECT

NOTES TO FINANCIAL STATEMENT
For the Year Ended December 31, 2015

1. Organization and Summary of Significant Accounting Policies

Organization and Project

The National Wildlife Federation (the Federation) was founded in 1936 as a nonprofit organization in the United States of America for the purpose of promoting the wise use and proper management of natural resources.

The Reducing Emissions from Deforestation and Forest Degradation (REDD) for Promoting Deforestation-Free Agricultural Commodity Supply Chains and the Link to Jurisdictional REDD+ Frameworks Project (the Project) of the Federation was funded by the Norwegian Agency for Development Cooperation (NORAD) for NOK 21,000,000, over three years through December 31, 2015.

The goal of the project was to contribute to reducing tropical deforestation by developing, monitoring and promoting deforestation-free commodity supply chains, including designing improved deforestation monitoring systems for commodity roundtables and other industry groups with "zero deforestation" policies, and combining these efforts with jurisdictional REDD+ programs.

The objectives of the Project were:

- Strengthening of deforestation-free beef, leather and soy supply chain monitoring and implementation in the Brazilian Amazon.
- A cost-effective, regional deforestation monitoring system designed for Roundtables (Roundtable on Sustainable Biomaterials and Roundtable on Sustainable Palm Oil) in Indonesia and Mexico.
- A data-driven policy proposal developed for integrating state and federal (jurisdiction-wide) REDD+ systems and voluntary supply chain mechanisms (soy and cattle moratoria and sustainable commodity roundtables) supported by major stakeholders in Brazil, Indonesia and Mexico.

Basis of Presentation

This financial statement is presented on the cash basis of accounting. The basis of presentation is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America.

Foreign Currency Transaction and Budget Variance

The amount of funding received from NORAD in support of the Project for the year ended December 31, 2015 (Year 3), was NOK 8,170,000, which at the time of signing the agreement was the equivalent of $1,348,879. Based on the exchange rates at the time of each funding payment, total funds received by the Federation from NORAD during Year 3 were $1,007,609, which was $341,270 less than budgeted for the year ended December 31, 2015. As a result, the Project's expenses were less than the budgeted numbers.

1. Organization and Summary of Significant Accounting Policies (continued)

Interest Earned

Interest earned on the Project is calculated and credited on a monthly basis using the Treasury constant one-month maturities rate. The effective interest rate is applied on the Project's month-end cumulative cash position after considering cash inflows less expenditures including indirect costs.

Partner Expenditures

The Federation has entered into three subawards as indicated in the application and implementation plan:

1. Entered into on June 20, 2013, with Amigos da Terra – Amazonia Brasileira (AdT), a Brazilian-based nonprofit whose mission is to promote the sustainable development of Brazil, with a special focus on the Amazon region. AdT will garner wide support for the GRSB-GTSB Joint Working Group by holding a workshop; organizing and implementing an outreach program for ranchers in the Brazilian Amazon to inform them about the GRSB-GTSB Working Group, the Consumer Goods Forum, and improved pasture management; build on existing relationships with meatpackers to help them improve their internal systems for excluding suppliers who contribute to deforestation; communicate and disseminate information on cattle monitoring systems to the industry; and formulate policy proposals that integrate REDD+ complementary and voluntary mechanisms in Brazil. Funding to AdT for the three years ended December 31, 2015, is NOK 2,283,149, or $397,394 based on the exchange rate at the time of the original grant, subject to funding under the prime grant. During Year 3, AdT received $80,692 at the exchange rate received by the Federation at the time funds were received from NORAD.
2. Entered into on July 25, 2013, with the Environmental Defense Fund, Inc. (EDF), a nonprofit based in the United States of America, whose mission is to preserve the natural systems on which all life depends. EDF will provide a supporting role in developing a deforestation monitoring system for the Roundtable of Sustainable Biofuels (RSB); model REDD+ policy scenarios in Brazil, Indonesia, and at least one jurisdiction in Mexico, in partnership with relevant ministries, and disseminate results; map zero-deforestation landscapes; formulate a policy proposal; and build support among major stakeholders over the three-year grant period. Funding to EDF for the three years ended December 31, 2015, is NOK 6,965,283, or $1,212,345 based on the exchange rate at the time of the original grant, subject to funding under the prime grant. During Year 3, EDF received $269,839 at the exchange rate received by the Federation at the time funds were received from NORAD.

1. Organization and Summary of Significant Accounting Policies (continued)

Partner Expenditures (continued)

3. Entered into on July 26, 2013, with the Board of Regents of the University of Wisconsin System (UWis), a state educational unit of higher learning based in the United States of America. UWis will establish and implement a system for monitoring deforestation in the Brazilian Amazon and produce progress reports auditing the direct supply chains of the two largest meatpackers; develop methods to incorporate indirect cattle suppliers and the domestic market into supply chain monitoring and traceability systems; formalize partnerships with key state agencies to facilitate soy and cattle supply chain mapping, host meetings of key government stakeholders and demonstrate a property-level supply chain traceability and monitoring system for soy in the Brazilian Amazon; and working with the Federation, use the proof of concept to move the Round Table on Responsible Soy (RTRS) and soy traders towards a more durable and transparent system. Funding to UWis for three years ended December 31, 2015, is NOK 4,083,333, or $710,726 based on the exchange rate at the time of the original grant, subject to funding under the prime grant. During Year 3, UWis received $319,372 at the exchange rate received by the Federation at the time funds were received from NORAD.

Administrative Costs

Administrative costs of up to 7% of the grant are included in the expenditures incurred to cover overhead and other indirect costs.

2. Subsequent Events

Management of the Project has evaluated subsequent events through April 29, 2016, the date the financial statement was available to be issued. There were no subsequent events that require recognition of or disclosure in this financial statement.

SUPPLEMENTAL INFORMATION

NATIONAL WILDLIFE FEDERATION - NORWEGIAN AGENCY FOR DEVELOPMENT COOPERATION

SCHEDULE OF BUDGET TO ACTUAL EXPENDITURES BY OUTCOME – COMBINED
For the Year Ended December 31, 2015

	Outcome 1						
		Actual					
Expenditures	Budget	NWF	AdT	EDF	UWis	Total	Variance
Personnel	$ 567,462	$ 66,787	$ 65,037	$ -	$ 355,867	$ 487,691	$ 79,771
Consultants and contractors	107,666	39,100	-	-	6,100	45,200	62,466
Travel	107,158	9,194	1,907	-	16,361	27,462	79,696
Communication and dissemination	4,209	488	1,487	-	60	2,035	2,174
Workshops	8,952	-	4,379	-	-	4,379	4,573
Miscellaneous	3,389	200	590	-	2,402	3,192	197
Subtotal Direct Expenditures	798,836	115,769	73,400	-	380,790	569,959	228,877
General and administrative up to 7%	60,128	8,714	5,403	-	27,694	41,811	18,317
TOTAL EXPENDITURES PAID	858,964	124,483	78,803	-	408,484	611,770	247,194

	Outcome 2						
		Actual					
Expenditures	Budget	NWF	AdT	EDF	UWis	Total	Variance
Personnel	166,797	171,392	-	-	-	171,392	(4,595)
Consultants and contractors	7,200	7,200	-	-	-	7,200	-
Travel	23,443	17,724	-	-	-	17,724	5,719
Communication and dissemination	3,814	414	-	-	-	414	3,400
Workshops	39,803	-	-	-	-	-	39,803
Miscellaneous	6,083	2,464	-	-	-	2,464	3,619
Subtotal Direct Expenditures	247,140	199,194	-	-	-	199,194	47,946
General and administrative up to 7%	18,602	14,993	-	-	-	14,993	3,609
TOTAL EXPENDITURES PAID	265,742	214,187	-	-	-	214,187	51,555

Continued

NATIONAL WILDLIFE FEDERATION - NORWEGIAN AGENCY FOR DEVELOPMENT COOPERATION

SCHEDULE OF BUDGET TO ACTUAL EXPENDITURES BY OUTCOME – COMBINED
For the Year Ended December 31, 2015

(continued)

	Outcome 3						
		Actual					
Expenditures	Budget	NWF	AdT	EDF	UWis	Total	Variance
Personnel	$ 270,188	$ 48,460	$ 3,497	$ 166,425	$ -	$ 218,382	$ 51,806
Consultants and contractors	104,024	18,200	-	33,366	-	51,566	52,458
Travel	62,214	18,232	-	48,289	-	66,521	(4,307)
Communication and dissemination	1,658	478	-	-	-	478	1,180
Workshops	9,171	-	-	4,509	-	4,509	4,662
Miscellaneous	-	-	-	-	-	-	-
Subtotal Direct Expenditures	447,255	85,370	3,497	252,589	-	341,456	105,799
General and administrative up to 7%	33,665	6,426	262	17,250	-	23,938	9,727
TOTAL EXPENDITURES PAID	480,920	91,796	3,759	269,839	-	365,394	115,526

	Totals						
		Actual					
Expenditures	Budget	NWF	AdT	EDF	UWis	Total	Variance
Personnel	1,004,447	286,639	68,534	166,425	355,867	877,465	126,982
Consultants and contractors	218,890	64,500	-	33,366	6,100	103,966	114,924
Travel	192,815	45,150	1,907	48,289	16,361	111,707	81,108
Communication and dissemination	9,681	1,380	1,487	-	60	2,927	6,754
Workshops	57,926	-	4,379	4,509	-	8,888	49,038
Miscellaneous	9,472	2,664	590	-	2,402	5,656	3,816
Subtotal Direct Expenditures	1,493,231	400,333	76,897	252,589	380,790	1,110,609	382,622
General and administrative up to 7%	112,395	30,133	5,665	17,250	27,694	80,742	31,653
TOTAL EXPENDITURES PAID	$ 1,605,626	$ 430,466	$ 82,562	$ 269,839	$ 408,484	$ 1,191,351	$ 414,275

Note: Expenditures were less than budgeted due to exchange rate fluctuation.

MENU OF COMMON INDICATORS

Please report on the indicator(s) relevant to the planned output(s) and outcome(s) in your project(s). We realise that some of the planned outcomes take time to achieve and cannot be expected in the first year of reporting on a project. Nevertheless, you are asked to report on the relevant indicator(s) already since the reports you submit in 2014 will help us establish a baseline for the 2013-2015 portfolio and indicate the realism in using each specific indicator across projects and partners.

Some of the indicators in this menu are quantitative, and we ask you to report the numbers with a comment on source of information, as indicated in this template. Other indicators are qualitative, and we ask you to please use the standardised tables and text boxes suggested here in order to ease our compilation and reporting on these issues.

Norad kindly asks you to mark the Not Applicable (N/A) option for those indicators that are not relevant to your project, leave the table and/or text box open and move to the next indicator.

1. **Emissions reductions (metric tons CO_2) in project area**

N/A ☐

Have you and/or your partner(s) contributed to documented reduction in emissions of CO2 during the year reported on? Please fill in the project location and the reduction in metric tons. If reductions occurred the number should be negative, e.g. – 100 000 tonnes in location XX. If commitments have been made which will lead to concrete emissions reductions but the reductions cannot be documented yet, please also list approved commitments in the table.

Country/ Geographical area (if several project locations)	**Ton CO_2 emmissions reduction**	**% change compared to previous year** (if possible)	**Approved commitments to emission reductions**	**Hectares involved** (if possible)	**Data source/description**
G4 Cattle Agreement. Properties supplying JBS in Amazon Biome, Brazil.	-916 million Mg CO_2 of emissions. These emissions were avoided on forested areas on JBS suppliers in 2015, who abided by the zero deforestation requirement, but could otherwise have cleared their forests.	Deforestation in 2015 resulted in a decrease in avoided emissions of 0.4% compared with 2014, since there was some new deforestation.		2.7 million hectares of primary forest remain on JBS suppliers in the Brazilian Amazon.	Forested areas in the Amazon Biome were identified using PRODES land cover maps created by the Brazilian space agency—INPE. JBS suppliers were identified using Latitude-Longitude coordinates, publicly available at: http://www.confiancadesdeaorigemjbs.com.br/. Property boundaries for some Brazilian properties are available at: • CAR properties in the state of Pará: http://monitoramento.sema.pa.gov.br/simlam/index.htm • CAR and LAU properties in the state of Mato Grosso http://monitoramento.sema.mt.gov.br/simlam/ • INCRA and Terra Legal properties for Brazil: http://acervofundiario.incra.gov.br/i3geo/

					datadownload.htm Carbon estimates were generated using an above-ground biomass map created by **Saatchi S**, Harris NL, Brown S, Lefsky M, Mitchard ET, Salas W, Zutta BR, Buermann W, Lewis SL, Hagen S, Petrova S, White L, Silman M, Morel A. (2011). Benchmark map of forest carbon stocks in tropical regions across three continents. Proc Natl Acad Sci U S A. 2011 Jun 14;108(24):9899-904. Biomass estimates were converted to Carbon using the formula: Carbon = Biomass/2. Carbon estimates were converted to CO2 estimates using the formula: CO2 = Carbon *44/12.
Amazon Soy Moratorium (Amazon Biome, Brazil))	-4,868 million Mg CO_2 of emissions. These emissions were avoided on forested areas suitable for growing soy. -707 million Mg CO_2 of emissions were avoided on forested areas suitable for growing soy that could be legally cleared under the Forest Code, so are mainly protected by the Soy Moratorium.	Deforestation in 2015 resulted in a decrease in avoided emissions, over those avoided in 2014 in areas suitable for soy of 0.6%, and 1.9% on areas suitable for soy that could be legally cleared under the Forest Code.	On November 25, 2014, the soy trader members of the Brazilian soy association, Abiove, agreed to extend the Soy Moratorium until May 2016.	14.0 million hectares of forest suitable for soy remain in the Brazilian Amazon Biome, of which 1.6 million could be legally cleared under the Forest Code.	Forested areas in the Amazon Biome were identified using PRODES land cover maps created by the Brazilian space agency—INPE. Suitable areas for soy were identified using a suitability map created by B. Soares-Filho, et al. Cracking Brazil's Forest Code. *Science*. **344**, 363-364 (2014). Suitable areas that could be legally cleared under the Forest Code were identified by using a micro-watershed map created by the Brazil National Water Agency (ANA) in order to evaluate whether each micro-watershed had "surplus" forest that could be legally cleared under Brazil's Forest Code requirements.

					Carbon estimates were generated using an above-ground biomass map created by **Saatchi S**, Harris NL, Brown S, Lefsky M, Mitchard ET, Salas W, Zutta BR, Buermann W, Lewis SL, Hagen S, Petrova S, White L, Silman M, Morel A. (2011). Benchmark map of forest carbon stocks in tropical regions across three continents. Proc Natl Acad Sci U S A. 2011 Jun 14;108(24):9899-904. Biomass estimates were converted to Carbon using the formula: Carbon = Biomass/2. Carbon estimates were converted to CO2 estimates using the formula: CO2 = Carbon *44/12.
Indonesia (2013 baseline) : Certified Concessions	24,787 MgC (2014-2013)	6		7,018 ha	Hansen et al. 2013 (Global Forest Watch) deforestation layer for year 2014, 2013, and Woods Hole biomass dataset at 500m were used for biomass measurements. We assume carbon as 50% of biomass. The deforestation layer for 2015 is not available yet. Certified palm oil concessions were obtained from RSPO (members) and Gibbs lab (University of Wisconsin). The reductions calculated here are outside of actual planted palm plantations in year 2010.
Central Kalimantan(2013 baseline) : Certified Concessions	41,288 MgC (2014-2013)	135		1,141 ha	
East Kalimantan(2013 baseline) : Certified Concessions	-53,934 MgC (2014-2013)	-25		1,193 ha	
West Kalimantan(2013 baseline) : Certified Concessions	30,695 MgC (2014-2013)	84		1,263 ha	
South Kalimantan (2013 baseline) : Certified Concessions	485 MgC (2014-2013)	13		166 ha	
Mexico/RSB	0 MgC (2014-2013)	0		0	

Feel free to add rows in the table if necessary. The columns titled in grey are optional to fill in.

Please note: This indicator requires that you or your partner(s) have been implementing activities/actions that have contributed to the emissions reduction registered for the year you report on. You should not include emissions reduction from previous years even if your project has been active for a longer period. Please note that there is a risk of double counting if you report both emissions reductions and approved commitments for the same project. In such cases, please make sure that there is no overlap between the two columns.

Please describe as short as possible how you and/or your partner(s) contributed to the reported change or approved commitment to emission reductions during the year reported on:

While emissions rose for both area monitored by the Soy Moratorium and the G4 Cattle Agreement, our project contributed to continued historically low deforestation associated with these sectors, and, therefore, associated emissions.

Regarding the Cattle Agreement, UW's deforestation monitoring system is identifying ranches that were not compliant with the Agreement and UW and NWF's ongoing dialogues with meatpackers about these properties has resulted in improvements to their systems. NWF and UW also supported improvements in the verification process of the Agreement through regular engagement with meatpackers and in encouraging consumer-facing companies to communicate their desire for the improvements in these systems. NWF leads the GRSB-GTPS Working Group on Forests, which brings together meatpackers, retailers and leather brands to highlight the role of the Cattle Agreement in reducing deforestation in cattle supply chains. UW'sengagement with several levels of federal and state government in the Amazon is supporting strengthened action towards enforcement of laws to protect forests on ranchland. UW and NWF published a high-profile paper in the journal *Conservation Letters* in May 2015 which demonstrates that zero-deforestation agreements in the cattle sector significantly reduced the likelihood that participating slaughterhouses purchased from properties with ongoing deforestation. We also participated in extensive media coverage including interviews with the Guardian, Nature News, NPR, National Geographic among many others. In addition, NWF and UW created a sophisticated website to explain issues around zero-deforestation commitments in the cattle sector: www.zerodeforestationcattle.com

In January 2015, Gibbs and her team at UW in cooperation with NWF published in *Science* magazine the results of an extensive analysis of the Soy Moratorium compared to other major forest protection instruments in the Amazon Biome, like the Forest Code. This publication received extensive media coverage. The results of this analysis showed that the Soy Moratorium was responsible for nearly eliminating deforestation for soy production in the Brazilian Amazon and that the policy was the only thing protecting 2Mha of suitable but still forested areas from conversion to soy fields. Gibbs presented these results to the Soy Working Group, swaying traders who had been determined to not extend the Soy Moratorium to extend it indefinitely. With our partners, we are currently working on an updated analysis of soy expansion in the Amazon and Cerrado biomes using higher-resolution Landsat imagery.

We compiled certified and non-certified concession leases in Indonesia. The RSPO secretariat supplied polygon vector data outlining the boundaries of 134 certified concessions. Additional concession boundaries were digitized by Holly Gibbs lab from the maps available from audit reports hosted on the RSPO website (www.rspo.org), supplemented by spatial data on plantation boundaries provided by companies as part of the 2014 Annual Communication of Parties (ACOP). The non-certified concession dataset were obtained from the Indonesian Ministry of Forestry. To date, this is the only comprehensive palm oil concession database available so far and our research demonstrate the effectiveness of RSPO regulations in protecting forests and the biodiversity.

2. Change in forest area in targeted landscapes

N/A ☐

Please report change in forest area in targeted landscapes that you and/or your partner contributed to in the year reported on.

Country and project location	Hectares of targeted landscapes covered by forest	% change in forest area during the year reported on	Specify, if possible, hectares & % change in native forest (?)	Hectares of forest prevented from negative change in forest cover	Comment (source of information etc.)
G4 Cattle Agreement. Properties supplying JBS in Amazon Biome, Brazil.	2.7 million ha of native forest on JBS supplier properties in the Amazon Biome.	0.3% decrease in native forest.	8,200 ha (0.3%) decrease in native forest on JBS supplying properties	2.7 million ha of native forest on JBS supplier properties in the Amazon Biome.	Forested areas in the Amazon Biome were identified using PRODES land cover maps created by the Brazilian space agency—INPE. JBS suppliers were identified using Latitude-Longitude coordinates which are publicly available at: http://www.confiancadesdeaorigemjbs.com.br/. Property boundaries for some Brazilian properties are available at: • CAR properties in the state of Pará: http://monitoramento.sema.pa.gov.br/simlam/index.htm • CAR and LAU properties in the state of Mato

					Grosso http://monitoramento.sema.mt.gov.br/simlam/ • INCRA and Terra Legal properties for Brazil: http://acervofundiario.incra.gov.br/i3geo/datadownload.htm
Amazon Soy Moratorium (Amazon Biome, Brazil))	14.0 million ha of forest within the Amazon Biome are suitable for soy. 1.6 million ha could be legally cleared under Brazil's Forest Code, so are mainly protected by the Soy Moratorium.	Forest areas that are suitable for soy (and therefore at risk of clearance without the Soy Moratorium) decreased 0.6%. Suitable areas of forest that could be legally cleared under Brazil's Forest Code decreased 1.9%.	82,500 ha of forest suitable for soy were cleared in 2015. 16,200 ha of forest suitable for soy that could be legally cleared under the Forest Code were cleared in 2015.	14.0 million ha of forest within the Amazon Biome are suitable for soy. 1.6 million ha could be legally cleared under Brazil's Forest Code	Forested areas in the Amazon Biome were identified using PRODES land cover maps created by the Brazilian space agency—INPE. Suitable areas for soy were identified using a suitability map created by B. Soares-Filho, et al. Cracking Brazil's Forest Code. *Science*. **344**, 363-364 (2014). Suitable areas of forest that could be legally cleared under the Forest Code were identified by using a micro-watershed map created by the Brazil National Water Agency (ANA) in order to evaluate whether each micro-watershed had "surplus" forest that could be legally cleared under Brazil's Forest Code requirements. Estimates of native forest lost to 2014 soy come from H.K. Gibbs et al. Brazil's Soy Moratorium. *Science*. **347**, 377-378 (2015).

Indonesia (2014 baseline) : Certified Concessions	181,643 ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	3.4% decrease	6,381(ha)/3.4%	We include ha remaining since effective implementation of RSPO standards can protect these remaining forests. 181,643 (Hansen et al. 2013)	Hansen et al. (2013) dataset. Estimates of residual forest within the certified/non-certified concessions for year 2013. We used Global Forest Watch's percent tree cover dataset for 2000 and set a threshold of >30% to be classified as forest. To determine 2013 forest cover, we subtracted the total loss of forest (2000-2013) from the 2000 forested area outside of planted palm areas in 2010. The losses within the planted palm areas are excluded.
Central Kalimantan(2014 baseline) : Certified Concessions	14,573 ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	7.0% decrease	1,100 (ha)/7.0%	14,573 (Hansen et al. 2013)	
East Kalimantan(2014 baseline) : Certified Concessions	10,621ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	10.0% decrease	1,193(ha)/10.0%	10,621 (Hansen et al. 2013)	
West Kalimantan(2014 baseline) : Certified Concessions	24,287ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	4.57% decrease	1,163(ha)/ 4.57%	24,287 (Hansen et al. 2013)	
South Kalimantan(2014 baseline) : Certified Concessions	7,749 ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	1.78% decrease	141 (ha)/1.78%	7,749 (Hansen et al. 2013)	
Mexico/RSB	1,124 ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	0%	0%	1,124 (Hansen et al. 2013)	

Feel free to add rows in the table if necessary. The columns titled in grey are optional to fill in.

Please describe as short as possible how you and/or your partner(s) contributed to the reported change during the year reported on:

Please describe how you and/or your partners have contributed to maintenance of forest cover during the year reported on or have prevented negative changes in forest cover e.g. cancellation of a logging license that thereby prevents logging of an area of the forest. Please include the definition you use of 'forest area'.

In Brazil, forest area is determined by the CAR registration system that delineates forest areas on each property and Brazil's Prodes deforestation monitoring system.

Regarding the Cattle Agreement, UW's deforestation monitoring system is identifying ranches that were not compliant with the Agreement and UW and NWF's ongoing dialogues with meatpackers about these properties has resulted in improvements to their systems. NWF and UW also supported improvements in the verification process of the Agreement through regular engagement with meatpackers and in encouraging consumer-facing companies to communicate their desire for the improvements in these systems. NWF leads the GRSB-GTPS Working Group on Forests, which brings together meatpackers, retailers and leather brands to highlight the role of the Cattle Agreement in reducing deforestation in cattle supply chains. UW'sengagement with several levels of federal and state government in the Amazon is supporting strengthened action towards enforcement of laws to protect forests on ranchland. UW and NWF published a high-profile paper in the journal *Conservation Letters* in May 2015 which demonstrates that zero-deforestation agreements in the cattle sector significantly reduced the likelihood that participating slaughterhouses purchased from properties with ongoing deforestation. We also participated in extensive media coverage including interviews with the Guardian, Nature News, NPR, National Geographic among many others. In addition, NWF and UW created a sophisticated website to explain issues around zero-deforestation commitments in the cattle sector: www.zerodeforestationcattle.com

In January 2015, Gibbs and her team at UW in cooperation with NWF published in *Science* magazine the results of an extensive analysis of the Soy Moratorium compared to other major forest protection instruments in the Amazon Biome, like the Forest Code. This publication received extensive media coverage. The results of this analysis showed that the Soy Moratorium was responsible for nearly eliminating deforestation for soy production in the Brazilian Amazon and that the policy was the only thing protecting 2Mha of suitable but still forested areas from conversion to soy fields. Gibbs presented these results to the Soy Working Group, swaying traders who had been determined to not extend the Soy Moratorium to extend it indefinitely. With our partners, we are currently working on an updated analysis of soy expansion in the Amazon and Cerrado biomes using higher-resolution Landsat imagery.

Data for forest cover on RSPO certified concessions are available up until 2014. We are able to show for the first time the results of our efforts over the entire grant period to support and improve forest protected under RSPO certification. Forest conservation on RSPO-certified concessions is the result of many years of efforts by many stakeholders, including NWF. We are active members of the RSPO and have been supporting the strengthening of forest protection under RSPO certification, increasing transparency, and we have been encouraging companies to increase commitments to purchase certified palm oil. EDF has encouraged uptake of RSPO certification by the Walmart-led Sustainability Consortium.

3. Hectares of targeted landscapes covered by sustainable land use plans

N/A ☐

Please report the coverage of sustainable land use plans in targeted landscapes, which you and/or your partner(s) have contributed to during the year reported on.

Country and project location	Hectares of targeted landscapes covered by sustainable land use plans (at time of reporting)	% change during year reported on (if possible)	Specify, if possible, hectares with native forest covered by sustainable land use plan	Comment (source of information etc.)
G4 Cattle Agreement. Properties supplying JBS in Amazon Biome, Brazil.	10.3 million ha of property area on JBS supplier properties in the Amazon Biome.		2.7 million ha of native forest on JBS supplier properties in the Amazon Biome.	Forested areas in the Amazon Biome were identified using PRODES land cover maps created by the Brazilian space agency—INPE. JBS suppliers were identified using Latitude-Longitude coordinates which are publicly available at: http://www.confiancadesdeaorigemjbs.com.br/. Property boundaries for some Brazilian properties are available at: • CAR properties in the state of Pará: http://monitoramento.sema.pa.gov.br/simlam/index.htm • CAR and LAU properties in the state of Mato Grosso http://monitoramento.sema.mt.gov.br/simlam/ • INCRA and Terra Legal properties for Brazil: http://acervofundiario.incra.gov.br/i3geo/datadownload.htm
Amazon Soy Moratorium (Amazon Biome, Brazil))	45,039,000 ha of total area within the 73 monitored		21,306,000 ha of native forest within the 73 monitored	Current soy area reported in Soy Moratorium 2014 Annual Report: http://www.abiove.org.br/site/_FILES/Portugues/12122014-105447-

	municipalities.		municipalities.	19.11.2014._relatorio_da_moratoria_da_soja_-_7%C2%BA_ano.pdf Forested areas in the Amazon Biome were identified using PRODES land cover maps created by the Brazilian space agency—INPE. Suitable areas for soy were identified using a suitability map created by B. Soares-Filho, et al. Cracking Brazil's Forest Code. *Science*. **344**, 363-364 (2014). Suitable areas that could be legally cleared under the Forest Code were identified by using a micro-watershed map created by the Brazil National Water Agency (ANA) in order to evaluate whether each micro-watershed had "surplus" forest that could be legally cleared under Brazil's Forest Code requirements.
Indonesia- area certified by the RSPO.	1,575,572 ha		181,643 ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	Hectares of land under RSPO certification in Indonesia as of March 2016 from RSPO online Certified Growers list. Estimates of residual forest within the certified/non-certified concessions for year 2014. We used Global Forest Watch's percent tree cover dataset for 2000 and set a threshold of >30% to be classified as forest. To determine 2013 forest cover, we subtracted the total loss of forest (2000-2014) from the 2000 forested area outside of planted palm areas in 2010. The losses within the planted palm areas are excluded.
Mexico/RSB	3,741 ha		1,124 ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	

Feel free to add rows in the table if necessary. The columns titled in grey are optional to fill in.

Examples of Sustainable land use plans: Emission Reduction Programs, Project Design Documents, certified forestry operations, forest management plans with reduced emissions.

Please describe as short as possible how you and/or your partner(s) contributed to the reported change during the year reported on:

Regarding the Cattle Agreement, UW's deforestation monitoring system identified several ranches that were not compliant with the Agreement and we informed the meatpackers about these properties. NWF and UW also supported additional improvements in the verification process of the Agreement and obtained market benefits for meatpackers with effective monitoring systems through encouraging market support for these efforts. UW also engaged with several levels of federal and state government in the Amazon in support of strengthened action towards enforcement of laws to protect forests on ranchland. In 2015, UW and NWF published a high-profile paper in the journal *Conservation Letters* which demonstrates that zero-deforestation agreements in the cattle sector significantly reduced the likelihood that participating slaughterhouses purchased from properties with ongoing deforestation.

In 2015, Gibbs and her team at UW in cooperation with NWF published the results in *Science* of an extensive analysis of the Soy Moratorium compared to other major forest protection instruments in the Amazon Biome, like the Forest Code. The results of this analysis showed that the Soy Moratorium was responsible for nearly eliminating deforestation for soy production in the Brazilian Amazon and that the policy was the only thing protecting 2Mha of suitable but still forested areas from conversion to soy fields. Our efforts helped ensure that the Soy Moratorium was extended, initially through May 2016 and finally indefinitely.

NWF is an active member of the RSPO and encourages support for RSPO certification and for consumer-facing companies to participate in and support improved forest protection in the RSPO standards. EDF has encouraged uptake of RSPO certification by the Walmart-led Sustainability Consortium.

4. Number of people whose main income/livelihood is from sustainable land use in targeted landscapes

N/A ☐

Please report the number of people with main income/livelihood from sustainable land use in targeted landscapes only when you and/or partner(s) have contributed significantly, directly or indirectly, to this.

Country and project location	Number of people with main income/livelihood from sustainable land use[1]	% change during the year reported on (if possible)	Comment (source of information etc.)
G4 Cattle Agreement. Properties supplying JBS in Amazon Biome, Brazil.	15,673 based on the total area of JBS suppliers.		[Number of formal employees in Cattle Production or support of agriculture activities in Pará (Brazilian Ministry of Labour and Employment (MTE)-RAIS)]/[ha of pasture in Pará (IBGE heads assuming 1 head/ha)] = number of employees per hectare supporting the cattle production in PA (.0015), which served as a proxy for number of employees per hectare supporting cattle production across the entire Biome. This number was then multiplied by the number of hectares covered by JBS supplying properties across the Amazon Biome to yield the number of people making a living from sustainable cattle production in the Amazon under the G4 Cattle Agreement.
Amazon Soy Moratorium (Amazon Biome, Brazil))	13,667 people's livelihoods come from soy production on farms compliant with the Soy Moratorium.		[Number of formal employees in Soy Production or support of agriculture activities in Mato Grosso (Brazilian Ministry of Labour and Employment (MTE)-RAIS)]/[ha of soy planted in Mato Grosso (CONAB)] = number of employees per hectare supporting the soy production in MT (.0058), which served as a proxy for number of employees per hectare supporting soy production across the entire Biome. This number was then multiplied by the number of hectares of soy being monitored by the Soy Moratorium across the Amazon Biome to yield the number of people making a living from sustainable soy production in the Amazon under the Soy Moratorium. The data on soy area falling under the Soy Moratorium's monitoring system is available from the annual Soy Moratorium reports, available at http://www.abiove.org.br/site/?page=relatorios&area=Ni05OTgtMw== **Numbers of formal employees miss informal employees and, potentially, owners and family members who work on ranches and farms that are not incorporated as formal businesses. Increased attention to labour practices in the soy and beef sectors is reducing

[1] This can for example be numbers of employees of certified activities or number of entrepreneurs gaining income from selling sustainable produced products.

			the incidence of informal labour, but has not completely eliminated it. Small and medium sized farms are more likely to be run as family farms, though the figures tabulated here are in line with field observations from team members.
RSPO certified oil palm plantations in Indonesia	819,297		RSPO reports 1,575,572 ha certified palm oil in Indonesia. There are 7 million ha of oil palm plantations in Indonesia employing people, an average of 0.52 people/ha (Sinaga H. 2013 Employment and income of workers on Indonesian oil palm plantations: food crisis at the micro level. Future of Food: Journal of Food, Agriculture and Society 1: 64-75). Therefore, RSPO plantations are estimated to employ 819,297 workers.

Feel free to add rows in the table if necessary. The columns titled in grey are optional to fill in.

Please describe as short as possible how you and/or your partner(s) contributed to the reported change during the year reported on: Please also describe how you have contributed to progress towards increased number of people with main income from sustainable land use.

Our efforts helped bring about an extension to the Soy Moratorium, which ensures that soy farms are not deforesting, encroaching upon protected or indigenous lands or are on blacklists for having “slave” or bonded labour.

Our efforts this year have encouraged meatpackers to agree to work towards incorporating indirect supplying ranches into their monitoring system. Once implemented, this would greatly increase the number of ranch employees whose main income arises from sustainable use. We also have worked to support an increase in incomes through promoting “moderate intensification” which requires better pasture management through hiring more and better trained ranch hands. Our work to assess and support improvements in the RSPO standards is supporting the continuation, improvement and expansion in RSPO-certified oil palm plantation area.

5. Contribution to changes in policy and plans for land use in targeted landscape

N/A X

Have you or your partners contributed to changes in relevant laws, regulations, land use policies, action plans etc. in the targeted landscapes during the year reported on? Please name the law, policy, action plan etc. below, and explain in a few key words the kind of change (was it a *new* law/paragraph/addendum/policy etc., or a *revision* etc.). If you or your partner(s) contributed to policy change in more than one project location, please specify in the second column.

Name of law, policy etc., and type of change. (including NAMA's[2])	**Location/jurisdiction**	**Date of change**	**Weblink and description**

Feel free to add rows in the table if necessary.

Please note: In order to list policy changes, you or your partner(s) should have implemented actions/activities that have significantly contributed to the change. You should not include policy changes happening previous year, even if you contributed to such change.

Please describe to what extent gender issues are covered in the different policies and plans listed above:

[2] NAMA – Nationally Appropriate Mitigation Actions

6. Models developed/piloted and practices changed

N/A [X]

Have you or your partners contributed significantly to develop and pilot, implement and/or replicate models for sustainable land use and/or contributed to changes in practices that has resulted in sustainable land use during the year reported on? Please name the model and/or change in practice, and explain in few key words. Please note also whether the change was at national or regional/local level by including the country name and/or location in the table below:

Name of the model and/or change in practice concerned	**Country and location**	**Model tested and/or change in practice at what level?**		**Comment**
		National	**Regional/ local**	

Please note: One of the main purposes with the CFI funding scheme for civil society is to innovate, help develop and spread information, models and practices that prove to be effective for the purpose of sustainable land use, as an important step on the way to emissions reductions and sustainable development. The idea is that civil society and research can be catalysts for change and hence inspire governments and other larger actors to follow. In this table, we should capture the major achievements in terms of innovations in models and practices for this purpose.

Note that we have no fixed definition of 'model' or 'change in practice'. We accept that these are too manifold to be standardised. Rather, we encourage you to describe them in simple language in the table, and attach your own definitions if necessary.

7. Adoption of zero-deforestation policies, changes or improvements in practice or policies among producers, traders and consumers in targeted commodities (commodity supply chain).

N/A ☐

Please list changes that your organisation and/or partner(s) contributed to during the year you report on. Please indicate also the country/location and commodity if you have activities in many project locations and for several commodities.

Type of policy/ practice change	Commodity and location	Scope, if relevant measured in volumes/tons	Stakeholders involved	Civil society involvement (yes/no)
Zero Deforestation Cattle Agreement- improvement in deforestation monitoring and audit results.	Beef and Leather, incorporating 50% of the Amazon slaughter. All cattle producing areas in the Brazilian Amazon Biome, from which JBS, Marfrig, and Minerva purchase cattle.	About 50% of the Amazon slaughter	The three largest meatpackers in Brazil (JBS, Marfrig, and Minerva), Greenpeace (that maintains the Cattle Agreement) and many of the companies that buy beef, leather and tallow from these meatpackers.	Yes: Research led by UW was published, alongside an accompanying website by NWF and UW, with findings presented to many large corporations, which led to several privately and publicly calling on the meatpackers to improve their monitoring systems. Several meatpackers acknowledged that their customers' requests and the transparency stemming from our research has led them to make improvements. In addition, NWF and UW have privately presented shortcomings to meatpackers and supported fixes to these.
Consensus achieved by representatives of Brazil's largest meatpackers and many large supermarkets and brands about extending deforestation monitoring to incorporate indirect suppliers (current systems only monitor deforestation on ranches directly	All cattle producing areas in the Brazilian Amazon Biome from which meatpackers,		Major Brazilian supermarkets, meatpackers and international leather brands.	Yes: NWF and AdT organised a workshop at which participants agreed on the need to address indirect suppliers and for the first time agreed to work together to

selling to meatpackers yet most deforestation occurs on calving ranches and other 'indirect suppliers' of major meatpackers).	representing over half of the Amazon slaughter, source.			develop a system to do so.
Produce, Conserve, and Include – new policy for commodity production and forest conservation presented by Mato Grosso government.	Soy and Beef primarily; location, Mato Grosso state – also to be considered a "jurisdictional" approach that includes more commodities than just soy and beef.		Local NGO partners in Mato Grosso - IPAM, ICV, and ISA. International NGOs – EDF, EII Mato Grosso Ministry of Environment. Private sector – Amaggi, IDH, Mafrig, Agricone, Famato, and Cipem.	Yes, local NGO partners in Mato Grosso - IPAM, ICV, and ISA – were important to making this happen.
Marks & Spencer, Unilever, and Mondelez all announced jurisdictional sourcing initiatives in Paris at COP 21.	Generalised policy for Marks and Spencer and Unilever; Cacao and Cote d/Ivoire for Mondelez.		Private sector, government, and civil society.	Yes, EDF and NWF engaged with these companies over the last couple of years amongst others to advocate for their use of a jurisdictional approach for implementing their zero-deforestation supply chain commitments.
Walmart Brazil achieves its goal of tracing and removing deforestation from all direct suppliers in its beef sourcing in December 2015.	Walmart's beef sourcing in the Brazilian Amazon.		Walmart-Brazil.	Yes, NWF and AdT have been supporting Walmart's efforts to develop their own deforestation monitoring system for beef purchase for many years. We helped ensure their efforts serve as an example to other companies by showcasing their achievements at COP21.
CDP- The Carbon Disclosure Project had six new disclosures on soy and four new beef and leather disclosures.	Beef and Leather and Soy. The location would correspond to the supply sheds of the newly		This change increased the scope and influence of CDP and brings newly participating companies in as CDP-member stakeholders, and encourages existing participants to widen the	Yes, NWF has supported the CDP Forests Project, through explaining the benefits of participation and providing advice about industry best-practices and improvements in deforestation-

	participating companies, which are global in scope.		commodities they assess for deforestation risk. Analysts of CDP data (such as NWF) will also benefit from the increased scope.	monitoring efforts of Brazil's largest meatpackers. Our efforts helped to encourage European and Brazilian companies to disclose their forest risk from beef, leather and soy.

Feel free to add rows in the table if necessary. The columns titled in grey are optional to fill in.

8. Adoption of REDD+ safeguards (UNFCCC Cancun safeguards)

N/A [X]

Please describe any change in the development, policy change or implementation of safeguards during the year reported on, to which your organisation or partners have contributed. Please describe the change(s) applying Cancun categories, and specify at what level adaptation happened.

Safeguard category	**Change**	**Your organisation and/or partner(s)' contribution**
1. Consistency between national forests programmes and international conventions and agreements		
2. Transparent and effective national forest governance structures		
3. Respect for the knowledge and rights of indigenous peoples and members of local communities		
4. The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities		
5. Conservation of natural forests and biological diversity and enhancement of other social and environmental benefits		
6. Actions to address the risks of reversals		
7. Actions to reduce the displacement of emissions		

9. **Hectares of land which Indigenous Peoples and forest dependent communities gain rights over** during the reporting year, with support from your organisation and/or partner(s).

N/A [X]

Please list the location, the number of hectares, and the group of people gaining the right. Please indicate also by a few words the scope of rights gained in the last column.

Country and location	**Hectares**	**Specify Indigenous people and/or forest dependent community gaining rights, and type of rights**

Please describe shortly how you and/or your partner(s) contributed to the gained rights during the year reported on:

If you have contributed to commitments made towards granting rights to indigenous people/forest dependent communities, please include this as an achievement in your comment below.

10. **Development and adoption of MRV methodology**

N/A [ ]

Please describe shortly the MRV system and how you and/or your partner(s) contributed to the development of MRV methodology for potential use in REDD+ during the year reported on:

Deforestation Monitoring in Cattle Supply Chains in the Brazilian Amazon
In 2015, UW continued to refine our novel property-level monitoring system for cattle production in the Brazilian Amazon and utilized it to assess changes in compliance with the Zero Deforestation Agreement. Our computer programs allow us to link cattle supplier data with spatial databases of property boundaries required nationally (Cadastro Ambiental Rural and INCRA-CCIR). This linkage allows us to map suppliers to major slaughterhouses in Pará and Mato Grosso states. We can map daily transactions from 2006 to today, allowing for unprecedented transparency and traceability. We use Brazil's PRODES, Amazon-wide deforestation monitoring system, to identify deforestation. Our approach allows us to directly attribute carbon emissions to specific cattle slaughterhouses and companies for the first time, and also to demonstrate the response to changing drivers of deforestation.

In our paper published in *Conservation Letters* in May 2015, we assessed changes in the property size, forest cover, location, and deforestation rates of properties selling to the JBS slaughterhouses by comparing three groups: (1) those selling after the agreements in 2013 but not before the agreements ("post-agreement"); (2) those selling only before the agreements in 2009 ("pre-agreement"); (3) and those selling in both 2009 and 2013 ("stable").To evaluate changes in supplying properties after the agreements, we used difference-in-differences tests to compare mean deforestation rates normalized by forest area during the three years before (2006–2008) and after the agreements (2010–2012) on pre-agreement and post-agreement supplying properties.

We have developed a prototype system for monitoring indirect suppliers to allow expansion of the cattle agreements to include the whole supply chain.

Tracking Soy Expansion Pathways Across the Amazon and Cerrado Biomes
In our paper published in *Science* in January 2015, we used two satellite-based datasets to track the area and location of annual soy expansion from 2001 to 2014 (Amazon biome) and 2001 to 2013 (Cerrado biome). Both products were based on MODIS data. For the Amazon biome, we used the soy expansion data for the crop years 2000/01–2013/14 based on MODIS imagery following Rudorff et al. and Risso. The analysis concentrated on the Amazon biome portion of 88 municipalities with at least 1,000 ha in soy production in three states— Mato Grosso, Pará, and Rondônia. The GTS monitors only those municipalities with over 5,000 ha planted in soy but our analysis also considered new frontiers of soybean expansion. For the property-level analyses described below, we included only the 69 municipalities within Mato Grosso. For the Cerrado biome, we analyzed the 16-day MODIS Normalized Difference Vegetation Index (NDVI) product (MOD13Q1) (29, 30) to estimate the annual cropland expansion at 250m spatial resolution. The classification approach identified large areas (≥1 km2) of mechanized crop production based on annual, wet- and dry-season phenology metrics as in previous studies (4, 5, 30). Seven phenology metrics and one tree cover metric were produced per ye: annual (year n – 1: DOY 273–year n: DOY 272) mean, standard deviation; dry-season (year n: DOY 113–273) mean, maximum, minimum, standard deviation; wet-season (year n – 1: DOY 273–year n: DOY 112) standard deviation; and percent tree cover. A 2-year temporal identification method was used to minimize possible false identification of soy. With our partners, we are currently working on an updated analysis of soy expansion in the Amazon and Cerrado biomes using higher-resolution Landsat imagery.

Oil Palm concessions in Indonesia
We have digitized and combined maps of RSPO palm oil plantations and annual deforestation estimates (Hansen et al.) to characterize compliance and leakage in regions of Indonesia with RSPO operations. We used historic radar and LiDAR data to independently verify the accuracy of Landsat-based deforestation estimates. In addition, we are using active fire detections and burned area data from NASA's MODIS sensors to corroborate the timing of palm oil expansion derived from annual Landsat data. We analysed Indonesian RSPO-certified plantations for land cover changes within certified concessions between 2000 and 2013. This work was derived from time series of Landsat and PALSAR satellite data and thematic data coverages for deforestation and planted oil palm.

Have methodologies developed through the project already been adopted by actors working on results based REDD-schemes, or are you aware of plans to do so?

Please describe shortly how you and/or your partner(s) contributed to the adoption of MRV methodology during the year reported on:

11. Contribution to international consensus on REDD+ and increased REDD+ financing

N/A ☐

Have you or your partners contributed towards creating international consensus around REDD+ as a core tool in the global effort to prevent dangerous levels of climate change during the year reported on? Please describe shortly how and through which stakeholders and sectors and areas you and/or your partner(s) contributed to the reported change during the year reported on:

EDF and NWF held a workshop at UNFCCC SBs session in June of 2015 to encourage the inclusion of the land sector in the ADP. Over 20 REDD negotiators participated in the workshop where we discussed and explored how the consensus and methodologies gained through the REDD negotiations may be integrated into the ADP Agreement.

EDF contributed to advancing Jurisdictional REDD and the engagement of the Private Sector through advocacy in the UN-REDD, Forest Carbon Partnership Facility, and UNFCCC discussions. We engaged our Indigenous Peoples partners to help them understand the benefits of engaging the private sector in REDD+ and how they might support each other in Jurisdictional REDD+.

EDF supported a dialogue hosted by The Forest Dialogue in Riau, Indonesia that covered the topic Understanding Deforestation Free. The dialogue advanced multiple stakeholders' understanding about implementation of "deforestation free" or "zero deforestation" and the importance of working with governments for success over the long-term (by aligning private sector efforts with that of REDD+) in Indonesia and globally as an idea. Significant private sector participation was included and representatives from indigenous peoples and local communities to ensure a robust dialogue. The final report of the workshop can be found here.

Amount (USD) of REDD+ financing (pledges, transactions) during the year reported on to which the project has contributed (please include information on donors and countries):

Please describe shortly how you and/or your partner(s) contributed to the reported change during the year reported on:

Norad

Template for report and accounts for organisations under the Climate and Forest Initiative funding scheme for civil society

2013-2015

1. General Project Information:

1.1 Name of recipient organisation: National Wildlife Federation

1.2 Reporting year: 2015

1.3 Agreement Number: QZA-0465 QZA-13/0075

1.4 Name of project: Promoting Deforestation-free Agricultural Commodity Supply Chains and the Link to Jurisdictional REDD+ Frameworks (Deforestation-Free Commodities and REDD+)

1.5 Country and region in the(se) country if applicable: US, Brazil, Mexico, Indonesia

1.6 Financial support to the project from Norad for last calendar year 2015: NOK 8,170,000

1.7 Thematic area: REDD+ relevant commodity supply chains

2 Please describe the project's progress for the whole grant period

2.1 Please repeat the **project's target group(s)** and the baseline for the target group at the start of the project (from the approved project document).

- **Agricultural producers:** Agricultural production is the largest driver of deforestation in the tropics and therefore agricultural producers in Brazil, Indonesia and Mexico are a target group. At the start of the project, roundtables and moratoria were focused on large producers, but it is unclear whether these initiatives are actually helping to reduce deforestation. Smallholders are often excluded from these initiatives, either because they lack the financing and technical capacity to comply or because the major traders and meatpackers prefer to buy from larger farms and ranches.
- **Commodity roundtables:** Roundtables are multistakeholder bodies that develop voluntary environmental and social sustainability standards for the commodities most linked with deforestation. However, these standards have been criticised as being uneven in application, failing to protect key wildlife corridors, increasing forest fragmentation and have thus far failed to align with land-use planning and governance efforts. So far, there have not been robust studies to test whether these standards have resulted in landscape-level reductions in deforestation.
- **Private Sector (manufacturers and retailers):** Retailers are consumer-facing companies that are vulnerable to reputational risk if products they sell are linked to deforestation. At the start of the project, many large retailers have adopted zero deforestation policies but don't know how to implement them, are not sure which standards and agreements they can source from with confidence, or are unsure whether they are worth the investment. To source deforestation-free products, retailers need to find manufacturers that can supply products adhering to a voluntary initiative (roundtables' standards or moratoria). Some manufacturers do not have concerns about sourcing products from farms with deforestation but others do

participate in roundtables and source products complying with moratoria and roundtables' standards.

- **Policy makers:** These include national and state governments as well as relevant ministries and agencies. The baseline for these actors is that many are not aware of the details of the voluntary mechanisms, do not involve the private sector in policy development and are unaware of the benefits or of how these mechanisms could be integrated into jurisdictional REDD+. There are some exceptions, such as Brazilian Public Prosecutors, who have developed mechanisms to encourage action throughout the supply chain to support deforestation-free ranching.
- **Scientific community:** These actors play an important role in helping to develop tools and to study the changes in land-use actually happening and helping determine what the impacts of voluntary and political policy measures are in terms of affecting deforestation. While voluntary standards such as RSPO have been certifying products since 2008, there are not robust, scientific assessments of how RSPO has affected deforestation at the start of this project. Our partners include leading scientists who will analyse the impacts of voluntary mechanisms and engage with their peers. This can help encourage advancements in remote sensing and other technical fields to better measure supply chain performance across various scales.
- **Civil society:** This includes international, national and local environmental and social organizations. At the start of the project, several did not understand the benefits of, or are opposed to jurisdictional REDD+. Some groups have strong views about roundtables based on their policies but without analysing how their actual implementation is impacting forests. Civil society is an important bridge in communications between the public and private sectors and between actors on the ground with those at the final end of supply chains.

2.2 Please repeat the project's **desired impact** (from the approved project document).

This project will contribute towards protecting threatened tropical forests in Brazil, Indonesia, and Mexico, by supporting and strengthening both: market-driven efforts to develop and expand deforestation-free supply chains; and government-led jurisdictional REDD+ mechanisms. The project will facilitate smallholders becoming able to improve their livelihoods by accessing support to help them learn about methods to improve productivity and ultimately meet certification standards. Implementation of more sustainable agricultural practices and enhanced productivity will help countries to meet growing demand for food production and export without the need to expand into forest lands. The contribution of this project will be to make it easier, more efficient and cost effective to measure, monitor and incentivize reductions in the loss of tropical forests, and the emissions of greenhouse gases that contribute to climate change.

2.3 Is the project still relevant for the desired impact? (Yes/No) If No, please give a short explanation.

Yes, the project is still highly relevant for the desired impact, and significant progress has been made.

2.4 **Main outcome(s).**

a) Please repeat the project's planned outcome(s) (effect on project´s target group(s), beneficiary (-ies)) (from the approved project document).

Outcome 1) Strengthened deforestation-free beef, leather and soy supply chain monitoring and implementation in the Brazilian Amazon

We will establish and implement an independent system of property-level forest monitoring for Brazil's two largest meatpackers who are signatories to the "Cattle Moratorium" in Acre, Mato Grosso and Pará states. We will promote implementation and supply chain support through the GRSB-GTPS Working Group and the Consumer Goods Forum. We will also provide the first property-level audit and supply chain mapping for soy in Querencia, a prominent soy-producing municipality in Mato Grosso.

a) The main groups for the cattle industry are Brazil's two largest meatpackers, Marfrig and JBS, who control over a quarter of Brazil's national slaughter[1] and own 64% of slaughterhouse facilities with export licences[2], as well as the GRSB-GTPS Working Group and both groups' members, the Consumer Goods Forum and the Leather Working Group. For soy, the project would target large soy producers in the Brazilian Amazon, the major soy traders (ADM, Bunge, Cargill and Grupo Maggi), key food retailers currently supporting the soy moratorium (e.g., McDonald's) and members of the Roundtable on Responsible Soy.

b) Once the project has been completed, the new state will be that all of the direct supplying ranchers to JBS and Marfrig can be demonstrated to be compliant with zero-deforestation. The GRSB-GTPS Working Group will agree to a plan to trace indirect suppliers and work with the meatpackers to offer fully deforestation-free supplies of beef and leather. The Consumer Goods Forum and Leather Working Group's members will support the efforts of the meatpackers and the GRSB-GTPS Working Group by preferentially purchasing from these companies which can demonstrate deforestation-free supplies. Soy producers and traders in the Brazilian Amazon would commit to zero-deforestation over the long-term (instead of the current moratorium, which has been renewed in one or two year increments). The deforestation monitoring systems we will use for both cattle and soy will be the Brazilian government's Amazon-wide systems, Prodes and Deter, which are the agreed systems of the soy and cattle moratoria.

c) Key indicators are that the deforestation-monitoring of ranches is showing compliance with meatpackers' zero-deforestation policies; the GRSB-GTPS Working Group garners increased participation from industry and involvement of government to become the foremost forum for addressing deforestation driven by cattle ranching; increasing number of companies in the Consumer Goods Forum commit to purchase from supply chains that can be demonstrated as deforestation-free; interest from other meatpackers in participating in the program.

Outcome 2) Deforestation Monitoring System for Roundtables designed

a) RSB, RSPO and their members, especially producers, will be the key targets for the new, satellite-based deforestation monitoring systems. We will also demonstrate the deforestation monitoring approach and results to other commodity roundtables such as Roundtable on Responsible Soy and Bonsucro (sugar cane).

b) At present, none of the commodity roundtables have implemented an operational landscape level deforestation-monitoring system. As a result, it has not been possible to determine the impact of roundtables on deforestation rates. In addition, all monitoring of deforestation on certified properties relies on expensive site visits. NWF holds the position of chair of the RSB and discussed this situation with other leaders of the roundtable, who have agreed on the importance of a more efficient system, which will enable it to identify its wider impacts in reducing deforestation, and reduce the costs associated with certification (establishment, monitoring) and verification of compliance with roundtable guidelines.

We will also develop a deforestation monitoring system for RSPO in Kalimantan, Indonesia, which will allow us to test whether RSPO's forest conversion rules are still allowing detectable deforestation on certified operations. In addition this project will explore methods of jurisdiction-wide assessment to reduce costs of its certification system, as well as to reduce costs of becoming certified, and to verify compliance. We will work with government, industry, and civil society to build necessary capacities for implementing such internationally recognized jurisdictional certification of forest emissions reductions.

A combination of optical, radar, and lidar satellite data records is typically required to generate long time series of deforestation activity, especially for regions with persistent cloud cover such

[1] Walker *et al. in press. From Amazon Pasture to the High Street: Deforestation and the Brazilian Cattle Product Supply Chain. TCS*
[2] ABIEC 2012. Mapa das Plantas Frigoríficas. Associação Brasileira das Indústrias Exportadoras de Carnes. http://abiec.com.br/2_mapa.asp

as Indonesia. Monitoring and analysis using multiple lines of satellite-based evidence also provides additional confidence in deforestation assessments and redundancy for potential data continuity issues from existing satellite instruments. Dr. Morton will utlise remote sensing analyses developed by Matt Hansen (University of Maryland), because his are the most thorough, available analyses; his system, which is used by WRI's "Forest Cover Analyzer", was developed in consultation with RSPO[3], so it already has a level of credibility and acceptance by the RSPO. For Mexico, changes in forest cover over time will be monitored with Landsat, MODIS and PALSAR data, and deforestation estimates will be validated using high resolution airborne optical and LiDAR data. These methods have been tried and tested by NASA and found to be effective.

c) We will establish a satellite-based deforestation monitoring system in a jurisdiction in southeastern Mexico with RSB-certified operations, capable of evaluating: 1) whether there has been any deforestation on such properties after the RSB cut-off date and 2) the regional impact on deforestation within the larger jurisdiction. A key indicator will be the review and adoption of the monitoring system by the RSB Secretariat. We will design a similar system for the RSPO in Kalimantan building on existing deforestation datasets. We will provide direct feedback on the regional impacts of roundtable certification on deforestation in southeastern Mexico and Kalimantan and to outline a framework for linking roundtables with REDD+.

Outcome 3) Roundtables, moratoria and deforestation monitoring integrated into REDD+
Data-driven policy proposal is developed for integrating state and federal REDD+ systems and voluntary supply chain mechanisms in Brazil (soy and cattle moratoria, roundtables), Indonesia (palm oil, RSPO) and Mexico (biofuels, RSB). We will analyze and model economic and environmental outcomes for REDD+ policies and voluntary mechanisms (using outputs generated by UW's analysis and our own data) and build stakeholder support for integrating REDD+ systems and voluntary mechanisms in all 3 countries.

a) EDF, in coordination with UW, NASA and NWF, will develop specific policy recommendations based on the findings of this project, and will work in close coordination to implement the results. We will make specific, time-bound recommendations to the private sector and governments, identifying how companies can improve the effectiveness of multistakeholder initiatives in reducing deforestation, and how governments can implement successful jurisdictional REDD programs by coordinating with the private sector and integrating their efforts, where possible. Main groups targeted in Brazil include the relevant state and federal government ministries, state and national federations of agriculture, meatpackers, Wal-Mart, Pão de Açucar, Carrefour, major cattlemen's and farmers' associations in Acre, Pará, and Mato Grosso, NGOs and the scientific community.

In Indonesia, we will identify and reach out to key government and industry stakeholders to identify sustainable ways to reduce emissions from conversion of forests and peatlands to palm plantations. Developing these relationships will help us understand the technical gaps for forest monitoring, including forest carbon accounting, at the government level. We will request data from the Indonesian national and district governments for use in developing the policy proposal to integrate jurisdictional REDD and green supply chains. To understand the challenges of implementing "green" supply chain corporate goals and the extent to which the RSPO is addressing these challenges, we will conduct outreach to companies throughout the palm oil supply chain, some that are and others that are not members of the RSPO. In Mexico, we will target similar stakeholders in southeastern Mexican states and in the RSB.

b) The desired new state we seek is that major stakeholders support the integration of voluntary mechanisms, such as roundtables and voluntary moratoria, into jurisdictional REDD+ systems in

[3] WRI 2012. Two New Online Mapping Applications Launched to Support Sustainable Palm Oil in Indonesia. Avaiable online at:www.wri.org/press/2012/10/release-two-new-online-mapping-applications-launched-support-sustainable-palm-oil-indo

all three countries, based on the policy proposal and recommendations developed by EDF under this project. Adoption of such proposed policy for integrated action would contribute to overall reductions in deforestation, first at the jurisdictional level and quickly scaling up to national-level reductions, while offering positive incentives to producers and other stakeholders and reducing producers' market access costs. Ultimately, deforestation-free commodities would become identified with specific landscapes, as in the "appelation controleé" for wine. Quantitative analysis will support a transition to this state by showing the benefits of jurisdictional REDD programs, their potential for lowering monitoring and verification costs, and their environmental effectiveness. It is essential that the private sector understands how integrating their corporate efforts into REDD programs, and vice versa, will make business sense by making it easier and cheaper to meet their corporate goals.

c) The major indicator of change will be that REDD+ and functioning state/federal deforestation goals in all three countries are supported by commodity roundtables, moratoria and/or major private sector actors who also support the concept of integrating REDD+ and voluntary mechanisms into a phased system. A goal set by one or more companies to purchase all or a large share of their agricultural commodities from jurisdictions that have robust and functioning REDD programs will be a major step toward the desired change. We will select at least one jurisdiction in each country in which to monitor and document developments, as a means of determining progress toward the successful implementation of jurisdictional REDD programs in those countries.

b) Please report on all outcomes from the project document:
    i. What changes have been achieved with reference to the baseline? Use common indicators'

Outcome 1)

At the start of the project: a) we were unsure whether the G4 Cattle Moratorium was being implemented effectively, or whether it would continue; b) no meatpackers or supermarkets intended to consider deforestation on indirect-supplying ranches, and: c) the Soy Moratorium was set to end, and there were no thorough soy supply chain studies.

a) UW established a property-level monitoring system in Mato Grosso and Pará states (data availability prevented a robust assessment in Acre state). In 2015, we published the first robust analysis of the Cattle Moratorium conducted by UW, which used sophisticated econometrics to demonstrate that JBS were effectively implementing the Moratorium in Pará state. The results were published in a scientific journal and on a website we created and have shared with many international beef and leather retailers and brands. The awareness of the effectiveness of the Agreement has helped to ensure that the G4 meatpackers plan to continue it, and other meatpackers (such as members of the Brazilian Beef Export Association) are in the process of adopting similar systems. The GRSB-GTPS Joint Working Group on Forests has continued to show support for the Cattle Moratorium, as has the Consumer Goods Forum (CGF). At our request, the CGF wrote letters to the three meatpackers supporting the Cattle Moratorium, while also asking for improvements in transparency and for it to be extended to incorporate indirect suppliers.

b) We held the first ever workshop on indirect supplying ranchers in June 2015, with government, meatpackers, supermarkets, leather brands, ranchers and Brazilian civil society present. We showcased a range of projects that have piloted traceability to indirect suppliers, and produced a report comparing these, which highlighted that they all made use of the Animal Transit Guide (GTA), a document verifying vaccination against foot and mouth disease. As a result, at a follow-up meeting, we established a "Working Group on Indirect Suppliers" (GTFI in Portuguese), whose members include the Cattle Moratorium meatpackers, the Brazilian Association of Beef Exporters, major supermarkets and leather brands as well as civil society

groups. The GTFI agreed on the importance of addressing indirect suppliers and that the GTA is the tool that should be used to do this. So we have agreement on expanding monitoring to indirect suppliers and how to do this.

c) UW has mapped nearly 80% of all soy property boundaries across the Amazon, tracked land use histories, identified buyers of soy in 80% of properties in Querencia, fully mapped soy in a neighbouring municipality, and presented this to the RTRS. Following the publication of our paper in the journal *Science* demonstrating the important role played by the Soy Moratorium, we continued to ask soy traders and retailers to continue the Moratorium beyond its 2016 cut-off date. Earlier this month, we were very pleased with the announcement that the Soy Moratorium would be continued indefinitely.

In regards to common indicators, the Cattle and Soy Moratoria spanned farmland of 10.3 million and 45 million ha respectively. The total emissions reduced by these Moratoria over the three years of the grant period for Cattle and Soy were 1.86 and 13.8 billion tons of CO_2 emissions avoided respectively.

Outcome 2)

At the start of the project, none of the commodity roundtables had implemented an operational landscape-level deforestation-monitoring system. As a result, it was not possible to determine the impact of roundtables on deforestation and discussions merely focused on the stringency of applicable Principles and Criteria, without being informed by quantified impact assessments.

During the project period, NWF, NASA, and collaborators from the University of Hawaii-Manoa developed deforestation monitoring systems for both the RSB and the RSPO. For the RSB, we developed a pilot deforestation monitoring system in southeastern Mexico (State of Yucatan) capable of determining whether there was deforestation on an RSB-certified property. Ultimately, our system determined that deforestation occurred in the operation between 2008 and 2012. Findings have been presented to the RSB Secretariat, and are being used to inform the Standard's revision process. The Secretariat is actively reviewing the standard and its current definition of forest and deforestation to determine whether the certifying body (i.e. auditor) acted correctly in approving the property; or whether the standard's definition was too vague and in need of further guidance. In the revision, the definition of forest is being changed to one which is able to be clearly monitored via remote sensing, utilizing a conservative canopy cover threshold of 10%. Our demonstration of deforestation in Mexico also prompted the Secretariat to agree to develop a new Monitoring and Evaluation plan, under which they will collect shapefiles of high-risk operations, allowing them to i) run an annual report of compliance, ii) improve the Standard's transparency, and iii) aid researchers in better quantifying the Standard's impact. The Secretariat has asked NWF to continue advising them during this process.

We also developed a deforestation monitoring system for the RSPO. Partnering with researchers at the University of Hawaii-Manoa, we have created the first ever national-scale analysis evaluating the influence of roundtable sustainability certification on deforestation and fire occurrence for a forest-risk commodity crop. We assembled a new, comprehensive database of certified and non-certified palm oil plantations in Indonesia (expanding the scope beyond Kalimantan), then combined this database with remotely sensed deforestation and fire incidence and compared land use dynamics among certified and non-certified plantations. Our analysis relied on cutting-edge, quasi-experimental econometric techniques to control for selection bias and variation of critical variables over both time and space. We find that RSPO certification

reduces deforestation embodied within supply chains, but largely because RSPO member companies avoid certifying plantations containing forest. We also detected a significant, though small protection effect; certified plantations *are* conserving residual forest areas within their boundaries. We recently received an invitation to submit our research to the prestigious peer-reviewed journal *Science*, and we have shared our analysis with the RSPO Secretariat. We will provide them with the complete database following publication, which will greatly enhance their capacity to carry out further monitoring work in-house. We will also partner with Global Forest Watch to make this data available online following publication.

Building on our deforestation monitoring development work for RSB and RSPO, NWF created a deforestation monitoring working group for the High Carbon Stock Approach Steering Group. At the last meeting of the Steering Group, we decided to merge with the Quality Assurance working group, to better mainstream ongoing monitoring into the QA process. We have also begun developing indicative HCS maps in collaboration with the University of Hawaii, utilizing Google Earth Engine, which has the support of the HCSA Steering Group (including member companies from the palm oil, rubber, and pulp/paper sectors).

Cross-cutting lessons-learned have been captured in a policy report recently presented at the 44th session of the Subsidiary Bodies to the UNFCCC in Bonn, Germany. This report demonstrates how voluntary supply chain governance initiatives, including *inter alia*, roundtable certification, can contribute to functional jurisdictional REDD programs. Feedback collected during Bonn will be incorporated into the report and we will send a finalized version to Norad by the end of the month.

Outcome 3)

Initially, there was no research about whether the moratoria and roundtables were helping REDD goals at the jurisdictional or national scale. Our research has demonstrated that the Soy and Cattle Moratoria in states in the Brazilian Amazon, and RSPO certification in Indonesia are supporting jurisdictional efforts to address deforestation.

Additionally, since the start of the grant support period, over 100 target private sector companies have adopted zero-deforestation commitments. Moreover, at the start of our project, there were no companies considering jurisdictional sourcing. In December 2015, Marks & Spencer, Unilever and Mondelez all announced in Paris at COP21 their intentions to implement jurisdictional approaches to supplement their voluntary zero-deforestation commitments.

In addition, the baseline situation was that jurisdictions were not linking their efforts to roundtables or moratoria. The RSPO has recently initiated a jurisdictional certification initiative in Kalimantan, Indonesia, and aims to work with sub-national governments around the world. Our analysis has shown that scaling-up mill-based certification throughout a subnational jurisdiction could have a significant impact on deforestation rates, functioning as a bridge to achieving broader deforestation reductions within that jurisdiction.

EDF's statistical analysis of deforestation in Mato Grosso was incorporated in Mato Grosso's new zero-deforestation rural development growth strategy, "Produce, Conserve, Include" (PCI), launched by Governor Pedro Taques at COP21 in Paris. The strategy incorporates the Zero Deforestation Zone concept as part of an ambitious set of goals premised on conserving the 60% of the state covered in native vegetation, increasing agriculture commodity production and significantly increasing small-famer family incomes.

ii. Please report on the key indicators used to document that the desired change has occurred.

Outcome 1)

We have demonstrated, through a robust analysis, that meatpackers are successfully complying with the G4 Cattle Moratorium by identifying and dropping suppliers with recent deforestation. The G4 Moratorium covers around 50% of cattle slaughter in the Amazon biome. We have over 100 corporate and civil society organization members in the GRSB-GTPS Working Group, and have held events and workshops at major international meetings such as the Global Conference on Sustainable Beef in São Paulo. The Consumer Goods Forum (CGF) has demonstrated increased interest in sourcing from deforestation-free supply chains: eight members have improved their policies and sourcing efforts; and the CGF wrote a letter to G4 meatpackers supporting the Cattle Moratorium. Twenty-nine companies have newly-disclosed efforts to address deforestation in beef and leather supply chains to CDP.

With soy, the key indicator of success was the recent announcement that the Moratorium has been extended indefinitely. In addition, the major international soy traders, ADM, Bunge and Cargill, have all announced commodity-wide zero deforestation policies.

Outcome 2)

Per the Project Document, a key indicator was the review and adoption of our recommended monitoring system by the RSB and RSPO Secretariats; which has taken place. The subsequent support for this monitoring approach by the High Carbon Stock Approach Steering Group is another indicator, which shows acceptance of forest monitoring systems, both by NGOs that have traditionally promoted only "boots on the ground" approaches, and by the broader soft commodity industries.

Increased participation in the voluntary certification roundtables, measured in both volume of certified products and membership numbers, are also indicators of success. Currently, 21% of global palm oil supply is RSPO certified, up from only 15% in 2013. Membership has more than doubled during this time.

Outcome 3)

A key indicator was that state deforestation goals are supported by commodity roundtables, moratoria and/or major private sector actors who also support the concept of integrating REDD+ and voluntary mechanisms into a synergistic system. As noted in the section above, our research, led by UW, has demonstrated that this is the case. In particular, we see that the Moratoria have impacted producer behaviour and are supporting state-level efforts to enhance enforcement of Brazil's Forest Code and reduce deforestation.

Several indicators show that our efforts to link deforestation-free supply chains with jurisdictional governance are having an impact. For example, we held a workshop at UNFCCC SBs' session in June of 2015 to encourage the inclusion of the land sector in the ADP, attended by over 20 REDD+ negotiators. EDF contributed to advancing Jurisdictional REDD and the engagement of the Private Sector through advocacy in the UN-REDD, Forest Carbon Partnership Facility, and UNFCCC discussions.

Another indicator was dissemination of a data-driven policy proposal for integrating state and federal REDD+ systems and voluntary supply chain mechanisms. EDF wrote a policy proposal, focusing on Kalimantan provinces, explaining how they could become Zero Deforestation Zones. This proposal was included in Ecosystem Marketplace's newsletter *The Carbon Chronicle*, which went out to 7,000 subscribers. Workshops on this topic were supported at the national level (through The Forest Dialogue) and sub-national level in Palangkaraya in conjunction with local partners.

To highlight the synergies between voluntary supply chain governance mechanisms and jurisdictional REDD+, while building support for enhanced integration between the two, EDF ensured that both zero deforestation supply chains and the concept of jurisdictional sourcing were included in the New York Declaration of Forests. The latter can help reduce overall risk for companies sourcing zero-deforestation agricultural commodities, and so it was also integrated into The Sustainability Consortium's (TSC) Key Performance Indicators. Both of these proposals used multi-stakeholder processes with feedback loops before finalizing the end products. The Sustainability Consortium's Key Performance Indicators are the only ones used by Walmart, and EDF worked closely with them to ensure the inclusion of a jurisdictional approach indicator for deforestation caused by beef and seed oils (including both palm and soy), which are important drivers of deforestation in Brazil (beef and soy) and Indonesia (palm oil). We worked closely with Walmart and McDonalds, amongst other important companies, to convince them to join the New York Declaration on Forests.

iii. Please reflect on whether targets that were originally set have been achieved, and what project outputs were key to achieving them. If relevant reflect on why outputs delivered as planned did not help meet the targets.

Outcome 1)

We have successfully achieved our key targets for both cattle and soy, with evidence for the Soy Moratorium greatly reducing soy as a driver of deforestation, and the Cattle Moratorium working well by JBS in Pará state. However, we have not been able to demonstrate similar success in other states and among other meatpackers, partly because of lack of data (poor traceability information, reduction in transparency with the national CAR, which doesn't contain identifying information) and because results in Mato Grosso are not as clear cut. UW continues to analyze in depth the data from Mato Grosso and anticipates publication this year.

The GRSB-GTPS Working Group remains an important forum for discussing deforestation in cattle supply chains. But because some members do not support full implementation of zero deforestation policies, we have set up the GTFI (indirect suppliers' working group) separately from the roundtables. This will allow us to work with those who support this effort, and thus focus on how to address indirect suppliers rather than simply discuss whether to do so.

While UW and NWF have brought to the attention of the meatpackers examples of properties they buy from that are out of compliance with the Cattle Moratorium, the meatpackers have not been as open with us about sharing details of how these errors could be occurring; this has limited our ability to help make improvements.

Outcome 2)

Targets set for Outcome 2 have been successfully achieved. We developed a monitoring system for the RSB, which informed the revision of their standard. Additionally, the smallholder RSB

workshop (in 2013) informed the development of RSB's specially adapted smallholder standard. This adapted standard is now being implemented with thousands of smallholder producers in Brazil, South Africa and Sri Lanka, and the initiative has been folded into the United Nations' Sustainable Energy for All platform (SE4All). The Sustainable Bioenergy section of SE4All now references the RSB standards for all projects developed under its auspices. For the RSPO, due to delays in obtaining the necessary shapefile data for certified producers in Year 1, we were not able to submit a finalized manuscript for publication in a peer reviewed journal prior to the end of the grant period. However our manuscript was subsequently invited for submission to *Science*. We expect this to be a high-impact publication. In the interim, we provided our findings to the RSPO Secretariat and we will transfer our database to them for further analysis following publication. We will also work with Global Forest Watch to make this data more widely available.

Outcome 3)
As noted above, we successfully developed a data-driven policy proposal for integrating jurisdictional REDD+ systems and supply chain commitments in Brazil. Mato Grosso's announcement at the Paris COP of its new "Produce, Conserve, and Include" policy for reducing greenhouse gas emissions was a significant accomplishment. Substantial progress was also made in Indonesia, where we shared a draft proposal with stakeholders in the province of Central Kalimantan. The announcement by the RSPO to pilot jurisdictional approaches in Central Kalimantan (a target of our data and policy efforts) and Sabah, Malaysia was a significant achievement.

iv. If outcomes are not yet achieved, please explain why, and in addition, how the outputs will lead to the desired outcome and when.

Outcome 1)
The outcomes have been successfully achieved. While further challenges remain, especially as there is no certainty in data availability (such as the CAR, now that there is a new, national system), there is wide support across supply chains for the achievements to date.

Outcome 2)
The outcomes have been successfully achieved; however completion of the RSPO deforestation monitoring system was delayed and finished outside of the project period. We will submit a manuscript to peer-reviewed publications within the next month. Our database will be transferred to the RSPO following publication (anticipated within 1-3 months). High Carbon Stock indicative maps, while not part of the original project document, should be completed by the fourth quarter of 2016.

Outcome 3)
In Indonesia, significant early progress was made in creating the necessary data, sharing and improving the data, and sharing a draft of EDF's Zero Deforestation Zone policy proposal with stakeholders in the province of Central Kalimantan. However, high exchange rate losses necessitated a reduction in focus on Indonesia, and thus on achieving the ultimate goal of a sub-national jurisdiction adopting the policy. Therefore we were not able to integrate RSPO's jurisdictional pilot with the draft policy proposal in a meaningful manner. In Mexico, during the first year, initial progress was made in modelling efforts; but in subsequent years efforts were discontinued because of budget constraints caused by depreciation of the NOK and in the case of Indonesia, the prioritization of Brazil.

v. Are the outcomes expected to be sustainable?

Outcome 1)

The zero-deforestation policies of the major meatpackers and soy traders serve to ensure the continuity of the outcomes. These have no end date and because of continued demand signals from major purchasing companies these supply chain governance efforts are considered to be sustainable.

Outcome 2)

The adoption of and industry support for RSPO Next, a more stringent standard with a zero-deforestation and zero-burning principle, alongside a majority of the supply chain committing to zero deforestation, is evidence that the outcomes are expected to be sustainable.

Outcome 3)

The outcomes we have achieved include announcements of jurisdiction-wide policies (such as Mato Grosso's "Produce, Conserve, and Include" initiative), and RSPO's jurisdictional certification in Kalimantan, which will continue beyond this project. In addition, the New York Declaration has deadlines of 2020 and 2030, and implementation is being tracked and publicized. The Paris Agreement should help to accelerate REDD+ implementation, and alongside many private sector efforts towards zero deforestation, we see many opportunities to expand current initiatives to link public and private sector efforts addressing drivers of deforestation.

2.5 Are there any internal and/ or external factors that have affected the project in any significant way?

a) Please specify deviations from plans.

The loss in value of the NOK against the dollar did have a serious impact as it limited our ability to conduct workshops and attend meetings. For example, AdT had to limit some of their planned workshops with ranchers and government in the Amazon. NWF had to drop its deforestation monitoring workshop in Indonesia, and EDF dropped their planned work in Mexico and had to severely limit their work in Indonesia due to the exchange rate loss.

Access to data in Brazil was limited by new laws and judicial decisions; the 'lista suja' of properties prosecuted for having working conditions analogous to slavery was made confidential. The new national CAR has a lot less identifying information, which makes cross-referencing with meatpackers' traceability websites difficult and the national CAR has not been made available at all yet. This reduced our ability to analyze supply chains in states such as Acre.

Assessing the impact of RSPO on deforestation for oil palm was slower than anticipated because it took longer than we planned to access the property data of certified properties from the RSPO.

Finally, since the start of the support period, we have witnessed the rapid proliferation of corporate zero-deforestation policies that go beyond the High Conservation Value requirements of the RSPO. Since 2013, over 85 target private sector companies adopted zero-deforestation commitments for palm oil (and an additional 15 adopted zero-net deforestation commitments). As a result, NWF began promoting zero-deforestation commitments, and joined the High Carbon Stock Approach Steering Committee to help define how target companies should monitor deforestation and implement these policies.

b) Please provide a short assessment of the risks occurred

We anticipated that data availability may be limited and indeed, this has impacted our efforts, largely in slowing down or limiting the geographic scope of our analyses. We were not able to assess the Cattle Moratorium in Acre and efforts to asses Marfrig's progress were limited. The longer than anticipated time to obtain data from the RSPO slowed down our analysis of the

impact of certification on deforestation for oil palm. Therefore, our study will not be published until 2016.

Implementation of REDD activities were slower than we had anticipated, which also slowed our ability to encourage companies to purchase from jurisdictions implementing REDD schemes. For instance, the Indonesian REDD+ agency (BP REDD) was dissolved during the project period. However, following the Rio Branco Agreement of the Governors' Climate and Forest Initiative, and the Paris Agreement, we are hopeful that such efforts will be accelerated.

2.6 **Cross cutting concerns.** Please report on whether the project has had any effect (positive or negative) on

a) Corruption

Transparency and traceability in supply chains can help reduce corruption because transactions cannot be secretive. Because the TAC agreements require meatpackers to display all of their suppliers, it would be much more difficult to hide corrupt practices (such as not paying taxes on all business transactions). The Cattle Moratorium has greatly increased CAR uptake, which is a key tool for transparency in Brazil, which can in turn help reduce corruption by making it harder to launder products, or to use bribes to appropriate land.

Both the RSPO and RSB include provisions requiring companies to implement policies countering corruption. The RSB in particular has set out risk factors and ways to indentify and address corroption in its guidance regarding land rights. By supporting uptake of voluntary certification via these roundtables, and hence the application of these provisions, we have contributed to reducing corruption.

b) Gender equality

RSPO and RSB both include provisions within their standards promoting gender equality and include a variety of specific safeguards against gender-based discrimination and harassment. RSPO Next, a more stringent standard adopted in November 2015, specifically includes a new requirement that compliant companies establish a gender committee to address areas of concern to women, and that management representatives responsible for communication with this committee be women. Similarly, the High Carbon Stock Approach calls for special consideration of women in the FPIC process. By promoting wider adoption of robust roundtable standards, we have helped to increase gender equality in commodity agriculture production.

c) Respect for human rights

The Cattle and Soy Moratoria include provisions prohibiting the purchase from farms prosecuted for keeping workers in conditions analogous to slavery (National Pact against Slave Labour). While the list of prosecuted properties is no longer public, a transparency law in Brazil has enabled companies to access a similar list monthly, and therefore, the Moratoria continue to support respect for human rights.

Also in Brazil, our efforts supporting the Mato Grosso PCI strategy will help smallholders, both by improving their income and through respecting their land rights.

We have encouraged many companies to adopt and implement zero deforestation policies, and many of these company-specific policies (e.g. Cargill) include provisions that support human rights, through pledges to: respect the rights of workers; facilitate the inclusion of smallholders into the supply chain; respect the rights of indigenous and local communities to give or withhold their free, prior, and informed consent (FPIC) to operations on lands to which they hold legal, communal or customary rights; and resolve all complaints and conflicts through an open, transparent and consultative process. The High Carbon Stock Approach toolkit also includes a strong focus on human rights, customary rights, and FPIC.

Certification roundtable standards, such as the RSB and the new RSPO requirements, as well as the GRSB and the GTPS for cattle, include a wide range of safeguards for human rights, especially

indigenous peoples, ethnic minorities, and the recognition of formal and customary land rights, including FPIC. By supporting increased uptake of these standards, we have contributed to respect for human rights.

2.9 **Lessons learned**. For final report, please summarize lessons learned for the whole agreement period. Both internal and external factors are relevant. What could have been done differently? How can lessons learned be incorporated in future plans? We are interested in learning based on positive and negative experiences.

UW's research has shown that the Moratorium model, as followed by the Zero Deforestation Cattle and Soy Moratoria, can successfully result in deforestation-free supply chains and dramatically influence farmer deforestation behaviour. Therefore, we have demonstrated that market demand for deforestation-free commodities can not only influence trader and meatpacker policies but also can lead to significant changes to their purchasing policies. These serve as important examples for companies who have newly adopted zero deforestation policies, because the Moratorium model uses remote sensing and a robust national forest monitoring system, in contrast to certification systems which normally require site assessments.

Our research results have demonstrated that the rationale behind a key tenet of our project--integrating the efforts of public and private sector mechanisms to reduce deforestation—is effective in practice. As additional forest-rich countries develop their own forest monitoring systems, and Jurisdictional REDD mechanisms develop in other regions, we would recommend seeking opportunities to integrate supply chain governance with REDD initiatives.

It is always difficult to gather ranchers to discuss environmental issues, especially zero deforestation. In this case, we learned to overcome this difficulty by complementing meetings about "zero deforestation" with other relevant topics such as productivity, quality, and economic incentives towards sustainable beef. As a result, we were able to bring other relevant players (industry, retailers) of the beef and leather supply chains together which helped produce a profitable discussion among the group, both in meetings in the state of Pará, at the Global Conference on Sustainable Beef and at GTFI meetings. All of these discussions demonstrated that identifying incentives for ranchers, showcasing leading projects and demonstrating a concern for their challenges are essential to promoting zero deforestation practices "in the field".

When ABIOVE publicly announced that the Soy Moratorium would end in December 2014, many organisations assumed that the decision was final and focused on alternative options. Our research made us aware of how important the Moratorium is and how other options would not be able to provide the same level of forest protection. The members of our Consortium effectively teamed up to intensify communications relaying our findings to consumer facing companies, soy traders and other civil society groups. We later learned that UW's thorough and robust analysis, combined with our clear explanations of the research findings, was able to move key corporations to reverse their decision. We are using this experience to demonstrate the synergies of aligning voluntary efforts to reduce deforestation in supply chains with Jurisdictional REDD+ mechanisms.

Challenges have included accessing government data and slow implementation of REDD mechanisms. Future endeavours should carefully consider what can be achieved where government progress is slow, or reversed; a "Plan B" will assure that projects don't stall while waiting for delayed public policy and implementation.

3 Case/success story

Supply chain governance is reducing Amazon deforestation

The findings from our rigorous analyses confirmed the importance of the Soy Moratorium and of the zero-deforestation cattle agreements in helping to reduce the role of agriculture and ranching as drivers of deforestation in the Brazilian Amazon, leading to the unexpected indefinite extension

of the Soy Moratorium and prompting crucial improvements in the ongoing implementation of the cattle agreements.

Why: Deforestation reductions by supply chain governance at risk due to lack of evidence

Despite many years of implementation of zero deforestation policies, there was little evidence of their forest conservation outcomes. In order to encourage the continuation of these policies, and expansion to other regions and commodities, we aimed to rigorously assess the impacts of zero deforestation policies for soy and cattle in the Brazilian Amazon. A decade ago, deforestation in Brazil was at a peak (around 25,000 km^2/year), with expansion of pasture and soybean fields the major drivers (Morton et al 2006). Since 2006, a temporary Soy Moratorium by major commodities traders banned soy associated with Amazon deforestation from the market (Abiove; Greenpeace (a); Greenpeace (b)). However, despite this achievement, the Soy Moratorium was set to expire at the end of 2014. In 2009, a similar private-sector zero-deforestation pact was signed between Greenpeace and the four largest meatpacking companies in Brazil. Nearly simultaneously, the Brazilian public attorney's office began to compel actors throughout the supply chain, including ranchers, slaughterhouses, and retailers, to sign legally binding agreements to eliminate deforestation from the beef supply chain (Walker et al 2010). The complexity of the beef supply chain and of the zero deforestation agreements complicated efforts to monitor and audit the efficacy of these agreements, in turn creating challenges for expanding and improving them.

What: rigorous scientific analysis conducted and presented to decision-makers

Our primary objective was to fully analyze the outcomes of the supply chain agreements in the soy and cattle sectors of the Brazilian Amazon, and to then share the results with policy-makers in both sectors in order to improve forest protection efforts. Our novel, property-level analyses of the Soy Moratorium and of the cattle agreements provided new and crucial evidence about how these policies function (because the private and public sector efforts in the beef supply chain overlap both spatially and temporally, we assessed them together). We presented these results during high-level meetings with major meatpacking companies, retailers and brands, and other key stakeholders from the cattle supply chain, including civil society and industry groups, and published the results in high profile scientific journals, *Science* and *Conservation Letters*, which provided the first quantitative evidence of the way that these agreements protect forests, as well as key loopholes that need to be closed.

Investment

Research led by the University of Wisconsin-Madison, and collaborators National Wildlife Federation and NASA, was supported with 4,385,947 NOK from 2013-2015 by Norad. 7,038, 000 NOK in additional funding was provided by the Gordon and Betty Moore Foundation.

Results: Soy Moratorium extended, Cattle Agreements expanded and improved

Our research confirmed that the soy supply chain in the Brazilian Amazon is now deforestation-free under the Soy Moratorium, while clearing for soy continues in the less-protected Cerrado. We also provide the first quantitative comparison of outcomes from the Soy Moratorium and public Forest Code, demonstrating that soy farmers respond to market pressures more than legal pressure (Gibbs et al 2015a). These results, presented to the Soy Moratorium working group in August 2014 and published in the journal *Science* in January 2015, helped to convinced soy traders that the continuation of the Moratorium was necessary to avoid undermining nearly a decade's worth of success (Cargill).

Similarly, by using a cutting-edge, property-level approach to assess the effectiveness of the cattle agreements for forests, we found that these agreements have spurred true changes in behavior among supply chain actors, including the elimination of properties with recent deforestation as suppliers to major companies. We also found that leakage of deforestation to other parts of the supply chain (not currently monitored), including calving ranches and other operations that do not directly supply to slaughterhouses, has accompanied these achievements (Gibbs et al 2015b).

As our major findings about the soy sector show, prior to the implementation of the Soy Moratorium in 2006, up to 30 percent of new soy areas in the Amazon directly replaced forests (Morton et al 2006, Gibbs et al 2015). Since 2006, less than 2 percent of new soy fields in the Brazilian Amazon can be linked to deforestation (Rudorff et al 2011). We presented these findings at meetings with key stakeholders, including major soy traders, prior to the expected expiration of the Soy Moratorium in August 2014, and these results were subsequently published in *Science*. In November 2014, the Soy Moratorium was unexpectedly extended until May 2016 (WWF) and was recently extended indefinitely. Multiple individuals involved in the deliberations about the Soy Moratorium confirmed that our findings about the unique role of the Soy Moratorium in protecting forests from soy expansion were fundamental to the decision to extend the Moratorium.

Our major findings in the beef sector show that supply chain-focused efforts can have rapid and transformational effects. Specifically, the slaughterhouses analyzed in our study eliminated over 90% of the deforestation in their direct supply chains within 4 years, and promoted rapid enrollment of suppliers in a state-led effort to map properties for environmental compliance (known as the CAR). However, leakage to the parts of the sector that are not well-covered by agreements (especially calving ranches, which have only an indirect connection to slaughterhouses) can be substantial. The presentation of these results directly to stakeholders in the cattle sector, combined with the high-profile media coverage of the results after their publication in *Conservation Letters* (Herrero 2015, Wilkinson 2015), has led to expansion of the cattle agreements (Petroli 2014) and to renewed attention to closing loopholes for leakage of deforestation to indirect suppliers (JBS; Amazonia.org; Hall et al 2015).

Lessons learned:
Our success in proving the additionality of the Soy Moratorium and of the cattle agreements, beyond the effect of other deforestation policies implemented or strengthened in the Amazon around the same time, was highly dependent on the close cooperation within our Norad-funded partnership, and on our collaborations with other civil society groups, in particular the availability of high quality soy maps and property maps, provided by our collaborators at ICV, Imazon, and AgroSatelite. Timely access to decision-makers ahead of the expiration of the Soy Moratorium was crucial for our findings to have a positive and transformational effect on policy; and access to beef supply chain stakeholders was essential to ensure that our message about the efficacy of, but also the loopholes in, the cattle agreements was heard by decision-makers. Crucially, this access was possible due to the long-term engagement of NWF with other civil society groups and with soy traders and beef-slaughter companies around issues of forest protection.

Partners: University of Wisconsin-Madison, National Wildlife Federation, NASA

Geographic location: the Brazilian Amazon.

4 Project's accounts for last year:

4.1 The accounts must relate to the approved budget for the year in question. All deviations (positive and/ or negative) must be clearly shown and explained.

Attachment: Audited accounts and completed form from the accountant for last year's accounts. Only after a contract expires should unspent funds be returned to Norad.

Date: June 1, 2016

Signature: Barbara Bramble

Attachments: Audited Financial Statements, Menu of Common Indicators Worksheet

MENU OF COMMON INDICATORS

Please report on the indicator(s) relevant to the planned output(s) and outcome(s) in your project(s). We realise that some of the planned outcomes take time to achieve and cannot be expected in the first year of reporting on a project. Nevertheless, you are asked to report on the relevant indicator(s) already since the reports you submit in 2014 will help us establish a baseline for the 2013-2015 portfolio and indicate the realism in using each specific indicator across projects and partners.

Some of the indicators in this menu are quantitative, and we ask you to report the numbers with a comment on source of information, as indicated in this template. Other indicators are qualitative, and we ask you to please use the standardised tables and text boxes suggested here in order to ease our compilation and reporting on these issues.

Norad kindly asks you to mark the Not Applicable (N/A) option for those indicators that are not relevant to your project, leave the table and/or text box open and move to the next indicator.

1. **Emissions reductions (metric tons CO_2) in project area**

N/A ☐

Have you and/or your partner(s) contributed to documented reduction in emissions of CO2 during the year reported on? Please fill in the project location and the reduction in metric tons. If reductions occurred the number should be negative, e.g. – 100 000 tonnes in location XX. If commitments have been made which will lead to concrete emissions reductions but the reductions cannot be documented yet, please also list approved commitments in the table.

Country/ Geographical area (if several project locations)	**Ton CO_2 emmissions reduction**	**% change compared to previous year** (if possible)	**Approved commitments to emission reductions**	**Hectares involved** (if possible)	**Data source/description**
G4 Cattle Agreement. Properties supplying JBS in Amazon Biome, Brazil.	-916 million Mg CO_2 of emissions. These emissions were avoided on forested areas on JBS suppliers in 2015, who abided by the zero deforestation requirement, but could otherwise have cleared their forests.	Deforestation in 2015 resulted in a decrease in avoided emissions of 0.4% compared with 2014, since there was some new deforestation.		2.7 million hectares of primary forest remain on JBS suppliers in the Brazilian Amazon.	Forested areas in the Amazon Biome were identified using PRODES land cover maps created by the Brazilian space agency—INPE. JBS suppliers were identified using Latitude-Longitude coordinates, publicly available at: http://www.confiancadesdeaorigemjbs.com.br/. Property boundaries for some Brazilian properties are available at: • CAR properties in the state of Pará: http://monitoramento.sema.pa.gov.br/simlam/index.htm • CAR and LAU properties in the state of Mato Grosso http://monitoramento.sema.mt.gov.br/simlam/ • INCRA and Terra Legal properties for Brazil: http://acervofundiario.incra.gov.br/i3geo/

					datadownload.htm Carbon estimates were generated using an above-ground biomass map created by **Saatchi S**, Harris NL, Brown S, Lefsky M, Mitchard ET, Salas W, Zutta BR, Buermann W, Lewis SL, Hagen S, Petrova S, White L, Silman M, Morel A. (2011). Benchmark map of forest carbon stocks in tropical regions across three continents. Proc Natl Acad Sci U S A. 2011 Jun 14;108(24):9899-904. Biomass estimates were converted to Carbon using the formula: Carbon = Biomass/2. Carbon estimates were converted to CO2 estimates using the formula: CO2 = Carbon *44/12.
Amazon Soy Moratorium (Amazon Biome, Brazil))	-4,868 million Mg CO_2 of emissions. These emissions were avoided on forested areas suitable for growing soy. -707 million Mg CO_2 of emissions were avoided on forested areas suitable for growing soy that could be legally cleared under the Forest Code, so are mainly protected by the Soy Moratorium.	Deforestation in 2015 resulted in a decrease in avoided emissions, over those avoided in 2014 in areas suitable for soy of 0.6%, and 1.9% on areas suitable for soy that could be legally cleared under the Forest Code.	On November 25, 2014, the soy trader members of the Brazilian soy association, Abiove, agreed to extend the Soy Moratorium until May 2016.	14.0 million hectares of forest suitable for soy remain in the Brazilian Amazon Biome, of which 1.6 million could be legally cleared under the Forest Code.	Forested areas in the Amazon Biome were identified using PRODES land cover maps created by the Brazilian space agency—INPE. Suitable areas for soy were identified using a suitability map created by B. Soares-Filho, et al. Cracking Brazil's Forest Code. *Science*. **344**, 363-364 (2014). Suitable areas that could be legally cleared under the Forest Code were identified by using a micro-watershed map created by the Brazil National Water Agency (ANA) in order to evaluate whether each micro-watershed had "surplus" forest that could be legally cleared under Brazil's Forest Code requirements.

					Carbon estimates were generated using an above-ground biomass map created by **Saatchi S**, Harris NL, Brown S, Lefsky M, Mitchard ET, Salas W, Zutta BR, Buermann W, Lewis SL, Hagen S, Petrova S, White L, Silman M, Morel A. (2011). Benchmark map of forest carbon stocks in tropical regions across three continents. Proc Natl Acad Sci U S A. 2011 Jun 14;108(24):9899-904. Biomass estimates were converted to Carbon using the formula: Carbon = Biomass/2. Carbon estimates were converted to CO2 estimates using the formula: CO2 = Carbon *44/12.
Indonesia (2013 baseline) : Certified Concessions	24,787 MgC (2014-2013)	6		7,018 ha	Hansen et al. 2013 (Global Forest Watch) deforestation layer for year 2014, 2013, and Woods Hole biomass dataset at 500m were used for biomass measurements. We assume carbon as 50% of biomass. The deforestation layer for 2015 is not available yet. Certified palm oil concessions were obtained from RSPO (members) and Gibbs lab (University of Wisconsin). The reductions calculated here are outside of actual planted palm plantations in year 2010.
Central Kalimantan(2013 baseline) : Certified Concessions	41,288 MgC (2014-2013)	135		1,141 ha	
East Kalimantan(2013 baseline) : Certified Concessions	-53,934 MgC (2014-2013)	-25		1,193 ha	
West Kalimantan(2013 baseline) : Certified Concessions	30,695 MgC (2014-2013)	84		1,263 ha	
South Kalimantan (2013 baseline) : Certified Concessions	485 MgC (2014-2013)	13		166 ha	
Mexico/RSB	0 MgC (2014-2013)	0		0	

Feel free to add rows in the table if necessary. The columns titled in grey are optional to fill in.

Please note: This indicator requires that you or your partner(s) have been implementing activities/actions that have contributed to the emissions reduction registered for the year you report on. You should not include emissions reduction from previous years even if your project has been active for a longer period. Please note that there is a risk of double counting if you report both emissions reductions and approved commitments for the same project. In such cases, please make sure that there is no overlap between the two columns.

Please describe as short as possible how you and/or your partner(s) contributed to the reported change or approved commitment to emission reductions during the year reported on:

While emissions rose for both area monitored by the Soy Moratorium and the G4 Cattle Agreement, our project contributed to continued historically low deforestation associated with these sectors, and, therefore, associated emissions.

Regarding the Cattle Agreement, UW's deforestation monitoring system is identifying ranches that were not compliant with the Agreement and UW and NWF's ongoing dialogues with meatpackers about these properties has resulted in improvements to their systems. NWF and UW also supported improvements in the verification process of the Agreement through regular engagement with meatpackers and in encouraging consumer-facing companies to communicate their desire for the improvements in these systems. NWF leads the GRSB-GTPS Working Group on Forests, which brings together meatpackers, retailers and leather brands to highlight the role of the Cattle Agreement in reducing deforestation in cattle supply chains. UW'sengagement with several levels of federal and state government in the Amazon is supporting strengthened action towards enforcement of laws to protect forests on ranchland. UW and NWF published a high-profile paper in the journal *Conservation Letters* in May 2015 which demonstrates that zero-deforestation agreements in the cattle sector significantly reduced the likelihood that participating slaughterhouses purchased from properties with ongoing deforestation. We also participated in extensive media coverage including interviews with the Guardian, Nature News, NPR, National Geographic among many others. In addition, NWF and UW created a sophisticated website to explain issues around zero-deforestation commitments in the cattle sector: www.zerodeforestationcattle.com

In January 2015, Gibbs and her team at UW in cooperation with NWF published in *Science* magazine the results of an extensive analysis of the Soy Moratorium compared to other major forest protection instruments in the Amazon Biome, like the Forest Code. This publication received extensive media coverage. The results of this analysis showed that the Soy Moratorium was responsible for nearly eliminating deforestation for soy production in the Brazilian Amazon and that the policy was the only thing protecting 2Mha of suitable but still forested areas from conversion to soy fields. Gibbs presented these results to the Soy Working Group, swaying traders who had been determined to not extend the Soy Moratorium to extend it indefinitely. With our partners, we are currently working on an updated analysis of soy expansion in the Amazon and Cerrado biomes using higher-resolution Landsat imagery.

We compiled certified and non-certified concession leases in Indonesia. The RSPO secretariat supplied polygon vector data outlining the boundaries of 134 certified concessions. Additional concession boundaries were digitized by Holly Gibbs lab from the maps available from audit reports hosted on the RSPO website (www.rspo.org), supplemented by spatial data on plantation boundaries provided by companies as part of the 2014 Annual Communication of Parties (ACOP). The non-certified concession dataset were obtained from the Indonesian Ministry of Forestry. To date, this is the only comprehensive palm oil concession database available so far and our research demonstrate the effectiveness of RSPO regulations in protecting forests and the biodiversity.

2. Change in forest area in targeted landscapes

N/A ☐

Please report change in forest area in targeted landscapes that you and/or your partner contributed to in the year reported on.

Country and project location	Hectares of targeted landscapes covered by forest	% change in forest area during the year reported on	Specify, if possible, hectares & % change in native forest (?)	Hectares of forest prevented from negative change in forest cover	Comment (source of information etc.)
G4 Cattle Agreement. Properties supplying JBS in Amazon Biome, Brazil.	2.7 million ha of native forest on JBS supplier properties in the Amazon Biome.	0.3% decrease in native forest.	8,200 ha (0.3%) decrease in native forest on JBS supplying properties	2.7 million ha of native forest on JBS supplier properties in the Amazon Biome.	Forested areas in the Amazon Biome were identified using PRODES land cover maps created by the Brazilian space agency—INPE. JBS suppliers were identified using Latitude-Longitude coordinates which are publicly available at: http://www.confiancadesdeaorigemjbs.com.br/. Property boundaries for some Brazilian properties are available at: • CAR properties in the state of Pará: http://monitoramento.sema.pa.gov.br/simlam/index.htm • CAR and LAU properties in the state of Mato

					Grosso http://monitoramento.sema.mt.gov.br/simlam/ • INCRA and Terra Legal properties for Brazil: http://acervofundiario.incra.gov.br/i3geo/datadownload.htm
Amazon Soy Moratorium (Amazon Biome, Brazil))	14.0 million ha of forest within the Amazon Biome are suitable for soy. 1.6 million ha could be legally cleared under Brazil's Forest Code, so are mainly protected by the Soy Moratorium.	Forest areas that are suitable for soy (and therefore at risk of clearance without the Soy Moratorium) decreased 0.6%. Suitable areas of forest that could be legally cleared under Brazil's Forest Code decreased 1.9%.	82,500 ha of forest suitable for soy were cleared in 2015. 16,200 ha of forest suitable for soy that could be legally cleared under the Forest Code were cleared in 2015.	14.0 million ha of forest within the Amazon Biome are suitable for soy. 1.6 million ha could be legally cleared under Brazil's Forest Code	Forested areas in the Amazon Biome were identified using PRODES land cover maps created by the Brazilian space agency—INPE. Suitable areas for soy were identified using a suitability map created by B. Soares-Filho, et al. Cracking Brazil's Forest Code. *Science*. **344**, 363-364 (2014). Suitable areas of forest that could be legally cleared under the Forest Code were identified by using a micro-watershed map created by the Brazil National Water Agency (ANA) in order to evaluate whether each micro-watershed had "surplus" forest that could be legally cleared under Brazil's Forest Code requirements. Estimates of native forest lost to 2014 soy come from H.K. Gibbs et al. Brazil's Soy Moratorium. *Science*. **347**, 377-378 (2015).

Indonesia (2014 baseline) : Certified Concessions	181,643 ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	3.4% decrease	6,381(ha)/3.4%	We include ha remaining since effective implementation of RSPO standards can protect these remaining forests. 181,643 (Hansen et al. 2013)	Hansen et al. (2013) dataset. Estimates of residual forest within the certified/non-certified concessions for year 2013. We used Global Forest Watch's percent tree cover dataset for 2000 and set a threshold of >30% to be classified as forest. To determine 2013 forest cover, we subtracted the total loss of forest (2000-2013) from the 2000 forested area outside of planted palm areas in 2010. The losses within the planted palm areas are excluded.
Central Kalimantan(2014 baseline) : Certified Concessions	14,573 ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	7.0% decrease	1,100 (ha)/7.0%	14,573 (Hansen et al. 2013)	
East Kalimantan(2014 baseline) : Certified Concessions	10,621ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	10.0% decrease	1,193(ha)/10.0%	10,621 (Hansen et al. 2013)	
West Kalimantan(2014 baseline) : Certified Concessions	24,287ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	4.57% decrease	1,163(ha)/ 4.57%	24,287 (Hansen et al. 2013)	
South Kalimantan(2014 baseline) : Certified Concessions	7,749 ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	1.78% decrease	141 (ha)/1.78%	7,749 (Hansen et al. 2013)	
Mexico/RSB	1,124 ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	0%	0%	1,124 (Hansen et al. 2013)	

Feel free to add rows in the table if necessary. The columns titled in grey are optional to fill in.

Please describe as short as possible how you and/or your partner(s) contributed to the reported change during the year reported on:

Please describe how you and/or your partners have contributed to maintenance of forest cover during the year reported on or have prevented negative changes in forest cover e.g. cancellation of a logging license that thereby prevents logging of an area of the forest. Please include the definition you use of 'forest area'.

In Brazil, forest area is determined by the CAR registration system that delineates forest areas on each property and Brazil's Prodes deforestation monitoring system.

Regarding the Cattle Agreement, UW's deforestation monitoring system is identifying ranches that were not compliant with the Agreement and UW and NWF's ongoing dialogues with meatpackers about these properties has resulted in improvements to their systems. NWF and UW also supported improvements in the verification process of the Agreement through regular engagement with meatpackers and in encouraging consumer-facing companies to communicate their desire for the improvements in these systems. NWF leads the GRSB-GTPS Working Group on Forests, which brings together meatpackers, retailers and leather brands to highlight the role of the Cattle Agreement in reducing deforestation in cattle supply chains. UW'sengagement with several levels of federal and state government in the Amazon is supporting strengthened action towards enforcement of laws to protect forests on ranchland. UW and NWF published a high-profile paper in the journal *Conservation Letters* in May 2015 which demonstrates that zero-deforestation agreements in the cattle sector significantly reduced the likelihood that participating slaughterhouses purchased from properties with ongoing deforestation. We also participated in extensive media coverage including interviews with the Guardian, Nature News, NPR, National Geographic among many others. In addition, NWF and UW created a sophisticated website to explain issues around zero-deforestation commitments in the cattle sector: www.zerodeforestationcattle.com

In January 2015, Gibbs and her team at UW in cooperation with NWF published in *Science* magazine the results of an extensive analysis of the Soy Moratorium compared to other major forest protection instruments in the Amazon Biome, like the Forest Code. This publication received extensive media coverage. The results of this analysis showed that the Soy Moratorium was responsible for nearly eliminating deforestation for soy production in the Brazilian Amazon and that the policy was the only thing protecting 2Mha of suitable but still forested areas from conversion to soy fields. Gibbs presented these results to the Soy Working Group, swaying traders who had been determined to not extend the Soy Moratorium to extend it indefinitely. With our partners, we are currently working on an updated analysis of soy expansion in the Amazon and Cerrado biomes using higher-resolution Landsat imagery.

Data for forest cover on RSPO certified concessions are available up until 2014. We are able to show for the first time the results of our efforts over the entire grant period to support and improve forest protected under RSPO certification. Forest conservation on RSPO-certified concessions is the result of many years of efforts by many stakeholders, including NWF. We are active members of the RSPO and have been supporting the strengthening of forest protection under RSPO certification, increasing transparency, and we have been encouraging companies to increase commitments to purchase certified palm oil. EDF has encouraged uptake of RSPO certification by the Walmart-led Sustainability Consortium.

3. Hectares of targeted landscapes covered by sustainable land use plans

N/A ☐

Please report the coverage of sustainable land use plans in targeted landscapes, which you and/or your partner(s) have contributed to during the year reported on.

Country and project location	Hectares of targeted landscapes covered by sustainable land use plans (at time of reporting)	% change during year reported on (if possible)	Specify, if possible, hectares with native forest covered by sustainable land use plan	Comment (source of information etc.)
G4 Cattle Agreement. Properties supplying JBS in Amazon Biome, Brazil.	10.3 million ha of property area on JBS supplier properties in the Amazon Biome.		2.7 million ha of native forest on JBS supplier properties in the Amazon Biome.	Forested areas in the Amazon Biome were identified using PRODES land cover maps created by the Brazilian space agency—INPE. JBS suppliers were identified using Latitude-Longitude coordinates which are publicly available at: http://www.confiancadesdeaorigemjbs.com.br/. Property boundaries for some Brazilian properties are available at: • CAR properties in the state of Pará: http://monitoramento.sema.pa.gov.br/simlam/index.htm • CAR and LAU properties in the state of Mato Grosso http://monitoramento.sema.mt.gov.br/simlam/ • INCRA and Terra Legal properties for Brazil: http://acervofundiario.incra.gov.br/i3geo/datadownload.htm
Amazon Soy Moratorium (Amazon Biome, Brazil))	45,039,000 ha of total area within the 73 monitored		21,306,000 ha of native forest within the 73 monitored	Current soy area reported in Soy Moratorium 2014 Annual Report: http://www.abiove.org.br/site/_FILES/Portugues/12122014-105447-

	municipalities.		municipalities.	19.11.2014._relatorio_da_moratoria_da_soja_-_7%C2%BA_ano.pdf Forested areas in the Amazon Biome were identified using PRODES land cover maps created by the Brazilian space agency—INPE. Suitable areas for soy were identified using a suitability map created by B. Soares-Filho, et al. Cracking Brazil's Forest Code. *Science*. **344**, 363-364 (2014). Suitable areas that could be legally cleared under the Forest Code were identified by using a micro-watershed map created by the Brazil National Water Agency (ANA) in order to evaluate whether each micro-watershed had "surplus" forest that could be legally cleared under Brazil's Forest Code requirements.
Indonesia- area certified by the RSPO.	1,575,572 ha		181,643 ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	Hectares of land under RSPO certification in Indonesia as of March 2016 from RSPO online Certified Growers list. Estimates of residual forest within the certified/non-certified concessions for year 2014. We used Global Forest Watch's percent tree cover dataset for 2000 and set a threshold of >30% to be classified as forest. To determine 2013 forest cover, we subtracted the total loss of forest (2000-2014) from the 2000 forested area outside of planted palm areas in 2010. The losses within the planted palm areas are excluded.
Mexico/RSB	3,741 ha		1,124 ha (Based on >30% tree cover dataset; (Hansen et al. 2013))	

Feel free to add rows in the table if necessary. The columns titled in grey are optional to fill in.

Examples of Sustainable land use plans: Emission Reduction Programs, Project Design Documents, certified forestry operations, forest management plans with reduced emissions.

Please describe as short as possible how you and/or your partner(s) contributed to the reported change during the year reported on:

Regarding the Cattle Agreement, UW's deforestation monitoring system identified several ranches that were not compliant with the Agreement and we informed the meatpackers about these properties. NWF and UW also supported additional improvements in the verification process of the Agreement and obtained market benefits for meatpackers with effective monitoring systems through encouraging market support for these efforts. UW also engaged with several levels of federal and state government in the Amazon in support of strengthened action towards enforcement of laws to protect forests on ranchland. In 2015, UW and NWF published a high-profile paper in the journal *Conservation Letters* which demonstrates that zero-deforestation agreements in the cattle sector significantly reduced the likelihood that participating slaughterhouses purchased from properties with ongoing deforestation.

In 2015, Gibbs and her team at UW in cooperation with NWF published the results in *Science* of an extensive analysis of the Soy Moratorium compared to other major forest protection instruments in the Amazon Biome, like the Forest Code. The results of this analysis showed that the Soy Moratorium was responsible for nearly eliminating deforestation for soy production in the Brazilian Amazon and that the policy was the only thing protecting 2Mha of suitable but still forested areas from conversion to soy fields. Our efforts helped ensure that the Soy Moratorium was extended, initially through May 2016 and finally indefinitely.

NWF is an active member of the RSPO and encourages support for RSPO certification and for consumer-facing companies to participate in and support improved forest protection in the RSPO standards. EDF has encouraged uptake of RSPO certification by the Walmart-led Sustainability Consortium.

4. Number of people whose main income/livelihood is from sustainable land use in targeted landscapes

N/A ☐

Please report the number of people with main income/livelihood from sustainable land use in targeted landscapes only when you and/or partner(s) have contributed significantly, directly or indirectly, to this.

Country and project location	Number of people with main income/livelihood from sustainable land use[1]	% change during the year reported on (if possible)	Comment (source of information etc.)
G4 Cattle Agreement. Properties supplying JBS in Amazon Biome, Brazil.	15,673 based on the total area of JBS suppliers.		[Number of formal employees in Cattle Production or support of agriculture activities in Pará (Brazilian Ministry of Labour and Employment (MTE)-RAIS)]/[ha of pasture in Pará (IBGE heads assuming 1 head/ha)] = number of employees per hectare supporting the cattle production in PA (.0015), which served as a proxy for number of employees per hectare supporting cattle production across the entire Biome. This number was then multiplied by the number of hectares covered by JBS supplying properties across the Amazon Biome to yield the number of people making a living from sustainable cattle production in the Amazon under the G4 Cattle Agreement.
Amazon Soy Moratorium (Amazon Biome, Brazil))	13,667 people's livelihoods come from soy production on farms compliant with the Soy Moratorium.		[Number of formal employees in Soy Production or support of agriculture activities in Mato Grosso (Brazilian Ministry of Labour and Employment (MTE)-RAIS)]/[ha of soy planted in Mato Grosso (CONAB)] = number of employees per hectare supporting the soy production in MT (.0058), which served as a proxy for number of employees per hectare supporting soy production across the entire Biome. This number was then multiplied by the number of hectares of soy being monitored by the Soy Moratorium across the Amazon Biome to yield the number of people making a living from sustainable soy production in the Amazon under the Soy Moratorium. The data on soy area falling under the Soy Moratorium's monitoring system is available from the annual Soy Moratorium reports, available at http://www.abiove.org.br/site/?page=relatorios&area=Ni05OTgtMw== **Numbers of formal employees miss informal employees and, potentially, owners and family members who work on ranches and farms that are not incorporated as formal businesses. Increased attention to labour practices in the soy and beef sectors is reducing

[1] This can for example be numbers of employees of certified activities or number of entrepreneurs gaining income from selling sustainable produced products.

			the incidence of informal labour, but has not completely eliminated it. Small and medium sized farms are more likely to be run as family farms, though the figures tabulated here are in line with field observations from team members.
RSPO certified oil palm plantations in Indonesia	819,297		RSPO reports 1,575,572 ha certified palm oil in Indonesia. There are 7 million ha of oil palm plantations in Indonesia employing people, an average of 0.52 people/ha (Sinaga H. 2013 Employment and income of workers on Indonesian oil palm plantations: food crisis at the micro level. Future of Food: Journal of Food, Agriculture and Society 1: 64-75). Therefore, RSPO plantations are estimated to employ 819,297 workers.

Feel free to add rows in the table if necessary. The columns titled in grey are optional to fill in.

Please describe as short as possible how you and/or your partner(s) contributed to the reported change during the year reported on: Please also describe how you have contributed to progress towards increased number of people with main income from sustainable land use.

Our efforts helped bring about an extension to the Soy Moratorium, which ensures that soy farms are not deforesting, encroaching upon protected or indigenous lands or are on blacklists for having “slave” or bonded labour.

Our efforts this year have encouraged meatpackers to agree to work towards incorporating indirect supplying ranches into their monitoring system. Once implemented, this would greatly increase the number of ranch employees whose main income arises from sustainable use. We also have worked to support an increase in incomes through promoting “moderate intensification” which requires better pasture management through hiring more and better trained ranch hands. Our work to assess and support improvements in the RSPO standards is supporting the continuation, improvement and expansion in RSPO-certified oil palm plantation area.

5. Contribution to changes in policy and plans for land use in targeted landscape

N/A [X]

Have you or your partners contributed to changes in relevant laws, regulations, land use policies, action plans etc. in the targeted landscapes during the year reported on? Please name the law, policy, action plan etc. below, and explain in a few key words the kind of change (was it a *new* law/paragraph/addendum/policy etc., or a *revision* etc.). If you or your partner(s) contributed to policy change in more than one project location, please specify in the second column.

Name of law, policy etc., and type of change. (including NAMA's[2])	**Location/jurisdiction**	**Date of change**	**Weblink and description**

Feel free to add rows in the table if necessary.

Please note: In order to list policy changes, you or your partner(s) should have implemented actions/activities that have significantly contributed to the change. You should not include policy changes happening previous year, even if you contributed to such change.

Please describe to what extent gender issues are covered in the different policies and plans listed above:

[2] NAMA – Nationally Appropriate Mitigation Actions

6. Models developed/piloted and practices changed

N/A [X]

Have you or your partners contributed significantly to develop and pilot, implement and/or replicate models for sustainable land use and/or contributed to changes in practices that has resulted in sustainable land use during the year reported on? Please name the model and/or change in practice, and explain in few key words. Please note also whether the change was at national or regional/local level by including the country name and/or location in the table below:

Name of the model and/or change in practice concerned	**Country and location**	**Model tested and/or change in practice at what level?**		**Comment**
		National	**Regional/ local**	

Please note: One of the main purposes with the CFI funding scheme for civil society is to innovate, help develop and spread information, models and practices that prove to be effective for the purpose of sustainable land use, as an important step on the way to emissions reductions and sustainable development. The idea is that civil society and research can be catalysts for change and hence inspire governments and other larger actors to follow. In this table, we should capture the major achievements in terms of innovations in models and practices for this purpose.

Note that we have no fixed definition of 'model' or 'change in practice'. We accept that these are too manifold to be standardised. Rather, we encourage you to describe them in simple language in the table, and attach your own definitions if necessary.

7. Adoption of zero-deforestation policies, changes or improvements in practice or policies among producers, traders and consumers in targeted commodities (commodity supply chain).

N/A ☐

Please list changes that your organisation and/or partner(s) contributed to during the year you report on. Please indicate also the country/location and commodity if you have activities in many project locations and for several commodities.

Type of policy/ practice change	Commodity and location	Scope, if relevant measured in volumes/tons	Stakeholders involved	Civil society involvement (yes/no)
Zero Deforestation Cattle Agreement- improvement in deforestation monitoring and audit results.	Beef and Leather, incorporating 50% of the Amazon slaughter. All cattle producing areas in the Brazilian Amazon Biome, from which JBS, Marfrig, and Minerva purchase cattle.	About 50% of the Amazon slaughter	The three largest meatpackers in Brazil (JBS, Marfrig, and Minerva), Greenpeace (that maintains the Cattle Agreement) and many of the companies that buy beef, leather and tallow from these meatpackers.	Yes: Research led by UW was published, alongside an accompanying website by NWF and UW, with findings presented to many large corporations, which led to several privately and publicly calling on the meatpackers to improve their monitoring systems. Several meatpackers acknowledged that their customers' requests and the transparency stemming from our research has led them to make improvements. In addition, NWF and UW have privately presented shortcomings to meatpackers and supported fixes to these.
Consensus achieved by representatives of Brazil's largest meatpackers and many large supermarkets and brands about extending deforestation monitoring to incorporate indirect suppliers (current systems only monitor deforestation on ranches directly	All cattle producing areas in the Brazilian Amazon Biome from which meatpackers,		Major Brazilian supermarkets, meatpackers and international leather brands.	Yes: NWF and AdT organised a workshop at which participants agreed on the need to address indirect suppliers and for the first time agreed to work together to

selling to meatpackers yet most deforestation occurs on calving ranches and other 'indirect suppliers' of major meatpackers).	representing over half of the Amazon slaughter, source.			develop a system to do so.
Produce, Conserve, and Include – new policy for commodity production and forest conservation presented by Mato Grosso government.	Soy and Beef primarily; location, Mato Grosso state – also to be considered a "jurisdictional" approach that includes more commodities than just soy and beef.		Local NGO partners in Mato Grosso - IPAM, ICV, and ISA. International NGOs – EDF, EII Mato Grosso Ministry of Environment. Private sector – Amaggi, IDH, Mafrig, Agricone, Famato, and Cipem.	Yes, local NGO partners in Mato Grosso - IPAM, ICV, and ISA – were important to making this happen.
Marks & Spencer, Unilever, and Mondelez all announced jurisdictional sourcing initiatives in Paris at COP 21.	Generalised policy for Marks and Spencer and Unilever; Cacao and Cote d/Ivoire for Mondelez.		Private sector, government, and civil society.	Yes, EDF and NWF engaged with these companies over the last couple of years amongst others to advocate for their use of a jurisdictional approach for implementing their zero-deforestation supply chain commitments.
Walmart Brazil achieves its goal of tracing and removing deforestation from all direct suppliers in its beef sourcing in December 2015.	Walmart's beef sourcing in the Brazilian Amazon.		Walmart-Brazil.	Yes, NWF and AdT have been supporting Walmart's efforts to develop their own deforestation monitoring system for beef purchase for many years. We helped ensure their efforts serve as an example to other companies by showcasing their achievements at COP21.
CDP- The Carbon Disclosure Project had six new disclosures on soy and four new beef and leather disclosures.	Beef and Leather and Soy. The location would correspond to the supply sheds of the newly		This change increased the scope and influence of CDP and brings newly participating companies in as CDP-member stakeholders, and encourages existing participants to widen the	Yes, NWF has supported the CDP Forests Project, through explaining the benefits of participation and providing advice about industry best-practices and improvements in deforestation-

	participating companies, which are global in scope.		commodities they assess for deforestation risk. Analysts of CDP data (such as NWF) will also benefit from the increased scope.	monitoring efforts of Brazil's largest meatpackers. Our efforts helped to encourage European and Brazilian companies to disclose their forest risk from beef, leather and soy.

Feel free to add rows in the table if necessary. The columns titled in grey are optional to fill in.

8. Adoption of REDD+ safeguards (UNFCCC Cancun safeguards)

N/A [X]

Please describe any change in the development, policy change or implementation of safeguards during the year reported on, to which your organisation or partners have contributed. Please describe the change(s) applying Cancun categories, and specify at what level adaptation happened.

Safeguard category	**Change**	**Your organisation and/or partner(s)' contribution**
1. Consistency between national forests programmes and international conventions and agreements		
2. Transparent and effective national forest governance structures		
3. Respect for the knowledge and rights of indigenous peoples and members of local communities		
4. The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities		
5. Conservation of natural forests and biological diversity and enhancement of other social and environmental benefits		
6. Actions to address the risks of reversals		
7. Actions to reduce the displacement of emissions		

9. **Hectares of land which Indigenous Peoples and forest dependent communities gain rights over** during the reporting year, with support from your organisation and/or partner(s).

N/A [X]

Please list the location, the number of hectares, and the group of people gaining the right. Please indicate also by a few words the scope of rights gained in the last column.

Country and location	**Hectares**	**Specify Indigenous people and/or forest dependent community gaining rights, and type of rights**

Please describe shortly how you and/or your partner(s) contributed to the gained rights during the year reported on:

If you have contributed to commitments made towards granting rights to indigenous people/forest dependent communities, please include this as an achievement in your comment below.

10. **Development and adoption of MRV methodology**

N/A [ ]

Please describe shortly the MRV system and how you and/or your partner(s) contributed to the development of MRV methodology for potential use in REDD+ during the year reported on:

Deforestation Monitoring in Cattle Supply Chains in the Brazilian Amazon
In 2015, UW continued to refine our novel property-level monitoring system for cattle production in the Brazilian Amazon and utilized it to assess changes in compliance with the Zero Deforestation Agreement. Our computer programs allow us to link cattle supplier data with spatial databases of property boundaries required nationally (Cadastro Ambiental Rural and INCRA-CCIR). This linkage allows us to map suppliers to major slaughterhouses in Pará and Mato Grosso states. We can map daily transactions from 2006 to today, allowing for unprecedented transparency and traceability. We use Brazil's PRODES, Amazon-wide deforestation monitoring system, to identify deforestation. Our approach allows us to directly attribute carbon emissions to specific cattle slaughterhouses and companies for the first time, and also to demonstrate the response to changing drivers of deforestation.

In our paper published in *Conservation Letters* in May 2015, we assessed changes in the property size, forest cover, location, and deforestation rates of properties selling to the JBS slaughterhouses by comparing three groups: (1) those selling after the agreements in 2013 but not before the agreements ("post-agreement"); (2) those selling only before the agreements in 2009 ("pre-agreement"); (3) and those selling in both 2009 and 2013 ("stable").To evaluate changes in supplying properties after the agreements, we used difference-in-differences tests to compare mean deforestation rates normalized by forest area during the three years before (2006–2008) and after the agreements (2010–2012) on pre-agreement and post-agreement supplying properties.

We have developed a prototype system for monitoring indirect suppliers to allow expansion of the cattle agreements to include the whole supply chain.

Tracking Soy Expansion Pathways Across the Amazon and Cerrado Biomes
In our paper published in *Science* in January 2015, we used two satellite-based datasets to track the area and location of annual soy expansion from 2001 to 2014 (Amazon biome) and 2001 to 2013 (Cerrado biome). Both products were based on MODIS data. For the Amazon biome, we used the soy expansion data for the crop years 2000/01–2013/14 based on MODIS imagery following Rudorff et al. and Risso. The analysis concentrated on the Amazon biome portion of 88 municipalities with at least 1,000 ha in soy production in three states— Mato Grosso, Pará, and Rondônia. The GTS monitors only those municipalities with over 5,000 ha planted in soy but our analysis also considered new frontiers of soybean expansion. For the property-level analyses described below, we included only the 69 municipalities within Mato Grosso. For the Cerrado biome, we analyzed the 16-day MODIS Normalized Difference Vegetation Index (NDVI) product (MOD13Q1) (29, 30) to estimate the annual cropland expansion at 250m spatial resolution. The classification approach identified large areas (≥1 km2) of mechanized crop production based on annual, wet- and dry-season phenology metrics as in previous studies (4, 5, 30). Seven phenology metrics and one tree cover metric were produced per ye: annual (year n – 1: DOY 273–year n: DOY 272) mean, standard deviation; dry-season (year n: DOY 113–273) mean, maximum, minimum, standard deviation; wet-season (year n – 1: DOY 273–year n: DOY 112) standard deviation; and percent tree cover. A 2-year temporal identification method was used to minimize possible false identification of soy. With our partners, we are currently working on an updated analysis of soy expansion in the Amazon and Cerrado biomes using higher-resolution Landsat imagery.

Oil Palm concessions in Indonesia
We have digitized and combined maps of RSPO palm oil plantations and annual deforestation estimates (Hansen et al.) to characterize compliance and leakage in regions of Indonesia with RSPO operations. We used historic radar and LiDAR data to independently verify the accuracy of Landsat-based deforestation estimates. In addition, we are using active fire detections and burned area data from NASA's MODIS sensors to corroborate the timing of palm oil expansion derived from annual Landsat data. We analysed Indonesian RSPO-certified plantations for land cover changes within certified concessions between 2000 and 2013. This work was derived from time series of Landsat and PALSAR satellite data and thematic data coverages for deforestation and planted oil palm.

Have methodologies developed through the project already been adopted by actors working on results based REDD-schemes, or are you aware of plans to do so?

Please describe shortly how you and/or your partner(s) contributed to the adoption of MRV methodology during the year reported on:

11. Contribution to international consensus on REDD+ and increased REDD+ financing

N/A ☐

Have you or your partners contributed towards creating international consensus around REDD+ as a core tool in the global effort to prevent dangerous levels of climate change during the year reported on? Please describe shortly how and through which stakeholders and sectors and areas you and/or your partner(s) contributed to the reported change during the year reported on:

EDF and NWF held a workshop at UNFCCC SBs session in June of 2015 to encourage the inclusion of the land sector in the ADP. Over 20 REDD negotiators participated in the workshop where we discussed and explored how the consensus and methodologies gained through the REDD negotiations may be integrated into the ADP Agreement.

EDF contributed to advancing Jurisdictional REDD and the engagement of the Private Sector through advocacy in the UN-REDD, Forest Carbon Partnership Facility, and UNFCCC discussions. We engaged our Indigenous Peoples partners to help them understand the benefits of engaging the private sector in REDD+ and how they might support each other in Jurisdictional REDD+.

EDF supported a dialogue hosted by The Forest Dialogue in Riau, Indonesia that covered the topic Understanding Deforestation Free. The dialogue advanced multiple stakeholders' understanding about implementation of "deforestation free" or "zero deforestation" and the importance of working with governments for success over the long-term (by aligning private sector efforts with that of REDD+) in Indonesia and globally as an idea. Significant private sector participation was included and representatives from indigenous peoples and local communities to ensure a robust dialogue. The final report of the workshop can be found here.

Amount (USD) of REDD+ financing (pledges, transactions) during the year reported on to which the project has contributed (please include information on donors and countries):

Please describe shortly how you and/or your partner(s) contributed to the reported change during the year reported on: